

Slide 1 - Accessibility Guidelines Part 2

Accessibility Guidelines

Part 2: typography & structure



\$\$cpInfoCurrentSlide\$\$

Hello and welcome to the accessibility guidelines lecture part two. This is a continuation of part one.

Slide 2 - Guidelines addressing...

Overarching cross-media guidelines

- Color
- Text alternatives
- **Typography**
- **Logical structure**
- Plain language

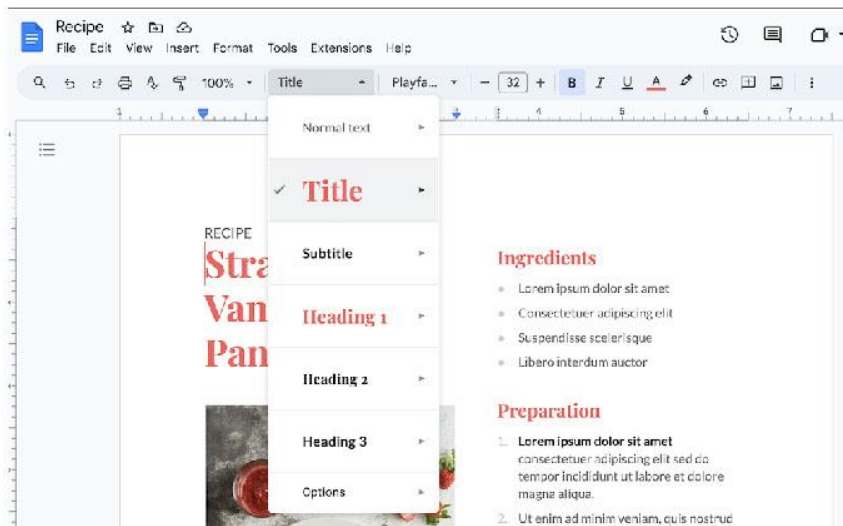


We've already covered color and text alternatives. So in this part, we're going to talk about typography and logical structure, which are bolded and surrounded by a red circle.

Slide 3 - Typography guidelines > hierarchy

Typography guidelines > hierarchy

- Keep consistent typography hierarchy



GIT 598 Designing for Accessibility

\$\$cpInfoCurrentSlide\$\$

In the introduction to accessibility lecture, we talked about how important choosing typography is. Now we're going to talk about some guidelines that you can follow.

The first one is to keep consistent typography hierarchy.

Hierarchy is crucial to presenting typography. Showing a difference in the levels of headings helps users visually understand what is the most important element, then the next important element, and so on. Screen readers will read that importance and state it to users with visual impairments.

The screenshot may look familiar. It's the recipe template from Google Docs as seen in that accessibility and design lecture. It's obvious to sighted users that the Title, strawberry vanilla pancakes, is the most important as it's

the biggest font size on the page. The subtext, which is RECIPE in all caps, isn't as visually obvious, but the Heading 1 elements are, which are Ingredients and Preparation.

Slide 4 - Typography guidelines > readability/legibility

Typography guidelines > readability/legibility

- Use legible text size
- Use readable font families
- Avoid display or script typefaces for body text

Legible typefaces and appropriate text sizes enhance readability for everyone!

Repeat after me: I promise never to use script or display typefaces for body text. Our eyes, no matter our vision level, will thank you for it!

GIT 598 Designing for Accessibility

\$\$cpInfoCurrentSlide\$\$

In regards to readability and legibility, font choice is such an important step.

Use clear, easy-to-read fonts, such as sans serif fonts on the web and serif fonts in print. And ensure the text size is large enough to be readable by people with varying levels of vision.

Legible fonts and appropriate text size enhance readability for users with visual impairments or reading difficulties, and it helps everyone.

On the right side of the slide is an example of the font Roboto in twenty eight point type. And the text reads, 'Legible typefaces and appropriate text sizes enhance readability for everyone'.

Roboto is a clean sans serif font, and the text size is appropriate.

Below that paragraph is an example of a script font. That darned Snell Roundhand, in eighteen point type, which hurts my eyes to read it, but I will. 'Repeat after me. I promise never to use script or display typefaces for body text. Our eyes, no matter our vision level, will thank you for it!'

Slide 5 - Typography guidelines > leading & spacing

Typography guidelines > leading & spacing

- Use sufficient leading & spacing
 - Leading
 - Kerning
 - Space between paragraphs

This is a paragraph with spacing set to 24pt, which means the leading is 24pt (equal to 1.0). The lines of type are very close together vertically, making it more difficult to read, especially when using a serif typeface.

This is a paragraph with spacing set to 36pt, which means the leading is 36pt (equal to 1.5). The lines of type are not close vertically, making it easier to read regardless of typeface.

Readability is related to typography.

As you saw on the last slide, the decorative fonts, Snell Roundhand, was almost unreadable at eighteen point type. But font choice isn't the only consideration. How you use that font can increase or decrease the readability or legibility of the text.

Another consideration with typefaces is the space between each line of text, which is called leading.

In addition, it means the space between each letter, which is kerning. The closer together the letters, the more difficult it is to read.

Spacing also means the space between elements, such as paragraphs.

On the right side of the screen are two paragraphs. The first one reads, 'This is a paragraph with spacing set to twenty four point, which means the leading is set to twenty four point or equal to one point zero. The lines of type are very close together vertically, making it difficult to read especially when using a serif typeface'.

The paragraph beneath that reads, 'This is a paragraph with spacing set to thirty six point type. Even though the font size is twenty four, the leading is set to thirty six point which equals one point five. The lines of text are not close together vertically, making it easier to read regardless of typeface'.

For screens, the recommended leading is one point five, especially for users with dyslexia or low vision. One point zero makes the lines of text far too close together, so much so that some of the words with letters that are above and below the baseline such as y, p, and f end up almost touching.

Slide 6 - Typography guidelines > alignment

Typography guidelines > alignment

- Be aware of text alignment

This paragraph is set to **justified**. It's much more difficult to read on screens and in print products because of the inconsistent spacing between words. This awkward spacing can cause eye strain if used for a long paragraph.

This paragraph is set to **left-aligned**. It's the easiest to read in both digital and print form because each line of text starts in the same place.

This paragraph is set to **centered**. It's more challenging to read because it's not as easy to find where the next line of text starts.

This paragraph is set to **right-aligned**. It's more difficult to read for the same reason as centered. Use sparingly and with a shorter amount of text.

GIT 598 Designing for Accessibility

Slide 6

Text alignment is another important factor to consider as well.

It doesn't seem like it would make a difference, but it does. According to the Bureau of Internet Accessibility, text alignment can make a big difference for people with cognitive and vision impairments and can reduce eye strain for all users.

For the most part, left-aligned text and paragraphs are easier to read, especially in Western cultures. When reading English, we're used to reading left to right, and left aligned text is better facilitates an easier reading experience. This is for Western cultures. It's why knowing your audience is so important. If you are designing for Eastern cultures and languages such as Arabic, right justification should be considered.

On the screen in the lower left corner is a paragraph that's set to left align. It reads 'This paragraph is set to left align. It's the easiest to read in both digital and print form because each line of text starts in the same place'.

Centered text often is used for headings and that still works as long as the heading is one line of text or two at the most. Once you get past two lines, it gets trickier for our eyes to see where a sentence ends and another starts. Centered text in paragraphs is problematic because you don't have that left-justified anchor, so to speak.

On the bottom center of the slide is a paragraph that reads, 'This paragraph is set to centered. It's more challenging to read because it's not as easy to find where the next line of text starts'.

Right-aligned also is more difficult to read for more than a few lines. On the right side of the screen, the paragraph reads, 'This paragraph is set to right aligned. It's more difficult to read for the same reason as centered. Use sparingly and with shorter amount of text'.

The one text alignment you should avoid is justified. In the upper right corner of the slide is an example of this. The paragraph reads, 'This paragraph is set to justified. It's much more difficult to read on screens and in print products because of the inconsistent spacing between words. This awkward spacing can cause eye strain if used for a long paragraph.'

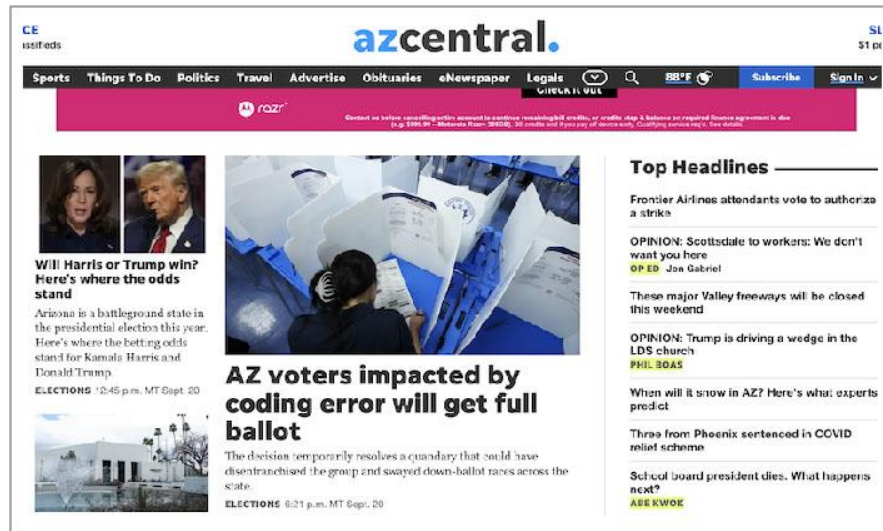
You can see in the third and fifth lines, there's large spaces between the words which means the reader's eye has to jump over the extra space. It causes disruption in reading flow. Justified is extremely difficult to read for people with dyslexia.

Keep in mind that the alignment of the text will not affect screen readers' abilities to convey the text to the user. However, justified text could affect screen magnifiers.

Slide 7 - Logical structure guidelines

Logical structure guidelines > hierarchy

- Content hierarchy
- Logical reading order
- Consistent navigation



GIT 598 Designing for Accessibility

\$\$cpInfoCurrentSlide\$\$

Now we're going to talk about a logical structure and the guidelines you can follow for that.

Just as type hierarchy is crucial for typography guidelines, content hierarchy is crucial for layout. Text hierarchy is what we discussed about typography, but there's also a hierarchy for images and other elements.

In general, the larger elements draw the user's eye. This can be in any cross-media product, print, video, video games.

An example that is on the screen is a screenshot of a news website. It's a screenshot of the AZCentral homepage. There are four images on the screen. Which one stands out the most to you? It's the one right in the center. And the headline is in a larger size than the other headlines on the page. That's where they want your eye to go.

So visually, it has good hierarchy and a logical reading order as well as consistent navigation both at the top and with the headlines. They're always bold.

However, I noticed in the tab order, once it goes through the logo and navigation, the tab moves directly to the far left. Considering the visual hierarchy points to the story in the center, it's interesting that they chose that tab order.

Slide 8 - Logical structure guidelines

Logical structure guidelines > navigation

- Keyboard access = ensuring product is accessible through keyboard only
 - Tab, Enter, Space bar, Arrow keys
 - Give visual cue when element “in focus”

Testing for keyboard access on websites

Tab key: Use the Tab key to navigate to the next interactive item (navigation, links, buttons, form fields). Shift+Tab navigates to the previous item.

Enter key: Press Enter key to activate interactive items (navigation, links, buttons, form fields).

Space bar: Use space bar to scroll down a page and to select/deselect checkboxes on forms.

Arrow keys: Down arrow scrolls down a page; Up arrow scrolls up a page.

GIT 598 Designing for Accessibility

\$\$cpInfoCurrentSlide\$\$

Navigation, as well as many other aspects of design, isn't just for websites. Having keyboard access is making sure the product is accessible through keyboard use without the need for a mouse or other pointing devices.

Users with motor disabilities, screen reader users, or people using assistive technologies need the keyboard access if they are unable or choose not to use a mouse. To test for keyboard access on websites, you can use the tab, enter, spacebar, and arrow keys.

Use the tab key to navigate to the next interactive item, such as navigation, links, buttons, and form fields.

Shift-tab navigates to the previous item.

Press the enter key to activate interactive items. Again, navigation, links, buttons, and form fields anything that the user is going to interact with.

Use the space bar to scroll down the page and to select and deselect checkboxes on forms.

And for the arrow keys, the down arrow scrolls down a page. The up arrow scrolls up a page.

In addition to making sure these keys work, give visual cues such as outlining or highlighting elements that are in focus. A good example of this is a form which we will talk about on the next slide.

Slide 9 - Logical structure guidelines

Logical structure guidelines > navigation

- Identify & remove keyboard traps =
 - Links in documents
 - Modals (pop-ups)
 - Widgets
 - Form fields



The diagram illustrates a keyboard trap in a form. It shows a rectangular input field with a thin grey border. Below it, the text "Email Address" is displayed. Underneath the text is another rectangular input field, this one with a thick purple border, indicating it is the current focus. A vertical line is visible inside this second field, representing the text cursor. This visualizes how a user can become trapped in a specific form field if the focus cannot move to the next element via the tab key.

Image source: <https://www.audioeye.com/digital-accessibility-index/key-insights/form-accessibility-tips/>

GIT 598 Designing for Accessibility

\$\$\$InfoCurrentSlide\$\$\$

Forms are one area where you can find keyboard traps. And keyboard traps means that someone is tabbing through, let's say a form and they can't get out of that form subsection with just the tab key. It basically locks them in or in other words, it locks the focus of the keyboard to that one specific element.

And how the user can get out of that... it's possible they could use the arrow key. It's possible they could, use the the space key. But the problem is once they're trapped, a lot of times, that's it. They're trapped. They they would need a mouse in order to move to the next subsection.

This is especially true in links and documents, pop-ups or modals, as I mentioned forms, and also widgets. Widgets includes small web applications such as a calendar, an image carousel, or an image slider.

On websites, one major area that is that has accessibility issues due to keyboard is forms. It's also one of the most common areas on a web page that has keyboard traps.

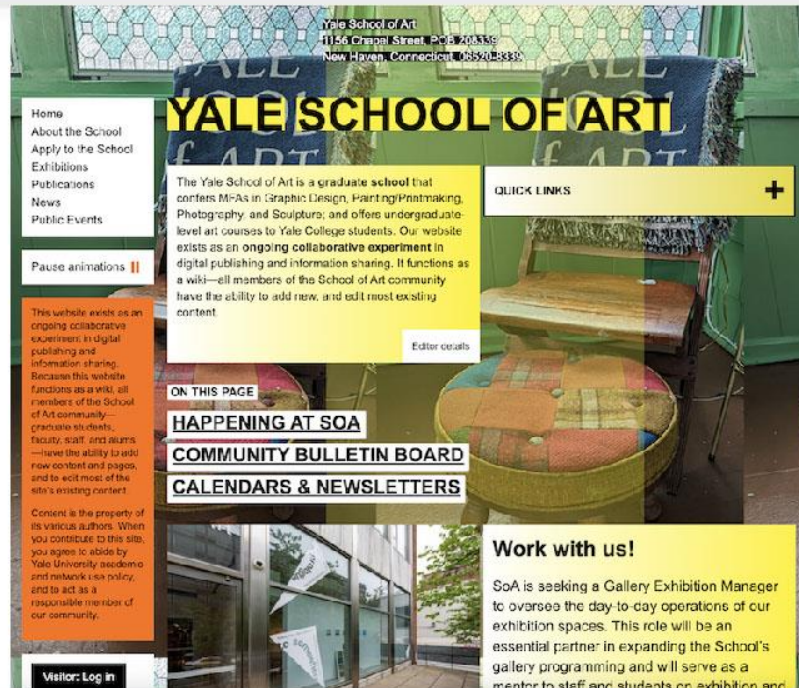
On the right side of the screen is a box that is meant to be a form field. You can barely see the gray outline. Okay. This doesn't have a label. What are you supposed to do with this? Is am I inputting something? And also, how do how do I get out of it?

Now below that is the purple outlined form field with the checkbox next to it and there's a label that says email address. We have two different visual cues. We have a label saying email address. This is where you're going to type in your email address. And then there's also the purple outline, meaning this is where the keyboard focus is..

Slide 10 - Logical structure guidelines > reduce clutter

Logical structure guidelines > reduce clutter

- Avoid sensory overload
- Embrace white space



GIT 598 Designing for Accessibility

\$\$cpInfoCurrentSlide\$\$

The final logical structure guideline we're going to discuss is to reduce clutter.

Avoid sensory overload.

White space is a good thing.

On the screen now, yes, that really is the website for the Yale School of Art. Yes, it's an artistic expression for the students, but yikes! Where are you supposed to look first? Where is the navigation? Why? It's a big ball of wrong and that's just visually. The code is even worse.

The goal is to present a clean, uncluttered layout.

White space is your friend and, you know, it doesn't need to necessarily be white. It's also called negative space and it serves an important role in giving the user's eyes a break. Avoid overcrowding the page with too much text and too many images, like the Yale School of Art homepage.

Also, content must be properly structured with semantic HTML to ensure compatibility with screen readers. Missing alt text for images, which is true for this site, and improperly labeled form fields can be problematic.

Slide 11 - View Part 3 of the lecture!

View Part 3 of the lecture!



\$\$\$pInfoCurrentSlide\$\$\$

Thanks for watching part two of the Accessibility Guidelines lecture. There's one more part where we finish up the conversation.