Webinar: 6983 ‑ 6. BLH Training: Writing Effective Alternative Text for Images
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>> Johan Rempel: Good afternoon, everyone. This is Johan Rempel from CIDI. Thank you so much for taking the time out of your schedule's to attend this presentation. We appreciate your carving out time for this. Once again, we have the honor of having Dr. Valerie Morrison present on the topic of writing effective alternative text for images. We were talking about how this is more of an art than a science. Valerie Morrison does a masterful job of explaining this.

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So very briefly, we are providing live captions today. Big thank you to Heather our captionist. There's two ways to access it. There should be a link in the chat for the stream text application. Or you can use the closed captioning at the bottom of the toolbar in Zoom.

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And very briefly we've mentioned this with previous presentations there's a couple of features you want to be aware of. Spotlighting and pinning. Spotlighting allows the host or cohost to spotlight a particular individual so that everybody will be able to see that individual. That's handy if you're using ‑‑ if you're incorporating ASL or if you want the focus to be on a particular individual throughout. Pinning is a customizable feature on the user end of everyone's Zoom application. Very easy to spotlight or pin. You hover over the participant's name and select the dot dot dot, ellipsis and from there you choose to spotlight for everyone or pin.

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Very briefly, some of you have probably heard this before. A little about CIDI. We are at Georgia Tech under the College of Design. We are a research institute. That's an important aspect of what we do. But also, we provide a lot of services in the areas of digital accessibility training, also known as Information and Communications Technology and then user experience as well. We provide braille services, captioning and audio description, and Valerie Morrison oversees our e‑text department. And then we also have certified assistive technology specialists with our Tools for Life team.

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[Sneezing].

Bless you.

Learn how to insert alt text into a Microsoft Word or PDF file. Discuss how to write effective alternative text description. And review specific examples of different types of images.

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So today's presenter once again we have the honor of having Dr. Valerie Morrison present. She has years and years of experience in the area of alternative text descriptions. Anything related to accessible document remediation.

I have had the privilege of presenting with her several times now. She has years of experience in higher ed as well as a professor teaching. So without further ado I will pass this on to Valerie Morrison.

>> Valerie Morrison: Thank you so much, Johan. I appreciate the very kind introduction. I'm so happy that we have Heather our wonderful captionist today. She is the best. I hope that today we can give you some instruction about how to insert alt text, how to approach the art or science of writing alt text description for images and then I want to go through some examples, some sample templates to believe behind with you when we give you this PowerPoint after the training. So that you can look at how our team approaches alt text in different situations. And you'll have some models to go by.

In the middle of the presentation today I'll be asking if the audience wants to participate. If you want to unmute yourself or type in the chat. So get ready for that. For your moment in the sun if you would like to participate today. I have example images that I want to work through together.

So, we're going to start off with the technical bit. How to insert alternative text for images.

So, even before we get started, I want to talk a little bit about who uses alternative text. When I first started working at CIDI, I had come from a university setting and was an instructor. I really thought that the only people who needed accessible files or digital files were people who were blind or had low vision. And it's really a much larger audience. People who use assistive technology or screen readers to read their content aloud is a very diverse population.

People who have disabilities either have permanent or temporary disabilities. People who have different learning disabilities like dyslexia or dyscalculia or dysgraphia or ADHD. A lot of that large population of students or individuals they are using assistive technology to access content on the web.

To access content of files that people share or e‑mail. Have their e‑mails read aloud or do voice‑to‑text in order to send messages to their partners or their friends. So the more technology is embedded in our lives, the more universal design is the best practice. The more accessible you could make your files, the better that's going to be for everyone. Not just people accessing the files with assistive technology. So, being forced to add alternative text to your images or to create a meaningful heading structure for your documents or provide bookmarks in a PDF not only is that benefiting the student or individual with a disability, that's helping everyone navigate easier and work with the file better. There are individuals who have cognitive disabilities or head trauma. There are also people that you would not consider having a disability per se but they may be accessing their content on their tablet or their phone. They might have a very small screen and they can't see the image so that alt text description will fill in the gaps and provide information for them. Auditory learners benefit from assistive technology that reads the content out loud to them. The aging population. As we get older, using more assistive technology on these files and having accessible files is very helpful to them.

So the very first thing when you are working with alt text especially in Microsoft Office ‑‑ if you have a Microsoft Word file or PowerPoint file that you're adding alt text to your images ‑‑ an older update from last year they rolled out this automated alt text generator. It's not that great. I think they realized their mistake early on and they pulled it. So if you have a newer update to Microsoft Office, you will not have this as an option which is great. For the future if they improve it, that's wonderful.

But this is an example. I have a bar graph ‑‑ a very complex bar graph in a Microsoft Word document and if you can see it's very small on the slides but on the right-hand side it says a screen shot of a cell phone and the description was automatically generated. So that's what it guessed. I don't know what a screen shot of a cell phone would look like but it's probably not this. So this automated image description does not do this bar graph justice. So you turn it off by going to file, ease of access and scroll down to uncheck the box that says automatically generate alt text for me. If you don't see ease of access, that means you probably have the updated version and you don't have to worry about Microsoft Office trying to fill in your alt text for you.

So, here's how you will insert alt text in a Microsoft Word doc. The same exact instructions apply to PowerPoint because they're both Microsoft Office. So on this slide I have a screen shot that shows a Microsoft Word doc and a picture of a van Gogh painting insert under to the doc. And I right clicked on the image and went to picture and then clicked on the alt text tab to access this alt text field where I can type in a brief description. And it even walks you through ‑‑ it says how would you describe this object? One or two sentences are recommended. If you have the latest update you can just right click on the image and choose edit alt text and it opens up a dialogue box to do the same thing.

When you're entering in your alt text, you just click into that field and start typing. Always try to remember that the screen reader is smart. This assistive technology is advanced. It pronounces things such as capital letters. It pauses and stops with proper punctuation. So treat your alt text field as if you're writing a formal paper. I'm afraid to say that because when I would tell my students that I would get a lot of strangled language. They would write very formally. What I mean is use proper spelling, punctuation, end things with a period, and use proper grammar as well.

Do not include abbreviations or acronyms if possible because you don't know depending on what screen reader software someone is using ‑‑ the most popular screen reader are JAWS or NVDA. Depending on what screen reader the person is using, it might not read your abbreviation the proper way.

For example, if I had a map of the United States, I might want to take a shortcut describing it and say a map of the U.S. The screen reader ‑‑ different screen readers might read that different ways. If I capitalized US it might say a map of US! It might pitch it higher because they're capital letters.

If I put U.S. it might say U. S or it might say the U.S. So your best bet is to type it out fully and say the United States.

So, don't use acronyms and also the last thing I want to tell you about what not to do is not to create separate paragraphs in your alt text field because someone's screen reader might skip and go back to reading the document. If you hit enter enter and start typing a new paragraph, the screen reader might be tricked into thinking its reached the end of the description. Try to keep everything in one paragraph in the alt text field.

So, I want to talk about workflow. This comes into play if you have a document with a lot of images to describe. So often we at CIDI are making accessible versions of textbooks that might have 1,000 or 2,000 images in them for a biology course. So this might not be something you have as high a volume with but I want to talk about workflow. There's different ways to approach adding alt text to the images in your files.

So, one way to do it is just to simply scroll through your documents and find all of them. Right click on them and enter in each image as you encounter it through the document. That has a benefit of allowing you to see the images in order and help you contextualize each image and figure out what you want to say.

Another way you can do it is ‑‑ this screen shot shows the find and replace dialogue box. You can find the go to next graphic function on the home ribbon in Microsoft Word. So you go to the find and replace and click on the go to tab and in this screen shot it shows you the go to tab. From the menu select graphic. If I hit the next button it will take me to every single image within my document. I just need to keep this dialogue box open somewhere on my screen and tab through it. And it will take me ‑‑ it will jump from graphic to graphic to graphic.

It's also a helpful little tool ‑‑ it will take you from table to table and list to list. It helps you find things in large documents. So that's another option.

And then the third option ‑‑ I know a lot of people like to rely on the accessibility checker in Microsoft Office. So you can run the accessibility check and jump to each graphic in the accessibility report. You can click on each graphic and add the alt text one at a time.

So there's different methods. Each one has its benefits and draw backs. My screen shot gives me away. I like the go to graphic option.

Here's a screen shot of the accessibility checker in Microsoft Office. In order to run the accessibility checker, you'll first need to save your document as a docx file type. It should already be a docx file extension. Then you go to the review tab and select check accessibility. It will run a report very quick. Even on large files it shouldn't take more than 30 seconds. It will open up a pane to the right of your document that looks like this. It's called the accessibility checker. And it will list all of the errors in your document, all of the warnings and all of the tips. And at the bottom it will tell you why to fix something and a hint about how to fix it.

You might not ever be able to clear the accessibility checker 100%. Especially if you're working with a very complex document or long document that has tables. For instance, if you're working with a document that has tables and some of the cells are merged, you might not be able to fix that without reconstructing the table entirely. So your goal should not be a 100% all clear. I like to tell people they should use it as a tool and use it to inform them on what decision they're going to make about their documents. In terms of the warnings and tips, these are instructing you about ways to make things best practice in terms of accessibility.

So, if you don't have the accessibility on your review tab, you might have an older version of Office. And so the second bullet walks you through how to do that. So instead of finding the accessibility checker on the review tab, instead you'll go to File and then click on Check for Issues and select check For Accessibility and it will run the report for you.

In the report it will transport you to that part in your document. It will take you to that image needing alt text or take you to that problematic table or heading and allow you to fix it right there.

If you have a PDF file here's some instructions for how to add alt text to images. At CIDI our e‑text team we rely on Adobe Acrobat pro. We have turned on ‑‑ in this screen shot we turned on the reading order tool. That highlights the objects on the page. It has drawn boxes around the paragraphs and page numbers and a big X on the two images. There's a dinosaur skull and a pterodactyl. So if you need to add alt text to a PDF, you'll click on ‑‑ in Adobe Acrobat you'll click on tools and accessibility and select the reading order tool and then you can scroll through the document and right click on each image and go to edit alt text and type in your image description. And then if you prefer, you can run the accessibility report in Adobe and generate a list of all the images that are missing alt text and fix it right there in the accessibility checker.

Here's a screen shot of the accessibility checker in Adobe Acrobat. You go to accessibility tools and click on full check and this will come up with this dialogue box and you can check by default everything, including have you tagged your PDF, do you have alt text for your images, does the document have color contrast appropriate. So I advise people to run the report. More information is better. Then you hit the start checking button. Then it will come up with an accessibility report on the left-hand side. You can click on each individual error and it will take you to that part of the PDF file and you can make the change.

Now we're moving into the heart of our presentation today. Writing effective alternative text. I've called it many things so far. Those of you with good listening skills have heard me bounce back and forth between alt text ‑‑ sometimes alternative text. The Adobe Acrobat PDF community call it alternate‑text. Some people call it alt tags. I kill call it by its formal alternative text name. If you hear me call it image description or alt text, it's all the same issue. It's all the same subject matter that I'm talking about today.

So, some general tips for writing alt text and then we'll get into ‑‑ I'll ask you all to participate in trying to describe an image or two.

So some general tips. You want to work from general to specific to provide a framework for the listener. Always keep in mind that long descriptions may be cut off. So depending on the settings that someone has for their screen reader it may stop after a certain number of characters or words. So you want to get into the habit of really highlighting that important information first. Really hitting the general gist of what's in that photo right away. It also allows someone to form a framework in their mind of what is contained in that image and then they can easily fill in the details from there. If you start with too many little details and don't get to the good stuff a sentence or two later, the details they may lose interest or not be able to put the mental image together.

So work from general to specific.

Always use proper grammar, spelling and punctuation. Avoid using any hardline breaks. Meaning extra enter, enters in your image description. Provide multiple information in multiple modalities if possible. We'll talk about this in our upcoming webinar about best practice for describing complex images. Providing information if you have a very complex infographic for example and we'll have some today that could be best or better conveyed in table format. You may want to have the table and the image for people who learn in different ways.

So providing information in multiple modalities. Including captions to describe your figures. A caption is available to not only the person listening to the file with the screen reader but also available to the sighted audience as well. Someone not using a screen reader will see that caption and that will clue them in and give them an advantage about why this information is important. So I'm a huge fan of captions all around. They're an element of universal design that is often overlooked in the accessibility world and they benefit everyone. They even benefit I think the author of the document because they force you as the person creating the document ‑‑ or creating the content to think about what do I want people to get out of this table? Why is this important? What do I want to highlight? Why did I choose this image over any other image? On this slide I have a clip art of a check list that is really a decorative image of things to do. General tips. It's not super important. So I don't think it would warrant a caption. The more informative a picture or graphic is, the more I would advocate that captions help everyone.

Try to reduce redundancy if possible. Don't repeat yourself. Don't repeat the caption in your alt text description. Your alt text can be brief if you have a thorough caption. Say you're describing a scientific diagram and the paragraph above it and below go into detail about everything involved in that image, your alt text can be much more brief and you don't have to repeat anything. That's for your benefit and for the benefit of the person listening because you really don't want to force them to listen to things twice.

Always, always edit your alt text thoroughly. I always try to get someone else from my team to look over my work. Even though I'm the manager and supposed to be the expert but I know when I'm describing images, a big part of my not so big brain is working hard at transferring language. My grammar goes out the door and so having someone QC your work is helpful when describing images. Especially when you first start but really forever because it is ‑‑ it's not so hard once you've done it for a year or 2 ‑‑ describing images. It gets easier. Especially after you encounter the same image. You have a formula for how you approach a line graph or if I see an infographic I know where to start because I've practiced it a lot. It's like chewing gum and patting your head or walking ‑‑ I don't remember. It's doing two opposite tasks at the same time. So QCing your work, having someone help give you advice is always recommended.

So, here we have an example of an image. I love to use this image in trainings. I don't want to describe it too thoroughly for you right away because I would like you all to either come off of mute and try to describe it or if you would like to type in the chat, I can read that out loud. If you would like to describe this image for someone as if they could not see the image and didn't have access to it in a sentence or two how would you describe this image? And so while you're thinking or typing in the chat, I'm going to read my bullet points and give you advice. Remember you want to first summarize what you see in one general informative sentence. You want to keep your description neutral and informative. Remember to use proper grammar, spelling and punctuation. But we're in a chat room so no judgment. And then avoid any acronyms or symbols.

So would anyone like to take a shot at describing this image in one or two brief sentences?

Okay. Thank you, Margot. We have an example of alt text here. Margot wrote enormous cat reclining on city buildings.

Very good. Anyone else want to try? Remember alt text is subjective. We're trying to work out the different approaches. I'm not saying Margot is wrong. I know there's a lot of different ways to describe T. Kate has tried a monstrously giant cat lounging in the middle 06 a city. Catherine has a city surrounded by water and a huge white and gray cat is near the water. Mike has a photograph of the skyline of Istanbul Turkey with an unrealistically gigantic cat leaning against one of the buildings. Bennie has image of a city with a disproportionately large cat relining on the building.

Excellent. You have captured giant cat and then the city. I have used this photograph in this training for a couple of years. I realized I wasn't telling people enough that they needed to cover the important stuff first. So that's why I really talked about that. I would have people in a room all looking at the same photo on a large screen and some people wouldn't even mention the cat. During a break at one point someone came up and told me they were sitting in the back of the room ‑‑ this is not someone with a disability. They were sitting in the back and whatever reason the lighting or the projector quality they did not see a cat. So if you look at this picture, they thought this was a giant smoke cloud and two buildings were on fire at the water front and all of that cat body ‑‑ that monstrously cat body was a smoke cloud. So case and point, lesson learned, you really want to describe your images in a presentation for everyone because someone might be sitting behind a pole, the lighting might be strange, someone might have forgotten their glasses that day. If I were to describe this ‑‑ a lot of you came first to how I would describe this. Margot thank you for saying that. The coloring of this at first, she didn't see the cat. The coloring of the cat's head blends in. I love Mike that you pointed out this is Istanbul Turkey. Not Constantinople. I was showing this to a friend once and I wanted him to laugh and he said look an image of Constantinople and he didn't say anything about the cat because he knew it would drive me crazy. I was describe this as a Photo-shopped enormous cat lounging in a city by the water. If it's important that you include Istanbul, I might include that. I might refer to this as a meme. That's something new. If you say it's an enormous cat or a large cat or a disproportionate cat, someone might not know that it is, you know, Godzilla sized cat. So saying it's a meme or Photo-shopped to be enormous. The fact that you say it's lounging on one elbow on a building describes the size. You all did a great job. This cat is famous in Turkey. That's why this meme exists. You can look her up. Her name is Tombili. She has a very cute back story.

So that's how you start. General to specific. You try to create the one framework sentence and fill in the details. People ask how much is too much. I usually try to tell them that best practice is the same as an original tweet length which was about 125 characters. The default setting for the JAWS screen reader it pauses after 250 characters. If that gives you ‑‑ if you're a numbers person and want a hard cut off. But depending on the purpose of the audience, alt text can get quite long and there are other ways of providing that information ‑‑ part of it in a caption or moving it into the document itself as a separate paragraph proceeding the figure. There are all these different options. Instead of writing 10 or 12 sentences in the alt text. That can be quite overwhelming and taxing for someone to listen to.

We are often remediating educational content. So we want to be very thorough. Sometimes we might move that alt text description into the document itself so the student is sure to read it. And I'm sure for medical information. Some of that is cruel key information that people need. So thinking about including the image description in a caption or converting that information and including it in multiple modalities could be helpful if you want to keep your alt text brief.

Another thing if it's a digraph or map or something that has symbols, people often get hung up on the appearance of the symbols or the colors on a map. If it were a world map, I might see a new e‑text person saying France is pink and England is blue and Germany is green. And that really doesn't matter. It's just a map of Europe with the countries shaded different colors. You don't even need to indicate the colors.

So you want to focus on the content and the meaning behind certain symbols and not worry too much about the appearance of symbols.

So for example in this image you would want to avoid describing a ball labeled with a plus sign and instead call it a positron. Avoid saying a squiggly with a line. Then the chemistry expert told me it's a gamma ray. I would just try to urge you to always concentrate on what something means and not too mitch about symbols and their appearance.

When you are spending a lot of time thinking about appearance or including all of this extra information or redundant information you run the risk of overwhelming someone's cognitive load. Cognitive load is often also referred to as auditory fatigue. And when you're describing images, you want to keep cognitive load and the way someone's mind works ‑‑ how their brain processes information. You want to keep that in mind.

You don't want to overwhelm the listener's working memory. The average person can remember 7 items at a time. If I gave you 7 people's names or 7 types of holiday presents you would remember 7 of them. If I kept going some of them would fall off the list. So you don't want to give people more than 7 things to remember. Otherwise it might not make it from working memory to long‑term memory. So simplifying your alt text will reduce auditory fatigue.

This is a complex infographic. It's titled universe infographic elements. If I were to describe this briefly, I would name what kind of image it is. It's an infographic. I would list the title. And then I would describe the main categories in the infographic. So start listing ‑‑ an infographic titled universe infographic elements with the following sections. And then I would list temperature on planets, milky way galaxy structure, moon expeditions and then I would list all 10 different elements in this infographic. Now depending on content, context, audience, where this image appears, what kind of document it is, if I need to elaborate and be more thorough with my alt text description, I would pull some of these out and describe them in paragraphs. I could put them in a caption before the infographic. I could have a table with some of this data in it for people to make it okay that my alt text is a little bit more brief and doesn't try to ‑‑ I could ‑‑ this is like a book chapter to describe this thoroughly.

So always keep cognitive load in mind when writing your alt text.

And we're going to talk a lot more about cognitive load and some ways to describe very complex images in our upcoming training on best practices for complex image description. Today I want to focus on the general how‑to and give you some examples and templates. In the next training I'm really looking forward to it. We're going to look at complex medical imagery, test questions and artwork. A lot of people ask me how do I describe a painting. So we'll go into the harder instances of image description in that coming webinar.

So today before we end, I just want to go through some different types of images. Show you how I would approach describing a variety of different image types. I usually start by saying exactly what kind of image it is. That's part of my front loading that important information first. And then hopefully leave a little bit of time at the end for questions if you have them. If we don't, if you would ‑‑ if you have specific questions, please go ahead and type them in the chat so we can answer them or respond afterwards. So, starting out I'm going to go from simp tool complex in my examples here. So we have two different screen shots here and examples of an icon on the left and some decorative images on the right. So the screen shot on the left has a tiny icon graphic of a finger pointing to a book. And that functions throughout the document as a resource icon. And in the front matter of the text book it told me that. It said you'll see icons throughout the text book and this is what this one is. So the alt text we would write for that icon is the resource icon.

It has a function. Someone would need to know what it stands for. Every screen reader is going to say the word graphic when it encounters a graphic. And so I try not to say a graphic too much or a photograph unless I have to because it's a little repetitive. So instead of saying a graphic that represents the resource icon. I would say the resource icon knowing that the screen reader has already said graphic.

On the right‑hand side we have a simple little boarders of ‑‑ it's like a leaf and a planet and a chemistry molecule. It's a decorative boarder at the top and bottom of the page. These do not serve as content or not referring to anything. They're purely decoration. So I would leave that blank or if you have the option sometimes when you right click on an image you get the option to mark it as a decorative option. And what that does is the screen reader just ignores it and doesn't say the word graphic at all. It skips it. So if I can mark it as decorative I will. If I am working with an older version of Word, I leave the alt text blank.

So some more simple examples, some paragraphs. People are asking me ‑‑ I don't know what to describe or what not to say if it's a portrait or a paragraph of a person. Sometimes I get a lot of awkward ‑‑ I see a lot of awkward alt text description of someone trying to describe the person's pose or they're looking wistfully off into the distance. They might try to invent a back story for what this person is feeling. Whenever you have a portrait of a known person, just put the person's name and that suffices. If they're doing something extra special ‑‑ I'm thinking about Albert Einstein on that bicycle with his tongue out. You can mention that but the name alone would suffice.

Here on the right‑hand side I have a picture of a Black Lives Matter protest. We have lots of people of different race and ethnicity. Lots of different signs. Everyone look kind of mad. Often people say what do I say about race? When is it okay to talk about race and gender? How do you talk about politics? How do you describe political situations with sensitivity and neutrality. So my example here what I wrote is a crowd of Black Lives Matter protesters. The protesters are of different ethnicities and hold signs that read I can't breathe, no justice and if you're not angry, you're not paying attention. So I've taken my politics out of it and I'm just describing what I'm seeing. I'm not trying to ‑‑ I'm not not saying things and I'm not over describing. I'm describing the scene and keeping things brief and looking at a variety of signs. It did take me a while ‑‑ I wondered if I should describe every sign but I didn't want to overwhelm the listener. I picked the ones that were easiest to read and type out. So there's always more that you could say. You could talk about the fist held in the air. There are a few fists in the air. You could talk at length but I would keep things rather neutral and depending on the context if this image appeared in a history text book or political science text book, I might have things that I want the reader to focus on or more details I would provide.

In terms of gender people are asking me is it problematic to talk about someone's gender. And this comes up often, right? Does it matter that it's two women in an office drinking coffee or should we say two workers drinking coffee? Only mention gender if it's important to the context. You can just say coworkers or you could say police officers. You don't need to really say whether it's male or female police officers. Now if it's a chapter on sexual harassment then that might be informative. If there's an image of all women fire fighters I would talk about that. The fact that it is so unexpected you might want to mention that. Really use your best judgment. Do consider it. Am I including political or racial or gender information that's not necessary. And if so, then just describe what you're seeing and maybe leave that out.

And whenever you do include it, remember that you want to keep your description neutral and objective whenever possible.

So here we have an example of a diagram of a cell. Simple diagram often need one or two sentences depending on your context and audience. If you only want a brief description you could say a diagram of a cell. But I've gone a little further and I say the diagram of a cell. The chitin cell wall... [Reading]. So that goes beyond listing all the labels and gives a shape and spatial awareness of the cell itself. And that took a while to write. I'm not kidding when I say it helps to have people editing your alt text and I'm lucky that I get to work with a great team of experienced people who get into making alt text an art form. Trying to make that perfect sentence that describes the image in a clear but brief way.

Here we have an infographic titled tornado tracks. I think it's a beautiful diagram. It's also very overwhelming. It took me a good 5‑10 minutes to really sit and think about this before I even came up with the alt text that I wanted to write. Often sitting and thinking is important. It's like when I would tell my students about how to start your essay the introductory paragraph is so important. It's doing so much work. When you're describing images, it usually pays off if you sit a minute and sit with the image and think about it.

So, the general approach for all image description is to begin by describing the type of image. So an infographic. Then the title. Follow up with a general statement to summarize the main content and then work from general to specific filling in the details as needed.

So, in this example, the alt text that I wrote ‑‑ it took me a while ‑‑ an infographic titled tornado tracks 56 years of tornado tracks by f scale. The tracks of tornadoes are shown imposed on the U.S. in varying shades of blue light to show the intensity on the Fujita scale. A bar graph accompanies the image and measures the proportional annual toll of tornadoes since 1950 of deaths that have occurred. That's a lot to process and visualize. Here we have an example of an infographic that's so complex that it would really benefit from having a caption before it that describes what someone should focus on because this is a lot of visual information even for someone who is used to looking at complex infographics. This is a lot.

And here also is an example of a bar graph in the lower left could be pulled out and produced in multiple modalities. So it appears in the visual infographic but you could also have a table with this data and information down below so someone using a screen reader could access that data. So there's different options to think about when trying to figure out how to convey this very, very visual image with words or in an accessible way for someone using a screen reader.

Here is an example template for you for how to describe a bar graph. And I would say bar graphs and line graphs ‑‑ once we came up with this formula it made my life easier. So in order to describe a bar graph I start with what type of graph it is. I describe what's on the horizontal and vertical axis or if it's a hard science book the X and Y axis and then describe each bar that's measuring something in regular and predictable ways and then I finish by describing the implied impact of the graph. So I would say looking ‑‑ glancing at this graph you see a huge reduction in the white population ‑‑ this biggest bar is getting smaller and smaller and that's really the visual impact. And then each of the other races is growing exponentially. So if you were to summarize the data that is the approach I would take.

But if you wanted to describe every bar systematically, that's what I have done in this example here. In my example I have typed out the beginning of how I would describe bar by bar. A bar graph titled U.S. population by race that compares the percentage of black, Hispanic, white and other races in the United States... [Reading].

So I would just list them in the exact same order for every bar so it's easy for someone to listen to. This would be a wonderful opportunity for someone to take all that data and give it as a table after the graphic. So your alt text could just be that first sentence and then the data would be available for everyone in a table below.

Line graphs same thing. It's very formulaic. You include what type of graph it is and whatever title. So here we have a line graph titled number of donuts we ate this week which is very important information. And then you could either provide every single data point if it's really needed or best to be brief and avoid the auditory fatigue. You can describe the data trends. Each of the lines on this graph have gone up. It might oscillate. You would describe the trend of each line. And if every data point is needed, this could be conveyed in table form.

For a flow cart ‑‑ flow carts are tricky. They look complicated but often they can be produced as a list. So you could say a flow chart with a certain number of steps. And then just list them. You can even provide a numbered list in your alt text description. 1, start, 2 ‑‑ although that's a little confusing because the numbers is different. So my example is a flow chart with 6 main steps. The flow chart begins with start. Then step 1, step 2, step 3... [Reading].

So that is going to give people an idea of how the flow chart is organized, where the branches are and really list it out in a simple way for someone to follow.

An example of cartoons and memes. Here we have ‑‑ this one was fun for me to select. This is one of my favorite Gary Larson fireside cartoons. I described a cartoon showing a woman walking towards a bird in a cage... [Reading].

So when you're describing cartoons or memes, you want to focus on what you can visually see and whatever dialogue. You might want to mention how many panels or panes there are if it's a multi pane cartoon but you don't want to go too far to explain the joke. It's difficult to explain why something is funny. I could talk about the expression on the bird's face. I could talk about the joy with which the woman is approaching the cage and she has no idea that she's terrorizing her pet. The alligator. I'm not going to get into those details. It's funny to me but might not be funny to someone else.

Here’s an example of another infographic. It's a big infographic. There's a lot of information. I hate a lot of things about this infographic while at the same time I love it. It's a great example of poor color contrast. You have blue text on a light blue background, surrounded my more blue. The graphic is white. Some of the text is white. Why did people choose these colors? Because they were trying to approximate what clouds look like in the sky. So they're choosing the colors on realism but it's hard to read. The font is so tiny in these boxes. On the page I would need a magnifying glass to see this. So this is an example that would work well as a table. Because it’s been written out here in paragraph form with all the different cloud types and their descriptions you lose the ability to compare it nicely or visually group these different types of information. So if I sorted this information into a table, I could have different column headings for cloud type, elevation, appearance and description all in one table. You wouldn't have the visual appearance of all the clouds but then your alt text description could focus on that. And then your alt text is just talking about what the clouds look like and you could have a table with all of that other data, the description, the elevation, the cloud type, et cetera in your table.

>> Johan Rempel: Hey, Valerie, there's a question from Margot. Do you need to give all this chart information as alt text if you're presenting and explaining the chart verbally?

>> Valerie Morrison: Were we looking at this slide? If you are presenting and explaining the chart.

>> It was a few ‑‑ it was when you were talking about the line graphs and the bar graphs. I wondered if this was a presentation, a webinar and I spoke through some of ‑‑ as you can see ‑‑ I shouldn't say as you can see ‑‑ this bar illustrates. I guess it depends if you're going to distribute the slides.

>> Valerie Morrison: You just asked 10 questions in one. Everything is inner connected. Those are great questions to ask. We're going to talk a little bit about that in the upcoming webinar on PowerPoint accessibility because when you're making a PowerPoint accessible, you have to also think about not only how are you presenting this in person to make it accessible to everyone in a room but also how are you making it digitally accessible because a lot of webinars are virtual. And then you also have to think about making it accessible if someone saves it as a PDF and distributes it in an e‑mail later on as a PDF file. To answer part of that question, if I were presenting this in a training and I wanted people to understand it, I would give my brief alt text. I would try to describe at least briefly every image on my slides. If you've noticed my slides are simple for that reason. I want those images to be easy for someone to process. And I don't want too many images at once on the slide. And I do want to keep in mind that there might be people in the audience that can't see or access the visual graphics. That said, I also know that I've tried to provide digitally accessible versions of my slides before a training or after a training. So I know someone can go back and read the alt text description and catch up. I hope that answered some of your questions you had there.

>> That was very helpful. Thank you.

>> Valerie Morrison: I'll keep that in mind for a PowerPoint training to talk about how all of those intersect with one another. It's a lot to keep in your head trying to think about the in-person audience and the digital virtual audience and then also that digital audience afterwards when your file might be transformed into a different file format and printed off. /SP if someone prints it, you have to think of all these things.

So hopefully we'll keep all of those in mind for that PowerPoint training.

So I have a couple more slides here. Some examples of tables. I have not talked a lot about tables yet. I like to add alt text to my tables. It often comes up with a warning or tip in the accessibility report that you want to add alt text to a table. Lots of people have no idea how to do that. So it's hard to sum up all of the data in a table in one sentence. So we don't even try to do that. We don't describe the data. We describe the structure of the table.

Just to give someone a sense of how a table is organized. We call it structural alt text. So if you wanted to add alt text to a table in a Microsoft Word doc or PowerPoint you right click on the table the same as you right click on an image and you add alt text. The way I describe this table is to describe table 10.1 is titled physical properties of the giant planets... [Reading].

That seems very basic. It's telling you how many columns, what the headers are and the reason that I'm doing that is I'm providing a glimpse or audio overview of what the table contains for someone listening with a screen reader and then they can decide if they want to continue on and listen to all this data.

When someone encounters a table with a screen reader, it becomes a little difficult. Screen readers like JAWS need to enter into table reading mode. So it becomes difficult to go in and out of the table. So giving someone a brief description is helpful. Some implied visual information. You want to step back after you've described your image and think about how and why this is turned into a graphic. Why was this turn under to a chart? There's one line in this chart that's more than trouble all the others. So even if you don't describe every data point, always finish your alt text with trying to step back and think about what is the implied visual information in my graphic.

So, we are right at the end point. I'm sorry I didn't leave more time for questions. Does anyone else have anything they would like to know about? Mike says when writing alt text for the PowerPoint's we use in our training webinars we often have to deal with screen shots when we're training people to use different soft wares, webinars and resources. We would love more tips on that in the PowerPoint class. I will make sure to include that. Thank you. Describing screen shots is difficult and it's often ‑‑ you really can't ‑‑ if it's a screen shot of a program you can't control how complex or small or the color contrast. So describing those becomes very important.

Any other questions for us? I know we're right at time.

Thank you so much, everyone, for hanging in there and attending today. I know we're right at the holiday break. So it's great that there's this much interest. I thank you again for your participation. It's always fun for me to give a teaching or a training when I've got interested folks in the room. So I really appreciate your hanging in there for an afternoon training. We're going to follow this up with a training on more complex alt text. So we'll have more audience participation chances for you if you didn't get to participate today and also the PowerPoint accessibility training.

>> Johan Rempel: Excellent. Valerie, once again thank you for a great presentation. Really appreciate it. Thank you all for taking time to attend this. Once again this will be archived and sent over to Allie. I will close it out. Wish you all a very relaxing and well-earned holiday season.