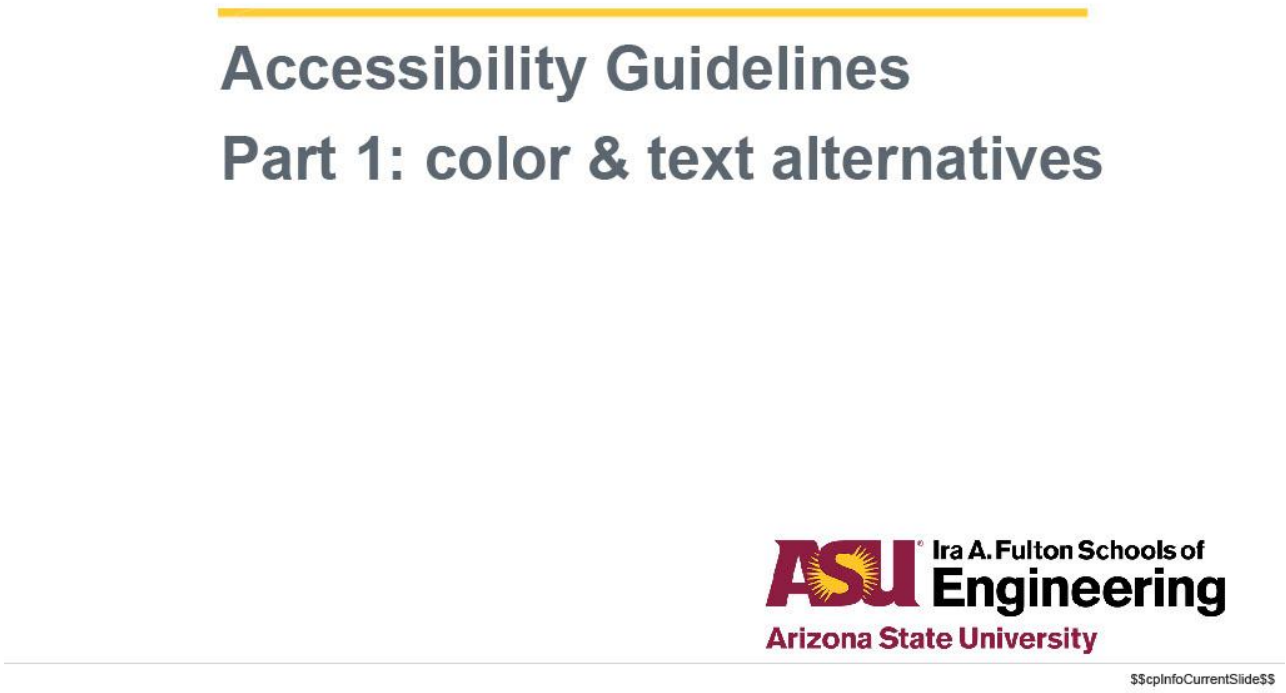
Slide 1 - Accessibility Guidelines Part 1



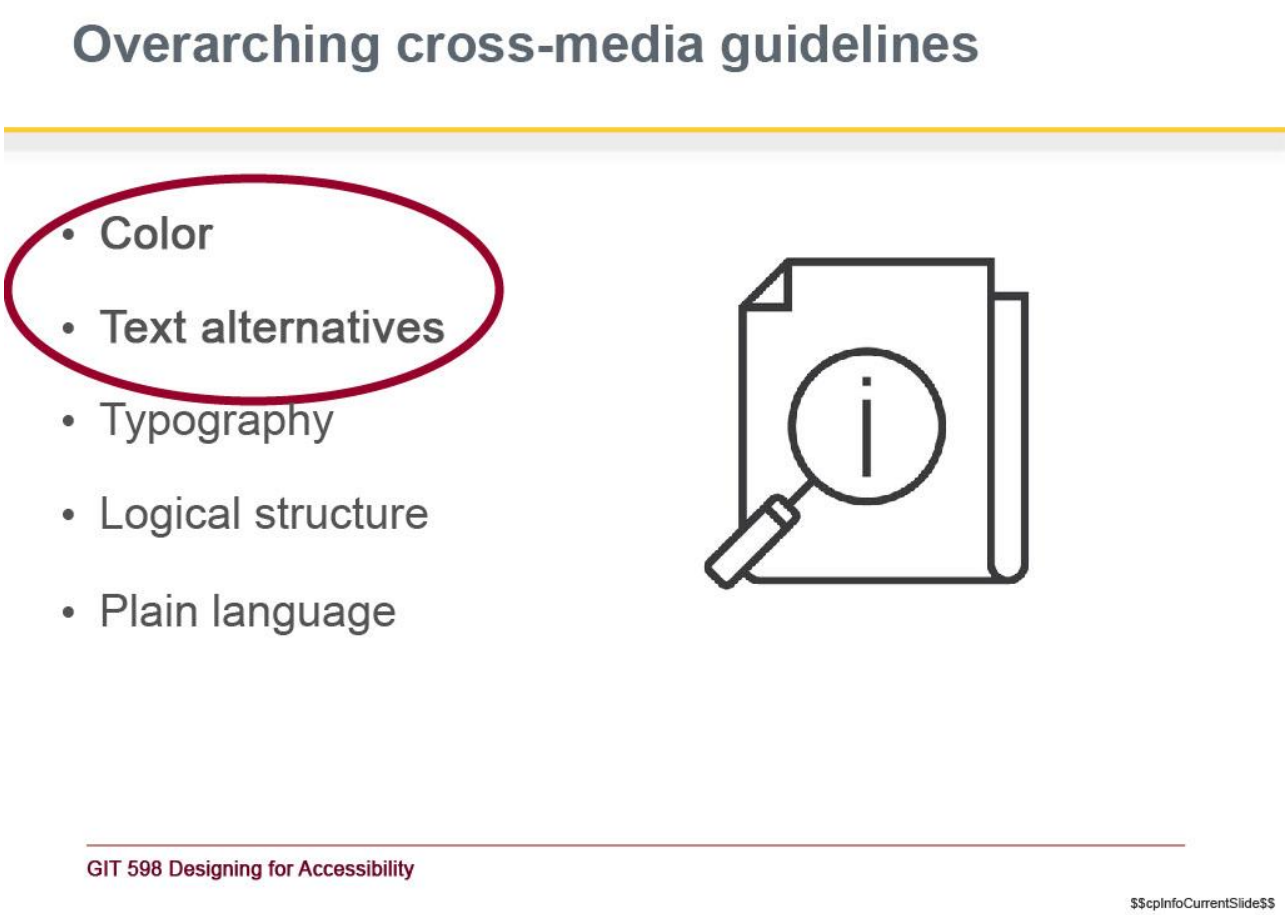
Welcome to the Accessibility Guidelines lecture. This lecture is split into three because we have so much to cover.

As mentioned in the laws lecture, guidelines aren't enforceable, but not following them can cause damage to a designer or company. Revenue can drop if a site is not accessible to people with disabilities. Reputations can be damaged as word may get around that the company doesn't value people with disabilities as customers or visitors.

So while you may not face a lawsuit or fines, not adhering to guidelines can still make a negative impact.

And always remember, designing for inclusiveness means that you're including as many people as possible, and that's just good design.

Slide 2 - Guidelines addressing...



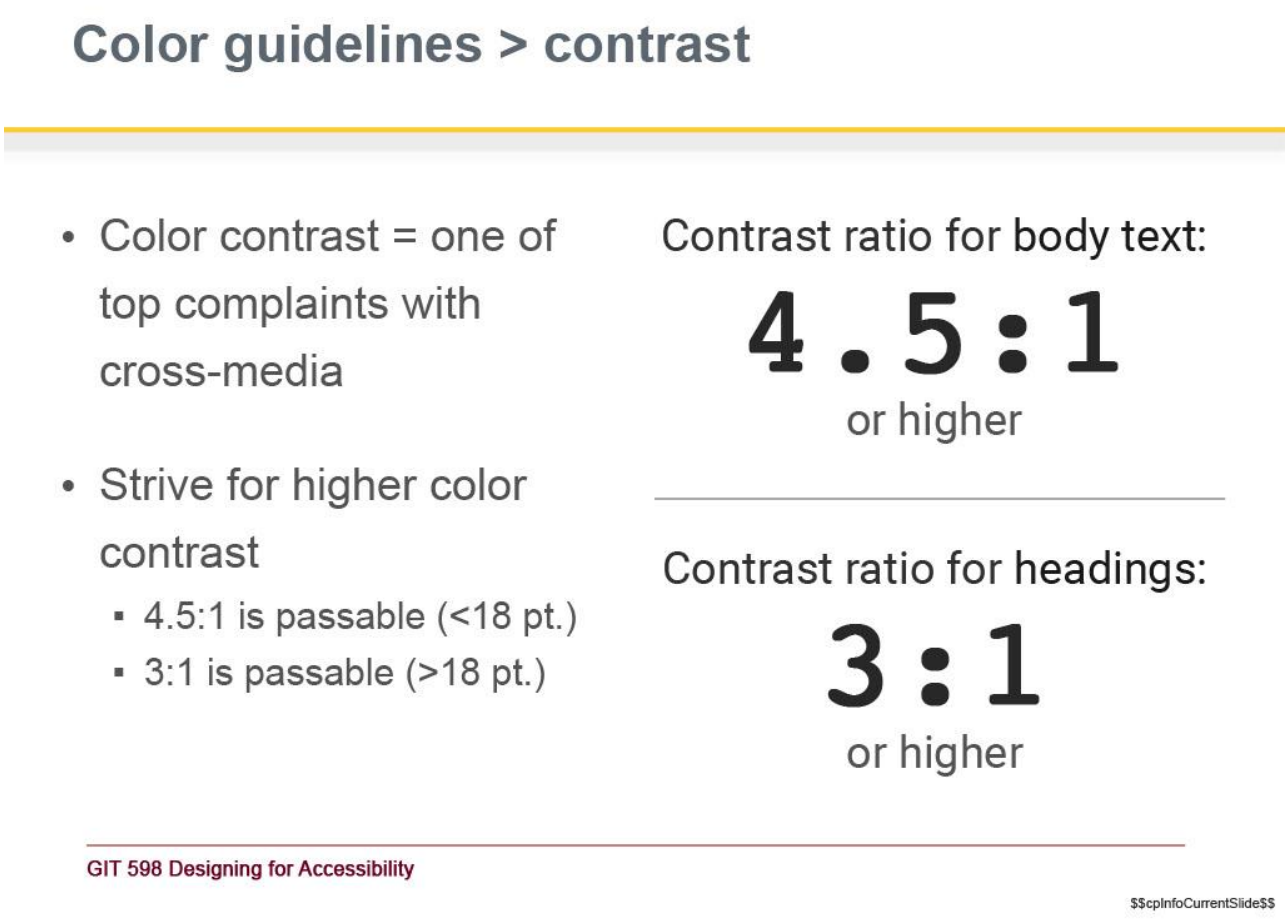
The guidelines cover the four major accessibility concerns discussed in the last module, which are color, text alternatives, typography and logical structure. I've added a fifth, which isn't listed as a common issue but it really is: plain language. Think of these following guidelines as industry best practices, not only for accessible design but for design period.

For this course, I'm calling these five the overarching guidelines for cross media. Each has numerous sub-guidelines beneath them, and that's what we'll cover in the rest of this lecture. These shouldn't be confused with industry-standard guidelines such the Web Content Accessibility Guidelines (WCAG). We'll be seeing WCAG in the next module when you complete an assessment.

In this part of the lecture, we're going over color and text alternatives, which are bolded and surrounded by a red circle. Part 2 will discuss typography and logical structure. Part 3 will cover our newest overarching guideline: plain language.

Something to keep in mind is that more often than not, there is not just one accessibility issue with a cross-media product. A website could have issues with color contrast, plain language, missing alt text and bad typography decisions. As you go through these guidelines, realize they often overlap, both in when they appear and in the scope of users affected. Using them together is the rule, not the exception. The guidelines are meant to work together to provide the optimal user experience for everyone.

Slide 3 - Color guidelines > contrast



Color contrast is among the most frequent user complaint for digital and print products.

Whether it's a website or a bus wrap, yes, I said bus wrap, contrast matters. Not only is this for people who are color blind, it's also for those with low vision or vision problems such as cataracts.

The main goal is high contrast colors. The ratio for text, meaning paragraphs or what we call body text, should be four point five to one or higher. This is for font sizes smaller than eighteen point.

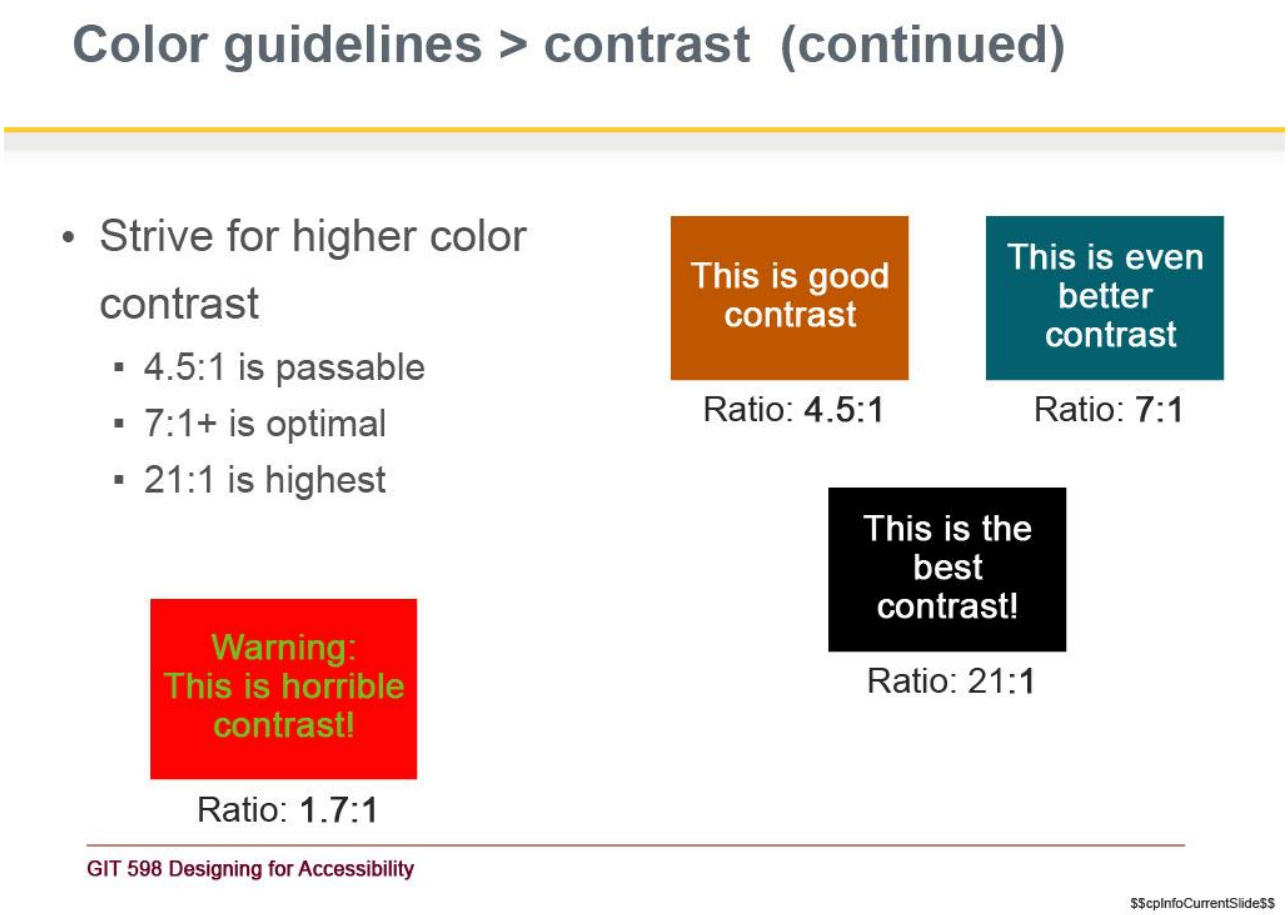
If it's eighteen point or more, you can have a ratio of three to one. However, this is very dependent on the font family. If it's a sans serif font, which is what I'm using in these lectures primarily, eighteen point or higher would be okay at three to one.

Serif fonts such as the four point five to one text, which is Courier. Courier is considered to be a serif font and a monotype font. You should be okay, but it may depend on how deep the serifs are. However, if it's a decorative font, such as a handwritten font, you'll need to stick with four point five to one.

If you have to use white text on a black background or black text on a white background. You'll get the highest contrast possible, which is twenty one to one.

The lowest, of course, is one to one, which means it's not visible. I'll discuss more about fonts and typography accessibility challenges in a few slides.

Slide 4 - Color guidelines > contrast



On the right side of the slide are examples of good, even better, and the best contrast.

The four point five to one ratio is a dark orange box with white text. This is passable, the minimum contrast for body text.

Even better, to the right of the orange box is a dark blue green box with white text with a ratio of seven to one.

The box below the other two is the best ratio of twenty one to one. This is a black box with white text.

Warning: The very bad color combination will be on the screen in the lower left corner.

Red and green together are very hard to look at even though the ratio is one point seven to one. Even if you are not color blind or have vision impairments, a combination like this can cause eye strain. Other combinations at that ratio are hard to read but not like this. It's so difficult to look at for some people, it can vibrate. Vibration could cause seizures in people with vestibular disorders.

Okay. Here we go.

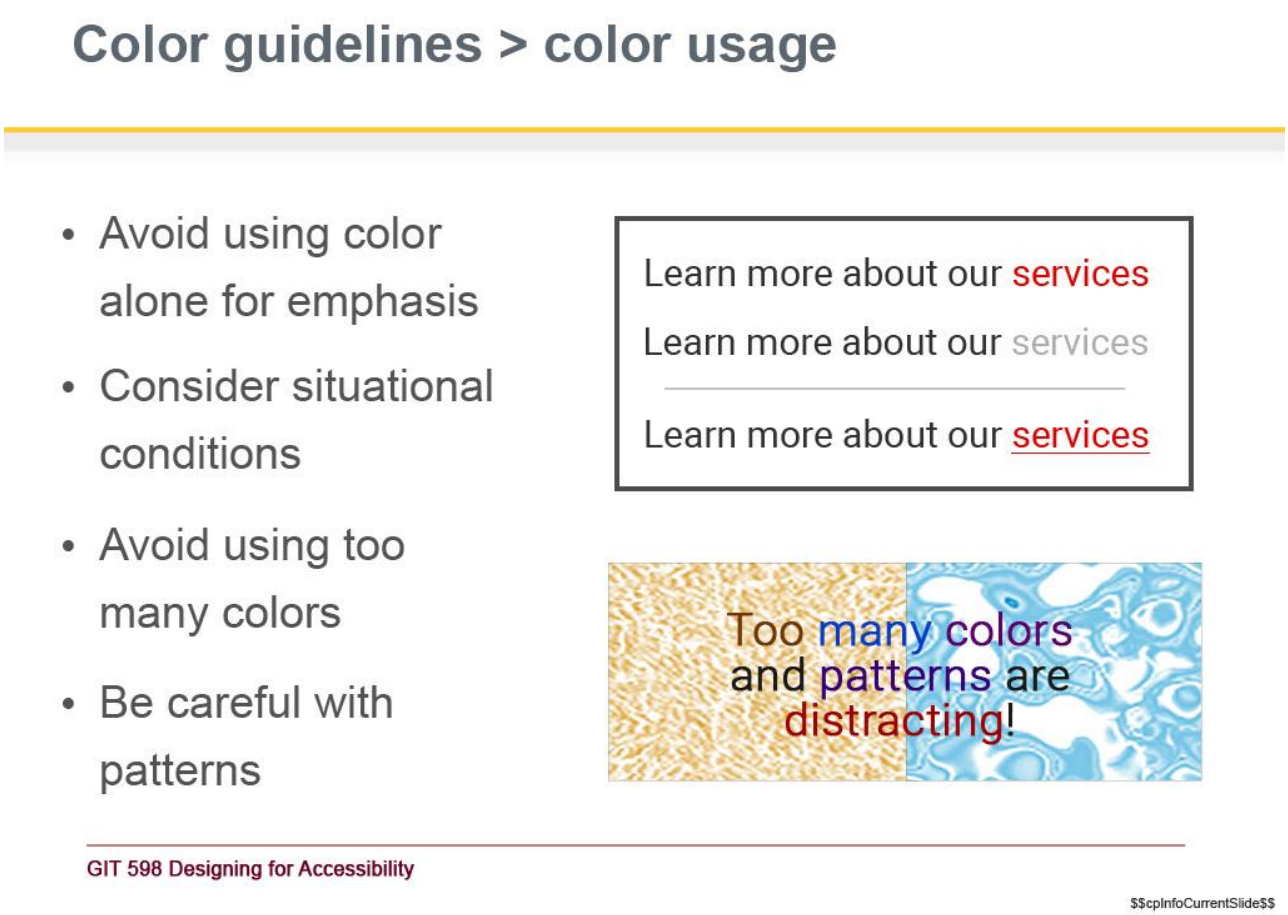
This is a very difficult and very horrible contrast as stated. Red on green or green on red. Stay away. Stay far, far away!

The red green has been removed from the screen.

I just had a color contrast issue with another class I teach, which is research methods. The fourth edition of the book is fine, but the author decided to let his students help him redesign the fifth edition. They were not designers and they certainly weren't aware of making the book available to everyone.

It's an accessibility catastrophe. Bright pink text on a black background. And it's not just a small box like above, but the entire book, most of the pages.

Slide 5 - Color guidelines > color usage



Some more color usage guidelines.

Don't rely on color only for conveying important information, such as links or errors. A popular trend has been to remove the underline from links on websites. Aesthetically, it may look good, but for accessibility, it's not good.

In the top example on the right side of the slide, the word services is a link in the sentence. Learn more about our services. The only indication that the word 'services' is a link is that it's in red.

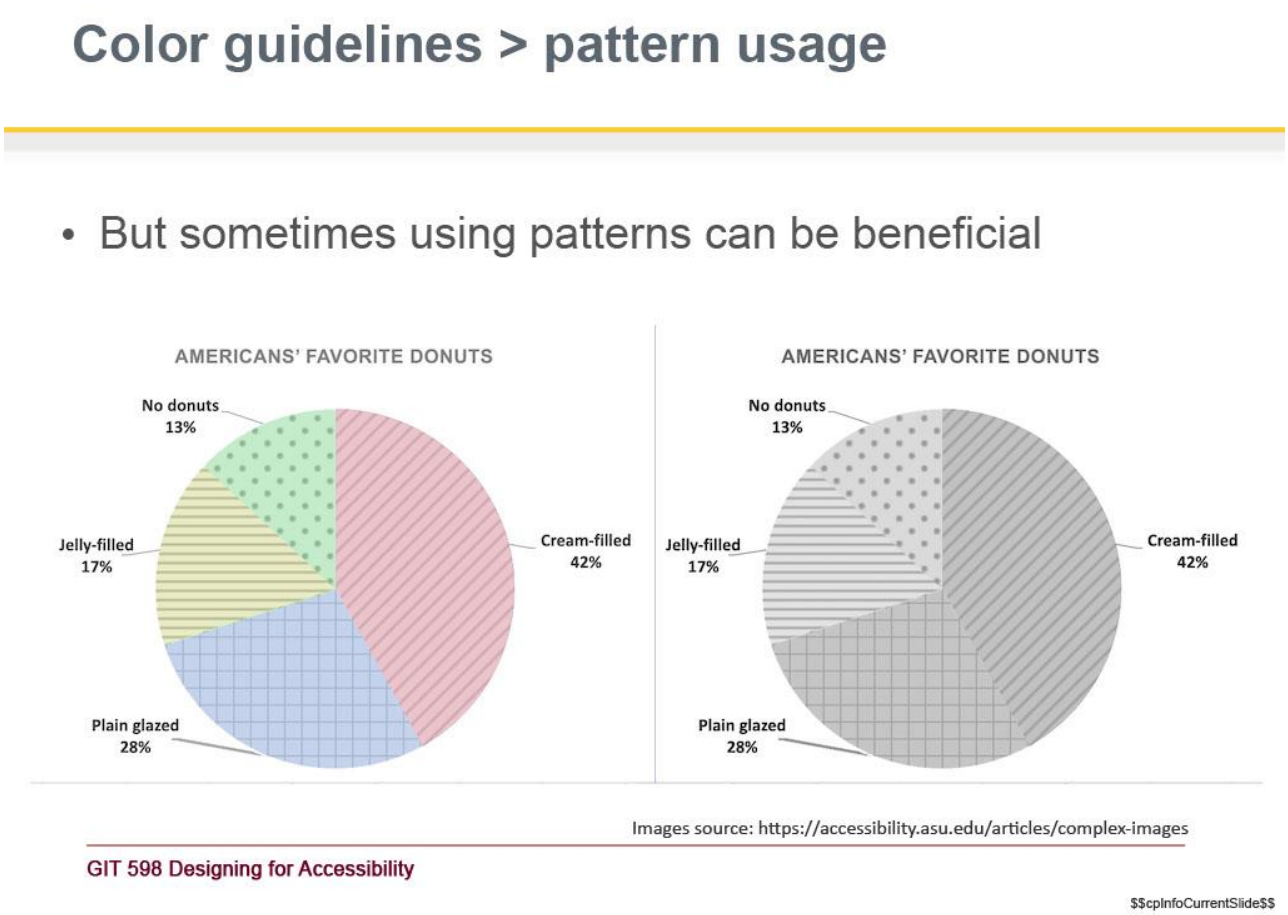
However, if a person is colorblind, the word services turns gray, which makes it very difficult to read. Keeping that underline, such as shown in the bottom of that box, gives users a second visual cue.

When designing, consider any situational disabilities. This was discussed in the Introduction to Accessibility lecture in Module one. Some disabilities are permanent, some are temporary, and some are situational. Someone looking at a webpage in dim lighting or someone viewing a glossy printed sign that has glare to it could experience some situational issues.

With color, less is more. A good rule of thumb is two to three colors per screen or page.

Also, be careful with patterns, especially when using color as well. As the lower right image says, too many colors and patterns are distracting. The image has two different patterns, one an orange cheetah-ish print and the other with a blue cloud like pattern. Using six different colors for the text on top of the two patterns creates an eyesore for everyone.

Slide 6 - Color guidelines > pattern usage



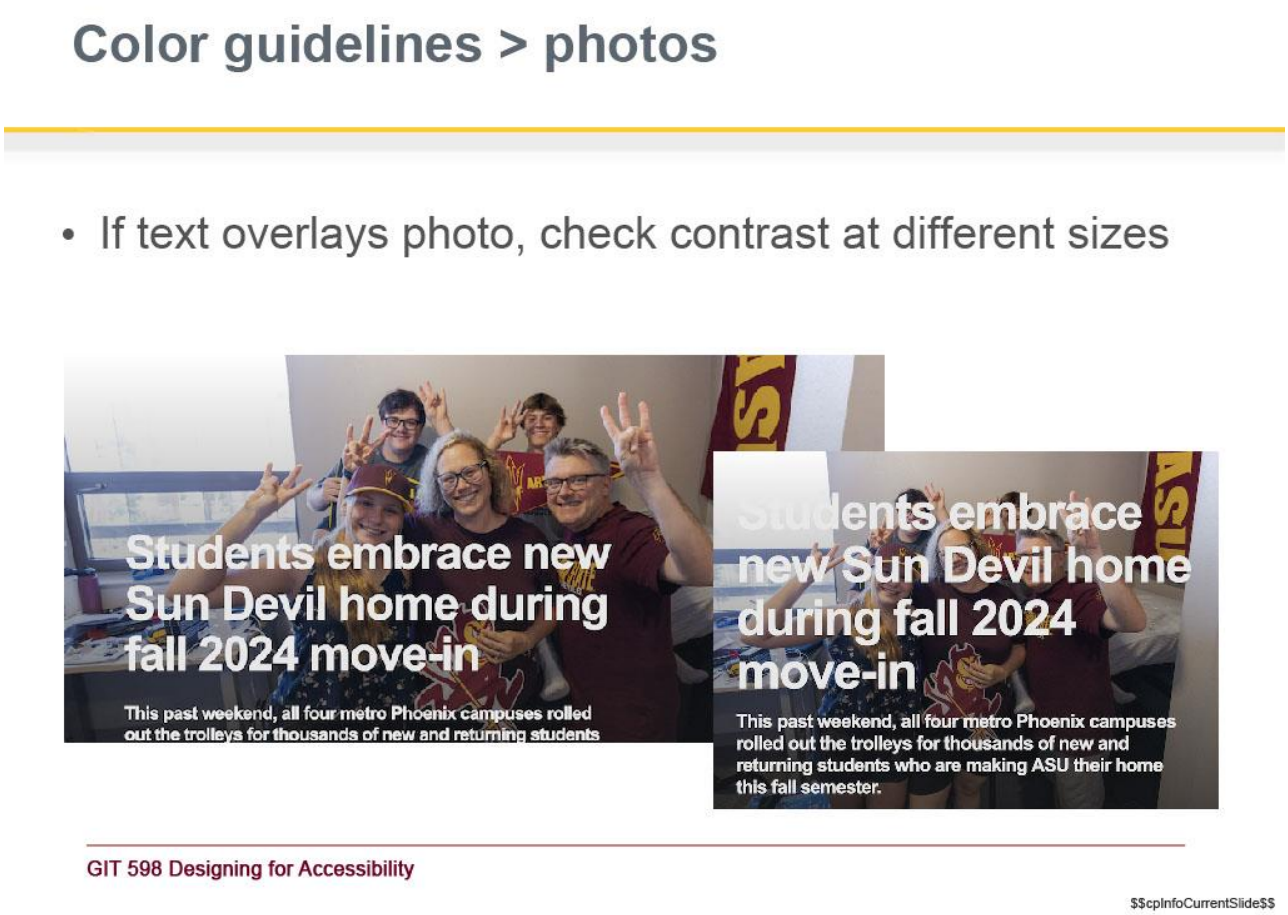
I mentioned the downside of using patterns on the last slide. But sometimes using patterns can be beneficial. They can be useful if used in certain situations.

On the left side of the screen is a pie chart with four different pastel colors pink, blue, yellow, and green, and four different patterns. One is diagonal stripes. One looks like a plaid stripe. One is horizontal stripes. And the fourth one is polka dots.

On the right is the same pie chart in grayscale. The colors tend to bleed together in grayscale. And if you are for example red or green colorblind you likely would not be able to see that one part of the pie is pink and one part of the pie is green. But if you look at the patterns on the grayscale version, they still allow all users to differentiate the data.

For something like charts and graphs, this is one approach to use for people with color blindness or low vision. In a few slides, I'll just demonstrate another way.

Slide 7 - Color guidelines > photos



You have to be careful with photos.

If text overlays a photo on top of a photo using HTML, You need to make sure when it's resized that there isn't an issue.

This example is from the ASU website, and ASU makes good use of hero images, and those are the large images that span from browser border to browser border. And then they resize. It's fine as long as you can maintain good color contrast.

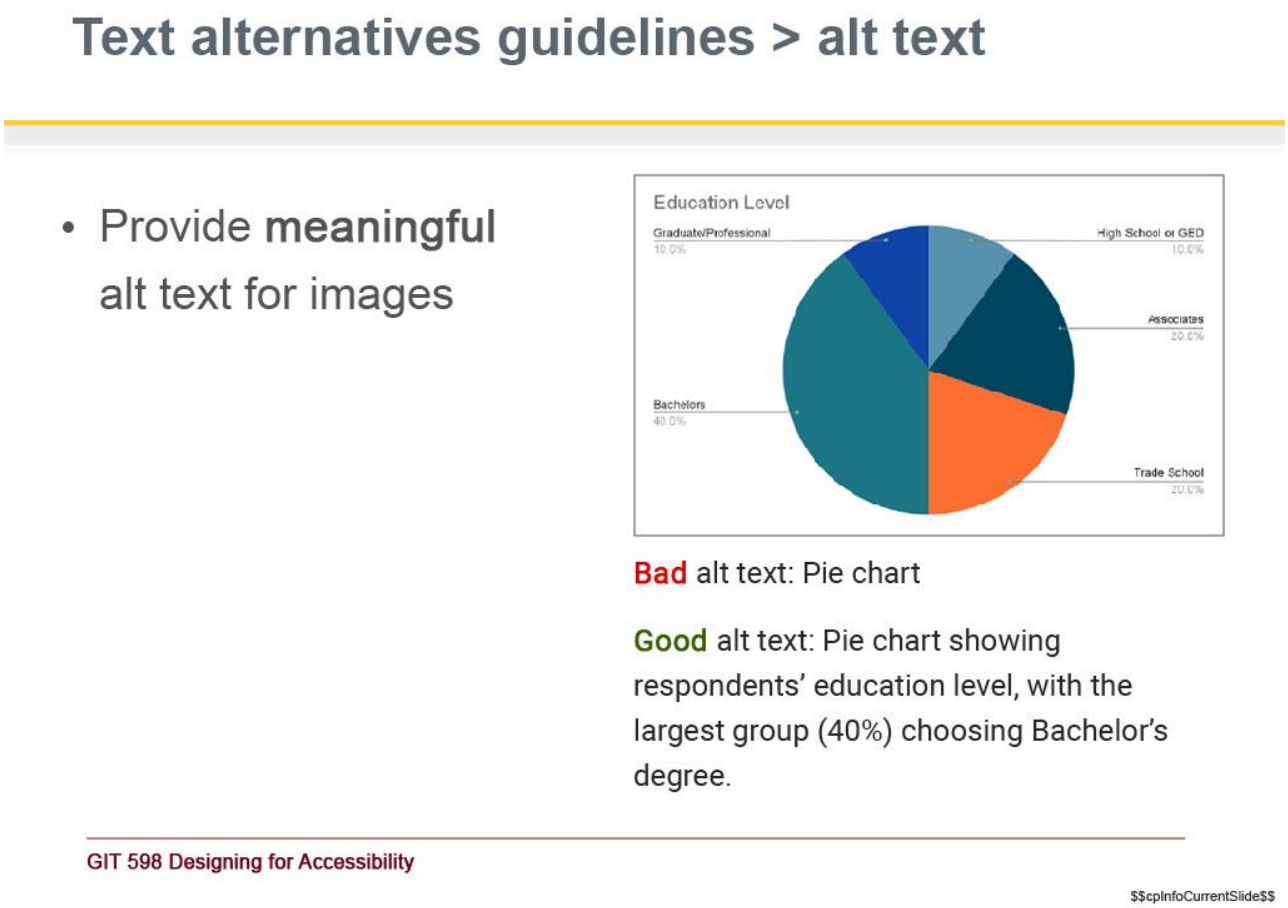
The trickiest part of using hero images is that resizing part. These images are resizing depending on how wide your browser window is set or what device you're using.

The image on the left side of the slide is a hero image from the ASU site. It shows students and staff showing the forks up devil's hand gesture. The text in white overlaying the image, 'Students embrace new Sun Devil home during fall 2024 move in', has a decent contrast and is pretty much readable.

However, if you resize the image, the contrast gets into trouble. On the right side is the image resized to more of a mobile display.

The s t u d in students has disappeared into the white background. Now it says Ents, e n t s. Not the message we want to send.

Slide 8 - Text alternatives guidelines > images



Alternative text for images is the most well-known of the text alternatives.

When I say alt text, a l t t e x t, most of you will think of images that don't have any information in the code or document.

Alt text is not just for documents either. Include descriptive captions or explanations for images, charts, and other graphics and printed materials. The descriptions provide context and understanding for individuals who may have difficulty interpreting visual content, including those with visual impairments.

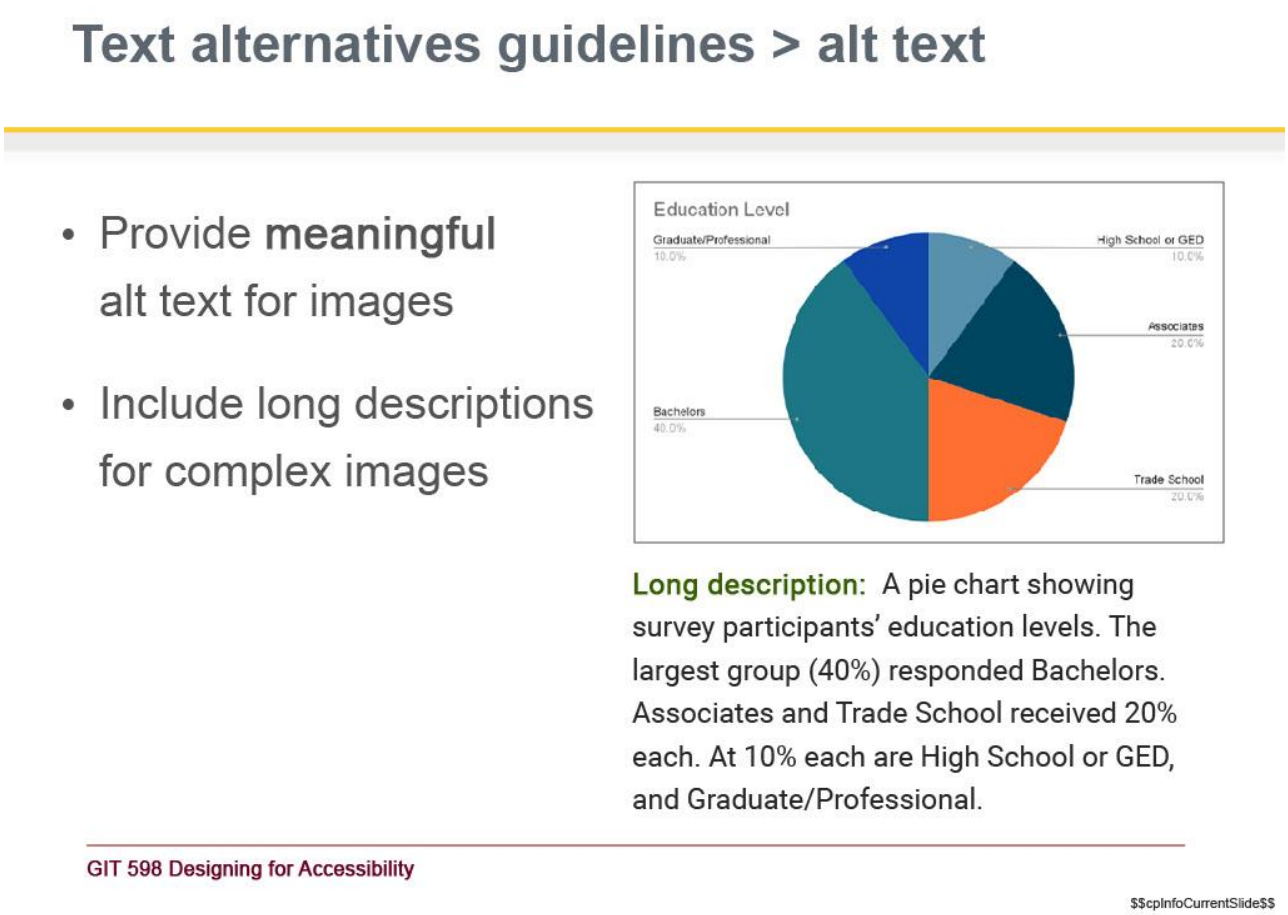
Writing alt text is an art. No. It it is. It really is.

Many times, it’s just one or two words like logo or in the example on the right side, pie chart. This is not good alt text. What does pie chart mean to someone who is blind or has low vision or anyone who views websites or digital documents with images turned off? It means nothing.

Stronger alt text could be pie chart showing respondents’ education level, with the largest group, forty percent, choosing bachelor’s degree.

We know more about what is depicted in the chart.

Slide 9 - Text alternatives guidelines > images



Another way to address this is to include a long description. Most of the time the long description is on its own page and linked to within the image tag.

Using the same chart that's on the right side of the screen, A long description could be a pie chart showing survey participants' education levels. The largest group, forty percent, responded bachelor's. Associates and trade school received twenty percent each. At ten percent each are high school or GED and graduate slash professional.

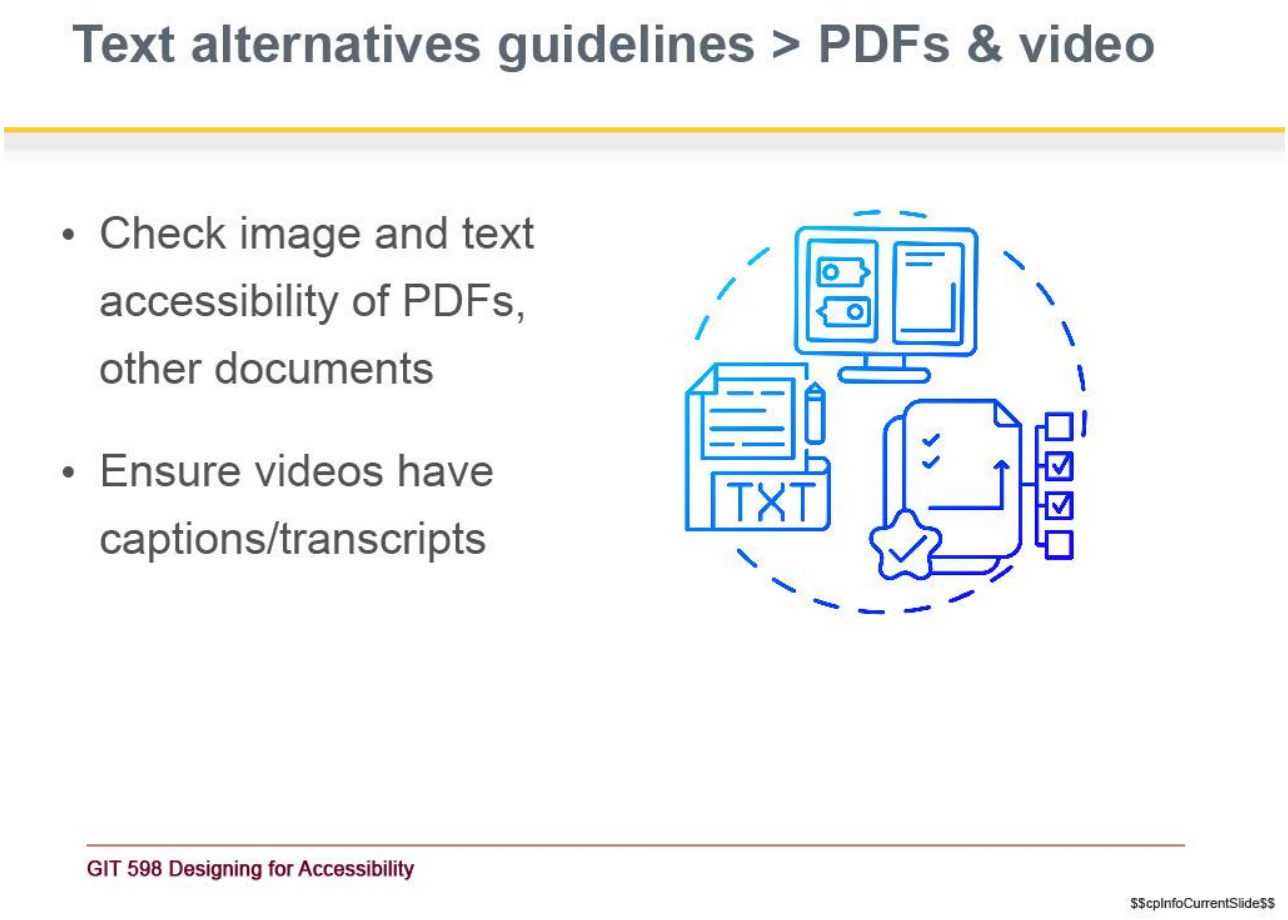
Now we know the information we need to better understand the chart.

Slide 10 - Text alternatives guidelines > decorative

There are images that do not need alternate text, and those are decorative images. According to the W3C, "Decorative images don't add information to the content of the page". A perfect example are the circle graphics I've been using on some slides, like the one on the right. They add ambience to the slide but do not add extra information, or any information, that needs conveying in order to understand the main points. These do not need alt text.

Other examples include backgrounds on websites or print products, borders and other non-essential visual elements.

Slide 11 - Text alternatives guidelines > PDFs & video



As mentioned earlier, image accessibility issues appear in print documents such as PDFs, Word documents, and slide decks. Adobe Acrobat has features that evaluate the accessibility of a PDF and can remediate some issues.

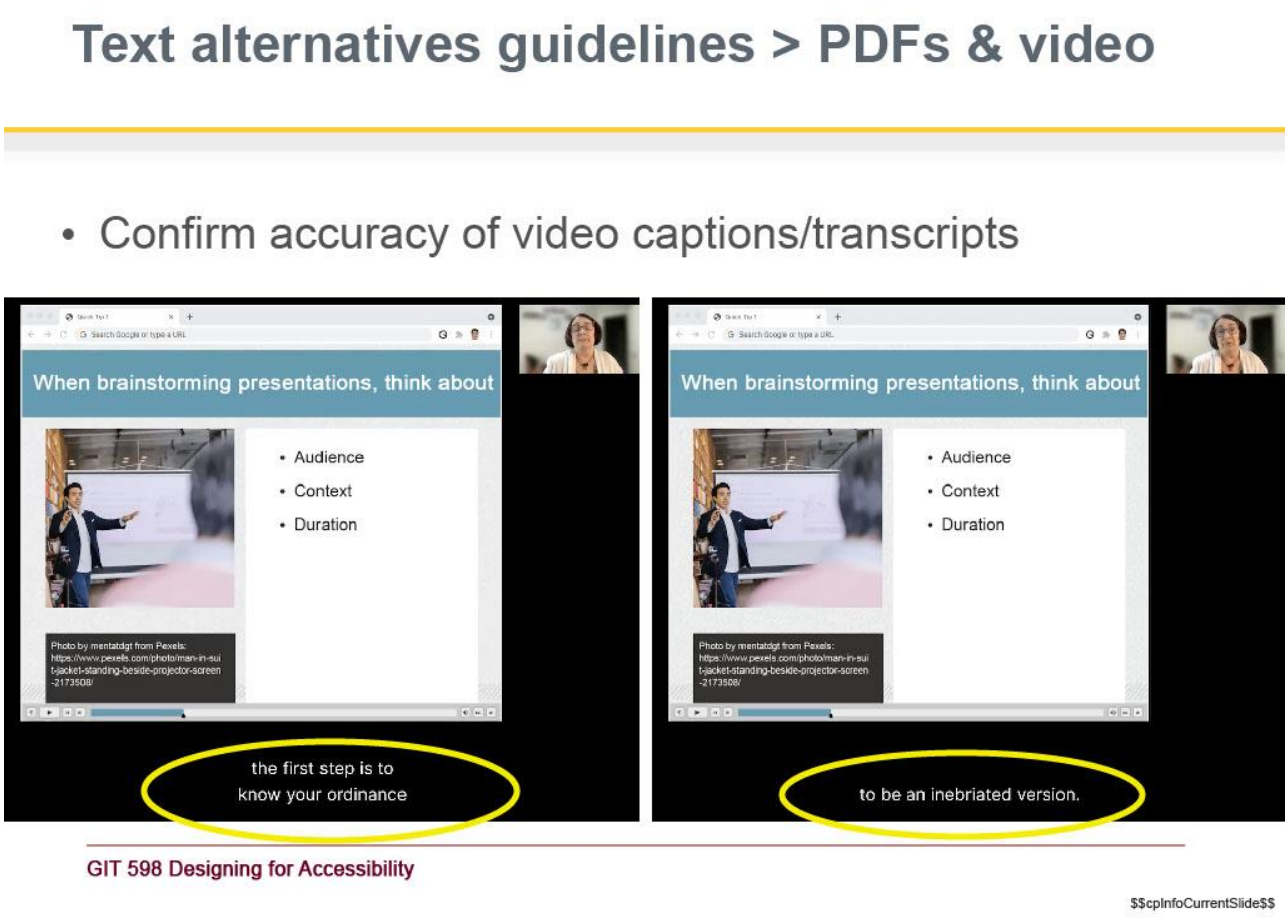
However, the best way to create an accessible document is to start at the root. In other words, start reviewing the accessibility in the native software.

Most software has built-in tools. Microsoft 365, Google Suite, and even InDesign can analyze the accessibility of a document before you convert it to PDF.

Videos without captions or transcripts have seen much litigation, especially since streaming services have become the norm. Netflix, Amazon, and Hulu have faced lawsuits brought by the National Association of the Deaf for incomplete or inferior closed captioning.

Videos on the Internet and even in educational institutions with no or inaccurate closed captioning will face more scrutiny now that Title two is strengthened.

Slide 12 - Text alternatives guidelines > PDFs & video



Captioning seems relatively easy these days. YouTube will do it for you. For the videos for this course, Wistia does it for me. However, you cannot rely just on captioning software.

The two screenshots from a past video of mine show what can happen if you don't do your due diligence and check accuracy. The screenshot on the left is when I'm providing some tips when brainstorming a presentation. The first bullet on the screenshot is 'audience'. The captioning software heard 'ordinance'.

If you're speaking and you don't fully enunciate your words, this mistake can and will happen.

The screenshot on the right is during the video when I'm asking when I'm talking about preparing a presentation for the big bosses or stakeholders. The caption should say 'to be an abbreviated version'.

However, the caption is ‘to be an inebriated version’. Probably not a good idea to give a presentation to your boss while you’re drunk.

Seriously, the word ‘abbreviated’ was read by the captioning software as ‘inebriated’.

No captioning software is a hundred percent. None yet anyway. Some state they will caption at ninety nine percent accuracy, but I haven’t found one that gets even close to that. It’s extra work, but always double check any non-human captioning.

Slide 13 - View Part 2 of the lecture!

Thanks for watching part one of the accessibility guidelines lecture. Parts two and three will continue the discussion.