# **Accessible Text-Based Material**



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## **Accessible Text-Based Material**

Accessibility best practices for all text-based material in your course

## **Foundations of Accessible Text**

# 1. Color Usage

## Avoid using color alone to convey meaning.

Using color to indicate meaning is inaccessible to users with limited color vision and those using screen readers.

Assignments (overdue in red)	
Introduction	
Chapter 1	

#### **EXAMPLE 1: Inaccessible color-coded content**

Conveying that an assignment is overdue *solely* by changing the color of the text is inaccessible.

Assignments	Overdue
Introduction	Yes
Chapter 1	No

#### **EXAMPLE 2: Accessible color-coded content**

In this example, color is used to accent information rather than being the only means of conveyance. This example is accessible to all users.

Example provided by: https://www.csun.edu/sites/default/files/syllabus-win.pdf

# It is important to maintain sufficient contrast between the background, foreground, and text colors in your documents.

Using color to indicate meaning is inaccessible to users with limited color vision and those using screen readers.

Bad Examples	Good Examples
Blue on black is bad	Yellow on black is good
Green on orange is bad	Black on orange is good
Red on green is bad	Black on green is good
Grey on purple is bad	White on purple is good

Simple color combinations, such as black text on a white background, are best for students. Proper contrast improves readability and reduces eye strain in users. There are many tools available to check the contrast of the colors in your documents. The HTML editor in Pilot also has its own color contrast checker.

#### Free contrast checker websites:

- https://webaim.org/resources/contrastchecker
- https://toolness.github.io/accessible-color-matrix

# 2. Typography

Legibility refers to how easy or difficult it is to distinguish one letter from another in a text. This impacts the overall readability of documents and is influenced by font choice, size and spacing.

#### Font Choice

In general, simple well-spaced fonts are recommended. Overly decorative typefaces should be avoided for course materials.

Recommended fonts include: Arial, Calibri, Helvetica, Tahoma, Times, and Verdana

#### **Wright State Recommended Fonts:**

#### **Primary Sans Serif**

(Typically is useful as headlines, callouts, sidebars, etc., although it is not limited to these uses.)

- · Univers LT Standard
- Alternative: Source Sans Pro- which can be downloaded free from Google Fonts

#### **Primary Sans Serif:**

(Typically useful as body copy in brochures, for example.)

- Minion Pro
- · Alternative: Garamond

These typefaces have been chosen for legibility and availability. Each font includes a range of weights and widths that can accommodate any need.

#### **Text Size**

The standard for paragraph text is 11pt or 12pt type. Never go below 8pt type in documents.

## Text Spacing

Properly spaced text is the last major consideration for legibility. The term used to describe the space that occurs between lines of text is "leading." Well-spaced leading is crucial for overall document readability.

The leading is dependent on the format you're working in, so experimentation and fine-tuning may be needed to find the right balance.

# 3. Headings/Structure

# Accessible documents must create a clear hierarchy of information through properly formatted headings.

Adaptive technology users depend on proper heading structure to navigate course material. If no heading structure is present, the document will be read as one continuous block of text by screen readers and thus cannot be easily navigated.

Headings should be used in cascading order. They are referred to by the letter H followed by the corresponding heading rank, beginning with H1 for Heading 1.

- H1: Used for the main sections/titles of the document
- H2: Used for subsections within each main section denoted by H1.
- H3: Used for further subsections of H2 content, if necessary.

This pattern repeats for as many sub-headings as are necessary for your content. The limit for heading levels is typically 6.

#### **EXAMPLE: FORMATTING A SYLLABUS WITH HEADINGS**

```
H1: Introduction to Film
```

H2: Instructor Information

H3: Name: Dr. Jane Doe

H3: E-mail: jane.doe@wright.edu

H3: Office Hours: Monday, Wednesday, and Friday

10:00 AM - 2:00 PM in Russ Hall, Room 222

**H2: Course Objectives** 

Α

В

С

**H2: Required Texts** 

Χ

Υ

7

H2: Course Schedule

H3: Week 1: Introduction to Film

Reading: Chapter 1

Assignment: Discussion group

H3: Week 2: Theory Reading: Chapters 2-3

Assignment: Personal reflection paper

#### For the above material, the headings are laid out as follows:

H1: Course Title

H2: Major sections (Instructor information, course objectives, required texts, course schedule...)

H3: Subsections of larger H2 sections (Name, E-mail, Office Hours, Week 1, Week 2...)

## 4. Alternative Text for Images

Images included in class content, including physical handouts, requires alternative text.

For more thorough information on alt text and how to implement it in your digital and physical documents, check out WSO's guide for alternative text.

# 5. Descriptive Link Text

Screen reader users often use the tab key to navigate quickly around a page or document. If the text of every link's text is "read more" or "click here," it is more difficult to determine what links refer to what material when navigating with a screen reader. Generic link text is ambiguous and should be avoided.

Each link's purpose or destination should be able to be determined from the link text alone.

- Use keywords that describe the link's contents. Examples include "Request Support Services" or "View this map of Italy."
- Adapt the ambiguous "learn more" or "read more" prompts to something more specific. For example, "Learn more about animal behavior" is a descriptive link.
- Use the title of a linked article as the link text.

Links should be checked periodically to ensure that they are not broken and still redirect to the intended content.



Avoid using underlined text for emphasis in your documents. Screen readers interpret underlined text as hyperlinks, as do many users viewing content without assistive technology. This can cause confusion, so stick to italic and bold type for emphasis.

## 6. Accessible Tables

Screen readers can only read aloud each cell of a table one-by-one from left-to-right and top-to-bottom. This can make conveying large quantities of data difficult. Proper formatting of tables is essential so that information can be conveyed to all users clearly.

**Avoid** tables if information can be conveyed just as well by other means.

If you must use a table:

- Keep tables as simple and brief as possible.
- Format your table using a heading to distinguish labels from data entries.
- Keep tables simple and focused on one subject
- Add Alt Text/A descriptive caption for the table
- Avoid blank cells if possible
- · Don't use screenshots of tables

Create accessible tables in Microsoft Word: https://support.microsoft.com/en-us/office/video-create-accessible-tables-in-word-cb464015-59dc-46a0-ac01-6217c62210e5?ui=en-us&rs=en-us&ad=us

Getting Started  $\downarrow$ 

Add Existing Activities 💙

Add dates and restrictions...

Add a description...

Upload Files
Video or Audio

Create a File

Create a Link

Add from Manage Files

Add Object from LOR

## **Pilot HTML Editor How-To**

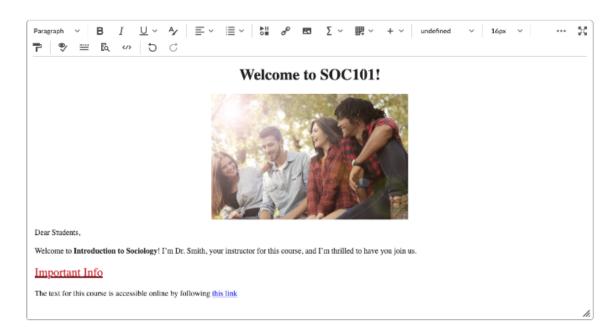
This is a basic overview of how to implement the foundations of accessible text in your course in Pilot using the HTML editor.

### 1. Create a HTML file in Pilot

- **1.1** To begin, create a new HTML File by navigating to your course, then to the module where you'd like the content to appear.
- **1.2** Next, select the "New" button on the left-hand side under the title information.
- **1.3** From the drop-down menu, select "Create a File." This will open the HTML editor in Pilot.
- **1.4** At the top, you can enter a title for the content you're creating. Below that is the HTML editor where you'll be generating your content. There are many options for styling your content in the toolbar above the text box.

## 

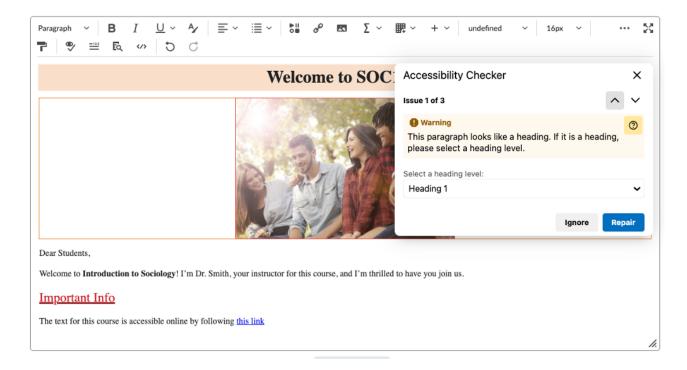
**1.5** Below is an example of what course content looks like when loaded into the HTML editor. However, there are several accessibility concerns with the material as depicted.



## **Accessibility Checker**

Pilot's accessibility checker is a great place to start when reviewing your content. It is not perfect, however, and will not catch all the alterations your content may need.

In the example below, the accessibility catcher caught the "Welcome to SOC101!" text which has a very large font size, but not designated as a header in the HTML. The accessibility checker window offers a quick means of resolving these issues right in the pop-up window.



The checker did not catch that the "Important Info" text in red should be styled as a H2 header. It also didn't point out that the underlined text is visually confusing or that the link included in the last line is not descriptive.

Manual review with best practices for accessibility in mind is essential, and the checker tool is a great starting point.

## Adjust Color and Contrast

To customize text color, select the "Select Color" button on the editor's toolbar. It appears as the letter "A" above a paintbrush.

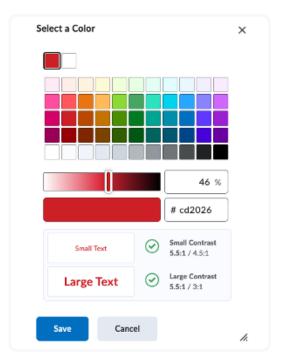


A pop-up with a color palette will appear. Here, you can select which color you would like to use from a preselected range.

You can also customize the shade of colors as well as input a specific color hexcode beneath the larger color picker.

At the bottom of this window is the built-in accessibility checker for color contrast. This will display whether the chosen color has sufficient contrast with the background color (white) to be readable at large and small sizes.

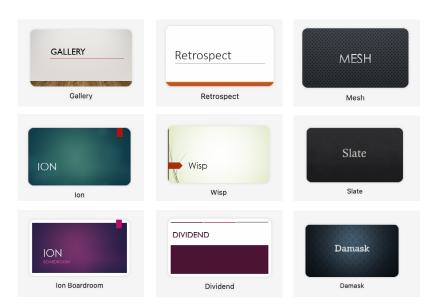
It is **strongly** recommended to only choose colors that pass both large and small text accessibility checks.



#### PowerPoints have accessible color contrast.

These PowerPoint themes meet minimum standards:

- Gallery
- Ion
- · Ion Boardroom
- Retrospect
- Wisp
- Dividend
- Mesh
- Slate
- Damask



## **Create Headings**

There are two quick methods to format your content with headings.

If you highlight text, a small toolbar will appear near the selected text. The options to create H1 and H2 headings are the two furthest buttons to the right.



This is a convenient method for simple content that may only need one or two headings.

For more customization and sub-headings, use the text style drop-down, which is the left-most option on the HTML editor toolbar. Here you can designate text as either default "Paragraph" text, or as one of four levels of headings. There are also options for formatting block quotes and using your own custom code.

## **ALT Text for Images**

If you upload an image to the HTML editor using the "Insert Photo" button on the toolbar, you will receive an automatic prompt to assign alt text to your photo.

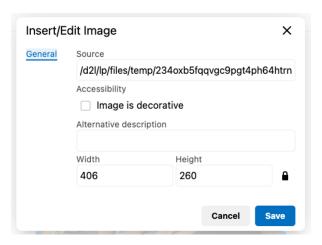
To add or edit alt text to your photo after it has been added to the HTML editor, first click the image. A wire-frame control will appear, as well as a toolbar.



A window will pop up.

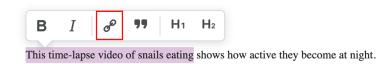
To add or edit alt text, use the text box labeled "Alternative description."

If the image is decorative or is redundant with information already on screen, then click the "Image is decorative" check box above the alt text box.

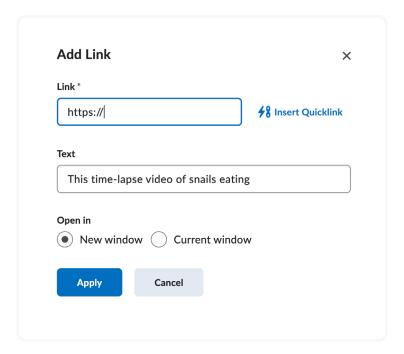


## **Descriptive Links**

Links are easy to create in the HTML editor. Highlight what you'd like to use as the link's text, then use the "add link" button on the toolbar next to the highlighted material.



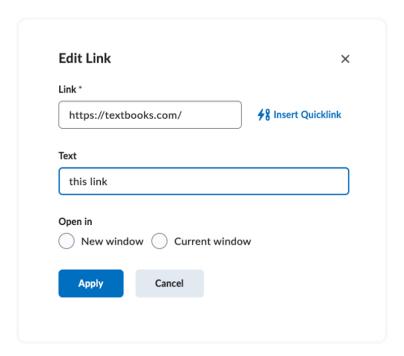
This will open a window where you can drop the URL you would like the selected text to redirect to. You can also choose whether the link will open in a new window, or load in the current window.



Below is an example of a hyperlink that is selectable and working but is not descriptive and thus not accessible to users with screen readers.



After highlighting the link, a small toolbar will appear. Select the edit button, indicated by a pencil, to open the link editor window.



Here, you can change the link text to something more descriptive, like "Sociology 12th ed. Digital Textbook." Once finished, select "Apply" at the bottom of the window.

#### **Important Info**

The text for this course is accessible online. To access the text, follow this link: Sociology 12th ed. Digital Textbook

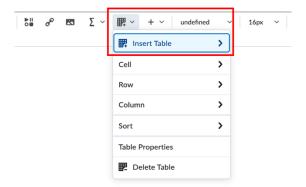
Please take time to review the syllabus for an overview of the learning objectives and schedule for this class.

### Tables

Tables should ONLY be used to display data sets that necessitate them. Tables can be complicated to format properly for screen readers, especially for larger blocks of data or content.

This example will walk through formatting a simple table to display weekly assignments.

First, select the table menu from the toolbar above the editor. It looks like a square grid with many smaller squares. From the drop-down menu, choose "Insert Table"



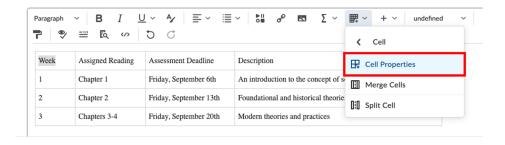
A grid will appear. Hover your cursor over the grid to highlight and adjust the desired size of your table. For example, 4 columns by 4 rows.



This will create a blank table, which you can then fill in.

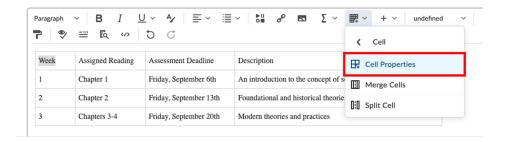
Once your data is filled in, you must properly format your table. Begin by highlighting the first cell you want to designate as a header.

Next, under the table menu on the toolbar, select the option "Cell" then "Cell Properties" in the menu that follows. This will open a window with properties for the highlighted cell.

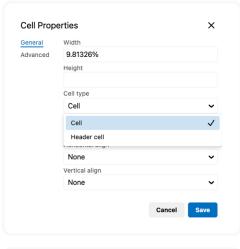


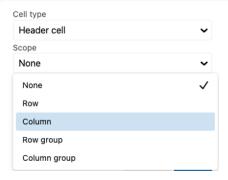
Once your data is filled in, you must properly format your table. Begin by highlighting the first cell you want to designate as a header.

Next, under the table menu on the toolbar, select the option "Cell" then "Cell Properties" in the menu that follows. This will open a window with properties for the highlighted cell.



The important settings for determining heading hierarchy for tables are the "Cell type" and "Scope" drop downs.





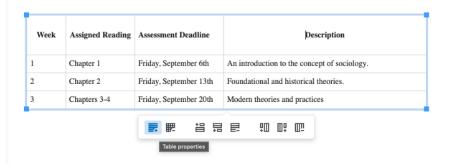
The "Cell type" in this instance should be set to "Header cell."

The "Scope" property determines what data the new header cell will be linked to. Based on the layout of our table, we want the header to refer to all the data in the column below it, so the "Scope" dropdown should be set to "Column."

Select "Save" to continue.

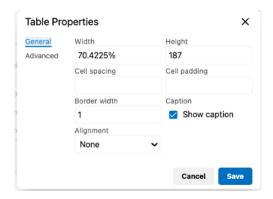
The "Week" cell is now designated as a header within the table, with "scope" or ownership of all the cells in the column below.

This can now be repeated with each cell that needs formatting as a header cell. (Assigned Reading, Assessment Deadline, Description.)

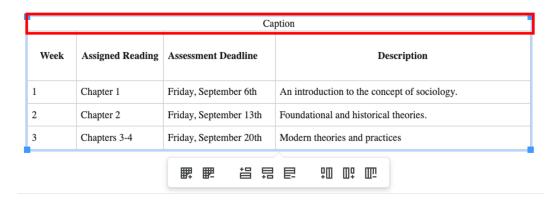


Tables also require a descriptive caption. To add one, select the table so that the wireframe appears around it.

A toolbar will appear near the table. Select the first button, "Table properties." In the window that appears, select the "Show Caption" option and click "Save."

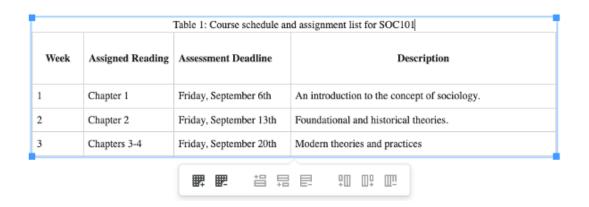


The text "Caption" will appear above your table.



Select the new section of text and customize it with your own caption for the table. Common practice is to begin with labeling the table with a number, then following up with the caption itself.

For example: Table 1: Course schedule and assignment list for SOC101



However, this is an example of information that would make more sense and would be parsed more easily if presented in another way.

A possible alternative is as follows:

#### **H1** Assignments

#### H2 Week 1

An introduction to the concept of sociology.

- Reading: Chapter 1
- Assessment Deadline: Friday, September 6th

#### H2 Week 2

Foundational and historical theories.

- Reading: Chapter 2
- Assessment Deadline: Friday, September 13th

#### H2 Week 3

Modern theories and practices.

- Reading: Chapters 3-4
- Assessment Deadline: Friday, September 20th

#### Assignments

#### Week 1

An introduction to the concept of sociology.

- · Reading: Chapter 1
- · Assessment Deadline: Friday, September 6th

#### Week 2

Foundational and historical theories.

- · Reading: Chapter 2
- · Assessment Deadline: Friday, September 13th

#### Week 3

Modern theories and practices

- · Reading: Chapters 3-4
- · Assessment Deadline: Friday, September 20th

This example presents the same information using traditional heading structures and bulleted lists rather than a table format.

The overall subject, "Assignments," is an H1 heading.

Each individual week is assigned an H2 heading. Information in these sub-headings is arranged with bulleted list and bolded text to make a visually simple and accessible class assignment schedule.

# **Resources for Common Applications**

#### **Creating Accessible PDFs guide by Adobe:**

https://helpx.adobe.com/acrobat/using/creating-accessible-pdfs.html

## **Creating Accessible Word documents by Microsoft:**

https://support.microsoft.com/en-us/office/make-your-word-documents-accessible-to-people-with-disabilities-d9bf3683-87ac-47ea-b91a-78dcacb3c66d

#### **Creating Accessible PowerPoint presentations by Microsoft:**

https://support.microsoft.com/en-us/office/make-your-powerpoint-presentations-accessible-to-people-with-disabilities-6f7772b2-2f33-4bd2-8ca7-dae3b2b3ef25