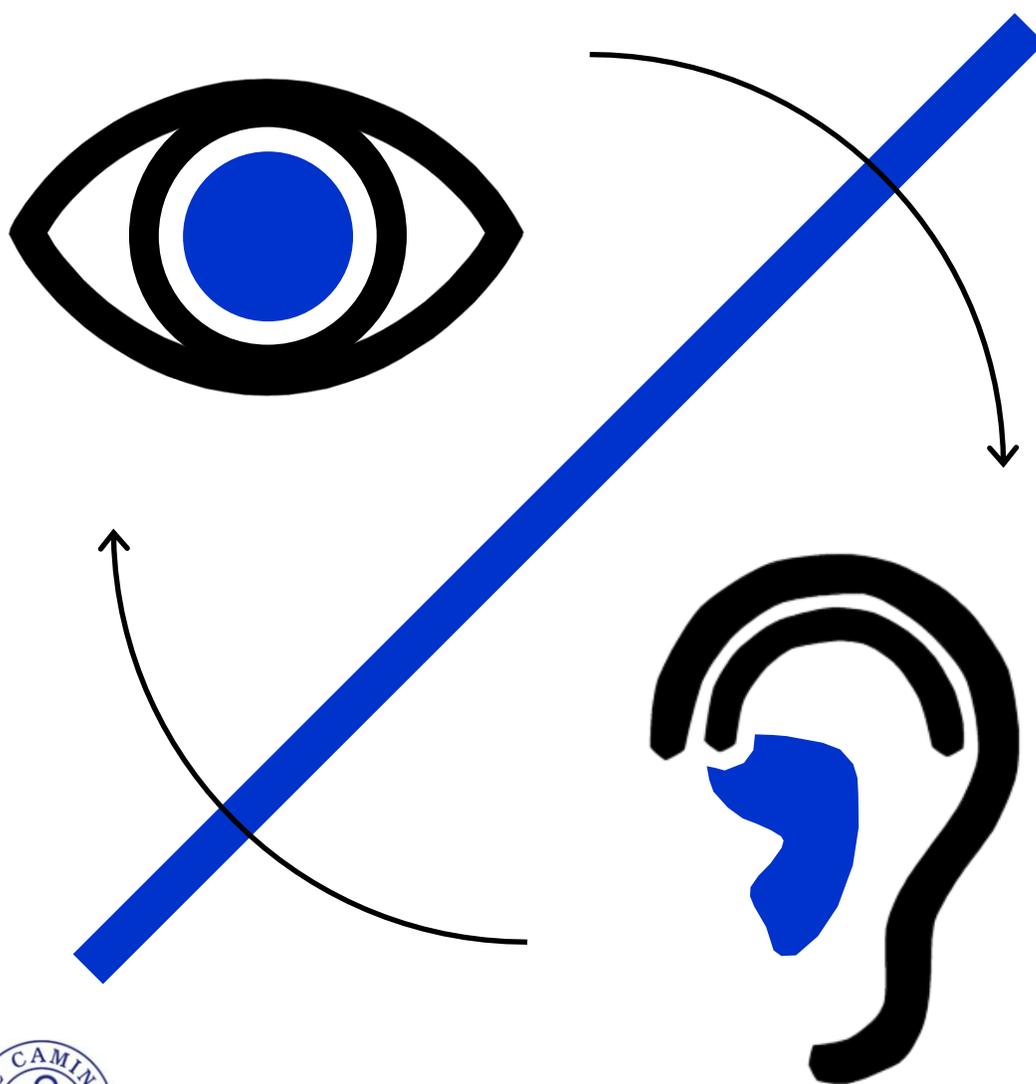


# Web Accessibility A w a r e n e s s

A complete overview of how to create accessible materials for students

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El Camino College & Compton Center – October 2011

Created by Special Resource Center, Web Developer, & Staff Development  
Part of the information in this handbook was provided with permission by  
[California State University, Long Beach](#) and [WebAIM](#)

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— Section One —



**Accessibility —  
Institutional Responsibility**

# SECTION ONE: ACCESSIBILITY

## WHAT IS ACCESSIBILITY?

### Definition:

Accessibility is making information technology resources and services available in a usable format (with reasonable accommodation) to all students, employees, guests and the general public regardless of disability.

Technology “resources and services” includes the documents you create and publish to the web.

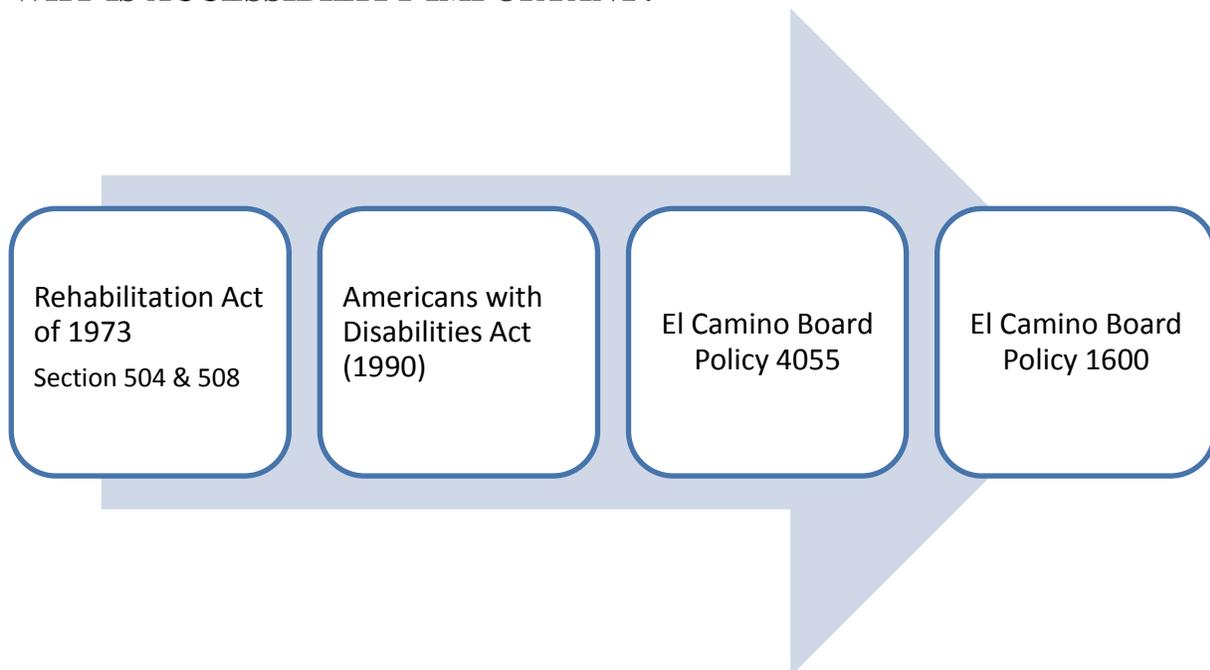
### Did you know?

- Disability affects 15-20% of every country's population
- 650 million people worldwide are considered to have a disability [1]
- 49.7 million people in the U.S. age 5 and over are disabled (19%)
- 7-10 million Americans are color blind [2]
- The deaf and hard of hearing community together equal half of the U.S. disabled population
- Approximately 1,855 of El Camino students have a disability requiring alternative media or other accommodation

1 UN Nations Convention on Rights of Persons with Disabilities, 2007

2 Howard Hughes Medical Institute, 2009

## WHY IS ACCESSIBILITY IMPORTANT?



Educational institutions are using the Internet and web technologies for information dissemination, service delivery, and course delivery. Additionally, the campus website is used for marketing and branding as a tool to reach prospective students and their families. Because core services and information are delivered via the Web, it is critical that all people are able to access the information on the web, whether they have disabilities or not. Web accessibility should be viewed as a necessity and are crucial in helping the college fulfill its educational mission in the digital age.



**EL CAMINO COLLEGE** has two Board Policies which directly address serving students with disabilities. Board Policy 4055 allows for the student to request accommodations, course substitutions, or a waiver in meeting the graduation requirements. Board Policy 1600 expresses El Camino College's plan to provide access and effective communication to people with disabilities.

### **BOARD POLICY 4055: ACADEMIC ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES**

The El Camino Community College District provides reasonable accommodations for students with disabilities in accordance with compliance measures established by the Rehabilitation Act of 1973, sections 504 and 508, the Americans with Disabilities Act (ADA), and the ADA Amendments Act of 2008 (ADAAA). El Camino College shall provide reasonable accommodations to students with documented disabilities without compromising the student's course of study or the integrity of the college's academic standards. Reasonable accommodations are determined on an individual basis.

### **BOARD POLICY 1600: FULL INCLUSION OF PEOPLE WITH DISABILITIES**

The District is committed to the full inclusion of and effective communication with people with disabilities. It is the responsibility of all employees and designees of the District to become familiar with their role in achieving universal access and effective communication. Procedures will be developed that specify the standards for publication of alternative formats and guidelines for designing, creating, purchasing, and disseminating materials utilized in communicating to the community we serve. Employees and designees of the District who are delegated the responsibility for designing information and services to achieve universal accessibility are required to become familiar with and utilize these guidelines and procedures.

# Who Benefits?



Here are just a few of the people who benefit from an accessible Web site:

1. Blind people who use screen readers to read a Web page's content to them
2. People with low vision who use a screen magnifier to enlarge the text on a Web page
3. People with low vision who use a browser's built-in text size sizing feature to enlarge the text on a Web page
4. People who cannot hear an audio file (or the audio portion of a video file)
5. People with seizure disorders whose seizures can be triggered by certain flashing or blinking page elements
6. People with mobility disorders that prevent them from using a mouse or a keyboard (or both)

But it's not just folks with disabilities who benefit from Web accessibility. Keep in mind that, as we age, we are *all* likely to experience one or more of the following: diminished vision, decreased hearing, reduced eye-hand coordination, and psychomotor impairments.

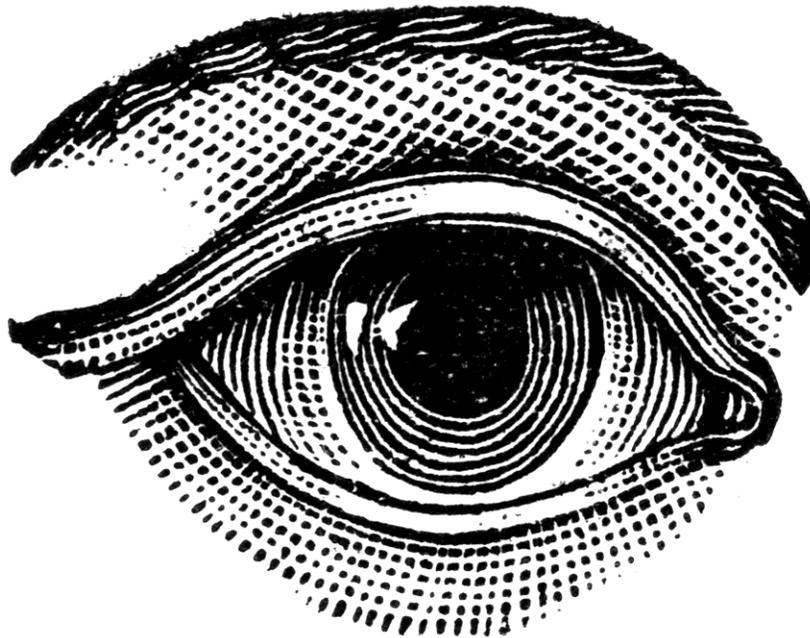
Furthermore, Web accessibility doesn't benefit only seniors or people with disabilities. The World Wide Web Consortium's Web Accessibility Initiative (i.e., the W3C's WAI) issued the [\*Web Content Accessibility Guidelines 1.0\*](#) in 1999. Its introduction states:

For those unfamiliar with accessibility issues pertaining to Web page design, consider that many users may be operating in contexts very different from your own:

- They may not be able to see, hear, move, or may not be able to process some types of information easily or at all.
- They may have difficulty reading or comprehending text.
- They may not have or be able to use a keyboard or mouse.
- They may have a text-only screen, a small screen, or a slow Internet connection.
- They may not speak or understand fluently the language in which the document is written.
- They may be in a situation where their eyes, ears, or hands are busy or interfered with (e.g., driving to work, working in a loud environment, etc.).
- They may have an early version of a browser, a different browser entirely, a voice browser, or a different operating system.

Content developers must consider these different situations during page design. While there are several situations to consider, each accessible design choice generally benefits several disability groups at once and the Web community as a whole.

— Section Two —



**Student's Perspective  
& Responsibility**



## *Special Resource Center*

El Camino College

### Students with Disabilities

#### 2010-2011 Unduplicated Headcount

Primary Disability	Headcount	Percentage
Acquired Brain Injury	128	6.9%
Developmentally Delayed Learner	94	5.1%
Deaf/Hard of Hearing	116	6.3%
Learning Disability	210	11.3%
Mobility Disability	318	17.1%
Other Disability	720	38.8%
Psychological Disability	200	10.8%
Speech/Language Disability	13	0.7%
Visual Disability	56	3.0%
<b>Grand Total</b>	<b>1,855</b>	



## Types of Disabilities, Accommodations and Assistive Technology

Disability is defined as a physical or mental impairment that substantially limits one or more major life activities, a record of such physical or mental impairment, or being regarded as having such an impairment under the Americans with Disabilities Act.

Disability	Sample Accommodations	Assistive Technology
<p><b>Deaf/Hard-of-Hearing</b></p> <p><i>Completely or partially unable to hear in one or both ears.</i></p>	<p>Interpreter, real-time captioning</p> <p>FM system</p> <p>Notetaker</p> <p>Visual aids</p> <p>Written assignments, lab instructions, summaries, notes</p> <p>Use of email for class and private discussions</p> <p>Visual warning system for lab emergencies</p>	<p>Hearing Aids</p> <p>Assistive Listening Device - Ex. Phonic Ear</p> <p>Closed captioning</p> <p>Cochlear implant (personal choice)</p> <p>Video phone; TTY/TDD; sidekick</p>
<p><b>Learning Disability</b></p> <p><i>Operational definition/criteria vary. Generally diagnosed when an individual's achievement in reading, math or written expression is substantially below expected age, schooling or level of intelligence.</i></p> <p>Ex. person who is capable of learning, but may learn differently; dyslexia, dyscalculia</p>	<p>Notetaker and/or audio-taped class sessions</p> <p>Captioned media - Ex. films, videos</p> <p>Extra exam time, alternative testing arrangements, reduced distraction environment</p> <p>Visual, aural, and tactile instructional demonstrations</p> <p>Computer with voice output, spellchecker, and grammar checker</p> <p>Calculator</p> <p>Electronic text</p>	<p>Mind mapping or organizing software – Ex. Inspiration</p> <p>Text to Speech software (visual &amp; audio) – Ex. Kurzweil 3000/Read-Write Gold</p> <p>Daisy players/electronic text/closed captioning</p> <p>Spell checker/dictionary – Ex. talking electronic dictionary (Franklin speller), Microsoft Word</p>
<p><b>Other Health Impairments</b></p> <p><i>Conditions having limited strength, vitality, or alertness due to chronic or acute health problems.</i></p> <p>Ex. Sickle cell anemia, leukemia, Tourette's Syndrome, hemophilia, renal disease, ADHD</p>	<p>Notetaker</p> <p>Flexible attendance requirements</p> <p>Extra exam time, reduced distraction environment</p> <p>Assignments made available in electronic format</p>	<p>Depends on functional limitations caused by the health impairment.</p>

	Use of email to facilitate communication	
<p><b>Physical or Mobility Limitation</b></p> <p><i>Disability that limits the physical function of limbs or fine or gross motor ability.</i></p> <p>Ex. uses wheelchair, crutches, orthotics/ prosthetics; paralysis; result of cerebral palsy or polio</p>	<p>Notetaker, lab assistant, group lab assignments</p> <p>Classrooms, labs, and field trips in accessible locations</p> <p>Adjustable tables, lab equipment located within reach</p> <p>Lengthened pull-chains on safety showers</p> <p>Class assignments made available in electronic format</p> <p>Computer equipped with special input device -Ex. voice input, alternative keyboard</p>	<p>Voice Input software – Ex. Dragon Naturally Speaking</p> <p>Alternative keyboard – Ex. on screen keyboard, Head Mouse, EZ Keys, Augmentative and Alternative Communication Devices (AAC), one handed keyboard, key overlay, touch screen</p> <p>Mouse – trackball, switch</p>
<p><b>Psychological Disability or Mental Illness</b></p> <p><i>A diagnosable mental disorder causing severe disturbances in thinking, feeling, relating, functional behaviors, and substantially diminished capacity for coping with the ordinary demands of life</i></p> <p>Ex. depression, bipolar disorder, schizophrenia, anxiety disorder</p>	<p>Preferential seating in classroom</p> <p>Notetaker and/or audio-taped class sessions</p> <p>Extra exam time, reduced distraction environment, alternative testing arrangements</p> <p>Textbook and class materials in an alternate format</p> <p>Advance notice of assignments</p> <p>Permit beverages in classroom</p>	<p>Audio/Electronic text</p> <p>Various computer software programs</p>
<p><b>Visual Impairment/ Low Vision</b></p> <p>Partially sighted</p> <p><i>Best-corrected visual acuity of 20/70 or less in the good eye.</i></p> <p>Ex. central or multiple field vision loss or tunnel vision due to diabetic retinopathy, macular degeneration, glaucoma, cataracts, etc.</p>	<p>Seating near front of the class</p> <p>Large print handouts, lab signs, and equipment labels</p> <p>TV monitor connected to microscope to enlarge images</p> <p>Class assignments and notes made available in electronic format</p> <p>Computer equipped to</p>	<p>Magnification software– Ex. Zoomtext</p> <p>CCTV (Closed-Captioned Television)</p> <p>Portable magnifier - Ex. Clarity, Amigo</p> <p>Lenses</p>

	enlarge screen characters and images	
<p><b>Visual Impairment/ Low Vision Blindness</b></p> <p><i>Legally blind is defined as best-corrected visual acuity of 20/200 or less, or a visual field of no more than 20 degrees.</i></p> <p><i>Functional blindness is the absence of any usable vision.</i></p>	<p>Audio-taped, Brailled or electronic-formatted lecture notes, handouts, and texts</p> <p>Verbal descriptions of visual aids</p> <p>Raised-line drawings and tactile models of graphic materials</p> <p>Braille lab signs and equipment labels, auditory lab warning signals</p> <p>Adaptive lab equipment - Ex. talking thermometers, calculators, light probes, and tactile timers</p> <p>Computer with optical character reader, speech output, Braille screen display, and printer output</p>	<p>Screen reader (audio) – Ex. JAWS, Dolphin Supernova, K1000</p> <p>Tactile models</p> <p>Refreshable Braille keyboard</p> <p>DAISY player/mp3 player</p>

Compiled by D. Patel 10/2009 and various resources including:

Do-it Center: <http://www.washington.edu/doiit/Brochures/Academics/teachers.html>

High Tech Center Training Unit: <http://www.htctu.fhda.edu/>



# Assistive Technology Available for the ECC Student

Assistive technology is technology used by individuals with disabilities in order to perform functions that might otherwise be difficult or impossible. Assistive technology can include mobility devices such as walkers and wheelchairs, as well as hardware, software, and peripherals that assist people with disabilities in accessing computers or other information technologies. (AccessIT, University of Washington)

## TYPES OF ASSISTIVE TECHNOLOGY

### Input Technologies:

- **SPEECH TO TEXT or SPEECH RECOGNITION**- Train the computer to recognize your voice Ex. Dragon Naturally Speaking (Dragon NS)
- **SINGLE SWITCH INPUT** - Bypass the keyboard and control the entire computer through the use of a single switch. Ex. Easy Keys
- **ALTERNATE KEYBOARD** – on screen keyboard, one-handed keyboard, desensitized keyboard or software Ex. HandiMouse

### Output Technologies:

- **MAGNIFICATION** – Enlarged image on the screen or large print to the printer. Ex. Zoomtext
- **BRAILLE** - Print to Braille or Braille to print.
- **SCREEN READER** - The computer will verbalize what appears on the screen and actions of the user. Ex. JAWS
- **TEXT TO SPEECH or SCAN/READ**– Reads content on screen; often with other study skills Ex. Kurzweil 3000 (K3000); ReadWrite Gold

## LOCATION OF TECHNOLOGY ON CAMPUS

Location	Technology
ACCESS room (Library)	K3000, Zoomtext, JAWS, Dragon NS
Business division labs	Zoomtext; Windows Speech Recognition & JAWS, by request
EOP&S	K3000, JAWS
Humanities Building	K3000, Inspiration, JAWS and Zoomtext, by request (on server)
LMTC Computer lab	Zoomtext, JAWS on limited stations
LRC	Zoomtext
Math labs	Zoomtext

ZoomText, Jaws and K3000 licenses are on a virtual server housed in ITS. Therefore, these programs are fully accessible to all labs on campus linked to the network. However, there are a limited number of licenses, particularly K3000 full version (scan/read) seats available.

## **COMPUTER ACCESSIBILITY**

Microsoft operating systems as well as MAC's have standard or default accessibility tools.

These can be accessed via Programs –Accessories-Accessibility (or Ease of access on newer versions). The features available include an accessibility wizard to set up tools for vision, hearing and mobility limitations; a magnifier tool, narrator program, and on screen keyboard.

Accessibility tools may vary based on the operating system and package (Ex. Vista or Windows 7); Home, Professional or Enterprise editions.

## **WHERE TO GO?**

**Students with disabilities** who wish to receive academic access accommodation may choose to identify through the Special Resource Center or Dean of Enrollment Service to facilitate their accommodations. (Title 5 of Ca. Ed Code)

**Faculty or staff with disabilities** who wish to receive access accommodations would complete an ADA Title 1 request and work with their supervisor and Human Resources to facilitate their accommodations.

**Faculty or staff** that would like to get help with creating academic accessible documents would contact Staff Development, Francine Vasilomanolakis (310) 660-3593 Ext-6452 or Brian Hayden (6730).



— Section Three —



# Faculty Responsibility

# Best Practices in Making a Word 2007/2010 Document Accessible

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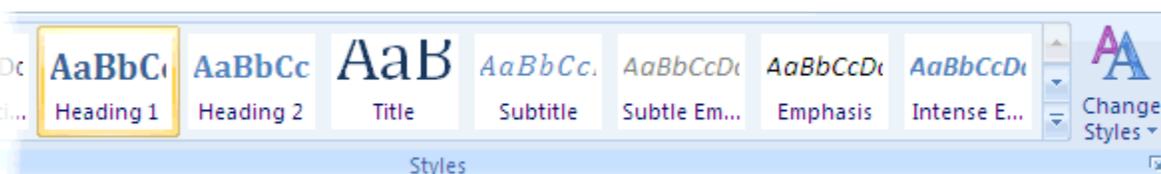
- [Create Structure](#)
- [Font Selection](#)
- [Color and Meaning](#)
- [Provide Alternate Text for Images in Word 2007](#) [Alternative Text for Word 2010](#)
- [Data Tables and Accessibility Issues](#)
- [A Word of Caution](#)
- [Saving Your Word File to Filtered HTML](#) (optional)
- [Word 2010 Accessibility Checker](#) – new in Word 2010 that checks your document.

## Create Structure

[Watch a closed-captioned movie that demonstrates how to create structure in Microsoft Word 2007](#) NOTE: Creating structure in Word 2010 is done the same way.

In Word, it is recommended that you use Word styles to provide the document structure. Many people have not been using true styles in Word. For example, when creating a heading (title), they change the font, enlarge the font size, make it bold, etc. If this is done, the document has no real structure that can be discerned by a screen reader.

**Word 2007 and later** does a good job of encouraging the use of proper styles, and about half of the default toolbar is devoted to styles. This is undoubtedly the single greatest accessibility improvement in Word 2007.



The advantage of having true structure in Word documents is that the structure will be retained if you export to PDF. The added structure increases the readability of the document for people using screen readers.

Pages should be structured in a hierarchical manner, with **1st degree headings** (<h1>) being the most important (usually page titles or heading), then **2nd degree headings** (<h2> - usually major section headings), down to **3rd degree headings** (sub-sections of the <h2>), and so on. Technically, lower degree headings should be contained within headings of the next highest degree.

## Font Selection

[Watch a closed-captioned movie that demonstrates accessible font selection principles in Microsoft Word 2007](#) NOTE: The same font principles apply to Word 2010.

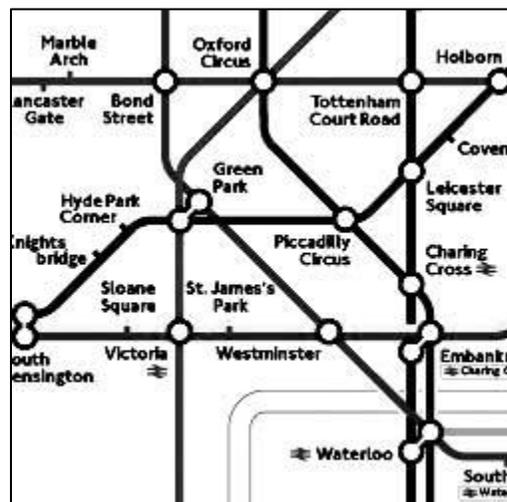
In terms of font accessibility, there are a number of principles to keep in mind:

1. Use real text rather than text within graphics.
2. Select basic, simple, easily-readable fonts.
3. Use a limited number of fonts.
4. Ensure sufficient contrast between the text and the background.
5. Avoid small font sizes.
6. Limit the use of font variations such as **bold**, *italics*, and ALL CAPITAL LETTERS.
7. Don't rely only on the appearance of the font (color, shape, font variation, placement, etc.) to convey meaning.
8. Avoid blinking or moving text.

## Avoid Conveying Meaning with Color

[Watch a closed-captioned movie that demonstrates why you should not convey meaning with color in Microsoft Word 2007](#) NOTE: The same meaning with color apply to Word 2010.

The use of color can enhance comprehension, but do not use color alone to convey information. That information may not be available to a person who is colorblind and will be unavailable to screen reader users.



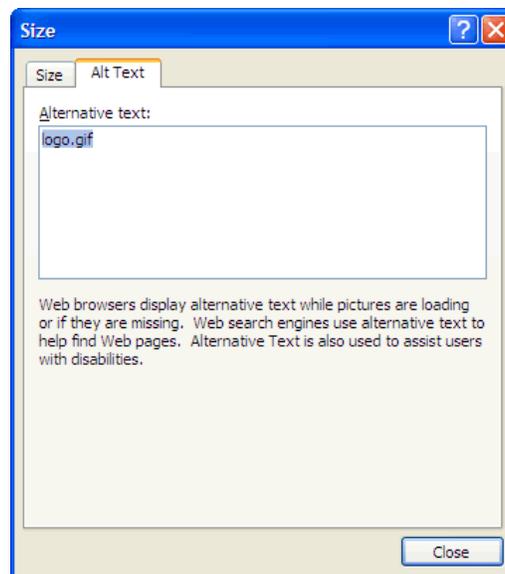
## Provide Alternative Text for Images

[Watch a closed-captioned movie that demonstrates how to provide alternative text for images in Microsoft Word 2007](#) NOTE: [Instructions for Word 2010](#).

You will need to add alternative text for all of your images. To add alternative text, **right-click** on the picture and select **Size** (in Word 2010 select **Format Picture**).



A dialog box will appear. Select **Alt Text** (in both Word 2007 and 2010). You will notice that the image filename is entered into the field by default. The filename is never appropriate alternative text. This functionality will almost certainly result in misuse of the alt attribute.



[More on alternative text.](#)

## Data Tables and Accessibility Issues

[Watch a closed-captioned movie that demonstrates the accessibility issues that arise from the use of data tables in Microsoft Word 2007](#) **NOTE: The same applies to Word 2010.**

There is no way to assign the table header or <th> element to a table cell within Word. While you can indicate that a row should "Repeat as header on the top of each page" in the Table Properties menu, this does not create the appropriate table headers. Instead, the cells will all be contained in a <thead> element. The <thead>, <tfoot>, and <tbody> are used to divide the tables into the three main parts of a data table. While the inclusion of the <thead> element poses no problems, it does not replace the need for the <th> element.

[More on accessible tables.](#)

## A Word of Caution

If you create complex documents, with embedded charts, tables, or other elements, the conversion process will probably not create a file that is completely accessible to screen readers. The embedded elements will likely be ignored by the screen reader because they are unreadable. In these instances, you should consider providing a text description of the elements within the context of the document itself.

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## Optional

### Save the File as (Filtered) HTML

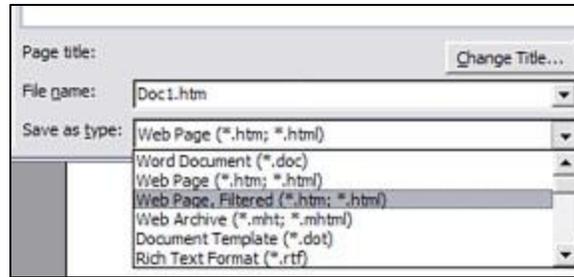
[Watch a closed-captioned movie that demonstrates how to save a Microsoft Word 2007 document as HTML](#) **For Word 2010 – use File tab.**

When saving a Word document as HTML, the structure and alt text will be retained in the final document. To save as HTML in Word 2007, select the Word logo in the upper left corner, **(in Word 2010 select the File tab)** select Save As, and then select Other Formats.

A dialog box will appear. At the bottom of this dialog box, select the Save as type: drop down list.

You have two options for exporting to HTML:

- Web Page or
- Web Page, Filtered.



The advantage of the first option is that your page will look almost exactly like the printed document. The advantage of the second option is that it will have much less junk HTML. The file size in the second option is significantly smaller, and it still retains most, if not all, of the look and feel of the original document.

In terms of accessibility, both options are acceptable, as long as the source file was created with structure and with alternative text for images and the document does not contain any data tables.

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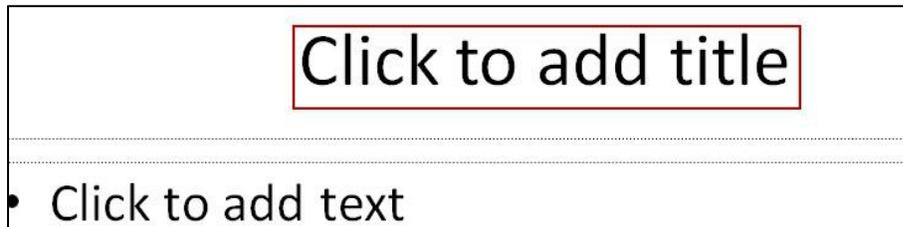
# Best Practices in Making a PowerPoint Document Accessible

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- [Create structure](#)
- [Font selection](#)
- [Color and meaning](#)
- [Provide alternative text for images for PPT 2007](#) [Alternative text for PPT 2010](#)
- [Data tables](#)

## Create Structure

Use the **Title** area of each slide to indicate the main idea of each slide.



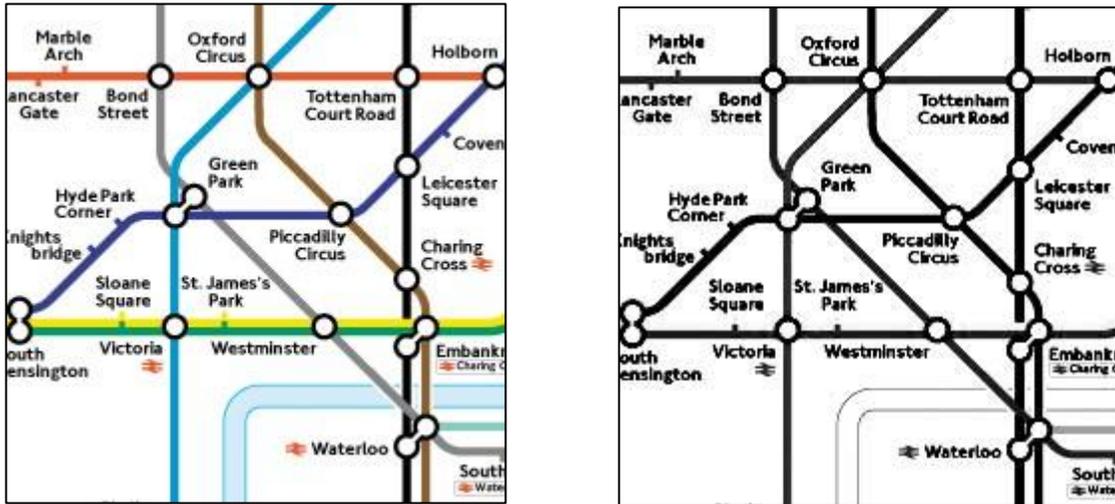
## Font Selection

In terms of font accessibility, there are a number of principles to keep in mind:

1. Use real text rather than text within graphics.
2. Select basic, simple, easily-readable fonts.
3. Use a limited number of fonts.
4. Ensure sufficient contrast between the text and the background.
5. Avoid small font sizes.
6. Limit the use of font variations such as **bold**, *italics*, and ALL CAPITAL LETTERS.
7. Don't rely only on the appearance of the font (color, shape, font variation, placement, etc.) to convey meaning.
8. Avoid blinking or moving text.

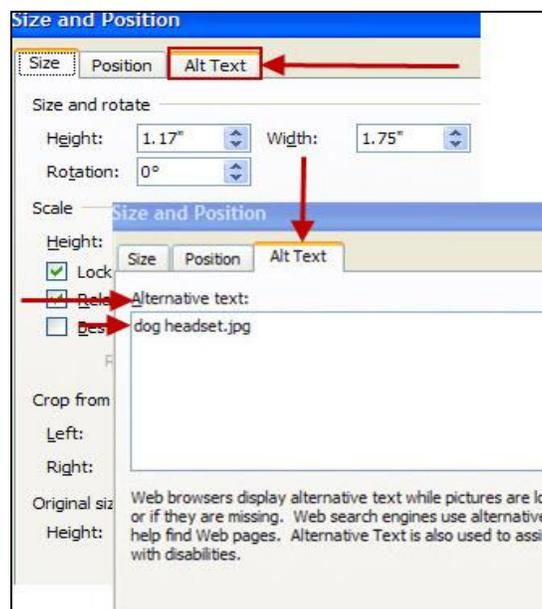
## Color and Meaning

The use of color can enhance comprehension, but do not use color alone to convey information. That information may not be available to a person who is colorblind and will be unavailable to screen reader users.



## [Provide Alternative Text for Images for both 2007/2010](#)

You will need to add alternative text for all of your images. To provide alternative text, Right-click on the image, then select **Format Picture** ([in PPT 2010](#)) and **Size and Position** ([in PPT 2007](#)). Type short description in **Alternative Text Description** box. Click **Save**.



## Data Tables

Data displayed in tables can be problematic for screen readers. We recommend that the data read from left to right as much as possible.

## A Word of Caution

If you create complex slides, with embedded charts, tables, multimedia or other elements, the conversion process will probably not create a file that is completely accessible to screen readers. The embedded elements will likely be ignored by the screen reader because they are unreadable. In these instances, you should provide a text description of the elements within the context of the document itself.

## Additional Information

Most students with disabilities will probably be able to access the original PowerPoint, assuming they have the correct program or plug-in and **if the steps above are followed**. Those who are deaf will be able to access the slides without any problems, unless there is embedded multimedia. In such cases, captions and/or transcripts will be necessary. Those with motor disabilities will have no special difficulties. Even those who cannot use a mouse will be fine, since the slides are keyboard-accessible. Those with cognitive disabilities will not have any particular difficulties, at least not with an engaging, clear PowerPoint presentation.

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# Creating New PDF Document from Word 2007/2010

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The majority of the PDF files on the web are probably created in Microsoft Word. The good news is that it is possible to create accessible PDF files in Microsoft Office, as long as the following requirements are met:

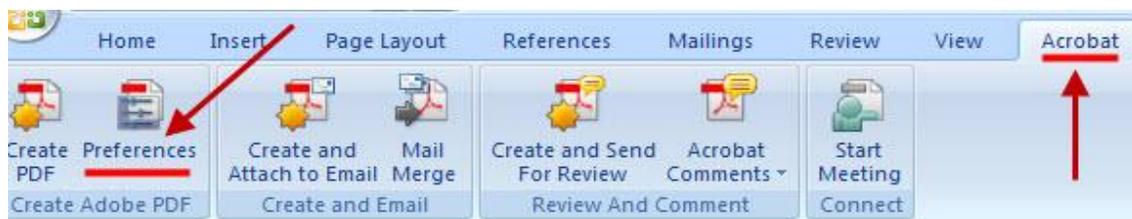
- The file must be accessible. That includes providing alternative text for images, proper headings, appropriate link text, etc. For more information, please read the tutorials on preparing your Word document before converting to PDF.
  - [PDF Accessibility Video Tutorials](#)
  - [Office 2007 users must have either Acrobat or the Microsoft PDF add-in installed](#)
- The file must be exported correctly. If a file is created by printing to PDF, it will not be correctly tagged.

## Creating the PDF Document in Microsoft Word 2007/2010

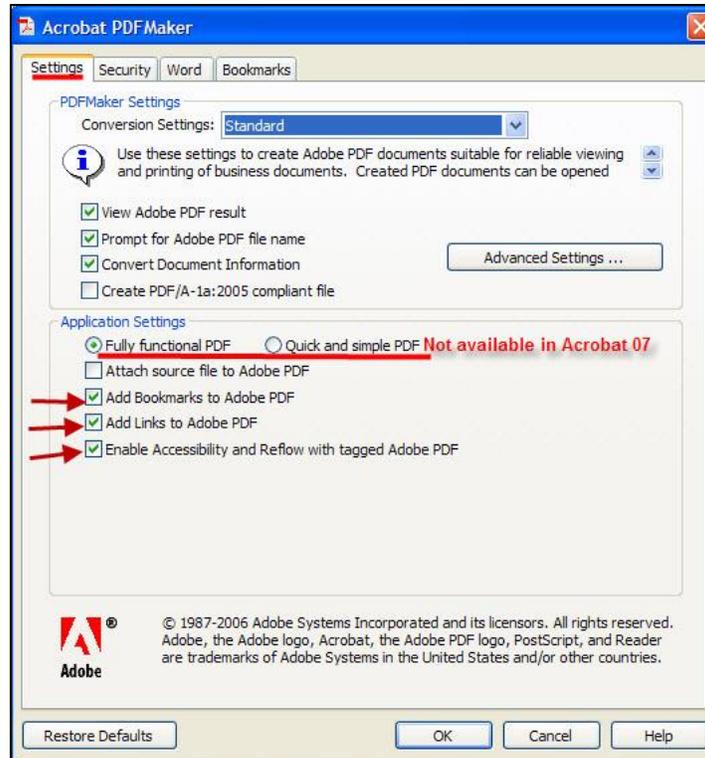
Create or open the document [Preparing Your Word 2007 Document video](#)

**Word 2010** use [Accessibility Checker](#) in “File”, “Check for Issues”, “Check Accessibility”. Fix issues as directed and save as PDF. You’re done!

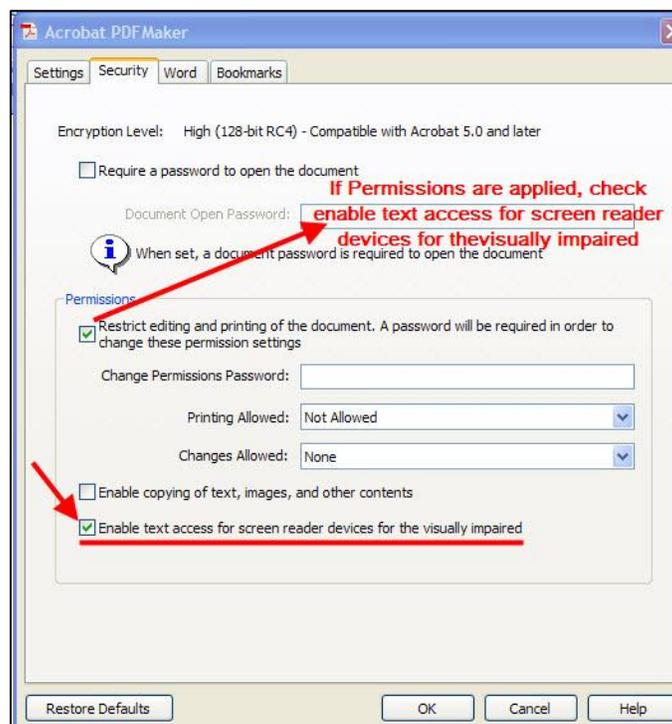
Once the [Word 2007 document is formatted](#), save as "Adobe "PDF" and "Preferences"



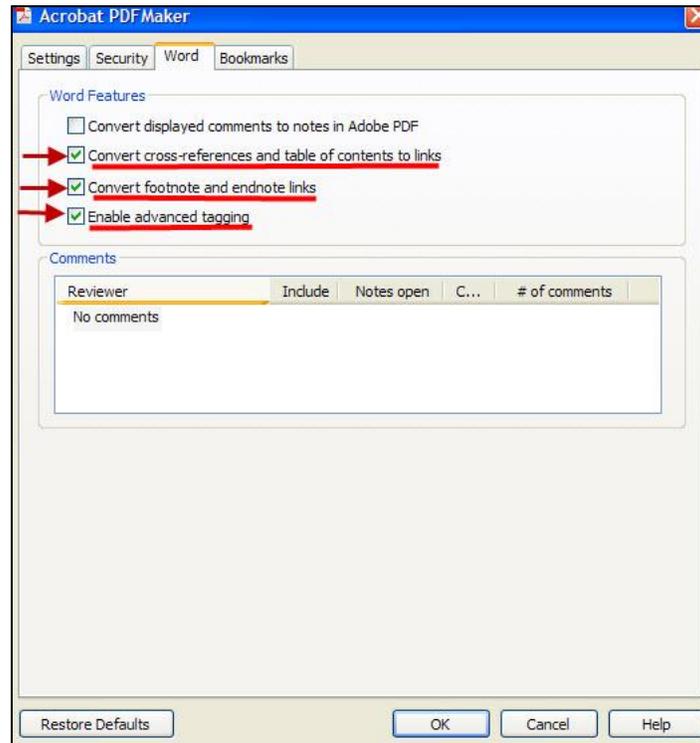
On "Settings" tab, check **Bookmarks**, **Links**, and **Enable Accessibility and Reflow**.



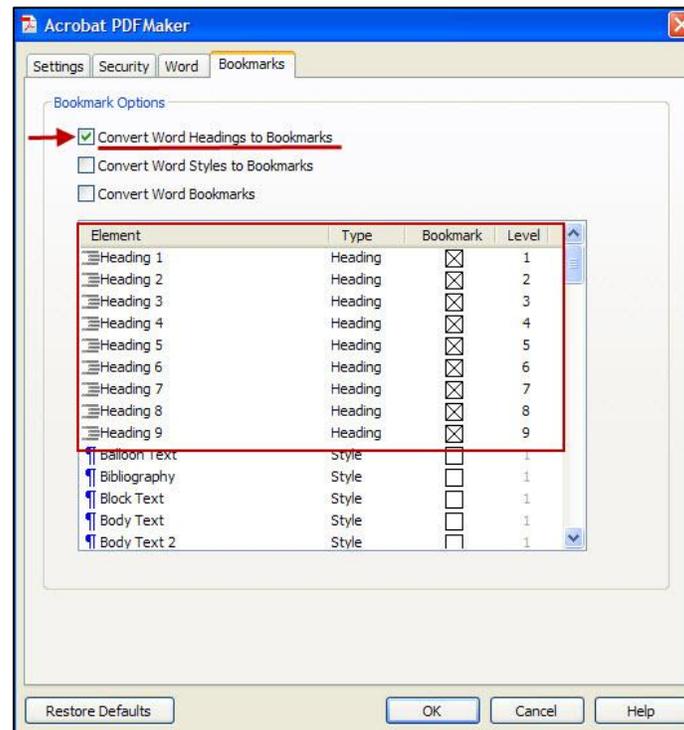
On the **"Security"** tab, if Permissions are applied, check enable text access for screen reader devices for the visually impaired.



On "Word" tab, check **Convert cross-references**, **Convert footnote**, and **Enable advanced tagging**.

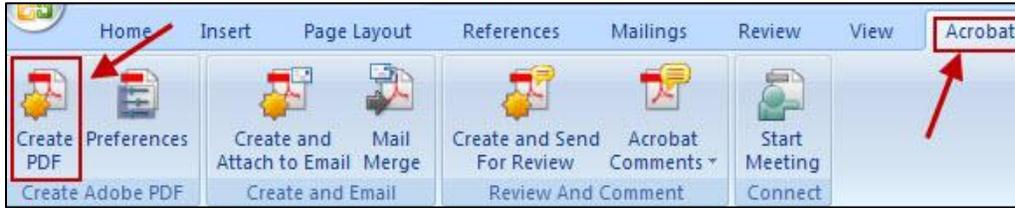


On "Bookmarks" tab, check **Convert Word Headings ...** and set indent levels.

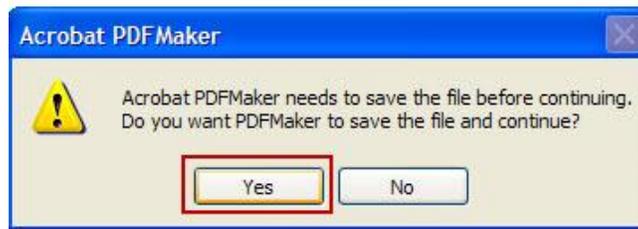


Now save your document as an accessible PDF. You have two options:

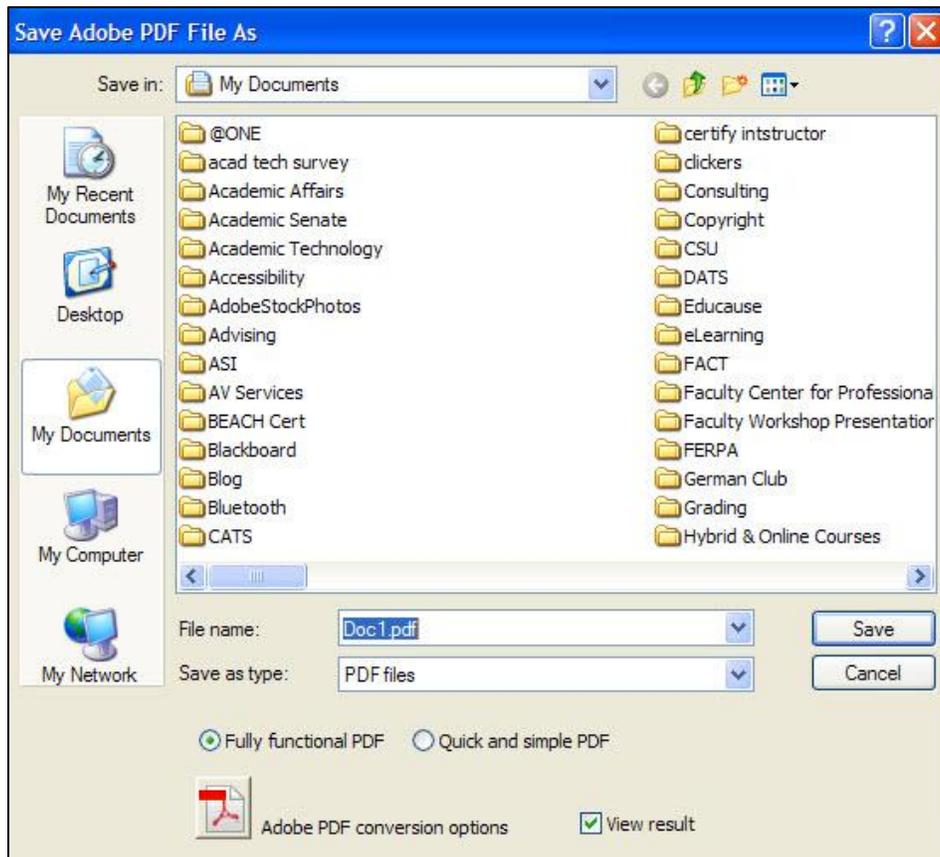
Select **Create PDF** from the Acrobat menu.



If you haven't already saved your Word document, save it now.

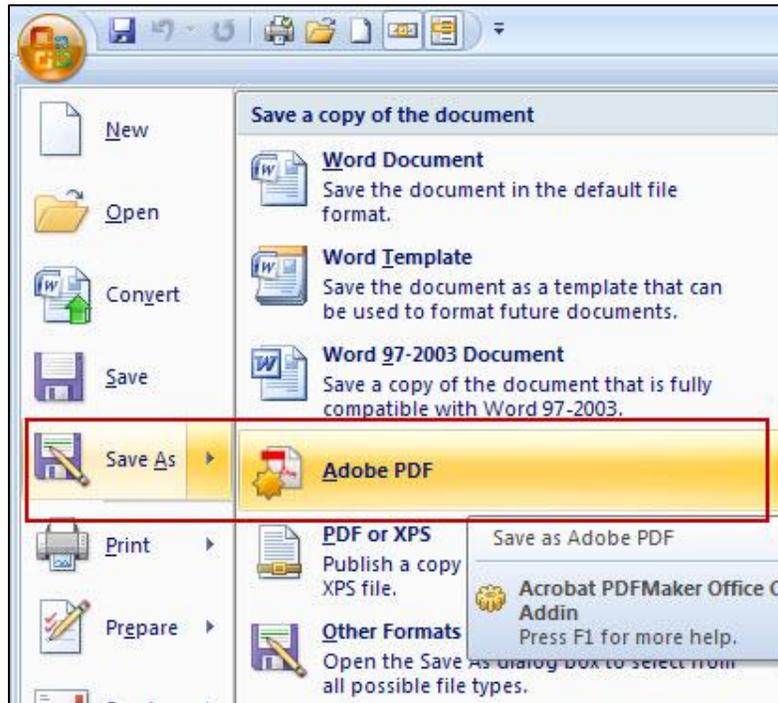


Now save as PDF.



OR

Save as Adobe PDF from the Office button.



## Making Scanned PDFs Accessible

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Before you can create a tagged PDF, you must first ensure that the scanned PDF contains real text and is not simply an image. Many scanned documents are just snapshots of the document that has been scanned, and the document does not contain real text. If the document does not have real text, consider either reconverting using **Adobe Acrobat Pro** (if you have the original file) or convert it to text via OCR software such as OmniPage.

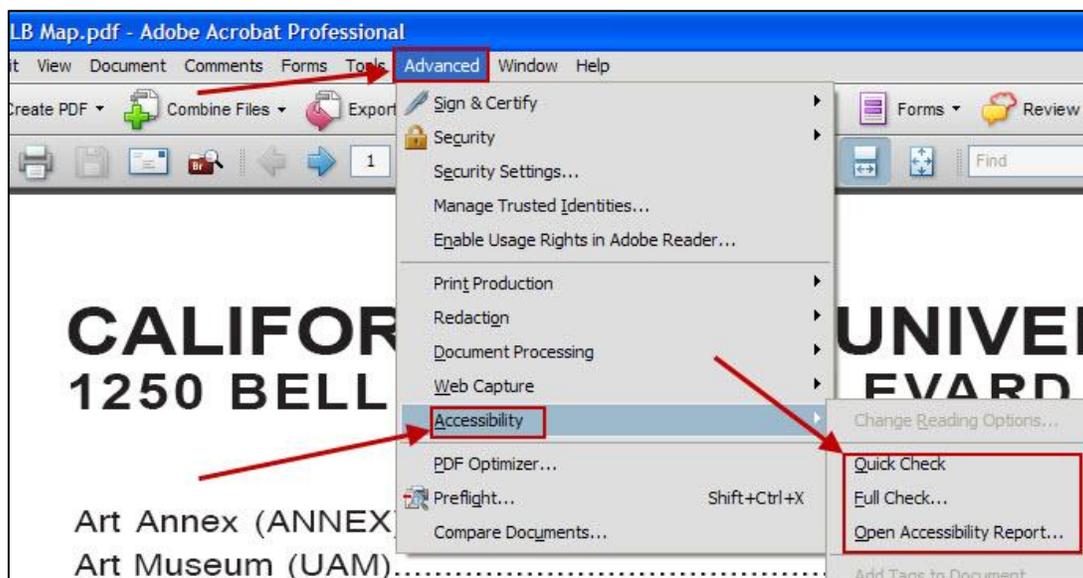


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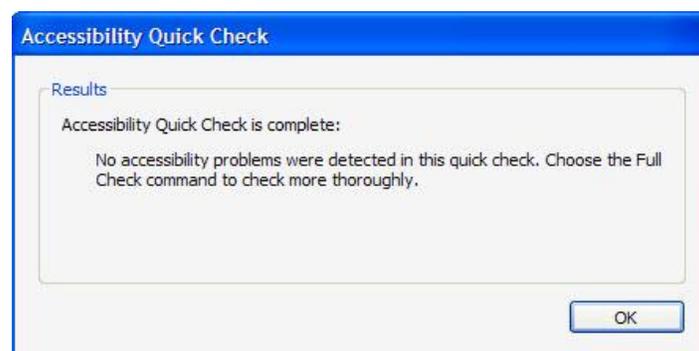
# Making Existing PDFs Accessible

## Quick Check

If you have an existing PDF document, Adobe Acrobat Viewer, and Adobe Acrobat Pro, you can run a **Quick Check** to verify whether or not the document is properly tagged. The Quick Check basically tells you whether the file has tags or not. It does not identify the most basic errors, such as missing alternate text on the images. To run a Quick Check with your PDF open in Adobe Acrobat, select **Advanced > Accessibility > Quick Check**.



If you do not see any tags in the tags panel, your document is untagged, and you will need to tag the file. With **Adobe Acrobat Pro**, you can add tags to an untagged document by choosing **Advanced > Accessibility > Add Tags to Document**. This process can sometimes be extremely time-consuming, and you will almost certainly have to edit the new tags manually. Still, it is a start and will probably be faster than doing all the work manually. This is especially true if the document contains tables.





To use the **TouchUp Reading Order** tool, select **Advanced > Accessibility > TouchUp Reading Order** . When this feature is selected, the view on the screen will change. All of the content will be enclosed in numbered boxes. Each of these boxes represents a tag and the number corresponds with the tag number in the **Order** panel. The TouchUp Reading Order window will also open.



To add alternative text, **right click** on the image and select **Edit Alternate Text**. Enter the appropriate alt text in the dialog box.

[Further pdf conversion information.](#) [Adobe – Accessibility – Best Practices](#)  
[Using the Accessibility Checker in Adobe Pro 9 Guide](#)  
[Adobe Acrobat 10 Overview](#)  
[Making PDF Files Accessible](#)

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# —Section Four —



## **Web Site Accessibility – Section 508 Compliance**



# Web Accessibility Checklist

Obtained from <http://webaim.org/standards/508/checklist>



## Plan Heading Structure Early

Ensure all content and design fits into a [logical heading structure](#).



## Consider Reading Order

The [reading order](#) should be the same as the visual order.



## Provide Good Contrast

Be especially careful with light shades of gray, orange, and yellow. Check your contrast levels with our [color contrast checker](#).



## Use True Text Whenever Possible

[True text](#) enlarges better, loads faster, and is easier to translate. Use [CSS](#) to add visual style.



## Watch the Use of CAPS

All caps can be difficult to read and can be read incorrectly by screen readers.



## Use Adequate Font Size

Font size can vary based on the font chosen, but 10 point is usually a minimum.



## Remember Line Length

Don't make it too long or too short.



## Make Sure Links are Recognizable

Differentiate [links](#) in the body of the page with underlines or something other than color alone.



## Design Link Focus Indicators

Ensure keyboard users can visually identify a focused link. Use the standard dotted line or other non-color designators.



## Design a "Skip to Main Content" Link

A link for keyboard users to [skip navigation](#) should be at the top of the page. It can be hidden, but should be visible when it receives keyboard focus.



## Ensure Link Text Makes Sense on Its Own

Avoid "Click Here" in [link text](#). Other ambiguous links, such as "More" or "Continue", can also be confusing.



## Use Animation, Video, and Audio Carefully

If used, provide a play/pause button. Avoid flashing or strobing content as it can cause seizures. Provide alternate text (alt tags), text descriptions for visual media, and transcripts and captions for audio content.



## Don't Rely on Color Alone

Because users often can't distinguish or may override page colors, color cannot be the only way information is conveyed.



## Design Accessible Form Controls

Ensure [form controls](#) have descriptive labels and instructions. Pay close attention to form validation errors and recovery mechanisms.

## Resources:

WebAIM: <http://webaim.org/>

Validator: <http://www.cynthiasays.com/>

Section 508: <http://www.section508.gov/>



— Section Five —



# Resources

# Web Accessibility Quick Reference

**Online instructional material must be accessible and usable to all students.**

## Accessibility Issues

<b>Text</b>	Create good contrast. Use appropriate font type and size.
<b>Images</b>	Provide textual description of content.
<b>Audio</b>	Provide audio transcript and captioning.
<b>Video</b>	Deliver text transcript synchronously.
<b>Complex</b>	Multiple Media Types.

## Accessibility Tools

- [WAVE 3.0 Accessibility Tool](#)
- [Media Access Generator \(MAGpie\)](#)

## Accessibility Guidelines

- [Web Accessibility Initiative](#)
- [Educator's Guide for Accessibility](#)
- [Making Software Accessible: A Guide for Schools](#)
- <http://www.web-miner.com/deissues.htm>

## Accessibility Manuals and Tutorials

- [High Tech Center and Training Unit](#)
- [Illinois Center for IT and Web Accessibility](#)
- [Access Web](#)
- [Jaws for Windows Tutorial](#)

## Accessibility Resources

[Accessible Technology 4 All](#)  
[Access eLearning](#)  
[Accessibility Issues in Distance Education](#)  
[Access IT](#)  
[American Foundation for the Blind](#)  
[Apple Accessibility Site](#)  
[CAST: Center for Applied Special Technology](#)  
[CSU ATI Resources](#)  
[DO-IT: Disabilities, Opportunities, Internetworking, and Technology](#)  
[Firefox Accessibility Extension](#)  
[IT Technical Assistance and Training Center](#)  
[Knowbility](#)  
[National Accessibility Portal](#)  
[NCAM](#)  
[Online Accessibility](#)  
[Six Principles of Accessible Design](#)  
[Skills for Access](#)  
[UI Access](#)  
[Universal Design of Web Pages in Class Projects](#)  
[Usability.gov](#)  
[Using Technology to Support Diverse Learners](#)  
[Virtual508.com](#)  
[Web Accessibility in Mind](#)  
[Web Standards](#)  
[World Wide Web Consortium](#)

## Math Accessibility Resources

[W3C Math Home](#)  
[Nemeth Braille Code for Mathematics](#)

## Making Accessible Documents Resources

[Make PDF Files Accessible](#)  
[Making Materials Accessible - CSU Long Beach](#)  
[WebAIM: Appropriate Use of AlternateText](#)  
[WebAIM: Introduction to Web Accessibility](#)

# Captioning Resources

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Captioning can be added to a video to increase the accessibility. There are free and low-cost programs you may use to caption videos. In addition, there are some websites that will caption your video for a small fee. Listed below are a few of the free captioning resources:

**1. MAGpie 2.0** - <http://webaim.org/techniques/captions/magpie/version2/>

**2. Distance Education Captioning and Transcription Grant** - [http://www.canyons.edu/Offices/Distance\\_Learning/Captioning/faq/faq.htm](http://www.canyons.edu/Offices/Distance_Learning/Captioning/faq/faq.htm)

Users must enable the captioning feature in Windows Media Player to view the captions while the video is playing. Follow the instructions below to enable the caption feature in Windows Media Player 10 or 11.

1. Open Windows Media Player then click on Play > Lyrics, Captions and Subtitles > Captions
2. Then click on Tools > Options > Security > Show local captions when present.

For additional information about viewing captions in the Window Media Player, visit the Microsoft website at <http://windows.microsoft.com/en-US/windows7/Show-captions-or-subtitles-in-Windows-Media-Player>

**3. YouTube.com – Adding and Editing Captions/Subtitles** - <http://www.google.com/support/youtube/bin/answer.py?answer=100077>

## **Additional Captioning Resources:**

[WebAIM: Captioning Resource List](#)

[Closed Captioning Resources - from High Tech Center Training Unit](#)

[Captioning Resources – from Stanford University](#)

[Professional Development for Accessible Technology: Multimedia & Captioning – from CSU](#)