

Transcript for Alternative Format Creation

BCcampus Accessibility Bites session hosted on August 29, 2024

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JENNIFER WELDON:

My name is Jennifer Weldon, and I am the accessibility librarian with CAPER-BC. I am a white middle-aged woman with dark hair, dark eyes, wearing black clothes, and I tend to talk with my hands. I'm joining you from my office at Langara College, which is in Vancouver on the traditional unceded territories of the Musqueam, Squamish and Tsleil-Waututh People.

So I'm going to talk a little bit about CAPER-BC just to orient you with what my experience and background is. We are a service that's provided by Langara College and funded by the Ministry of Post-Secondary Education and Future Skills to produce or procure alternate format course materials for post-secondary students that have print disabilities, and we serve most of the publicly funded institutions in British Columbia. We primarily handle textbooks, but we also convert instructor and produce materials like PowerPoints, course packs, readings, and exams. With the Accessible B.C. Act, the post-secondary institutions and their faculty members are going to be expected to provide accessible course materials to comply with the Act. These expectations will be outlined in the forthcoming education standard. Today, I'm going to talk a bit about accessibility legislation, alternate formats, and how they interact with assistive technologies. And then talk about a few common problems with instructor-generated materials and provide some tips and resources that you can use to reduce the barriers for students with print disabilities in your classroom. Because I'm an alternate format provider, I am going to focus on students with print disabilities, but I acknowledge that there are other considerations for students with other information access profiles. So I'll talk a little bit about the legislation first. The Accessible B.C. Act was passed in 2021, and they identified eight standards that would be developed over the next 10 years. These standards are going to apply to publicly funded organizations, including post-secondary institutions. And the first two standards that are in draft format at this point are employment and service delivery, and they just finished the public consultation process for the draft standards this past July. At this point, we don't have an education standard yet, but we can look at other jurisdictions to get an idea of what will likely be required for course materials.

So far, Ontario and Nova Scotia have some draft education standards, and they identify the following things that instructors will probably have to think about. For textbooks, reading packages, and other course materials that are sourced by instructors. The commercially available materials that you ought to bring into your classroom. They should be available in multiple formats. This includes, could be hardcover as well as digital. Now most large publishers do this already, but smaller publishers or other areas that you might be getting materials might need some more investigation to make sure that there are at least a couple of options for students. Time frame was also identified in both Ontario and Nova Scotia. But they're different. Ontario said that accessible alternate versions would need to be available in a reasonable time.

That was not defined. Whereas Nova Scotia said that it should be at the same time. Honestly, it's more equitable for every student to get their course materials that they can use at the same time. For instruction materials created by instructors, they should be in an accessible format that can be converted to students' needs. What I would take that to mean is that they would need to be available in a digital format, such as a Word document that's properly formatted that could then be modified to students' needs, either by a student or by an alternate format producer, such as CAPER. If accessible formats are not available, then an alternative means of representing the information content that allows students to access the learning and equal ability to achieve required outcomes. I would interpret that to say you have a physical item like a large paper map that the students need to interact with visually to complete an assignment or an activity, you would need to provide an alternate assignment or activity that could be completed by a student who is blind or has low vision. We don't know what the standards are going to be, include yet or what their language will be exactly like. But these are things to keep in mind for what may be coming once the standards are developed.

I've talked about alternate formats, and this is about alternate format creation, but what is an alternate format? Typically, in our world, it's a different version of a standard print text. It could be a physical version of a hardcover book that's different, such as a braille or large-print book, or most often what we deal with is electronic versions of print text. It could be an accessible PDF, Epub, Word, or other digital format that works with assistive technologies. The thing to keep in mind though is that every student has their own preferences, and they all use different assistive technologies, and some even prefer different formats for say pleasure reading versus academic reading or based on subject, different formats for say science content versus a novel. The idea is not to make sure that your accessible course materials are how you create one super accessible format that works for every single student. But just think knowing that there's enough variation that having multiple formats to pick from or at the very least a basic version such as a properly formatted Word document that can be converted or modified by the student to meet their needs. So when we're talking about digital alternate formats.

We have to also talk about assistive technologies, or I will probably refer to it as AT at some point during the presentation. This can be software or even hardware that helps students access information, and they can range from high tech to low tech. For example, I use reading glasses because there are font sizes that are too small for me to read. In a way, my glasses are assistive technology. But for say a student with low vision that needs the text to be even larger, they might use a magnifier with a print text or text enlargement software for digital text. Um, one of the most common assistive technologies used by students that access paper materials is text-to-speech. Lots of students struggle with reading visually, either in print or on a screen, and they find that they absorb the information better when they listen to the text at the same time as they read along. Other students have very low vision or are blind, and they access their digital content with screen readers. This is a program that acts as an interface between the user and their computer and allows them to access content, navigate the computer, and controls for anything that they're using on there. But the important thing to remember that for digital content that you're creating is that anything like a PDF, a Word document, a PowerPoint file, is

that it has to be formatted properly so that it interacts with the assistive technology in a consistent and predictable way. I'm going to be focusing primarily on digital content today. Most of my recommendations, as you'll see at the end of the presentation will be oriented towards students using screen readers because they are impacted the most by inaccessible content.

You might be wondering, what can I do to make course materials to make it accessible. I wish we had a lot more time today because I do like talking about document accessibility, it takes some time to learn. I'm going to keep things short and sweet and just go over a few key things that you should keep in mind when putting together your course materials. I'll go into more detail about three of them at the end. But some of them are just really easy to adopt right away and make quite a decent impact for many of the students that are using assistive technology. As I mentioned before, providing things in multiple formats for handouts, exams, readings, whatever you have. Having a Word document alongside the PDF is super valuable. It allows students to modify the Word document to their preferences because sometimes it just takes applying a certain colour, a certain font, a size of text, or just modifying the layout a little bit to make the content much easier for the student to access. Different assistive technologies also work better with different file formats. Some we'll deal fine with PDFs, but others will need a Word document. The other thing to remember and this sounds super super simple, but that the text must be machine readable for lack of a better word. We all have those photocopier, scanner, multi-function devices or MFDs in our departments. And as far as I know, I'm prepared to be wrong, but typically, they don't have optical character recognition capabilities, so they render their text into images, which is completely inaccessible. Um, even if you're creating a Word document where most of the content is accessible, if you have any images that include text or you've taken a screen capture of something from somewhere or a graphic or something like that that has labels, none of that text or even the context of the image is accessible. So you would need to, that would need to be described.

Navigation is another simple thing where you have headings in your structure or to add structure to your document, as sighted readers are able to scan a document to find the major sections that they need. But it's not enough to just bold your section headings or make them larger because while sighted readers can pick up on that, it doesn't mean anything to a screen reader or a text-to-speech app. The document will be very challenging to use. I'll explain a little bit more about that later on. But there's a basic Word feature that helps you to add navigation to your documents. Reading, order, and layout for Word documents, keep things as linear as possible. If you must use a complex layout, say you want to have two columns of text, then use the column function in Word. A lot of the features in Word are relatively accessible. I'll say that with a bit of a caveat because sometimes they change things. Change things up and it breaks things. Use the in-built column function in Word to make two columns, as opposed to say using a table or text boxes to format your content. In fact, just tables should be avoided as a layout tool altogether. If you have tabular data and can keep it in a simple table, no problem. Um, but otherwise, just use the layout functions in Word to actually make your document, put it together. The last thing I'll just go over quickly, descriptive link text. Hyperlinks should not be

included raw, because a screen reader text-to-speech app will just read it out as a series of characters, and nobody wants to listen to HTTP colon backslash backslash What you should do, if I were to say, want to link to the CAPER-BC website is I would type the words, "CAPER-BC website," highlight that phrase and link that to the URL. Word has a feature for that. It's much better for all users, but especially for users who are listening to their text. Um, contrast and text size, again, another easy one to adopt. Sufficient contrast between text in the background is really necessary for many low-vision users. Black on white is a safe choice. But if you're using branded colours, it's a good idea to run it through a contrast checker. Contrast is also relative to text size, so you get different results based on text size. Opting for a larger size of text is helpful. I have at the end of the document or the slide show, I have a link to a contrast checker. Then finally, alt text for images. Any visual content that provides information should have a description for those who can't see it. I have also heard from blind readers who appreciate descriptions for content that you might not think provides necessary information such as cover art for a book or something like that. Those are all just bunch of quickly covered accessibility features that you can keep in mind when you're creating your materials. I have linked to a resource at the end that can help you if you want to do a deeper dive into how to make that happen in your own material.

I'm going to move on to some common accessibility issues and course materials that we encounter at CAPER. I often find myself telling people that just because it's digital doesn't mean it's accessible. We do convert a lot of instructor-created course materials when necessary. But the ideal scenario would be that instructors to the best of their ability will be able to create the course materials with accessibility in mind, to make it more accessible. This means that as many students as possible get their course materials in a format that they can use at the same time. So I'm going to cover some common issues we're going to fix and then make some general tips. Then, as I mentioned before, just keep in mind that multiple formats, ensuring your text is machine readable, paying attention to font size and contrast will go a long way to helping students using assistive technology to access your material. Again, a lot of what I'm going to talk about next will have the highest impact on screen reader users because they don't have the option to supplement gaps and accessibility by reading the content visually.

The first thing I'm going to talk about is course packs. These are the most common category of material that we're asked to fix, most of the time, it's because they have no optical character recognition or OCR, so the text is not machine readable. That means that any student who needs to listen to the text, whether with text-to-speech or a screen reader, will not be able to access it with their assistive technology. I've got an image on this screen that is an example of something that we actually received at CAPER last year. It's a page of a book that has obviously been a spine, had its spine pressed against the glass of a scanner. And because of the curvature towards the spine, there is some darkening. Some of the text is warped, and it's also very faint. So not only is this an image of text that is in accessible, even when we go to remediate it, it makes it very difficult because the optical character recognition software that we use doesn't always pick it up very well if it's that faint or that warped or there's dark background. In this case, we ended up having to resort to typing it out. But we've had materials come in that have

been so difficult to read that we actually had to go get the source material because we couldn't figure out exactly what it said. That type of material is accessible to no student. It's really important to think about the materials that you're providing, especially if you're scanning things from a print book about what else can you do. Just remember that the text needs to be machine readable. Avoid scanning with an MFD if you can. If you can't, it's possible, you could run it through an OCR program yourself if you have access to it. Just keep in mind that it often needs to be corrected in order to be accurate. Alternatively, you could try using licenced material through the library that you can link to. Online versions in HTML are often more accessible, or if the student has an option to download the file that they can use with their AT. You can use Interlibrary Loan to get PDFs or other clean digital versions from the library. This is helpful for us in that even if they need remediation, at least the text is all there. Alternatively, have a clear citation list, including whether or not that specific addition or version is strictly necessary. This is more of a helpful for CAPER thing because that helps us to track down the material. But if the student wants to track down the material themselves, they can also do that if they know what they're looking for. Course packs, that's a big thing.

If you don't use course packs, but you're just creating documents in your class, then including navigation is super important. I'll talk about this in a little more detail. It's something that we end up doing quite a lot when we're creating our alternate formats is making sure that the navigation is either present or accurate. Navigating a document without headers is extremely difficult to do, especially for screen reader users. Imagine that you needed to read Chapter 10 to prepare for your class. But in order to do so, you needed to read chapters 1 to 9 first. That would be a terrible experience. Without proper headings in your document, screen reader users may need to listen from the very beginning to get to the part that they actually need. When you're creating your handouts or other course materials in Word, the best practice, whether or not they are destined to become PDF is to just use the styles menu. I think right now it has an A with a little paintbrush is the logo for it. Then you need to create a meaningful structure. There's more to it than what I'm going to say, but just remember that it needs to be logical. The title of your document could be heading one, major section titles, get styled with heading 2, subsection titles, get styled with heading 3. This allows students to scan through the document to find the section they need. You don't need to overthink it, just be consistent. If you don't like how the styles look in Word, you can modify them however you like. Just keep the contrast in mind when selecting colours. PowerPoints need navigation too. This means using one of the system layouts that includes a title field. So each slide should have a unique title in that title field because they end up becoming the navigation system through the slide deck. Three consecutive slides with the same title is not very informative. So I would just if you have to have the same title for three slides or a bunch of slides in a row, I would just number them one, two, three. Then if you decide to convert your PowerPoint to share with the class as a PDF, make sure you save as a PDF. This moves the titles into the navigation section as bookmarks and so that it's maintained for the PDF file, and it should include all the alt text you've put in there for the images too, which leads me to the third most common thing that we end up remediating at CAPER.

Images that convey information. So handouts, PowerPoint slide decks that have a lot of images, images, including texts that have clipped from other documents. For blind users who aren't able to perceive the image visually, they need to be described so that they can get the same necessary information from it that their sighted peers can. I've got an image up here of an archaeological site that was part of a slide deck that had no text on it other than a caption and underneath is the description that we created for the student. I'm not totally sure how well it worked for them because one of the challenges for us at CAPER is that we're not subject matter experts, nor do we know how the image fits into your learning objectives. Ideally, these descriptions would be provided by the instructor. Now, describing images is a skill, but as the instructor, you know best what you want your students to take away from the material, and the description should just concisely communicate the important content that you want the student to learn. This is probably the most daunting of the issues that I'm talking about today as it's very time consuming to do, and we often include a lot of visual content to create an interesting document or slide. I know it's a lot of work to deliver a class and this is a lot to ask in terms of time and energy, but it is very important for some of your students, and so. Yes, I will just leave it at that.

And so the last thing I'm going to sort of second to last thing I'm going to talk about is just things that'll probably go to CAPER. I used to joke about, you know, putting ourselves out of business by getting instructors and publishers to make everything totally accessible, but chances are there are students with complex access profiles that we're just not there yet. So math content needs to be marked up with a special markup language Math ML. An instructor certainly could learn to do it, but there's a learning curve, and it's very detail oriented, and we have to have a lot of proofreaders. I suspect math content will end up crossing CAPER's desk into the future. Complex layout PDFs. Again, we often have to put them into eText and create them into a linear marked-up file. We're going to be doing that. Image-heavy content. Another thing we get is how to use Excel and describing screen captures of Excel spreadsheets with annotations. That stuff ends up at CAPER. Also consider that alternative methods may always be needed to communicate some kind of content. Students may need human readers or tactographics, or something like that. That's just a little um, sample of things that are getting into the more complex areas.

Then I'll just finally end with some general accessibility tips. If you have multiple formats available, let your students know because then they don't have to ask. If you know that there's a student with an alt-format accommodation or if they approach you and say that they have an alternate format accommodation, just have a conversation with them to see what works best. They know their needs and their assistive technologies the best and just be open to working with them. Then right now you can reflect on your existing course materials. Does it really need to be in a PDF? Is the text machine readable? Have I considered the best practices for accessible Word documents and PowerPoints? And that's the end of my talking, but I will quickly move through, and I know that Luke was here, and so I will put in a plug for the resources that I provide at the end, which is the Accessibility Handbook for Teaching and Learning. Luke McKnight and Briana Fraser, put it together. It's fantastic. It's hosted on BCcampus. It is a

Pressbook. I highly recommend it if you want to deep dive. Then I've included my contrast checker from Web AIM for that I use all the time. I've also got a little quick accessible document checklist you could look at. It is summarized from the Accessible Documents Checklist from Accessible Libraries, and don't let the libraries throw you off. They work with tons of people with lived experience who have put these things together. They're great resources. I'll stop talking now and go to questions. Maybe I'll stop sharing so I can see people and look at the chat too.

HELENA:

Yes, Jennifer, the first question is whether the PowerPoint is available, and we did actually send the PowerPoint to all registrants. I think it went out around 10:00, right, Kelsey, so you can just check your emails, but we'll also send it out with the recording again in two weeks' time.

JENNIFER:

Wow, there's lots of people here. I was like, there's five people here. Good thing. Luke, go ahead. Although, I have to be kind of anxious because you dive into this stuff super deeply.

LUKE:

Not at all. My question is also just a comment. One, I think that was an amazing presentation on so much material in 25 minutes because I think we all have to acknowledge that there is quite a few things that go into this. And I've always struggled to try and make it digestible for people, and I think that was amazing. The one thing I would just emphasize is that, again, in the idea of putting Jennifer out of work, which is never going to happen. But, you know, the more accessible choices you make as instructors with the textbooks that you choose or the online resources, or the work you put into making your Word documents and things accessible, for your student that, just has maybe a reading difficulty or something associated with attention or likely those documents won't have to go to CAPER, and then CAPER has more time and resources to devote to converting math for a student that's blind and or visually impaired, right? So I guess what I'm saying is that, you know, the more and more we can make these sort of born accessible choices, it doesn't just affect your immediate audience. It has these spill on effects that are going to be beneficial for everyone. And I would just really advocate that within the best of your abilities and obviously, not everyone's an expert in the field, but just trying to make those better choices at all levels, not just when you get an accommodation letter

JENNIFER:

Yeah, because then there are students who may have those reading difficulties, but aren't with the Accessibility Services office and would benefit from it without, you know, having to ask and stuff. So it's just, you know, I know you don't have to make it perfectly accessible. You just like any little incremental barriers that you can take away will help. So it's definitely worth trying and just making decisions and just knowing what you need to do. Anyone else? I appreciate all the comments in the chat. That's awesome. I'll just also mention that part of my job because we're a provincial service is to provide outreach or support to post-secondary instructors regardless of whether CAPER serves your school. If you have questions or want me to talk to

anybody at your school or anything like that, please feel free to reach out. We're available. I see there's a question, Jennifer.

PARTICIPANT:

Thank you for this. It was tremendous. I'm wondering, you acknowledge the labour of generating alt text and I'm asking very cautiously if you've done work or have guidelines for using a generative AI to assist with that? Not to take care of it entirely, and I'm actually doing this pedagogically as well. I'm going to be having my students do alt text of the images that they choose for their presentations for audience. And when you were talking about, I think the role of the audience is also important, but just the bulk of it to generate some and then to go in and to revise it. Have you worked with generative AI? Any guidelines or suggestions?

JENNIFER:

We don't do that at CAPER. I have talked about it actually with Luke, who was just talking earlier, as a starting point, it means that there's something there instead of nothing and you start with AI to give you something to edit so that you don't aren't faced with the blank page then I think that's okay. I don't know, Luke, how you would feel it, but I feel like if it's you know, the differences. I don't have time to do it at all versus if I get to start with AI, I can actually get somewhere, but you have that human review and editing, then I think that would be all right. I don't know, Luke?

LUKE: Do you mind if I...?

JENNIFER:

No, I would prefer like I said, we don't actually do that at CAPER. We haven't really explored it as a workflow for us, but I know you and I have talked about it and we've talked about it at the sessions and things like that, too.

LUKE:

Yeah. I would just say, you know, Jennifer, however, familiar you are with generative AI generally. Almost none of the okay. Well, in a brief sense, the output is never perfect, even if you're just generating text, right? I don't know. Write me an email on this touchy subject. It's never perfect the first time. But what I find that it does, especially with describing images, is like say a flow chart, it gives you a structure of like, "At the top is labelled..." I'm trying to think of the parts of a flower that I use as an example for, again, library person. I don't know anything about flowers. But it gives you that structure where it's like, and then moving around in a circle, or it gives you those pieces, and then you go through and verify that, like, Oh, it's labelling this part of the petal. Oh, that's the right word. And then moving down the stem of the flower, it mentions this part, and then you verify the details. I would say the output it's not going to be give it an image, get the perfect alt text; it just will give you a starting point like Jennifer says. But in the handbook that she linked, there is a chapter on using AI to generate alt text, so you could refer to that as a starting point, at least with some prompts and stuff like that.

PARTICIPANT:

Thanks so much. I haven't been using AI, but I want to do this, and I hear the bit about not being perfect, but also just getting it done. Thank you.

HELENA:

Well, thank you, everyone. Those are great questions, great comments. Luke, I'm glad you're here, he's also later in our series. Next time, we are talking about plain language, so please join us. I want to say a huge thank you to Jennifer. So much wonderful practical information. That's for us to think about. Really at BCcampus. I speak on behalf of BCcampus, but my personal hope and I believe it's our team's hope is that you will take this conversation into the hallways, talk to your colleagues, share the recording when it comes out. Because, yeah, we really want to be more proactive in putting accessibility front of mind and not as something that we do afterwards. Thank you for showing up. It means it's important to you as well. And as we are at the end of summer, enjoy the last few days of summer, and may you all have a smooth start to the new academic year. Thank you, Jennifer.

JENNIFER: Thank you, Helena. It was my pleasure.