

## **Transcript for OER Production Series – Technical Accessibility in OER BCcampus webinar held on August 11, 2022**

**Host: Harper Friedman**

**Facilitators: Harper Friedman**

HARPER:

So morning everyone. Thanks for coming to our Technical Accessibility Webinar! My name is Harper and I'm part of the production team here at BCcampus. In this webinar, I'll be talking about the Principles of Accessibility and also some practical examples and best practices for making your content accessible. I'd also like to note we'll be holding a part two of this webinar titled Applying Universal Design for Learning to Open Educational Resources on Tuesday, August 16th, from 10 a.m. to 11 a.m. as part of our OER production series which you can register for on our BCcampus Events page. It'll just be a deeper dive into the topics that we cover here. My colleague Alaysha is also here with me today, as well as the other members of the production team, and they'll be monitoring the chat. So feel free to put any questions that you have there as we go along. We'll try to answer all of your questions and there'll also be a question and answer period at the end of the session. So you can find a copy of these slides with speaker notes at the bit.ly link, [bit.ly/technicalaccessibility](https://bit.ly/technicalaccessibility), so that's B-I-T-L-Y/T-E-C-H-N-I-C-A -L-A-C-C-E-S-S-I-B-I-L-I-T-Y for you to follow along.

It's also written on the slide and Alaysha will drop the link in the chat. Automatic captioning and live transcripts can also be accessed in Zoom during the session. And I'd also like to note that the slides and recording will also be available after the session. Before we begin, I would like to acknowledge that I am joining you today from the traditional and unceded territories of the Lekwungen-speaking peoples, now known as the Esquimalt and Songhees nations as well as the territories of the Western Edge peoples commonly known as Victoria. I have lived here uninvited for six years, initially moving to complete my undergraduate degree at the University of Victoria, and I'm very thankful and grateful for the opportunity to be here with you today. Let us know where you are joining us from in the chat. Next slide, please. So the topics we'll be covering today are Assistive Technology, Web Content Accessibility Guidelines, How to make content accessible as well as point you towards resources on accessibility.

Next slide, please. So Assistive Technology is defined by the Assistive Technology Industry Association as any item, piece of equipment, software program or product system that is used to increase, maintain or improve the functional capabilities of persons with disabilities. What counts as assistive technology is a very broad category. For example, it can be low tech, like a pencil grip or a white cane, or it can be high tech like an audio recorder for note taking. Assistive technologies can also be designed specifically for an individual like a custom wheelchair, or they can be something very common and broadly used like a laptop. Next slide, please. Screen readers are software application that allows someone to interact with a digital interface in a non-visual way. They will read aloud content on the screen and allow someone to navigate using only their keyboard. Common screen readers are NVDA, which is a free open source software available for Windows, JAWS, which can be purchased and VoiceOver which is available on all Apple devices.

People who might use a screen reader are those who are blind or visually impaired, those who have a hard time looking at screens for long periods of time as well as those who prefer to listen rather than

read. Next slide, please. Text-to-speech tools are a technology that will read text aloud. They can be available as separate software, but are also often built-in to tools like Adobe Reader, Microsoft Word, and Internet browsers. People who might use text-to-speech include someone with a disability that affects reading or attention like dyslexia or ADHD, or someone who wants to complete readings while walking or cleaning their room. Next slide, please. Zoom text, the software that allows someone to enlarge content on the screen much beyond what is usually possible. It's often combined with text-to-speech, and this tool might be used by someone with little vision that needs content to be very large to read. Next slide. So let's start with Technical Accessibility. When talking about technical accessibility, I'm referring to Web Content Accessibility Guidelines or WCAG.

These are the minimum technical requirements that will allow students with disabilities to access all of the information in a digital resource. WCAG is an international digital accessibility standard that is developed and maintained by the W3C Web Accessibility Initiative. WCAG has four main principles, the content and digital interfaces be Perceivable, Operable, Understandable and Robust. I wanna highlight the first three. Next slide, please. So the first principle is perceivable, which is the idea that information and user interface components must be presented to users in ways that they can perceive. So this principle focuses on the format and display of content. Basically, all content included in a resource should be perceivable through a user's senses. That means that all information needs to be available through sight, sound and touch or available in such a way that assistive technology could be used to translate the content from another sense. So, for example, a blind student may use a screen reader to access digital resources.

The student will require text or audio alternatives of all visual content, like images and video. And in contrast, a deaf student will need captions or transcripts for video and audio only content. Next slide, please. The second principle is operable which requires user interface components and navigation must be operable. The operable principle covers how people can navigate and interact with the resource. For example, someone should be able to navigate through a resource using only their keyboard. People should have enough time to complete tasks. None of the content should cause seizures or physical reactions. And navigation should be easy and make sense. Next slide, please. The third principle is understandable which holds that information and the operation of the user interface must be understandable. That means the text is readable and understandable. The layout of a page is predictable and consistent, and there are features that help users avoid and correct mistakes. Now I want to look at how these principles can be applied in a design of educational resources and look at more concrete examples.

Next slide. So let's start with the Organisation of Content, which is basically talking about these two headings. Using headings to identify sections and subsections of a document helps readers identify the structure and content of a document. Headings provide a visual cue that helps sighted readers quickly skim through content until they find a section they are looking for. And similarly, if there are headings, it makes it possible for someone using a screen reader to navigate a page or document. A screen reader will not identify bolded or larger text as headings. So it's important to mark these headings correctly. Also, by marking up the sections and subsections of a chapter (AUDIO DISTORTS) headings and the screen reader can skip from heading to heading to get an idea about what the chapter is about, understand how the different sections relate to each other based on the heading levels, and skip to parts that they want to read. Without headings, a screen reader user would be forced to read the entire chapter from beginning to end every time they want to find a specific piece of information on the page.

As such, make sure that content is organised under headings and subheadings, and that headings and subheadings are used sequentially. So if your previous heading was a heading two, your next heading should be a heading three and not something like a heading four or five. Next slide, please. For links, there are a few important things to keep in mind. Firstly, the link should describe the destination or content of the link when it is taken out of the context of the sentence. Someone using a screen reader can hop between all the links on a page or have them all read out aloud. So having descriptive links is particularly important when links are separated from context. Links that open files should include the file type in the link text. So for example, if the file linked is a PDF, the linked text should be the name of the file with the word PDF written in square brackets. Links should also not open in new windows or tabs unless the text reference is provided. It can be disorienting and confusing if the user sighted or non-sighted is not expecting it.

However, if it is important that a link open in a new tab or window, you should include that information in the link text by adding the words new tab or new window in square brackets similar to how we denote what format a linked file is in. And finally, the Web address should be available for those using a print copy as they will only be able to see the link text without the Web address itself. Next slide, please. Alright, so let's see some concrete examples. Which of these links are accessible? A poll should pop up with four examples. The options are written on the slide and I will also read them out. Cast your vote for which of these four examples are accessible. You'll be able to select multiple answers in this poll. So the first option says, for more information on web accessibility, click here where click here is the link text. The second option says, for more information on web accessibility, refer to the Accessibility Toolkit, where Accessibility Toolkit is the link text. The third option says, for more information on web accessibility, go to <https://opentextbc.ca/accessibilitytoolkit/>, where the web address I just read out is the link text.

And finally, the fourth option reads the BC Open Textbook Review Template and in word brackets, Word File, provides guidelines for completing an open textbook review where the BC Open Textbook Review template [Word File] is the link text. I'll just give another couple of seconds for you to cast your vote there. Alright. Did everyone get a chance to submit your answers? Oh, there we go. So next slide, please, to show the results. So here are the answers for the poll. As you guessed, number one is not accessible. I think only 5% of people here said that it was. And also, actually, number three is not accessible while numbers two and four are accessible. So, yeah, for the most part people for correct where the most, the highest number of answers said that two and four were correct there. So in our first example, the link text does not have any information about where the link is going which makes it not accessible. In our third example, the web address is the link text and this is both cumbersome.

And while this particular example may describe more or less the content of the page we're being sent to, the web address of a page does not always accurately describe what the content of the page is. So that makes it not as accessible. And in our second and fourth examples, both linked texts that lists the name of the page or file that they're going to and that gives us the context that we need. And also the fourth example tells us what file format is linked there which we've already discussed as a good practice. And so that's what makes these both these links accessible. Next slide, please. So for tables to be accessible, they have to be marked up correctly. So that means that they need a caption that describes the purpose of the table. Heading cells that must be marked as headings with the correct scope assigned. And that means that they are marked whether they are a column header or a row header. No

merged or split cells should be in your table, and there should also be adequate cell padding which means just enough space on either side of the cells themselves.

So in the example on the screen, the table has a caption. The table also has a header row with three cells. These header cells are marked as headers and have their scope set to column since they're all column headers. Using header cells ensures that the table will be read out correctly by a screen reader and other screen reader technologies. The screen reader will read out the cells from left to right, row by row, and when you use column headers, the screen reader will announce that column, and each data cell falls under as it goes. So if a table is a really long table, is also recommended to provide a way to skip the table which will save people from having to navigate through the entire table if they aren't interested in the content. I won't go into any more detail about that here, but if you're inserting tables into resources you create, you can find specific instructions on how to ensure that tables are accessible in our Accessibility Toolkits chapter on tables which I'll be providing a link to at the end of the presentation.

Next slide, please. If your resource includes audio such as a podcast, interview recorded lecture or a song, there should also be a transcript of that audio. The transcript should include the speakers names, headings and subheadings for navigation if it is long and all relevant audio content including all speech content, relevant descriptions of speech and also descriptions of relevant non-speech content. Next slide, please. If your resource includes video, all relevant visual information needs to be conveyed in an audio description or transcript, and all relevant audio information needs to be conveyed via captions or transcript. Captions are text that is synchronised with audio in a video. Audio descriptions are for someone who can't see the video, any descriptions of visual content shown in the video that isn't conveyed through the audio. And a transcript includes the same information as audio descriptions, but also may include relevant descriptions of visual content. If you're creating video, try to plan and design the videos so that people who can't see the video still know what is going on without needing an alternative format.

You can do this by having the people in your video or narrator describe any important visual information while recording. So an alternative format is not required. Next slide, please. So here's another poll, who might want captions on videos? It has five options that are also written on the slide. So the options are, one, people who are deaf or hard of hearing, two, People with auditory processing difficulties, three, people for whom the language of the video is not their first language, four, people who like crunchy loud snacks and five, all of the above. I'll just give you a minute to choose which option is correct and you can choose one option. Alright, so when most people, there we go have answered, we will go to the next slide for the answer. Alright. So most of you got it correct, 94%, in fact. So the answer is all of the above. So all of these people will benefit from having captions on their videos. And I am also one of these people. I fit in both category two and also Category four (LAUGHS).

So I use captions on all of my videos and any movies that I'm watching. So I find it really helpful. So it's always a good idea no matter who your audience is to have captions. Next slide, please. So paying attention to the use of colour contrast in web content is important for people who have low or poor contrast vision, people who are colorblind, or for those who use a device with a monochrome display or someone who may be printing in black and white. In addition, information should never be conveyed by colour alone. On the top left, there is a bar graph that is charting student device preferences. He uses the colours red, blue and green to differentiate between students who prefer desktops, smartphones or

laptops. When the same graph is seen in gray state scale which is on the top right, it becomes really difficult to tell which bar corresponds with which category. The red and green pretty much look identical. And just generally the colour contrast, it's really hard to tell anything between them.

This may be a serious barrier for someone who has a hard time differentiating between colours or someone who has printed their resource in black and white. This problem can be solved by using colours with higher contrast ratios and by adding labels to each bar as shown in the bottom example. Adding labels to each bar ensures that the meaning of this graph is not only being conveyed by colour. Next slide, please. If you're looking for a tool to help measure colour contrast, I would recommend [contrastchecker.com](http://contrastchecker.com) which allows you to test the contrast between colours and will give you a pass or fail ratings based on the WCAG standards. And we can also share that in the chat there. Next slide, please. So here's another quick poll. Is this colour combination accessible? So the answer options are one, yes, it is accessible. Two, no, it is not accessible. And three, I'm not sure. The hex code of the colour of the text in the foreground is 2f9700 which is a kind of light green colour. And the colour of the background is the lightest white hence the code is all f's.

So I'll just give you a second to vote on the poll and then we'll have a look at what the answer is afterwards. Alright. Let's have a look at what the answer is. Next slide, please. So most people said that they're not sure with 34%, 31% of people said no, it is not accessible and then 15% of people said, yes, it is accessible. So the answer is that it's not accessible. For the most part, this colour combination of a lighter green text on white background fails accessibility colour contrast guidelines. One thing you might notice are the letters AA and AAA. These are different levels of accessibility defined in the Web Content Accessibility Guidelines. So, for example, a website might conform to WCAG AA or conform to WCAG AAA which is a higher level of accessibility. Most websites conform to AA. So using this contrast checker, we evaluated the colour combinations based on both the contrast requirements for AA and AAA. In this example, this colour combination fails both AAA and AA if used for regular text which is defined as text smaller than 18 points.

For larger text this colour combination passes aA, but it still fails AAA. The colour contrast checker will also tell us the contrast ratio. In this case, it is 3.79:1. And while WCAG AAA specifies that the minimum contrast for the regular text is 4.5:1. So to make this successful, we would just have to make the green a little bit darker so that the colour contrast ratio is up to standard. Next slide, please. So the next number of slides will be focusing on images and different strategies for describing images. When talking about images, we need to make a distinction between decorative images and functional images. Decorative images are images that are used primarily for design and do not convey content, or they convey content that is already described in the surrounding text. As such, these do not need text descriptions. Functional images are images that convey important non-text content. And so for functional images, you have to consider what information would be lost if those images were not available.

And this information should be provided in a text format. So there are three ways to provide text descriptions for images. The first is to describe the image in the alt text field. This is sometimes also referred to as the alt tag or alt attribute. The second is to describe the image in the surrounding text or a caption. And the third is to create a trait and link to a long description of the image. Next slide, please. So here is an example of a decorative image that appears beside a question in a math textbook. So the text reads, A bag of potato chips weighs 48g, how many mg is that? And then below that, there is an image of an open bag of chips. The image of the bag of chips helps break up the text, and it may make it

more engaging, but is a decorative image and it's not functional. Therefore no information would be lost if this image was deleted. So it does not require any text descriptions. Next slide, please. In contrast, here is an image taken from a sociology textbook where it was included to demonstrate that correlation does not equal causation.

If this image were not included, the example would be lost and the point would be less effective. And as such, it does need a description. A possible description that we might give it is, a line graph shows a close correlation between the divorce rate in men and the per capita consumption of margarine between 2000 and 2009. Next slide, please. So here's our last poll. Which image description is best? There's an image on the slide that we are trying to describe, along with three options of image descriptions. So the three options are, so number one is, the Wong-Baker Faces Pain-rating scale. Option two is, a collection of happy, neutral and sad cartoon faces with numbers 0-10 underneath. The third is a scale that uses cartoon faces to illustrate the different levels of pain that corresponds to a number at scale from 0-10. Zero is smiling, two is a small smile, four is a straight smile, six is a slightly sad face, eight is a big sad face and ten is a bigger sad face that is crying. So there's one choice that you get to make in this poll, and I'll just give you a couple more seconds to fill that out and decide which one you think is correct.

Alright. So we have our poll results. So can we go to the next slide for the answer? Alright. So most people were correct. It is number three, 92%. Oh, wow. So the first option might be a good caption for the image, but it does not describe the image. The second option gives a bit of a description but it doesn't really tie everything together and there's still information that is lost if it was deleted. The third option is the best description. The first sentence gives a general overview of the image, and then the next sentence gives additional detail. One thing to keep in mind when describing images is that context is important. Depending on the image, it might not read as much detail as other contexts. It all depends on what students are expected to get out of the image and what information would be lost if the image was not in there. And we'll be continuing - we'll talk about that a little bit more the next couple of slides. So next slide, please. So let's talk about the different places you can describe an image.

The first and most common is the alt text. Alt text is a short text alternative for an image that those using screen readers can access. The alt text will also be displayed if images aren't loading due to weak internet connection. Depending on the tool you're using to create your OER, you'll also be able to add alt text when you upload an image or when you edit the image. When creating alt text, there are some things to keep in mind. One, that the text will not appear visually in your resource, but it can be accessed by text to speech technology. The second is that there is no need to include the words, image of, in the alt text as a screen reader will announce the presence of an image before reading the content of the alt text. And finally, alt text is meant to be short. So we have to - we want to keep it under 125 characters, including spaces and punctuations. And if an image requires a longer description, describe it in the surrounding text or at a long description. One reason that we wanna keep it under 125 characters is that typically when a screen reader will read out an alt tag, it will say something like graphic and then read the alt text.

And after about 125 characters, it'll say graphic again. And so that will really interrupt the flow of the description. I'd also like to note if an image is decorative or described in the surrounding text, you can leave the alt text blank. This will ensure that a screen reader will skip the image. Next slide, please. You can also use the surrounding text to provide the same information as provided in the image. This is

often the best option for complex images because it makes the information available for everyone and not just those using an alt tag. If an image has been adequately described in a caption or surrounding text, it can either provide like a few word description of the image as the alt text or just not provide alt text at all. In the image shown here, the caption reads, a Stó:lō woman weaving baskets which adequately describes the image and therefore alt text is not required. Next slide, please. Complex images such as charts, graphs, diagrams, maps and more will likely require descriptions that are longer than an alt tag can fit.

In these cases, you will need to create a long description for the image that students who can't see the image can access. Long descriptions can be a few sentences, a paragraph, or even an ordered list depending on the image. We know that this can be a bit tricky. I know that I found it quite tricky at first and will be covering image descriptions more in depth in the second webinar on accessibility that I mentioned before. Next slide, please. So when thinking on how to describe images, here's some things to keep in mind. In terms of what to describe, focus on the content and purpose of the image. What is the image trying to convey? What information would be lost if this image was removed? And note that this will likely depend on the audience and the context. In terms of how to describe it, make sure you are objective as possible. You wanna be concise and if the image is complex, go from general to specific. Next slide, please. Now, I wanna talk a little bit about Math Accessibility. This is an area that we are still learning about, but it is a topic that we get questions about a lot and that we are working to learn more about.

The most common mistake that we see with regards to math accessibility is authors using incorrect symbols from simple math equations. This is generally the case in books that aren't math books, but use these symbols for basic equations or to convey things like negative degree temperatures. So I've put a couple of symbols on the slide here. The first row shows different symbols that might be used to denote multiplication. However, a screen reader would only read the middle symbol as times, the first symbol would be read as an X, and the last would simply be read as a dot. In the next line, the first and last symbols are a hyphen and an m- respectively, and as such, screen readers don't announce their presence unless settings are changed. Only the middle symbol is something a computer would read as a minus sign. The next line shows a division sign and a forward slash, and the last example shows a fraction. A computer would read the first fraction as one half or one over two, and then it would read the second fraction as one two.

So not what we want it to convey. Another thing to keep in mind is the different ways we use math symbols. For example, in chemistry, you might want to say that an element has a charge of negative ion, sorry, a charge of negative one or positive two. But when talking about addition and subtraction, you would want those same signs to be read as minus and plus. So it really kind of can get a little tricky in that way. Next slide, please. When dealing with more complex math equations and formulas, using symbols is no longer enough. There are two ways to make math accessible. The first and best option is to create equations using MathML or LaTeX which are both mathematical markup languages. And then use MathJax to render those equations. MathJax will translate the markup into accessible, high resolution equations. As long as the markup prioritises the meaning of equations over display, the screen readers will be able to accurately interpret the equations. Next slide, please. If MathML and LaTeX are not an option, the next best option is to provide an image of the equation and provide an alternative text description.

I provided an example on the slide of how this equation might be read. So the text description reads  $m = \frac{m - 0}{\sqrt{1 - \frac{v^2}{c^2}}}$ , end square, end square root, end fraction. A key thing to think about when it comes to describing more complex equations is how we do away with ambiguity. So in the given math equation, it's tempting to read the denominator simply as the square root of 1 minus v-squared/c-squared. But that kind of makes it unclear about whether the second fraction of v-squared/c-squared is in the square root or outside of it. In 2014, BCcampus conducted a user testing session with visually impaired and blind students who indicated that it would be helpful to place an audio file of the formula or equation alongside the equation which allows the students to hear exactly how the formula or equation should be interpreted. So this is something we consider as well. Next slide, please. If you were publishing a web-based resource, I would highly recommend WAVE, an accessibility checker.

It is super easy to use and it will highlight most accessibility problems. You can either paste a link to the page you wanna evaluated or you can install it as a browser plug in. I should also note that a lot of software includes a built in accessibility checker including Microsoft Word and PowerPoint. However, keep in mind that using an accessibility checker doesn't prove a resource is accessible but they can be helpful to identify accessibility issues that you might have missed. Next slide, please. A lot of accessibility considerations I've talked about so far are things that can be checked off. Do your images have alt text? Check. Does your table have a caption? Check. Do your videos have captions? Check. I started by focusing on these checklist items because they're concrete and actionable. And in addition, these items make up very important minimum technical considerations to make sure students with disabilities can access their educational materials. However, a checklist approach to accessibility has a number of weaknesses.

It makes accessibility seem like something that can be fixed later and it does not ensure good design. It doesn't account for multiple formats of OER. Students face challenges, sorry, students face access challenges that are not addressed in standard accessibility checklists, and it also does not ensure equal access to learning outcomes. Next slide, please. Before we finish, I wanted to point you all to the Accessibility Toolkit published by BCcampus. This toolkit covers a lot of the same information that I cover today and often in more detail. It also provides an accessibility checklist, activities and links to a series of webinars on inclusive design. This toolkit can be accessed at [opentextbc.ca/accessibilitytoolkit](http://opentextbc.ca/accessibilitytoolkit) and Alaysha will also put that link in the chat. Next slide, please. And finally, I'd like to mention that this webinar is part of our OER production series. We have three more. There is a second webinar on accessibility, as I mentioned before called Applying Universal Design for Learning to Open Educational Resources on August 16th and then a second webinar on Pressbooks called Advanced Pressbooks on August 25th and as a follow up to our last webinar that introduced Pressbooks.

In the webinar on August 16th, my colleague Jessie will build on what we know and talked about in Technical Accessibility to explore how we can go beyond minimum accessibility requirements. We'll dig into concepts like the social model of disability and how UDL can be applied in the design of OER. And we'll also explore multi-modality as well as the benefits, challenges and considerations of digital versus print formats. And you can register for those webinars again by visiting the BCcampus Events page. Next slide, please. And that takes us to the end of our webinar. A reminder that you can download the slides here at [bit.ly/technicalaccessibility](http://bit.ly/technicalaccessibility), and that the recording will also be available to you after this webinar. Thank you for attending. We covered quite a lot. So if you have any outstanding questions that were not answered before in the chat, feel free to ask them there and we'll try to answer as many



questions as we can there. Thank you so much. OK. So I'm just looking and we previously saw that a question came in in someone's registration form and they were asking if there are resources for people with less knowledge on technology to learn how to access OERs?

And I was just reminded by my colleague here and I wanted to direct you to our new collection. I will try and get the link in the chat here which is the BC Open Collection. So we have a collection of open textbooks and also some courses that can be helpful and that's an accessible way to access OER, maybe for someone with less technical abilities. I also would want to direct them to the Pressbooks directory which is a directory of a whole bunch of open textbooks. So that's also somewhere you can find OER. And then we also have the OER by Discipline Directory which we have created which houses a bunch of OER resources that are not necessarily textbooks but we wanted to link to and I'm just grabbing the links for them here. Oh, Kaitlyn also has gotten them there. Oh, yeah. Thank you D. JR for the Pressbooks directory. Alright, tryna keep up with the chat. Joanna asks, I'm a librarian and a lot of my images are screenshots of searching different databases. In that instance, would you say screenshot in the alt tag or is that redundant?

It depends on what these image is trying to convey in this case. So if it's just kind of as an illustration of what like a database might look like or, what searching through a database looks like, I would say that if the text surrounding kind of adequately describes what would be happening in the image, then I would say just to leave it blank so that people don't - the screen reader doesn't need to see that. But if there is some important information in the screenshot, say that you're trying to instruct someone on specifically how to navigate through a certain database or that sort of thing, then I would try to actually provide that in the text itself of the resource rather than just relying on the image. But if that's not something you want to do or can do, then I would either create a longer description if that's necessary or provide something in the alt text to just kind of describe what the pertinent information and what the information you want the people to get out of that image is.

So kind of depends on how complex the image is and kind of how much information you want people to glean from that image. Is that helpful? I hope so. Thanks, Joanna. I'm glad I was helpful. Alright. It looks like people largely have their answers, or their questions answered, rather. So, yeah, feel free to log off as this is the end of the webinar. If you do have more questions, you're free to hang around.

Recommendations for Transcript Creation. I would say that manual is better in terms of making sure that everything is accurate. I would not solely rely on automated, but something that we do, for example, when we caption or transcript things is that we do have - we will run it through the automated transcription service or for example, we use Kaltura and we run the kind of automated captions first and then we go through and manually check whether something is correct 'cause sometimes the computer doesn't hear correctly or, the audio is muffled or something is like in a different language and it doesn't spell it correctly, that sort of thing.

So a combination of both can be both a timesaver and then also more accurate. So I would recommend going through the automated process and then going through manually and making sure everything's correct and nobody's like mishearing anything. And Josie in the chat has also provided a really good resource which is Otter.ai which can be helpful for the automated part. Alright. It seems like questions have slowed down. Unless someone has a burning question, I might call that a day. And thank you once again for coming to the webinar. As we said before, you can download the slides here. There's also a list of the links that I kind of went through as we went along. So if you missed those, you can go back and

just click on the links in the link document. And I've also provided slides in PDF format if you go to that bit.ly link as well. So if that format is better for you than PowerPoint because I know that PowerPoint can kind of slow things down a lot, feel free to download those as well. Alright.

Thank you so much.