· ·

(Writer standing by.)

>> SPEAKER: Hello, everyone, and welcome to the July installment of our VSA webinar series which comes to you from the John F. Kennedy Center. I am Jenna Gabriel, the manager of special education here at the center, and I will be your webinar moderator. Today's webinar is called tips and tricks for accessible digital materials and handouts. If you would like to view live stream captioning of this webinar, you can follow the link you see on this slide and in the chat box of the control panel located on the right side of your screen. I'd like to take a brief moment and introduce you to the event center. Broadcast messages, such as the link for live stream captioning, appear in the chat box, which you can select from the control panel in the top right of your window. If you need to leave the webinar early, you can leave it by

clicking on the X in the upper left corner. A recording
will be available afterwards, so you can catch up on
any parts that you miss. You can connect to the audio
portion of today's webinar through your telephone or
through your computer's microphone and speakers.
Select the option that works best for you, but if you
are using your telephone, please make sure you mute your
computer speakers. You can submit comments,
questions, or answers to questions using the Q & A
option, which you can select from the top panel.
Please note that this is different than the chat box
and allows moderators to view your questions. Please
make sure that your question is directed to all
panelists. I will monitor the screen throughout the
webinar. If you prefer to speak your input rather than
typing it, please click on the raise your hand icon.
I'll touch base with you and un-mute your microphone
at the appropriate time.

     Much of today's presentation will be conducted
over a screen share. If you would like to adjust your
view by zooming in or zooming out, you may click on the
magnifying glass. You may also expand your view to a
full screen. At the end of today's presentation, there
will be an opportunity to ask questions about the

material. During this open-ended question and answer time, please raise your hand if you wish to speak or type your question into the Q & A box. Within the week, we'll send out a follow-up e-mail with a link to the recording of today's presentation, a copy of the Power Point presentation, and a copy of the webinar transcript. This means you can go back to watch the recording and review supplemental materials in addition to any notes you take during the webinar itself. Our August webinar, using universal design for learning to promote arts integrated literacy instruction, will take place on August 15th at 3:00 p.m. The registration link can be found in your chat box. If you are active on social media, I invite you to connect with us using hashtag VSA webinar. On Facebook, we are VSA International, and on Twitter, we are at VSAINTL. With that, I'm going to hand it over to today's presenter, Sina.

    >> SPEAKER: Can you see the screen and hear me okay?

    >> SPEAKER: We see the screen, and I can hear you just fine.

    >> SPEAKER: Fantastic. Hi, everybody. I'm excited to talk with you today about accessible

handouts and some tips and tricks that'll be helpful for making accessible materials. I'm going to reset the power point here just really briefly. There we go. My name is Sina Bahram, I'm the President of Prime Access Consulting. We're a digital accessibility firm that does a lot of work with cultural heritage organizations on digital accessibility, inclusive design, and making technology usable by all persons. You can engage with me on Twitter here, and you'll see this hashtag A11Y come up in the presentation, and the reason for that is that accessibility is abbreviated to A11Y online, and you can use that hashtag to get more help from a wonderful group of online professionals that do digital accessibility every day. So, what are we going to be talking about today? Well, we're going to be discussing why this matters, why we're talking about this in the first place, discuss the distribution of handouts, both physical handouts, but also digital and electronic handouts and materials, presentations like this one, for example. Talk about some common accessibility tips and tricks. We're going to be spending most of our time in this section, because it turns out a lot of the things that are important for making accessible materials, they're pretty common

across Word, Power Point, that sort of thing, and then to dive into some specifics on Word, some specifics on Power Point, and to wrap with a recap and a call to action.

So, let's get started. Why does this matter? Um, according to the world health organization, there are 1 billion persons with disabilities, and this is as of 2011. This number has only gotten larger in the intervening six or seven years. 110 to 190 million, again, that has gotten larger as well, of this 1 billion are individuals with a significant impairment, so this is around 15 or more percent of the world's population, and this is, you know, something that we really need to take seriously if we want to include the widest possible audience in our discourse and talking about whether it's science, the arts, academia or anything else. So, let's dive right in. Distribution of handouts. For electronic handouts, or digital ones, for example, like a power point or something along those lines, it's important to be prepared to share those handouts electronically. A lot of individuals, for example, myself, might be using assistive technologies, like a screen-reader, because they're blind or low vision, screen enlargement

applications, and a variety of other tools to help them access electronic information, and those tools aren't always able to integrate with a projected screen on the wall, and, so, being able to share your handouts before you're giving them, before you're giving the presentation, is a great way of allowing people to use their own assistive technology approaches to access the information that you want them to have. If it's possible, generate a shortened URL so that it's easy to say out loud or relatively easy to say out loud. I've done that here for our presentation. It'll be at this URL. If you go there, you can download the accessible power points that I'll be driving this presentation with and follow along using your own assistive technologies, if that's of use to you. Also, lastly, following the tips in this presentation to make those materials accessible in the first place is a great thing to do for making accessible digital handouts.

So, with respect to physical handouts, some things to keep in mind. If you're printing slides, try to have the text be, you know, legible and readable, along with the images. Try not to go under 12 pt font for the text. If you're making a large print available, large print version available, um, try very much not to go

below 18, but honestly, 22 is where you really want to target, especially if you're not going to be providing multiple large print versions, 22 pt font is a great target in terms of font size for a large print version. So, when we are talking about tips and tricks that are common across Word and Power Point, especially, there's a couple of categories that we're going to be discussing; fonts, color contrast, alt text for images and other visuals, table headers, the accessibility checker that's built into Microsoft Office and has been for a couple of versions now, and saving, not printing PDFs, that's a pretty critical one right there. So, let's dive into those topics For fonts, what we want to do is avoid decorative fonts, right? Um, anything that's, like, cursive or handwriting, that's not meant for body text. These are going to be harder to read, especially when enlarged, sometimes they can display, um, you know, very frustratingly, for example, after 200 percent zoom or 300 percent zoom, so, using fonts that are much more easier to read and intended for body text is something you definitely want to strive for. There is some research out there or some rules of thumb, if you will, about using Sans Serif versus Serif. What I can tell you, the research is pretty

inconclusive. There are very noisy Serif fonts that can be, you know, the same as, you know, unnoisy Sans Serif and the other way around.

The other thing is that if you're presenting slides on a typical screen, for example, in a conference hall, that sort of setup, you want to strive to have your minimum font on the slide be 24 pt. Headings and titles and other such things can be 40 to 60 pt, and this is, again, it's a rule of thumb, so if you're in a particularly long conference hall that you know you're going to have people 50 rows back or something along those lines, these fonts should be multiplied. Maybe your minimum font needs to be, for example, 30 pt instead of 24, but a common rule of thumb is not to go under 24 for anything on the slide, and the reason that, um, you know, this is somewhat important, it's really easy to get there. You might start with 36 or 40, and after a couple of nested lists, you're quickly below 24, so watch out for nested lists especially, because each time you nest a level, it can drop your font size automatically, and before you know it, you'll be under 24. Avoid all caps. If you really feel the need to scream at somebody, use an exclamation point, but all caps have some downside, not only for

readability, but also for a screen-reader. The computer might follow a set of rules that says if something is in all caps, spell it out, so things like contact us become contact u-s, or sometimes, the computer will say contact United States instead of contact us, so avoiding the use of all caps is something to definitely keep in mind. Avoid blinking or animated text. So, this sounds like it harks back to the 90s, but unfortunately, this is still a somewhat common practice on apps, websites and presentations these days. So, avoid blinking text and animated text. This is especially important for folks with cognitive impairment that are related to print disabilities, and also attention.

So, with respect to color contrast, um, some things to keep in mind. We're going for sufficient color, we're going for sufficient contrast between the foreground topic, for example, the text, and the background, the background color. There's a way of measuring this, and there's some tools I list on this slide that I'll talk about in a second that can help you measure this, but the numbers that you're going for, and these numbers come from the W3C, the worldwide web consortium, it's in WCAG 2.0, you're looking for 3 to 1

for larger text, because if it's larger text, the contrast can be a little bit less because it is larger. What you're looking for also is to avoid putting this text on busy or distracting backgrounds. So, um, sometimes, gradients, for example, can be problematic. It's a very common practice to put text on top of an image or a movie, a very slow-moving movie, almost like an animated GIF, and the problem with that is it can be very distracting when reading it and very noisy and take away from your message, especially with someone, again, with a print disability or anything related to attention. Um, with respect to the tools that I mentioned before, there's two, um, that come to mind, and there's links to these in the resources section of the slides, which we'll be distributing, so you'll be able to go to those URLs, but it's the color contrast analyzer, as well as WebAIM's color contrast checker, and if you do happen to know the hex codes for your colors, you can type them in, and it will show you an example of the contrast and tell you if it's sufficient contrast for the various WCAG levels that I discussed earlier. All right, so, color and meaning. We live in an incredibly visual world, and using color to convey meaning is very important. You absolutely should do

that.

What you should not do is only use color as your
sole way of relying on conveying that meaning. So,
it's, again, perfectly fine to convey something, you
know, with red or, um, green and things of this nature,
but also use things like iconography, symbols and text
to convey that meaning as well, and this is helpful for
a variety of users, from color-blindness to those using
screen-readers, Braille, etc., etc. We have an
example here on the slide, there's an emoji X, you know,
a cross marked, and it's also in red and has the word
danger, so we're using three different forms. Same
with this check box, it's in a green background, you've
got the word safety, again, we're using text,
iconography, and color to convey meaning, so it's
multimodal presentation of information, which is
helpful not only for audience members who might have
a disability, but simply for comprehension for
everybody. By the way, one thing to note about using
iconography is that it's also helpful for individuals
who might not have English as their primary language,
and, so, the iconography can help where the text or
color may have a different meaning. So, with respect
to alt text, what are some things to keep in mind? We

have images that we put on slides, we put in visuals and charts and that sort of thing, and, so, it's important to provide an alternative description for these resources.   That means that if somebody who can't see is reading your presentation, even though they can't see the image, their assistive technology can tell them what that image is about, because you've offered an alternative description.

The thing you want to strive for here, a good rule of thumb is if you can replace all of the images in your presentation or in your Word document on your website with the text that you've written for them, with their alt text, and everything still makes sense, then you know that you're on a good path for, um, alt text.   Um, try to keep it concise.   This doesn't mean abbreviate everything into two or three words, it just means that you might want to avoid the flowery language and things of that nature when you're not describing the esthetics of something, and instead, you're describing the functional nature of something.   For example, on that previous screen where I had the checkmark on a green background and the word safety beside it, that description right there, a white checkmark with a green background and safety is a perfectly good alt text for

that graphic. So, um, writing alt text, um, the way
you can do that in Power Point, for example, and Word,
they're very similar flows, is you can select the image,
and in the top menu bar, there's format and then
picture, and there's going to be this size and
properties dialogue, and that's going to be something
common that we're going to use to decorate objects with
alt text, and you can use that to author your alt text.
In Power Point, when you do this, you might see a screen
for title and description, the one take-away here is
don't put anything in for title, just fill it in for
description. That's a long story, just harking back
to the way screen-readers use to access power points
and so forth, but for now, just know that if you have
the option of title or description in Power Point, only
put in the alt text for the image in the description
field. That's pretty important. Um, and we see a
screen capture here illustrating that button that I
just talked about. So, with respect to images, of
text, this is something you want to basically avoid at
all cost.

     So, um, this is a common practice on Twitter, for
example, on social media, where, um, you only have 140
characters, so people get around that by tweeting out

an image of what they really want to say, which is several paragraphs long, or a share of a document or a screen-shot, things like that. If at all possible, you want to send a link to that text, if you can't fit it in the social media platform. If it's something like a power point or a Word document or PDF or a web page, you should have the actual text there, and this is helpful not only for screen-reader users and those who are low vision, because they can zoom in on that text, whereas zooming in on an image can get very pixilated, but it's also helpful because other programs use this information, for example, search engines can access that text, whereas if it's hidden away or locked away in an image, that becomes a far harder problem, and it's way less usable. With respect to tables, there's a couple of things that we want to talk about, especially in the context of, um, presentations. It is possible to make tables accessible in Power Point, and I'll talk about that on the next slide, but tables can actually receive alt text, and this can be helpful if you, um, want to allow a user to interact with your slide and quickly get the take-away without forcing them to read all of the numbers in a row, right? So they can still do that, if you've made your table

accessible, but adding an alt text is an additional piece of information, almost like a summary that you can add that can help a great deal, especially when you think about how fast presentations tend to be sometimes, and someone not having the time to sit there and analyze 20 different numbers to find out if they're going up or going down or if there was a peak in year six, that sort of thing.

Um, this is pretty straight-forward to do. The way that you can do it is that there's a top menu, again, in the ribbon, and in format, you can go to size and properties, again, the same dialogue as before, and offer the alt text, so it's very similar to the screen-shot and the flow from before. So, table headers, um, I mentioned making tables accessible, so one of the big things that, um, especially is the case for keyboard-only users and screen-reader users is when you have a table, it's not accessible, and the reason, um, there are many ways that it can be inaccessible, but one common one is that the column headers and the row headers are not labeled, and so what that means is, if you imagine a calendar with the days of the week going across the top and then the various numerical days of the month in the calendar, it's very easy visually for

you to just look up and say, oh, that's a Wednesday, and that's a very straight-forward action to do visually. However, if you're a screen-reader user and that top row, that header row is not associated as a header, the computer doesn't note it's a header, the screen-reader won't announce that information to the screen-reader user, so it's very important to mark your header rows, and sometimes, there's header columns, like in a table where you have labeled going down the left or right-hand side, and so you can do that in Power Point, for example, on a table, and in Word as well, and this is very important, because then screen-readers will announce the correct information as the user navigates your table. One additional thing that I'll mention here is that you can also do something called row banding, this is sometimes referred to as zebra striping as well, where you stripe alternate colors on your table, so the rows of your table have alternate colors, red and white, white and black, that sort of thing, and the reason for that is that it helps visually track down a column or across a row, so when you're reading across a row, you don't accidentally read a number from one below or one above.

Also, these are available from, um, when you

select the table, it'll add two table-related tabs to the menu bar, and if you click the table design tab, from in there, you can actually access, um, the ability to do a row header, to do a column header, and to also do row banding. So, there's an accessibility checker in Office, especially in Word and Power Point, and this is pretty powerful. It allows you to check for some common accessibility errors and warnings and that sort of thing. The way that we can enable it is, um, by clicking the review tab and then clicking check for accessibility. Again, with Office and all of the various versions, and I'll talk a little bit about versioning as it matters, um, a little bit later in this presentation, but keep in mind that this might be located somewhere different on your computer, for example, it might be under view, then accessibility, then check for accessibility, but most versions of Office after 2010 have a little edit area where you can type in what you're looking for in the ribbon, so you can type in accessibility checker and find it that way as well, in case you be trouble finding it in the menu, and that's true for any suggestions in this presentation. So, when you open up the accessibility checker, you're going to get a pane on the right-hand

side and see the various objects highlighted in your
document with the errors, warnings, and tips that the
accessibility checker is telling you about. What's
important to keep in mind here is that, unlike in some
applications where, you know, warnings are a little bit
less important than errors and tips are sort of the
bonus extra credit, that's not really the case with the
accessibility checker, I feel. Um, instead, errors
and warnings are definitely important, errors are
things the computer is just most certain is wrong,
warnings, that it could be misinterpreting it. It's
still important to fix those things, and for example,
one of the tips is captioning a video, which is just
as important as putting alt text on an image, but
because it's easy for the computer to check the alt
text, it feels comfortable listing that as an error,
whereas listing captioning as a tip is only because
Microsoft doesn't have the ability right now to, in
Office, to go in and check a video to make sure that
it's captioned, so make sure you pay attention to all
three categories, don't just only fix the errors or only
fix the errors and warnings. That's the one important
thing to take away there.

So, saving PDF. I mentioned earlier that this is

incredibly critical, because what ends up happening is
that we might put some work into making a Word document
or a power point accessible, we've got alt text and
using headings and lists and other things I'll talk
about, and then, um, someone will come along, and
they'll click print to PDF instead of file, save as,
and then saving it as a PDF. What happens when you
print something to a PDF is you're getting an image,
so it's that same thing that we talked about earlier,
an image of text, that's exactly what you're
generating, an image of text, and you're storing it in
a PDF, so it's not able to be copied, it's not able to
be navigated with the keyboard, accessible to
screen-reader users or low vision users and a variety
of other people with various functional needs. So, the
goal here is just the major take-away is always click
file, save as PDF. Now, does this generate a fully
accessible 100 percent compliant PDF? No, it does
not. Office has gotten a lot better. Office 2016
from the Mac, after around April or May of this year,
so a pretty recent thing, the save as PDF got a massive
revamp and is a lot better, and in Word, excuse me, in
windows, around 2013 or so, the save as PDF has gotten
pretty good. So, it's a usable PDF, things like

headings and list markup will transfer over, but I don't want to convey to you that it's a 100 percent accessible PDF. Definitely still follow the PDF accessibility best practices when it comes to ensuring that the generated PDF is fully accessible. So, let's dive into Microsoft Word and a couple of specifics around that. One thing is headings. So, the use of headings, this is something that some of us might be familiar with, it's just as important. So, a heading allows you to hierarchically organize the information. For example, the title of the book could be level one, the chapters could be level two, and underneath it, we might have some subsections or sections, level three headings. So, the higher the number goes, the lower in precedence order it is in your information. If you think of it like a Wikipedia page, for example, that table of contents is essentially the top-level headings that have been enumerated, and it's very helpful, because as a keyboard user or screen-reader user, you can quickly navigate around the document, you don't have to read all of chapter 2 or keep hitting page down or arrow down until you hear chapter 3 or do control F and find for things all of the time, you can navigate by heading and get a logical navigation of your

document.

So, using headings in Word is incredibly important, and you also get another benefit for this. If all of your heading order makes sense, you can automatically generate a table of contents automatically, because it makes hyperlinks, which is a feature I find pretty helpful. The way that you make headings is that you use the style dialogue in Microsoft Word, and this is in the home tab, for example, in more recent versions of Office, and there are different styles in there, normal, heading one, heading two, six, that sort of thing, so you want to use that to highlight your text, and you enable the styles dialogue to then go in and make something a heading. So, for, in a Word document, the other thing that comes up quite a bit is lists of items. You can have numbered lists, a sequence, like a recipe, step one, step two, step three, you can have an unordered list, like these are the available colors to choose from, and then you just have a bulleted list, something along those lines. The thing to avoid here is to not just copy/paste a bullet symbol or other type of open square, for example, beside, um, a list of items and think that it's in a list, but again, just like we did with headings, to use

list styles, right? And there's outline, and there's

numbered and unnumbered bulleted lists in Microsoft

Word, just like there are, for example, in HTML, and

if you use those correctly, then the material reads

correctly to a screen-reader user, it exports to a PDF

accurately, and it also allows those items to be

skipped, if a keyboard user wants to do that. So, if

you've got a list of 50 items, instead of having to read

all 1 through 50 with 1 keyboard command, a

screen-reader user can skip that list and continue

interacting with your document.

So, organizing lists as lists, not just putting

a bullet beside them, but using the list style is very

important. So, let's dive into some Power Point

specifics here. One thing is that screen-reader users

might encounter your slides and say, oh, everything was

kind of out of order, and it was all jumbled up, and

this might be a complaint that you've encountered, and

if you haven't encountered this complaint, users might

have had that issue and not told you about it, and the

reason for this is that it's very easy for the reading

order, the order in which assistive technology reads

things to get messed up, and, so, let's explore how to

basically view that and fix it. So, on the home tab,

you have this, um, arrange button, so if you click arrange, you're going to get the selection pane, and in the selection pane, you're going to see the different portions of your slide, and what you can do in the content list in the selection pane is you can drag and drop that order, you can basically move with your mouse, you can move the reading order. Now, what's important here is that it goes bottom-up, so the thing on the bottom is the first thing that will be read out, and the thing on the top is the last thing to get read out, and it just goes in order from bottom-up. So, it's very important to, when you're doing this, let's say you've made a slide, you've got a couple of bullets, then you go back and make a change, maybe you edit an image or change some text, take a look at the reading order, because that reading order may have gotten messed up, and your slide will look okay, and the bullets will be there and the image will proceed them, but then when you look at the reading order, you'll notice that they're in a jumbled order, and you can fix that using this.

    There's another way that you can visualize and change the reading order as well, and that's the reorder objects functionality. With reorder objects, what you

can do is, very similar flow, you go to home, you go
to arrange, and then you can go reorder objects, and,
so, with reorder objects, you, again, will see the
different flow, you'll basically see the Z order, if
you will, the vertical flow of your slide material, and
you're able to then arrange the reading order. Again,
bottom, top, that's very important. So, the bottom
thing is the thing that gets read first, and the top
thing is the thing that gets read last. So, the thing
on the top of your slides is actually what you want on
the bottom It's a little counterintuitive, but at
least it's consistent in both the reorder objects pane
and also in the selection pane from the previous slide.
So, just remember to check for this before finalizing
a presentation or giving it out. Um, the following
three slides are going to just be an example,
essentially, of a title slide that I gave for this
webinar, and in each subsequent one, I've highlighted
or chosen one portion, there's three portions to that
title slide, just to show what that looks like in the
reorder objects view. So, in this one, for example,
um, we see the three translucent panes, and then we see
the top pane selected, right? And then, here, we'll
see the middle one selected on this particular one that

contains the author name, for example, and Twitter handle, and then the last one here, the third one, we can see the third pane, and we can see the logo and everything else being presented as well, and, so, when you have it in this order, it will read correctly and mimic the visual order that we want for the slide. So, titled on slides. So, this is very important. Sometimes, folks don't want to display the title to a slide on a power point presentation, and if you don't want to do that, you can hide it visually, but you must always have a slide title, and try to make it unique. It's really important that it be distinct and unique. They can be similar in nature, you can have a prefix followed by, um, a topic, for example, the title for this particular slide, um, that we're on right now is accessible Power Point slide titles, and that's fine. There can be another slide that begins with accessible power point, but what's important here is that they have unique titles, because then they can be jumped to, so I can bring up a menu with the keyboard, jump to a slide and not have to remember, oh, that's slide 27 or whatever the slide may be, and what's important also here to keep in mind is that if you do want to hide them, do so visually, don't go in and delete them, and, um,

the way you can do that is you go to home, you know, in the ribbon, and there's an arrange tab that we've talked about before, and in the selection pane, you're going to see this icon of an eye, and if you click that eye logo, it's going to turn it into a dash, and that's how you know that that title that you've selected is now invisible, right? And so now it can't be seen anymore, but it's still in the slide, you didn't delete it, and that means that it's available to a screen-reader to still see, so that's what you want to do instead of going in and deleting titles from your slides.

So, um, one thing to keep in mind with respect to multimedia is that all the rules for, um, you know, talking about video accessible and time-based media, those still apply, so I want to take a few minutes just to talk about what that means with respect to, um, Power Point, and this is where, unfortunately, versions start mattering a lot. That's just a reality, and I'll try to be good about indicating where versions really do affect the approaches that I'm suggesting. So, when you want to insert a video, one thing that we should all be doing is captioning the video content, and the way that, um, is traditionally quite preferred to do

that type of captioning is by pointing it to an external file, SRT or VTT, and that's the one Power Point now supports, for example, and a VTT file is just an external file, it's very popular on the web, for example, and it's a subtitle format, a caption format, a text file that has time codes in it, and it matches to the time and the video, where the text of that caption should be displayed. So, you can add VTTs to videos now in Power Point 2016 on Windows 10, so that's the caveat there. Now, that's still hundreds of millions of devices, but it is not wide-sweeping, it doesn't cover Mac or Windows seven and 8.1, so you should be aware of that, with the hope that this level of support is going to only grow, and just like how we've seen some advances from Microsoft with respect to PDF accessible getting a lot better, I'm hoping that this also makes it over to the Mac in the next few versions of Office 365 and Office for Mac. So, the way that, um, we can play this media is also restricted to Windows 10, so that's something you should be aware of as well. So, from an authoring point of view, it's restricted to Power Point 2016, and from a playback point of view, that as well. Um, there's another thing that Power Point supports now with respect to videos, and that is videos

that have two audio tracks. So, what that means is that, um, and actually, excuse me, I should say multiple audio tracks, I don't believe that it's limited to two, and this allows you to have an alternative audio track, so you can have it in Spanish or Japanese or French, or you can have an audio description track. Really briefly, audio description is the act of talking in the spaces between dialogue and when there's no, you try to do it whenever there's no dialogue in a movie, to explain verbally what's going on. It's an additional audio layer for a movie, and, um, if you phrase that audio description as another audio track in your video, that's now supported in Power Point. The playback availability for this is a little wider than the captions, right? It's Windows 8.1 and up, so you're not limited to just 10, but, still, again, unfortunately, versioning matters here. If you want to take it over to a Mac or things of that nature, then the compatibility is not guaranteed anymore.

Um, there is one way to guarantee, basically, that the audio description and the captioning and everything else makes it all the way through, and the way that you can do that is by hard-coding it all in. This is not an advisable, or I should say this is not a preferred

way of doing things, but it may be advisable if you need
to just guarantee that your power point is fully
accessible in terms of its video. The way you can do
that is you can use standard video applications or audio
processing applications to take your audio description
track and mix it in to the regular audio of your video,
so basically, the video will always have audio
description, it's no longer able to be turned on or off,
and then similarly with the subtitles, you can
hard-code those into the video information as well, so
it's part of the video. So then, Power Point, it just
becomes a glorified video player, you insert the video
in, and no longer can you reference external files or
anything of that nature, but it's then guaranteed to
work, because it's all part of the video information.
So, that's just something to keep in mind, if you
absolutely need to, um, have that be available to you,
but you can't rely on Windows 8.1 and greater or Power
Point 2016 and so on. So, I talked about VTTs on the
previous slide and, you know, how do you actually add
captions to a video in Power Point, if that is the path
that you choose to go, and, so, the way that you can
do that is that you can click on the video, and when
you click on the video, this basically enables to, um,

enables a tab set in the ribbon, and in this tab set, you're going to see video tools, basically. So, in video tools, there's something, insert captions, and if you click insert captions again, it will allow you to modify, either to remove the captions you've already added or to add captions in the form of a dot VTT file, as I discussed before. So, that's how you can add captions to a video in Power Point.

So, let's recap a little bit about some of the things we've talked about. Um, with respect to tips and tricks that are common across Word and Power Point, we want to talk about font and think about it in the sense of size and type and font face, not using cursive and display type fonts, and also, color, in terms of not only color contrast, but also using only color as meaning, we're going to avoid that and instead use multimodal presentation. We can use color, but then also iconography, and also text to convey meaning. With respect to images and graphics, we want to, again, remember about alt text, providing alternative text to these things. That goes for tables and smart art and other things as well, so that that information, that visual information is available to those using assistive technologies who can't see or are low vision,

and if you can replace all your visuals with the alt text that you have written and everything still makes sense, then you know you're on the right path there, and remember, again, to avoid, avoid, avoid using images of text and actually put the raw text or link to the text, if you're on social media and are limited for a number of characters, don't put the image of the text, but instead, make sure the user has a way, the end user, the audience member has a way of accessing the raw text information. With respect to tables, um, remember the table headings and associating the row headers and the column headers with the table, that's very important for keyboard users and for screen-reader users to make sense of your table, and also that you can add alt text to the table as well, to summarize a maximum value or a trend that you want the user to pick up on. In addition, there's row banding, right? So, you can make the colors of each of the alternating rows the same color so that it's easier to then follow a row across and not get confused visually about a complex table or one that's full of numbers. Um, with respect to the accessibility checker, make sure to use this. This is a thing to just get in the habit of doing, so every time before you send out a presentation or a Word

document, make sure to run through this at least once.
If you can do it multiple times and make it part of your
actual workflow, so towards the middle, you're going
to do a little check and say I knew about that heading,
I just haven't done it yet, the standard thing to do,
don't feel like you always have to pass this the first
time you click it, it's there to help you remember
things, but remember, it's not the end all or be all,
there's other accessibility tips and tricks that the
accessibility checker won't talk about, and that's
fine, those are things to remember to do as part of your
workflow. With respect to making PDFs, don't print to
PDF, but instead, use save as functionality and save
to a PDF. That's very important.

     Um, and I know we're a little short on time, but
we're almost done here before I turn it over to Q & A,
just to recap on Microsoft Word, using headings is
incredibly important, to allow, especially
screen-reader users to navigate your document, and the
good news is this translates when you save it to a PDF,
and list format, and same goes for that as well, using
those style dialogues in Word to make sure you
semantically markup your document. In Power Point,
keeping in mind slide titles, provide unique slide

titles to each slide, keep track of the reading order.
This is the really big one. If you, honestly, the
reading order and image to alt text is the biggest
obstacles in terms of at least screen-reader users for
power points, and then we already talked about font size
and unique slide titles, so keep those in mind when
thinking about making accessible power points, and
then, of course, audio media, video multimedia should
be captioned, as well as audio described for those who
are blind and low vision, with all the caveats around
the versioning that we talked about earlier. So, call
to action, essentially, um, hopefully, you can
implement some of the tips and tricks from this webinar.
There's a resources slide that's coming up, so make sure
to utilize that as well, and those are hyperlinked out
to the various resources online to get deeper how-to's
on how to do some of these things, and there's videos
and web pages with screen-shots, that sort of stuff.
Encourage friends and colleagues to make accessible
presentations and to think about accessibility when
they're making presentations, and ask plenty of
questions on social media. This hashtag A11Y stands
for accessibility, it's a great tribe of people who are
there to help and talk about accessibility, and, so,

if you have questions about it, there's no stupid
question, it all comes from a great place of trying to
make everything better for everybody, so I encourage
you to ask and reach out. With that, I'm going to leave
up my contact, this is the resources slide here, I'm
going to skip past this, because these will be
distributed, and here is the contact information, and
I'll leave this up and turn it back over to the Kennedy
Center folks for the Q & A.

>> SPEAKER: Great. Thank you, Sina, so, so,
much. Folks, we have now reached the question and
answer portion of our webinar. If you haven't already,
now is the time to enter a question into your Q & A box
or to raise your hand. We've had a few questions kind
of trickle in over the course of the presentation, so
I'm going to get started with those, but please, please
just go ahead and enter those in, and I will be
moderating for the next just under 15 minutes. So, the
first question that has come in, the user says, I love
the social media as hashtag A11Y. Are there other
hashtags or accounts we should know about in order to
continue this conversation?

>> SPEAKER: Sure. So, if you want a list of
accessibility folks, I actually run one, and I will

provide this to you guys to put in the text chat for the presentation after we're done, but just because it's an easy URl it's Twitter.com/SinaBahram/accessibility. So, if you go there, there's an accessibility list I follow. If you feel like there's some people missing from that list, by all means, hit me up on Twitter, I'll be glad to add them, and that's a list of, I think it's, like, 150 people or so that all tweet about accessibility, and just keep in mind, some of them use their personal accounts, some of them use their work accounts, but between that hashtag, A11Y, and then also hashtag accessibility, I think you're going to find a lot of good resources, especially on that side of social media.

>> SPEAKER: Awesome. Um, are there other examples of images as text besides printing to PDF that folks should be avoiding?

>> SPEAKER: Absolutely. So, screen shorts, I think is the abbreviated name for it, you'll see this a lot on Twitter, where, you know, you'll have a news event occur, and someone wishes to talk about, you know, some text that is relevant to that news event, and instead of tweeting out a link to an article that

discusses the text or the raw text itself, the image
of that text is shared. Um, on Instagram or Snap Chat,
it's popular to take a picture of a note, something that
doesn't necessarily allow you to make a text-based
post, so there's things of that nature, where you'll
see it on social media, somebody either screen-shotting
text or sharing a photo of some text, for example,
something on a wall or something along those lines.
Look, if you don't have the ability to necessarily, um,
tweet the text out because it doesn't exist, for
example, like that text on a wall, you're sharing a
vacation photo or something that's really interesting
from an artistic point of view, then what you should
try to do, especially for something like that, where
there's not too much text, is go ahead and type that
into the body of the tweet. There's a whole other
presentation I give on accessible social media, where
I talk about the fact that you can now put alternate
text, just like we talked about in Power Point and
Microsoft Word, you can now do that on Twitter, and,
so, Twitter supports, um, putting alt text on your
images, and you actually get 420 characters instead
of 140 to do that. So, if you're absolutely in a bind
and have to tweet out that image of text and you can

fit it in 420 characters, then at least do that so that
it's accessible to people who are using screen-readers
and who are blind and low vision.

>> SPEAKER: Great. You talked a lot about
Microsoft Word and accessibility features, or
Microsoft Office and accessibility features there.
Um, are Google Drive or Mac programs also accessible,
or should folks really only be using Microsoft Office
right now?

>> SPEAKER: It really depends. If you want to
start a religious war, you go in and say, okay, I think
everyone should just use Office, and then you step back
and watch the drama unfold. So, I don't want to make
a prescriptive recommendation on what Office program
you should use. What I can tell you is that Microsoft
Office has been working pretty hard recently and
traditionally over the years to make it easier for folks
to make accessible documents, so whether it's Word or
Power Point or Excel, recently One Note got a revamp,
and Microsoft's attitude towards this over the last
year especially, um, year, two years now, with some new
management changes that have happened over there is
really compelling in terms of an ecosystem that is very
much prioritizing accessibility and inclusive design.

Having said that, um, in Google Documents, you can, I believe, associate alt text with images now. Google Docs used to be all but unusable with screen-readers and other assistive technologies. Now, you can use it with JAWS and others. So, if you are using Google Docs, I would encourage you, the same things apply here, everything that was said here, other than how to do it, um, applies there, so definitely look and ask for ways of associating alt text with images, labeling table row headers and all of those other things, using headings in a document and those things will then translate to that Google doc when it is viewed or consumed by an assistive technology user.

>> SPEAKER: Great. Um, how and why and when do folks use the accessibility feature when making PDFs using Acrobat, not Reader?

>> SPEAKER: So, how, why, and when? So, I'll, the how, unfortunately, it is about a one-hour response, so I'm going to table that a little bit and say that, um, there are some resources on how to use Acrobat to annotate PDFs and to tag them and make them more accessible, but I do want to talk about the why and when. So, the when is, hopefully, when you have a PDF that is not tagged or accessible in front of you,

and you wish to do so, then you can use that feature that you're talking about to make it accessible, if I understand your question correctly. That's usually called tagging a PDF, because you're adding in tags that are helpful for assistive technologies. Um, the why is because in an untagged PDF, that information will not be there, so you won't have headings, lists, alt text on images, table markup, so it'll be streamlined together. It might not be an image-based PDF, so it'll be a text-based PDF, but if it's untagged, then you won't get any of the benefits, it'll just be a, you know, three pages of flattened text, and so what's nice, when I mentioned save as PDF in Word, again, now in the latest version on Mac and also, um, in Windows for a little while now, is that it does generate a tagged PDF, it's just not fully compliant, if we have any PDF UA or other folks who are very strict about PDF accessibility in the audience, but it is an accessible and mostly usable PDF.

>> SPEAKER: Awesome. Um, so, someone says, I really liked the information about hex codes and the importance of font types and clarity with alt text. Are there any default color contrasts that you would say are the most universally accessible?

>> SPEAKER: Well, if you think prescribing an Office recommendation is controversial, prescribing colors is, um, definitely bound to get you winced. I have friends who feel very passionately about color palettes. What I would encourage you is, you know, it's really not a matter of saying, okay, I really like black on white, or, you know, it's really great to go with, like, a green background or something along these lines. A lot more of it has to do with that contrast ratio idea, that what you're trying to do is within the color palette that you're designing as a designer or content person, make sure the contrast is sufficient there. It's always okay to go over. Certain color combinations, they'll sometimes be 8 to 1, you're going to exceed it, and that'll be great. So, I would say pick the color palette that you want, and then, usually, all you have to do is just modify it a little bit, darken the background a little bit, lighten the foreground a little bit, whatever the case may be, to get it, um, to have beautiful contrast but still convey the esthetic that you want.

>> SPEAKER: Awesome. So, I have only one other question that has come through, so I'm just going to say that out loud so that if folks have anything that

they're kind of lingering on and are still working on,

just let them know they've got maybe a few more minutes.

The last question that I've received so far is do you

know of any apps that are making already accessible

materials? Like, I assume places that folks might want

to look, um, for resources that they know are already

ready to be sent out.

    >> SPEAKER: Oh, I see what you're saying. So,

in terms of, um, like, accessible documents and things

of that nature. Um, well, it really depends on the

types of things that you're going for. Benetech, as

an organization, runs bookshare.org, for example, and

there's a great, there's hundreds of thousands of

accessible books and other publications available

there, and there's tons of other organizations. The

Kennedy Center might have some links on their website

to accessible documents that you guys might want to

mention, but, you know, if you're thinking in terms of,

um, I think it's domain-specific, in other words, so

it would have to, really, the question would need to

be, I think, tailored a little bit more to, like,

accessible chemistry or accessible, um, art or things

of this nature, because I think the answer changes just

given the versatility of all the different people

working in this space. This is always one of those questions that you kick yourself for not mentioning the obvious thing after the recording is over, so I'm going to apologize to my future self and the audience for doing that, but that's my general response to that right now.

>> SPEAKER: Well, if anything else comes up, you always can feel free to e-mail us. We've got probably a few days before we'll send out the video and the transcript, so there is some time for future Sina to continue to weigh in. Um, great. Well, I did not get any other questions, so I'm going to let everybody go. I am going to, um, take control of the screen back for one last minute. All right, so, I'm going to ask all of our webinar participants to please, um, either follow the displayed link or stay tuned after this webinar, I believe the survey will auto-launch for you. Your feedback is always appreciated for us, and so we'd ask that you just hang on for a few moments longer to complete a short evaluation survey. With that, thank you for joining us. For questions or comments, you can contact me by e-mail or by phone at 202-416-8861. Have a great day.