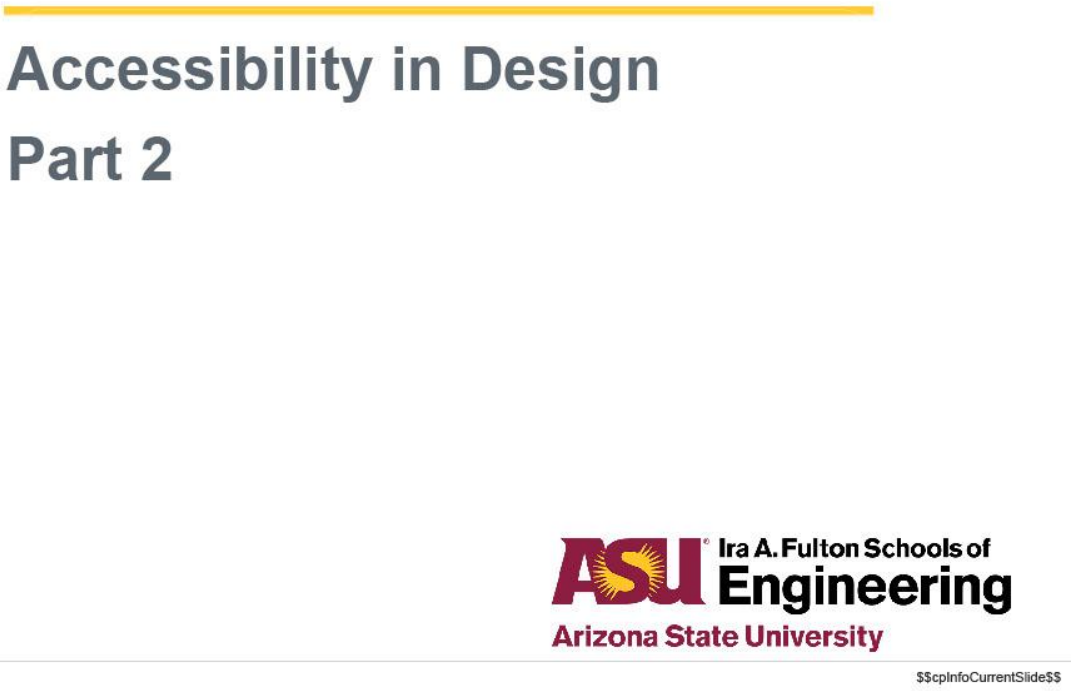
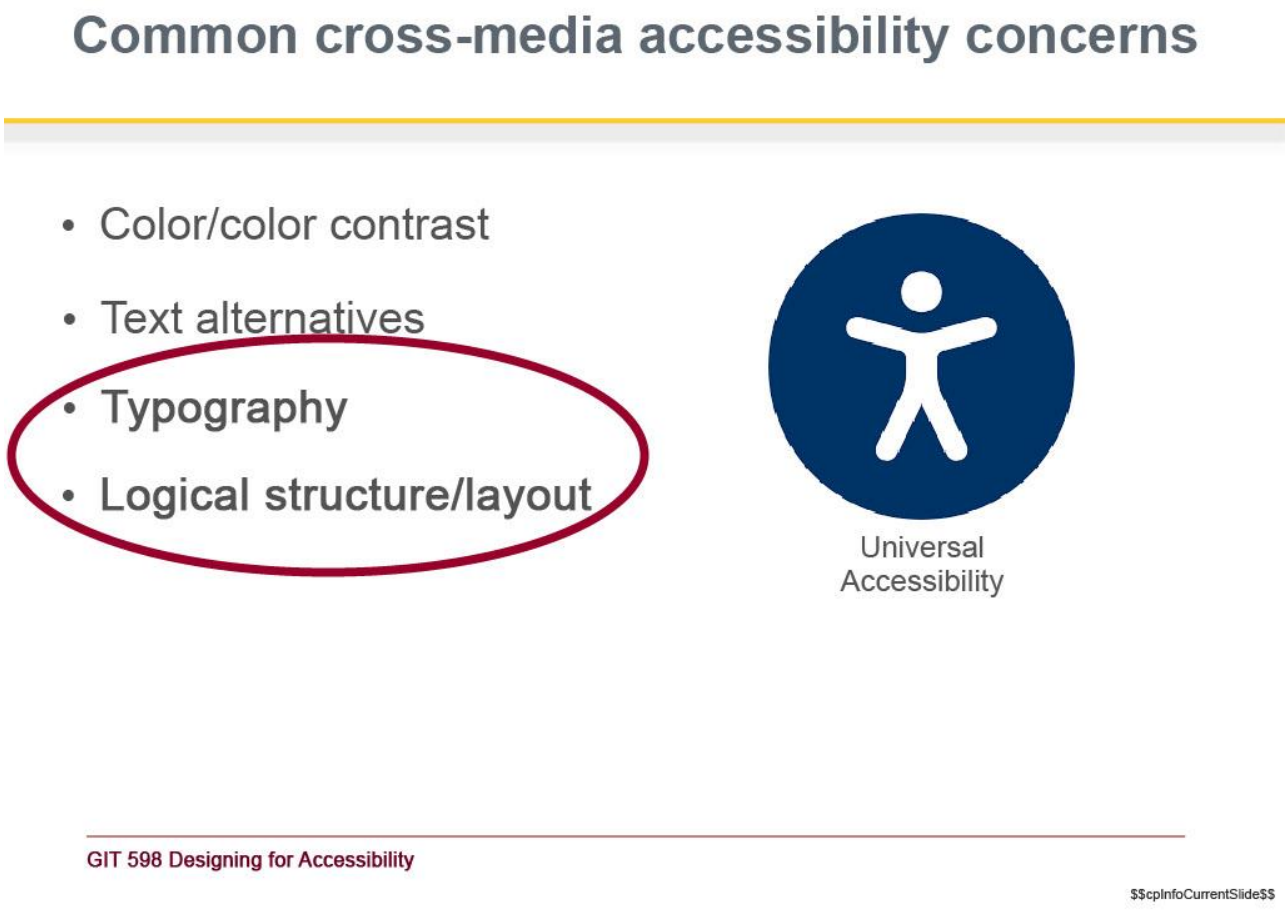
Slide 1 - Accessibility in Design Part 2



Welcome to Part 2 of the Accessibility in Design lecture. Let’s continue the conversation on common accessibility concerns.

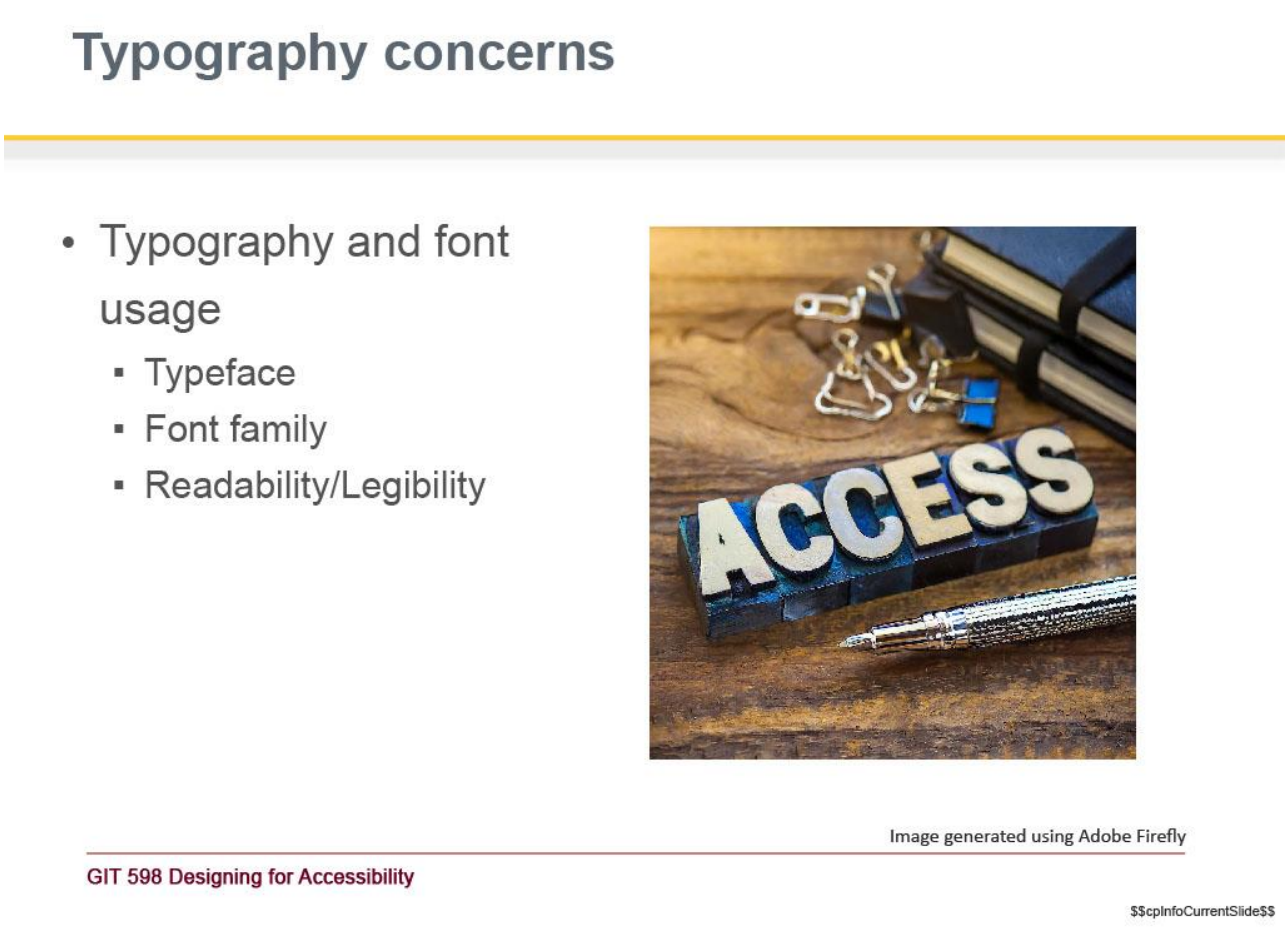
Slide 2 - Common cross-media concerns



Part one of the lecture covered the first two cross media accessibility concerns: color and text alternatives.

We'll finish up our discussion on accessibility concerns with typography and logical structure, which now are bolded and encircled in red on the slide.

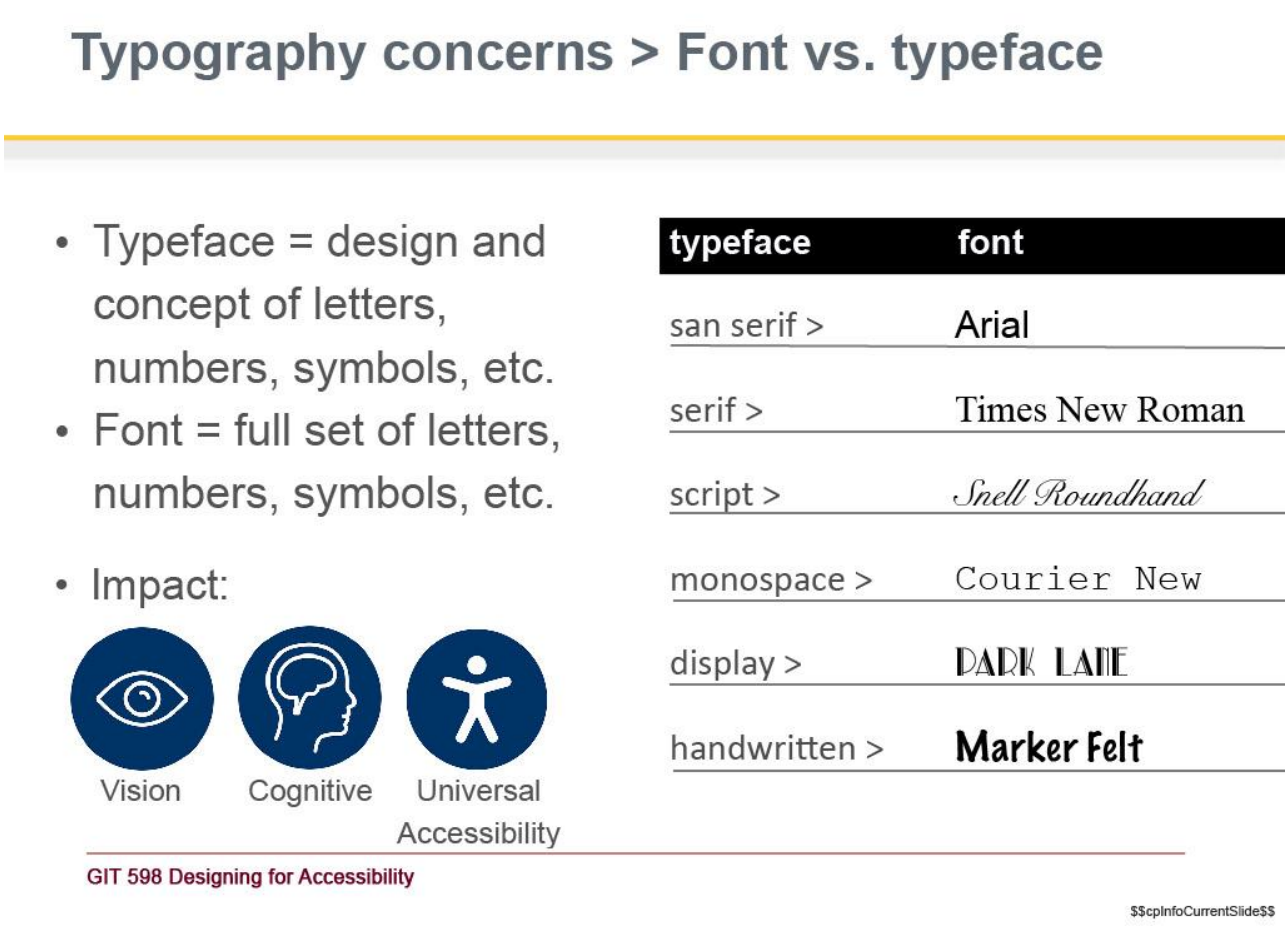
Slide 3 - Typography concerns



Typography plays a very important role in accessibility.

When choosing fonts, you need to consider the style or typeface, the font family, and which family members work best for the project and accessibility. Also, the readability and legibility of the typeface.

Slide 4 - Typography concerns > Font vs. typeface



The words typeface and font are used interchangeably, but they're actually not the same. Typeface is the design and concept of letters, numbers, symbols, and other glyphs that make up a grouping. These groupings are sans serif, serif, script, monospace, display, and handwritten, which are listed on the right side of the slide.

A font is software, believe it or not. Fonts are installed much like software, and the fonts contain a full set of letters, numbers, etc. with a specific design.

For example, the font Times New Roman is a serif typeface, and it's considered a system font. That means regardless of the operating system, Times New Roman is installed and universally available.

Examples of Times New Roman, Arial, Snell Roundhand, Courier New, Park Lane, and Marker Feld are on the far right side of the slide next to the groupings.

Arial is a clean sans serif font, and sans serifs are great for digital interfaces.
Times New Roman and other serifs are popular in print. Just take a look at any textbook, even the ones for this class.

Over time, a number of research studies have shown that serif fonts are better for print, mostly due to the distinctive strokes that help with the flow of text. The opposite was found in digital experiences. Many studies, including one by Shaikh, Chaparro, and Fox in 2013 found that sans serif fonts are more legible on digital devices, especially for smaller text sizes. Sans serif fonts are easier on the eyes and considering that reading on screens already causes eye strain, the cleanliness of these fonts help reduce that strain.

Monotype typefaces, such as Courier New, are a throwback to computer programming when developers read code on the screen. Each letter takes up the same horizontal space, which has been shown to make reading code easier.

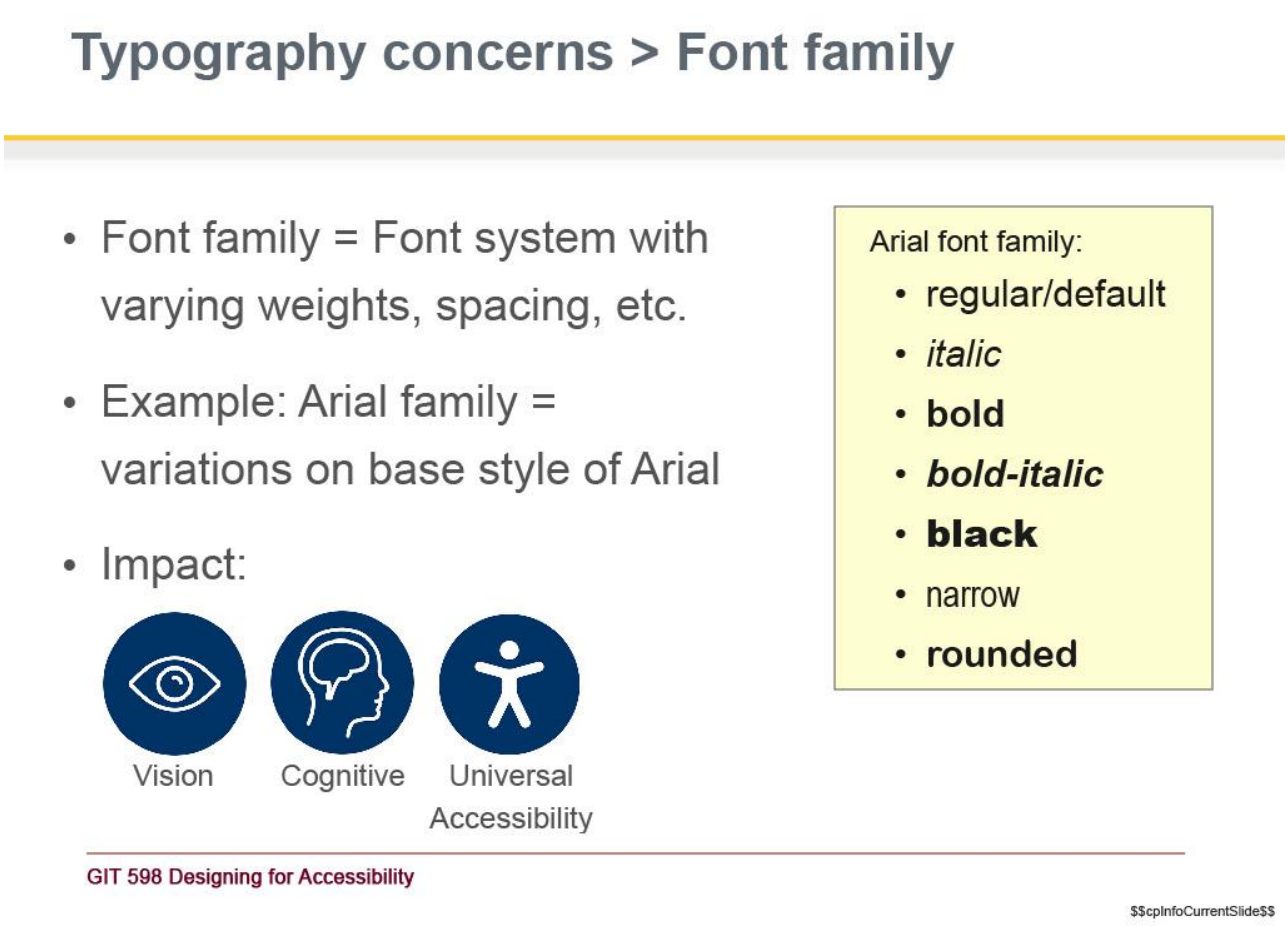
Script, display, and handwritten fonts like Snell Roundhand, Park Lane, and Marker Felt are meant to grab the user's attention. They stand out because of how different they are from serif and sans serif fonts.

Note that all of the font names are at 36-point type, so they're all the same point size. However, each font is very different in letter height and letter width and, of course, the display of the letters. This not only affects people with visual and cognitive impair... impairments, but also the entire audience. Imagine two lines of text of Park Lane, the display font on the screen. How readable would that be?

Choices made about typefaces and fonts affect those with vision impairments. However, it also helps those with cognitive impairments.

For example, some with someone with dyslexia can struggle reading text. One of the best and quickest ways to improve their experience is to use a clean, non-display font, such as Arial or Times New Roman, in a larger size.

Slide 5 - Typography concerns > Font family



As shown and described on the last slide, not all typefaces take up the same space, letters don't take up the same width and height. The same is true within a font family, which is a system of letters and numbers, etc., that are related, though they do vary in weight, height, spacing, and other visual ways.

Some fonts are singular, but many have more than one choice.

For example, on the right side of the slide is a display of the Arial font family.
Arial has what we call a regular or default, but it also has italics, bold, bold italic, black, narrow, rounded, and rounded and narrow have their own families.

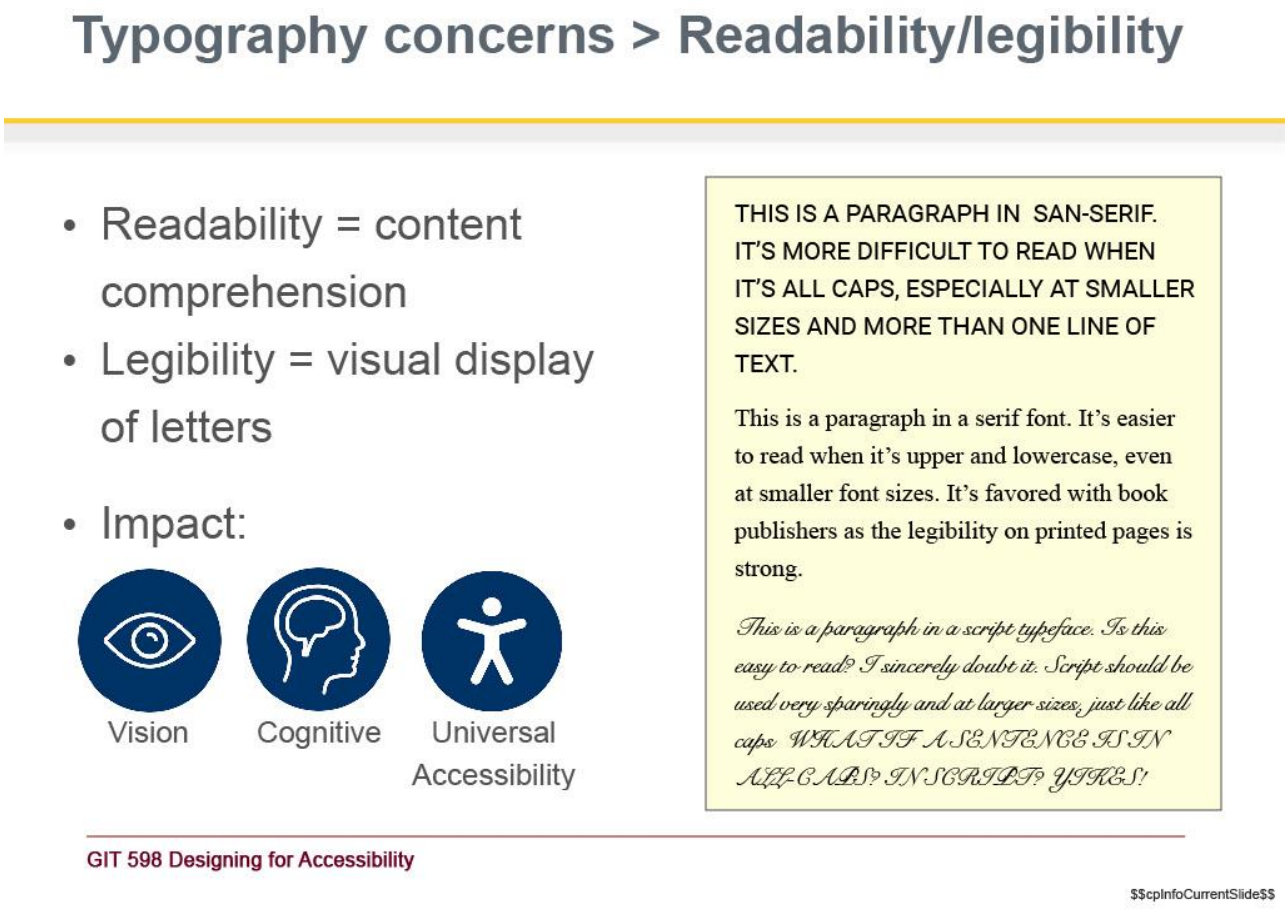
When considering what family you are using, make sure the family member is appropriate.

For example, if you have a long paragraph at 12-point type, using Arial Narrow wouldn’t be a good choice.

Note that screen readers do not recognize fonts. Only the text is read, so the display of the text is irrelevant.

Font family choices can affect people with visual and cognitive disabilities. But like most of these concerns, choosing the right font can improve the user experience for everyone.

Slide 6 - Typography concerns > Readability/legibility



Another typography concern is whether the text is readable or legible. There's a difference between readability and legibility.

Legibility is about the visual. How do the letters look? How easily can users recognize the letters?

Readability means comprehension or whether or not users can read, understand, and process the information.

These are intertwined, definitely, especially when it comes to guidelines for increasing readability and legibility. We'll talk more about that in the next module.

On the right half of the slide are three paragraphs demonstrating three typefaces.

The top paragraph shows text in a sans serif type, but in all caps. The second shows a serif font, and the third paragraph is a script.

If you choose the wrong typeface and/or font family and the styles that come with them, it can affect both readability and legibility.

The first paragraph is an Arial, a legible, readable font. However, because it is in all caps, this dramatically affects the legibility, which then can have an impact on readability. Research shows that all caps works best as headers or headlines, but not in full paragraphs. Because all caps seem to run together, it's more challenging to realize where the first sentence ends and the second one starts.

Screen readers will read the punctuation but won't know the difference between the all caps and upper- and lower-case letters. So that won't be a factor for people using screen readers.

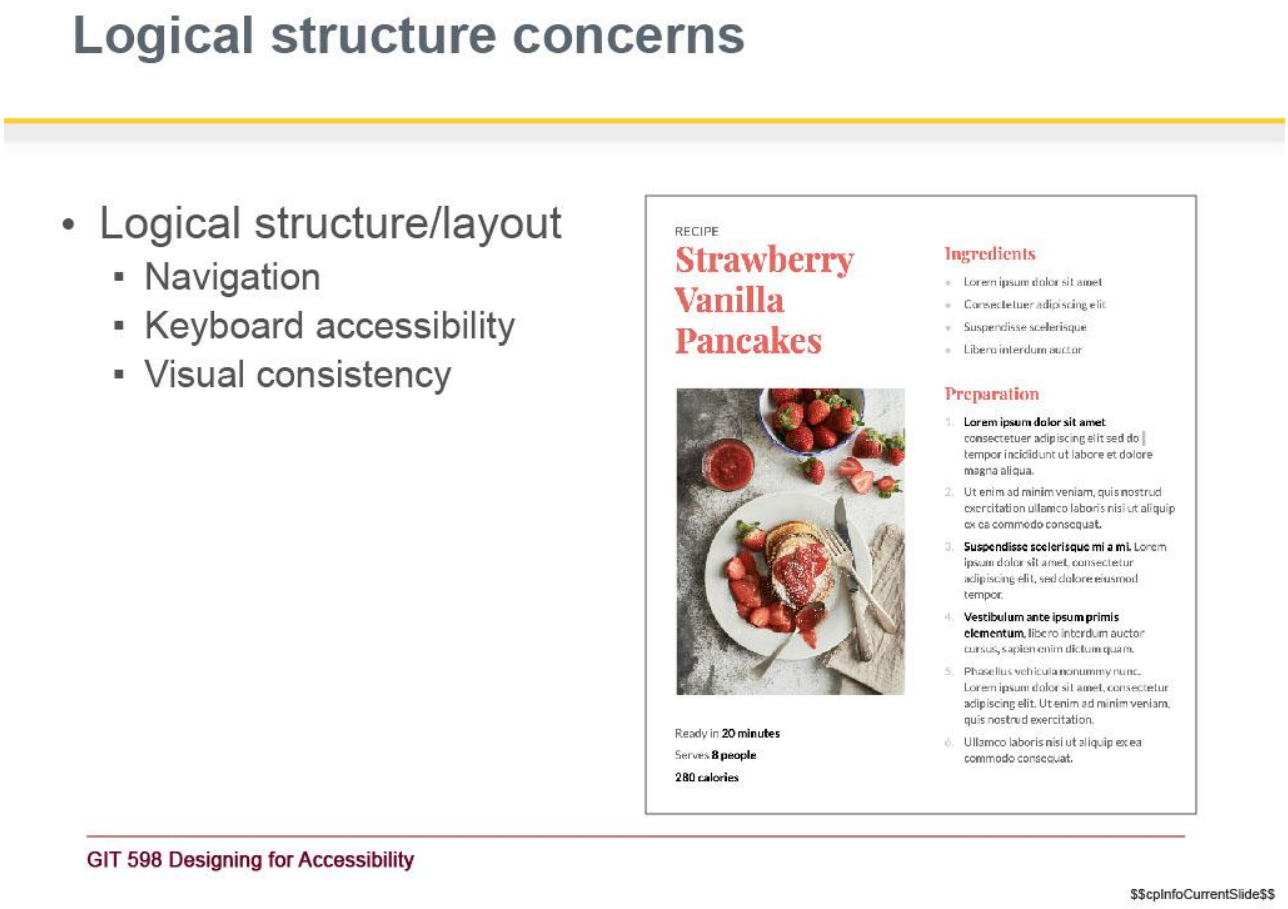
The second paragraph shows another legible and readable font, Times New Roman. You'll find that in some cross media, especially print media, serif fonts are the go-to.
Again, research shows that when reading from a physical book or pamphlet, serifs are easier on the eyes. Also, using proper upper- and lower-case letters gives readers' eyes a break, so to speak, from one sentence to the next.

The third is a script typeface called Snell Roundhand. Reading a heading with this font is hard enough, but a full paragraph? This can cause major eye strain. Can you even read the all caps of Snell Roundhand at the end? It's difficult for people with no vision impairments. Imagine what it would be like if you had poor vision. Needless to say, legibility and readability are almost impossible for sighted users in this particular font.

One important point to make here is that each paragraph is set to 20-point type. There's a drastic difference in these typefaces in the way they display, how much space they take up on the page, and how they can cause eye strain if not chosen appropriately.

Choices pertaining to readability and legibility can affect people with visual and cognitive disabilities. But again, improving the accessibility by choosing the right fonts helps improve the user experience for all.

Slide 7 - Logical structure concerns



On an earlier slide, I mentioned documents need to have a logical structure, and this includes websites. The structure affects the navigation, keyboard accessibility, and visual consistency. All of these can affect nearly all of the disability types.

On the right side of the slide is a recipe for strawberry vanilla pancakes.
Why pancakes? It's directly from the Google Docs template gallery. It's Lorem Ipsum text, but the layout is the reason why I'm using this as an example.

The type of document 'RECIPE' is in the first place users will look, which is the top left corner.

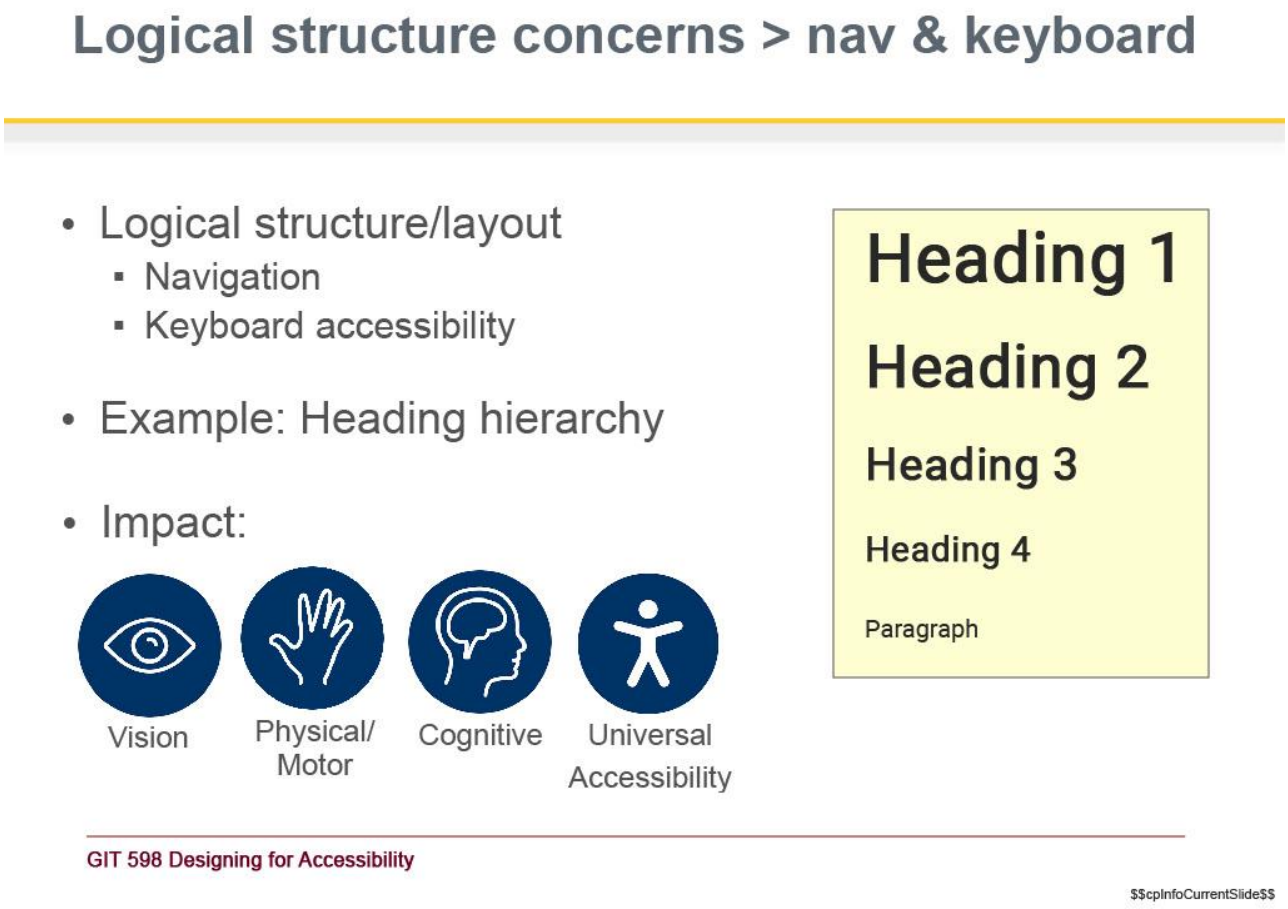
Directly beneath that is the name of the recipe, then a large image of those yummy pancakes, then the specifics as far as bake time and how many it serves.

On the right side of the recipe, it’s also logical with the ingredients listed first, then the directions after that.

Ideally, if this were a PDF, the reading order, or tab order, would be ‘recipe’ in all caps in the upper left, then recipe name, then image with alt text, then other information about bake time and how many it serves. Then the order would move to the right side of the document so users can tab through the ingredients list and then the preparation steps.

In viewing the structure of the document, it makes great use of logical hierarchy.

Slide 8 - Logical structure concerns > nav & keyboard



Navigation normally is associated with websites, but its reach is so much more. Any kind of cross-media product, whether it's a website, poster, book, designs, signage, or even lower thirds for videos, hierarchy is one of the most important considerations.

On the right side of the slide is a logical hierarchical structure of headings from Heading 1 down to Paragraph.

Those of you who have worked with style guides or design systems know about having different levels of headings. If you work on websites or mobile apps, you'll know the importance of an H1, H2, h three, and the like.

Hierarchy is a form of navigation through a product. As humans, we love hierarchy.

We recognize it and count on it to let us know what is the most important item, what is the next most important, and so on.

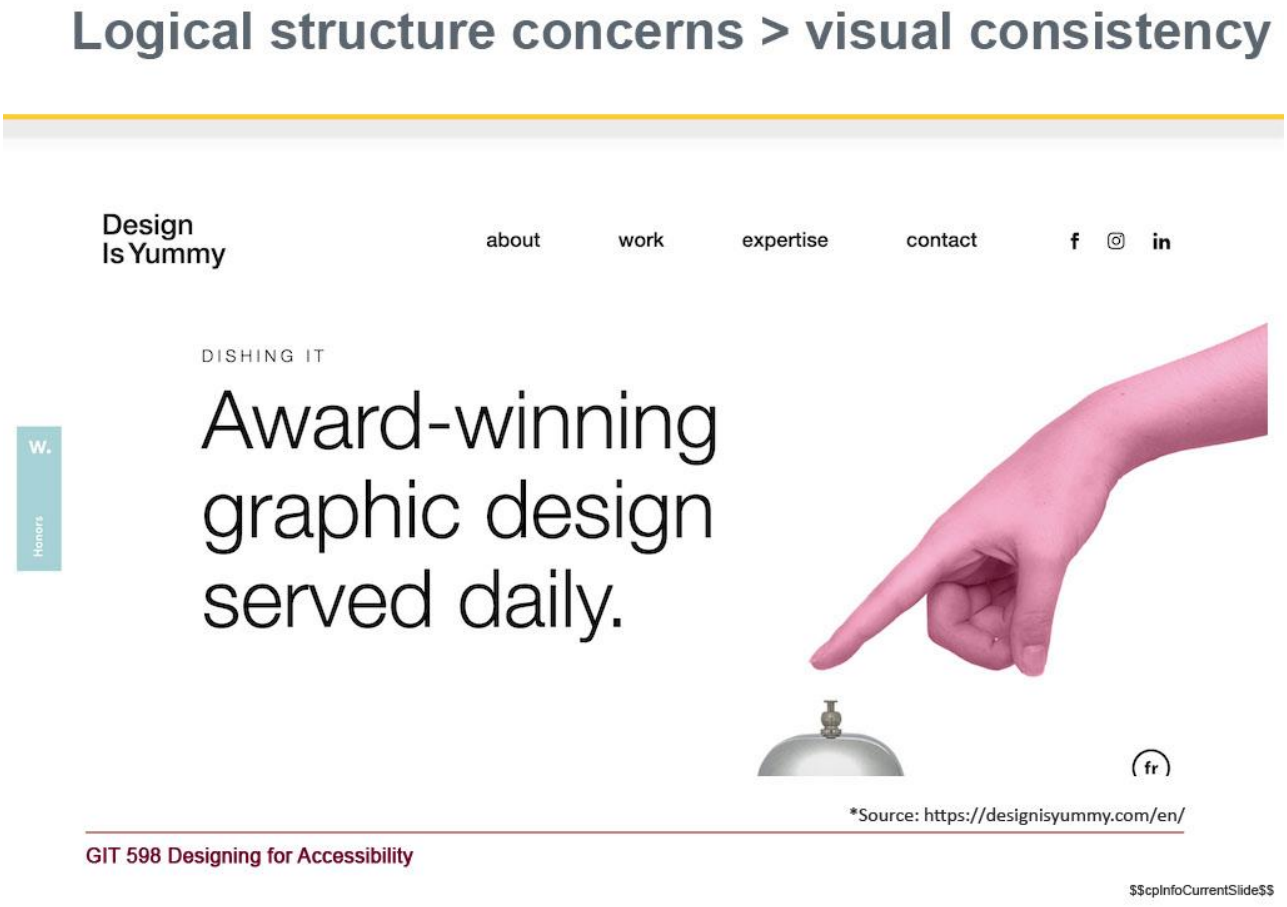
This hierarchy is also how screen readers move through a page. It reads those headings and relies on those headings to move logically through the media.

Just as navigation covers many cross-media projects, so does keyboard accessibility.
PDFs often have interactivity embedded. If a user cannot use a mouse, how can they click and interact with the elements, such as a link? They should be able to use the keyboard to, for example, also click on a bookmark within the PDF.

Document headings can be assigned certain actions, which should be available via a mouse and keyboard interactions.

The structure of a document can affect everyone: anyone with vision, motor skills, or cognitive disabilities. It also can affect all users by making it more difficult to figure out what on the page is the most important, then the next important, and so on.

Slide 9 - Logical structure concerns > visual consistency



Logical structure also means the visual structure.

Is the design clean? Do the elements on the page flow in a logical manner?

On the slide is a screenshot of the website Design is Yummy. The logo, which is a sans serif font, ‘Design’ and then underneath, ‘Is Yummy’, is in text, and it’s clearly visible and not crowded by other text.

The navigation is at the top towards the center and to the right of the screenshot, where most users will look first, and it’s also clearly visible.

The company’s tagline, ‘Award winning graphic design serve daily’, is front and center in large text, telling us right away what they do and how they do it.

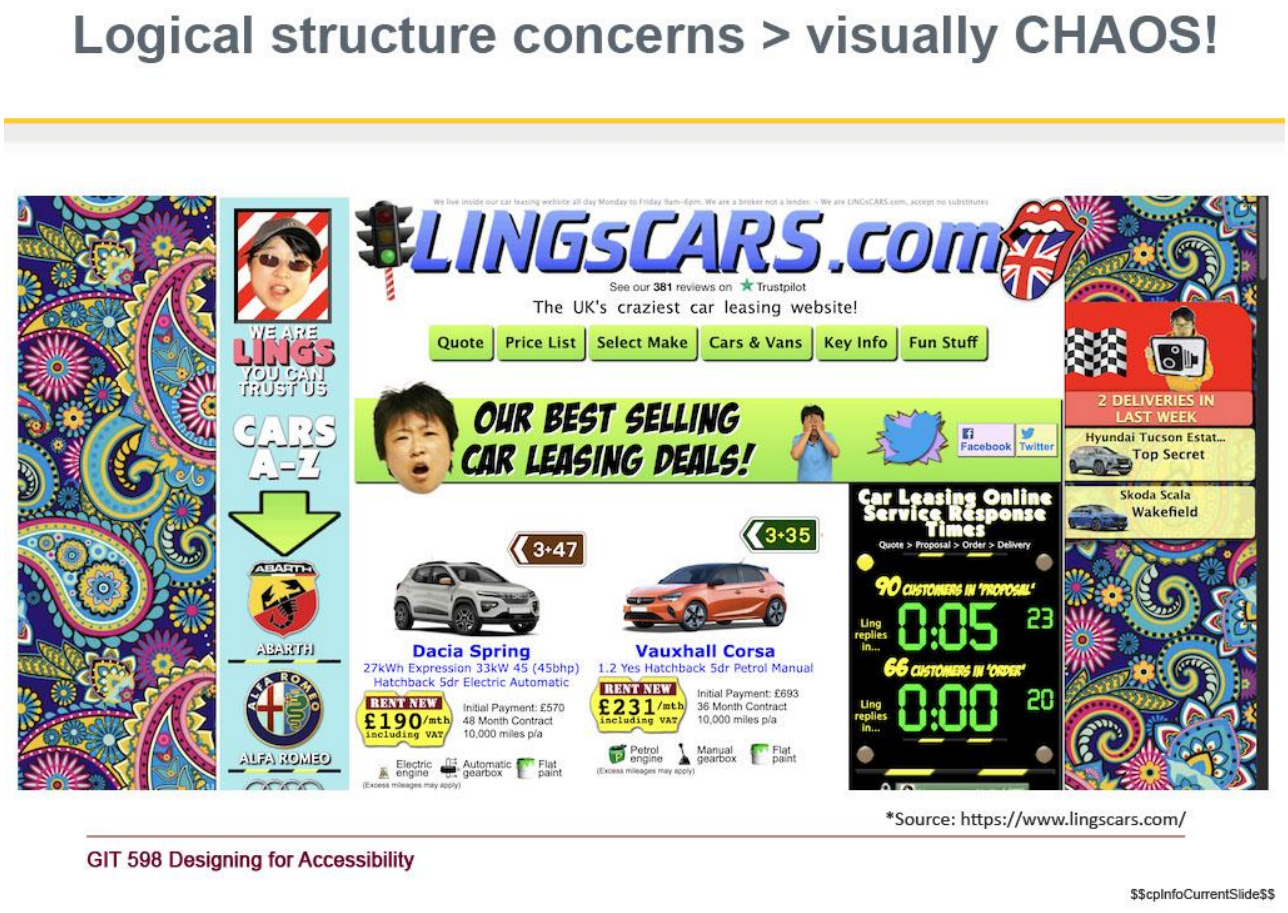
The image of the hand about to ring the service bell on the right side furthers the message but doesn't interfere visually.

Visit their web page at designisyummy.com and look around. Use just the tab key on your keyboard to check its accessibility.

Tabbing through a web page is a great way to check for a logical structure and making sure all important links and other information are tabbable.

On this site, you'll see it seamlessly moves through the site in a logical manner, starting with the logo, then the navigation. For the most part, it follows this hierarchy. Though in some of the interior pages, this doesn't happen.

Slide 10 - Logical structure concerns > visually CHAOS!



I'm going to put a scary picture on the screen.

Are you ready?

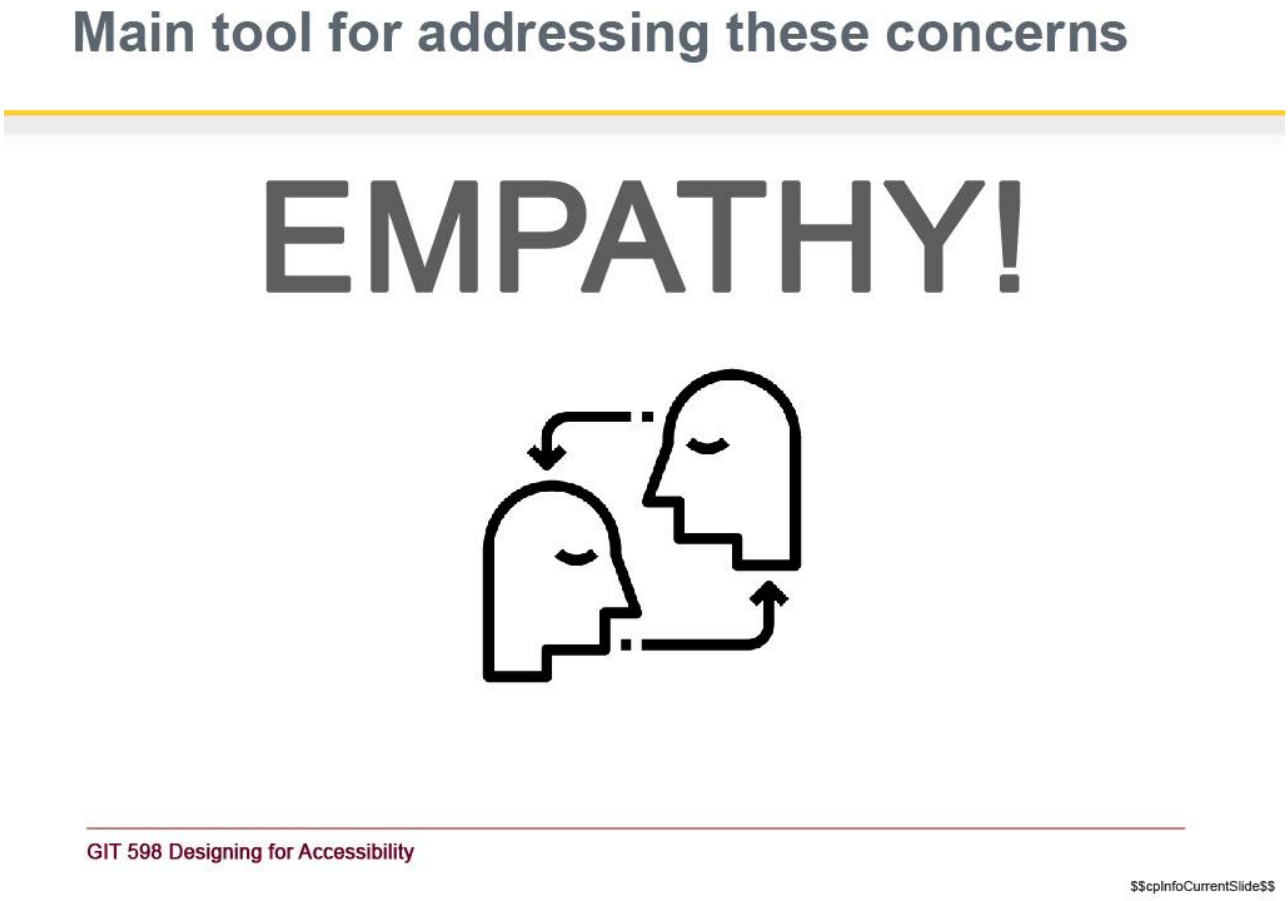
This screenshot on the slide is for Ling's Cars. The website is the equivalent of visual 'OMG! This is chaos! My eyes! My eyes!!'

Where do you look? What's the most important element on the page? Does the navigation pop out to you, or is it buried?

I want describe it and what's going on, but it's so ridiculous that words fail me. The site goes against all accessibility rules and against good taste.

Visit the site at www.lingscars... l i n g s c a r s... dot com. Try tabbing through this site as well. It does a good job of going to the logo first, then navigation. However, it falls apart from there.

Slide 11 - Main tool for addressing these concerns



So there's a lot of things we need to look for, and there's a lot of tools that will help us, but in my opinion, the main tool for addressing these concerns is addressed in Gilbert's book, in the next module's reading.

She suggests a framework that she and her team used for projects. The first part of the framework, and the most important as far as I'm concerned, is empathy.

The icon on the screen is new for us. It depicts two black outlined heads with arrows pointing to each other.

Empathy is about being able to recognize others' emotions and think about how someone may be feeling or what they may be thinking. It's the ability to take on another's perspective. It's also about being an ally.

Slide 12 - Accessibility in Design Part 2

That’s it for the Accessibility in Design lecture. Check the module for instructions on Assignment 1. Thanks for watching!