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Accessibility Training

Accessibility Training for faculty and staff



What is Web Content Accessibility?



What Makes Web Content Accessible?



How Do I Create and Test Web Content for Accessibility?



What's Next?

What Makes Web Content Accessible?



This module is an overview of the basic characteristics of accessible web content and how content is accessed by persons with disabilities.

The Common Barriers

Types of Disabilities and the Barriers to Accessing Digital Content

Visual

Visual disabilities range from mild or moderate vision loss in one or both eyes (low vision) to substantial and uncorrectable vision loss in both eyes (blindness). Some people have reduced or lack of sensitivity to certain colors (color blindness), or increased sensitivity to bright colors. These variations in the perception of colors and brightness can be independent of visual acuity.

Examples of Barriers for People with Visual Disabilities:

- Images, controls, and other structural elements that do not have equivalent text alternatives.
- Text, images, and page layouts that cannot be resized, or that lose information when resized.
- Missing visual and non-visual orientation cues, page structure, and other navigational aids.
- Video content that does not have text or audio alternatives, or an audio-description track.
- Inconsistent, unpredictable, and overly complicated navigation mechanisms and page functions.
- Text and images with insufficient contrast between foreground and background color combinations.
- Websites, web browsers, and authoring tools that do not support the use of custom color combinations.
- Websites, web browsers, and authoring tools that do not provide full keyboard support.

Auditory

Auditory disabilities range from mild or moderate hearing loss in one or both ears (hard of hearing) to substantial and uncorrectable hearing loss in both ears (deafness). Some people with auditory disabilities can hear sounds; however, they may not sufficiently understand all speech, especially when there is background noise. This can include people using hearing aids.

Examples of Barriers for People with Auditory Disabilities:

- Audio content, such as videos with voices and sounds, without captions or transcripts.
- Media players that do not display captions and that do not provide volume controls.

- Media players that do not provide options to adjust the text size and colors for captions.
- Web-based services, including web applications, that rely on interaction using voice only.
- Lack of sign language to supplement important information and text that is difficult to read.

Physical

Physical disabilities (sometimes called "motor disabilities") include weakness and limitations of muscular control, such as involuntary movements including tremors, lack of coordination, or paralysis; limitations of sensation; joint disorders, pain that impedes movement, and missing limbs. WC3's Web Accessibility Initiative (WAI) Perspective Videos are worth checking out: most notably, [Keyboard Compatibility](#).

Examples of Barriers for People with Physical Disabilities:

- Websites, web browsers, and authoring tools that do not provide full keyboard support.
- Insufficient time limits to respond or to complete tasks, such as filling out online forms.
- Controls, including links with images of text, that do not have equivalent text alternatives.
- Missing visual and non-visual orientation cues, page structure, and other navigational aids.
- Inconsistent, unpredictable, and overly complicated navigation mechanisms and page functions.

Cognitive, Learning, and Neurological

Cognitive, learning, and neurological disabilities involve neurodiversity and neurological disorders, as well as behavioral and mental health disorders that are not necessarily neurological. These disabilities may affect any part of the nervous system and impact how well people hear, move, see, speak, and understand information. Cognitive, learning, and neurological disabilities do not necessarily affect a person's intelligence.

Examples of Barriers for People with Cognitive, Learning, and Neurological Disabilities:

- Complex navigation mechanisms and page layouts that are difficult to understand and use.
- Complex sentences that are difficult to read and unusual words that are difficult to understand.
- Long passages of text without images, graphs, or other illustrations to highlight the context.
- Moving, blinking, or flickering content, and background audio that cannot be turned off.
- Web browsers and media players that do not provide mechanisms to suppress animations and audio.
- Visual page designs that cannot be adapted using web browser controls or custom style sheets.

Speech

Speech disabilities include difficulty producing speech that is recognizable by others or by voice recognition software. For instance, the loudness or clarity of someone's voice might be difficult to understand.

Examples of Barriers for People with Speech Disabilities:

- Web-based services, including web applications, that rely on interaction using voice only
- Websites that offer phone numbers as the only way to communicate with the organizations

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CONTINUE

Assistive Technologies for the Web

There are a great many more types of technologies for visual and particularly motor disabilities than are listed here, but we have listed the major types so as to acquaint you with the kinds of issues that people face. You do not need to know everything about every kind of disability or assistive technology in order to design web content accessible to this population. Despite the broad range of motor disability types, many of them result in similar technological needs with regard to computer access.

VIRTUAL KEYBOARD

SCREEN READERS

A good example of a virtual keyboard would be a web-based, on-screen keyboard with word completion technology. In nearly all cases, people who need this technology will have it installed on their own computer, rather than using a web-based version, but an online version can be useful when users are away from their regular computer. It can also be a useful tool to help developers understand how this particular type of technology works.

WASHINGTON

What is a virtual keyboard?

A virtual keyboard is software that is used to emulate a standard keyboard. A picture of a keyboard is displayed on a computer screen and the user points and clicks on the pictures of keys to enter text. Switches activated in a wide variety of ways make use of the most appropriate muscles for the individual user.


READ MORE WASHINGTON >

VIRTUAL KEYBOARD

SCREEN READERS

Screen readers are software programs that allow blind or visually impaired users to read the text that is displayed on the computer screen with a speech synthesizer or braille display. Screen readers convert digital text into synthesized speech content. A screen reader "reads" a document's back end information (code which is not visible within the interface) and front end information (within the interface and therefore visible to all users). Popular screen readers include:

- The [NVDA screen reader](#) is free. Download it to test your documents using keyboard navigation. "Michael Curran and James Teh, fully blind men, founded the non-profit [NV Access](#) to support the development of the free and easy-to-use screen reader." **Note:** The software works best with Firefox or Chrome. When using the software, the keyboard shortcut for Quit is Insert + Q. For additional info on shortcuts, visit [WebAIM's Keyboard Shortcuts for NVDA](#), or visit [NVDA's command key quick reference](#) for more info on keyboard navigation.
- JAWS
- Microsoft's Narrator
- Apple's VoiceOver

 YOUTUBE



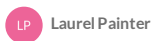
Screen Reader Demo for Digital Accessibility

Screen Reader Demo for Digital Accessibility.

VIEW ON YOUTUBE >

CONTINUE

How Do I Create and Test Web Content for Accessibility?



This module is an overview of how to create accessible content with the most commonly used software tools.

The University of Minnesota's Disability Resource Center hosts a digital resource *Accessible U* where the concept "[Start Small, Start Now](#)" emphasizes the use of incremental steps towards mastering the creation of accessible web content. If you don't give yourself reasonable expectations, you may find yourself getting really frustrated, really quickly.

When it comes to making online content accessible, you may find that it is easier to start a document from scratch rather than trying to retro-fit a current one. Allow yourself some time to learn, to experiment, and of course, to "start small."

Please note: Information in this module refers to the commonly and usually the most recently used software versions.

Microsoft Word and PDFs

Creating Word Documents for Accessibility

Microsoft provides accessibility training videos on creating accessible Word documents. Watch the Word series which has seven short videos. The videos showcase Office 365; features may differ with your desktop version.

HOW TO CREATE

Testing Word Documents for Accessibility

Learn how to use the Accessibility Checker in Microsoft products.

HOW TO TEST

Creating and Testing PDFs

In most cases, you will convert or save your Word document as a PDF. Accessibility characteristics from Word will transfer to the PDF. However, it is always a good idea to perform a basic test of any PDF. An accessible PDF will find words you search for (Ctrl/Cmd+F) and can navigate headings and tables with the tab and arrow keys.

ALL ABOUT PDFS

CONTINUE

Microsoft PowerPoint

Creating PowerPoint Presentations

Microsoft provides accessibility training videos on creating accessible PowerPoint presentations. Watch the PowerPoint series which has five short videos. The videos showcase Office 365; features may differ with your desktop version.

HOW TO CREATE

Testing PowerPoint Presentations for Accessibility

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HOW TO TEST

CONTINUE

eLearn HTML Pages

D2L's Brightspace is our Learning Management System (LMS) which we call "eLearn." Most content in eLearn is created through HTML pages (also called web pages, content pages, lesson pages, etc.). You use HTML pages in the Content section and in other text fields, such as instructions for Dropboxes, Quizzes, Discussions, etc. These pages are created and edited through the HTML editor.

Creating Web Pages in eLearn

Portland Community College Instructional Support provides a tutorial on the creation of accessible elements within the HTML editor.

Note: Some of the tools/features may have a slightly different appearance or operation in eLearn. Be sure to test the instructions in your eLearn demo course.

HOW TO CREATE

Accessibility Checker

D2L's Brightspace provides an accessibility checker for all HTML pages.

Note: This video was produced by D2L; some of the tools may have a slightly different appearance.

HOW TO TEST

CONTINUE

Adding Closed Captions to Video

If you have a video that you have created, such as a lecture or demo video, you can upload it to Ensemble, the video platform which is integrated into eLearn. Ensemble has an automatic closed captioning feature.

Adding Captions to a Video in Ensemble

Need help with the video platform Ensemble? Visit the eLearn Training course in eLearn.

CLOSED CAPTIONS

CONTINUE

Test Your Knowledge

Complete the questions below to test your knowledge of the third module. **You may see these questions in the mandatory Accessibility Quiz.** Need to review? Simply scroll up.

Which option below is the most accessible way to display a hyperlink to another web page?

- ☐ For more information, [Click Here](#)
- ☐ [Learn more!](#)
- ☐ For more information, visit www.afb.org
- ☐ For more information, review the page on [Screen Readers from the American Foundation for the Blind](#).

SUBMIT

Within a PowerPoint slide, you can set the reading order manually with the

Type your answer here

SUBMIT

What are the first four steps for adding an image with alt text in an eLearn page (HTML editor)? Click and drag each step number to the appropriate operation then click Submit.

≡ Step 1

Select the Insert Image icon.

≡ Step 3

Click Add button.

≡ Step 4

Type in text or select "This image is decorative" in the Provide Alternative Text window.

≡ Step 2

Follow the prompts to choose an image file.

SUBMIT

According to Microsoft Office Support's Accessibility video training, what are the three steps for adding a heading style to text in Word?



1. Select the text you want to be a heading.
2. Choose Home tab in the ribbon.
3. Click the heading style you want within the styles box.



1. Select the text you want to be a heading.
2. Choose Edit tab in the ribbon.
3. Click the heading style you want within the styles box.



1. Select the text you want to be a heading.
2. Choose Home tab in the ribbon.
3. Click the font style you want within the styles box.



1. Select all text in the document.
2. Choose Home tab in the ribbon.
3. Click the heading style you want within the styles box.

SUBMIT