



## Accessibility at a Glance

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### 9:30 AM

**NAVEESHA MAHARAJ:** For all of you who have seen us on LinkedIn or Twitter or our website, this is Debbie and myself, Naveesha, and we work at CNIB, right up stairs. Just a quick introduction: over at the left corner at the back, our manager Mike Park is over there, so we're on our best behavior today. Please clap as much as you can. That's our website up there, which is [www.accesscontent.ca](http://www.accesscontent.ca), which I'm sure all of you have seen before and if not, more information about what we do is at the back as well.

Some of the services that we provide, in terms of accessibility, how we can help the corporate environment, as well as the small businesses and non-profit organizations; CNIB offers accessibility consulting services in website accessibility audits, redesign certification, document accessibility (so just taking your basic document out of word or excel and converting it into a document that's accessible to use) help desk, desk top and applications accessibility. This is something our manager Mike Park looks into - that is where we will go into a workplace environment and analyze or access what a user is using and how we can possibly help them do their job better. Training and documentation: a lot of people in here that we've seen so far have either been to one of our workshops, either our usability and accessibility workshop or the PDF. Those are the two trainings that we do provide, as well as AODA customer service. Built environ-

ment: so everything around the building and the best way that any one with a disability can best access the features within a building and usability testing. So if you have software or any kind of equipment that has to be tested for accessibility, whether it's the input or output, that we can take care of for you as well. To learn more about all these things that we do provide, our website and phone number is up on the screen.

[www.accesscontent.ca](http://www.accesscontent.ca)

Phone: 416-486-2500 ext. 4222.

A bit about us: CNIB is a nation-wide, community-based, registered charity committed to public education, research, vision health for Canadians, as well as accessibility. Our mission is to be the leader in promoting vision health and enhancing independence for people with vision loss. A few facts about vision loss in Canada, because I'm pretty sure not many people know how accessibility affects people with vision loss, or how many people it affects. Approximately 836 000 Canadians live with significant vision loss. More than 3 million Canadians aren't able to read print. This is about 10 per cent of Canada's population. Age is the highest risk factor, developing some of the most severe common eye diseases. One in 18 Canadians, over the age of 45, experience significant vision loss.

I'm going to pass this over to Debbie because she and Mike Park are the ones who take care of web accessibility, so she'll tell you a bit more about that.

**DEBBIE GILLESPIE:** Good morning everyone. Can everyone hear me? Ah, good. First of all, I'd like to thank the RGD and the Accessibility Directorate of Ontario for having us speak with you this morning. I've spoken at many conferences but I've never gone first. I believe that we're going to make it very good for you and I hope you enjoy this day. I'd also like to mention that I do come from a graphic arts background. When I took A/V tech in the seventies,

one of the courses I took was graphic arts and ever since then I've been as picky as the rest of you. Preparing this PowerPoint was an interesting challenge for me because I worked with 2007 and I'm used to Office 2003, so I learned a lot in a very short time.

What do we do? How do we make your sites accessible? What does actually make a website accessible? First of all, you need to think of your audience. You need to make your site accessible to the widest possible audience, including people with disabilities. And that could include both cross-disabilities and multiple disabilities. And it may sound like a scary process but there are guidelines and standards and people like us out there willing to help you get through it. Because accessibility isn't really that scary. It's the knowledge that you don't have first to do that.

Your site needs to be consistent, customizable, configurable, and navigable by a variety of assistive or adaptive technologies. And those terms are interchangeable; you'll often hear both used during the day and they mean the same thing. All functions and navigational elements must be accessible by using the keyboard, not mouse alone. And if you're really brave, you can always turn off your monitor, load up your screen reader and see if you can navigate the site yourself. I'm not going to ask you to do that today though, it's okay. Your pages must have a consistent look and feel throughout the site, including format and alignment. Use clear, simple language to convey meaning and concepts, provide text descriptions for visual content – you don't have to write the novel War and Peace in your descriptions – but it does help to provide a little encapsulation of what your visual content is. Ensure compliance to the latest guidelines and standards.

Web accessibility and the law – now that sounds a little scary and if you think about it, it can be, but just take a deep breath like I'm doing now and relax and work your way through it. Ensure compliance to the latest standards. That includes WCAG and that's Web Content

Accessibility Guidelines, both single and double A. Triple A is great but double A, in our view, is mandatory in the sense that if you do not comply to double A then you're leaving out a significant population with vision loss. ADA, The Americans with Disabilities Act, section 508 of the U.S. Rehabilitation Act, the proposed information and communications standards from AODA. You need to conduct usability testing and assessments. Now this seems awful complicated perhaps but we're here to help you. What services can we help with and provide for you?

We perform website audits and usability testing with a variety of disabilities and vision impairments. Site remediation, focusing on accessibility, design and development of your sight optimized for use with assistive technology. There are some of you in this room that I've seen earlier today who have attended some of our workshops. We offer a full day workshop in web accessibility and design and usability and unfortunately, it means you'll have to come back and watch me speak. But Mike Park also conducts that session with me so you don't have to listen to me talk all the time. It's good for you guys.

Now you may be wondering how does a person with vision loss, specifically in this case, access computer information and applications. This may be very basic but it's something I've added to this presentation and others like it in the sense that it helps to understand where the user comes from. First of all, on this slide, we have an image of a screen reader. It's Jaws for Windows. This is the most common software, it's not the only one, it happens to be the one CNIB uses, but we do use others such as WindowEyes from GW-Micro and NVDA which is a free screen reader as well. But we have other tools in our arsenal to test your sight and so we will use whatever we need to to ensure compliance for you or for your business.

First of all, if it's a blind individual who does not read print, they are going to use a screen reader. The screen is read aloud to the

user and navigation is accomplished with the keyboard – no mouse in this case because they can't see where they are pointing. If you have low vision or any type of visual impairment but can still read print and are not using speech, you use something called screen magnification software. And in this case, on this slide we have Zoom Text from AI Squared. And again, it's not the only one, it happens to be one we use here, but we use others as well. Navigation is accomplished in this software by using the mouse, because the person does have vision, and the keyboard as well.

I'm going to hand it back to Naveesha for a second now and she's going to talk to you about Clear Print Guidelines.

**NAVEESHA:** Okay, so what all of you have come for is to hear a bit about the Clear Print Guidelines that CNIB does offer as part of their accessibility services, as well as something that we use within the company, as our guideline. I've actually got the book right in front of me so what I'll do is actually read directly from the book and give you examples as I go through. I've put samples on the screen that will give you examples of what I'm referring to.

CNIB's Clear Print guidelines: keep Clear Print guidelines in mind as you design products and you'll reach a wider audience. The image that's up is exactly what I'm holding in my hand. Readability shouldn't be an afterthought when producing materials. It should be the first step in making your merchandise, service, location or information accessible to everyone.

One of the first guidelines we have is colour contrast. Use high contrast colours for text and background. For example, using black text on a white background or yellow text on dark blue background, or reversing it, so maybe having a dark background with a light coloured text, such as white or yellow. And then there's colour. Type colour. A lot of people like to use colour for decoration or sometimes to convey a message. We completely go against that only because someone of course, who can't see, has no idea that colour means

something. So if it's a required field or something important, if you can't see the colour red or you suffer from any type of colour blindness, having that in colour is no good to you. So printed material is most readable in black and white. If using coloured text, restrict it to things like titles, headlines or highlighted materials.

Point size. So bigger is better. Keep your text large, preferably between 12 and 18 points. I'm sure everyone's aware of that. Depending on the font, point size varies between fonts. Of course sometimes you'll notice you've picked a font type and all of a sudden it turns to something that's point size of 9, compared to what it was, so we do recommend using Verdana or Arial. Those have been tested to be accessible. Consider your audience when choosing your point size. What that means is, for example, if you know in your audience you have low vision users or you have someone who requires any type of special print, it is important to make sure you accommodate your audience by either providing a Braille copy of what your service is or your information, or having a document that does have large print so it makes it easier for these people to follow along with the presentation.

Leading and letter spacing. I'll start off with leading. Leading is the spaces between lines of text and should be at least 25 to 30 per cent of the point size. You'll notice on the image I have up on the screen, you might see this often, when someone is trying to cram information onto one page, they will tend to decrease the amount of space in between the line spacing. It probably gets the point across to whoever it is you're presenting who has no disabilities, but for someone who has mobility problems or low vision or any type of visual impairment (besides blindness of course) trying to follow along that line makes it very difficult when there's no space in between to go from left to right and then down from top to bottom. This lets readers move more easily to the next line of text. Heavier typefaces will require slightly more leading. So of course if you have a bigger font size or if you've bolded it for whatever reason, you

would require more than 30 per cent.

Letter spacing. Don't crowd your text: keep a wide space between letters. Choose a mono-spaced font rather than one that is proportionally spaced. Again, the image on the screen does show an example of that. There are texts or fonts out there such as Verdana or Arial, that do provide the required amount of space in between the lettering so that things don't run into each other. This way a person using screen magnification software is able to distinguish each letter at a time and they're not running into each other to accomplish some type of effect.

Font Family & Font Style, which I've mentioned to you previously. Avoid complicated or decorative fonts. I know Italic looks great but if you can't see it or you do have low vision, the italic just makes your life a lot more frustrating or confusing and that information is not going to be conveyed. Choose standard fonts with easily recognizable upper and lower-case characters. Arial and Verdana are good choices, as I mentioned.

Font heaviness. Opt for fonts with medium heaviness and avoid light type with thin strokes. When emphasizing a word or passage, use a bold or heavy font. Italics or uppercase letters are not recommended. The uppercase, I'm also going to say, is not good for screen-reader users, as well as low-vision. But for uppercase, how the screen reader would read it is individual letters. For example, CNIB on our website would read CNIB for a screen reader user. So keeping something in capitals to emphasize it, completely takes away from a screen reader user.

Margins & Columns. Separate text into columns to make it easier to read, as it requires less eye movement and less peripheral vision. This is something we see quite often on documents, either someone doesn't know how to use the column feature or they think it's easier to read all the way from left to right. But if something does require columns or should be in a proper column, it's important to ensure

those columns are put into your document so that it is being read by the screen reader from top to bottom, then over to the right hand side, and again top to bottom for the next column. What will happen if someone does create a document that has not been tagged correctly? For example they start off with columns but not using the column feature and they tab over just to start the next column, the screen reader will read from left to right, not knowing that it's supposed to go down as the user intended, again causing confusion and frustration. Use wide binding margins or spiral bindings if possible. Flat pages work best for vision aids such as magnifiers.

And then, paper finish. Use a matte or non-glossy finish to cut down on glare. If you are a magnifier user, or you do have colour blindness or the light affects you, for example people with cataracts, and you have this high glossy paper, you're sitting at a table and the light is right above you, it makes it very difficult for you to look at the information being provided. So it's important, just as this document, it does have a bit of sheen to it but is very matte. So it can still look good, it just doesn't have to be flashy to the point that you're not getting your information across. So use a matte or non-glossy finish to cut down on glare. Reduce distractions by not using watermarks or complicated background designs.

Clean design & simplicity. Use distinctive colours, sizes and shapes on covers of materials to make them easier to tell apart. So, looking at the image I have up on the screen, you'll see that there are several books, different colours, and the best seen would be the black books to the left that have the white chalk scratched across it. If that white chalk was scratched across the white or the yellow, the design or the simplicity of it or even the clearness of the white scratch if it was important, would be removed from the visibility of the information.

Is accessible PDF's an issue? This is in relation to the websites and the Clear Print guidelines itself. I'm going to have to say yes because

I have these five reasons. And it doesn't limit people because there are ways to fix these. There are several people that work with documents now that can make them accessible.

Currently the problem that makes a document inaccessible as a PDF is a lack of accessible PDF support by all operating systems. For example, documents that are scanned. I take a document, scan it over and email it to Debbie, it's no good to her because it's just going to read 'image' even though the document is full of text. Unused accessibility enhancements, legacy documents - which are anything that's created in a lesser version of Adobe, so anything before five, assistive technology support for PDF's. There are ways to determine when looking at a document, whether it's accessible. I have some images up on the screen that can tell you that. Just by magnifying the document, you'll see that if it's got jagged edges, it's a scanned document. If you search for a word that you see on the document, and if it finds it, you're good. If you don't find it, you know that's also a scanned image. Those are just a couple of things to look at when you're looking at a PDF document. And the reason why I bring this up is because for anyone that builds a website or develops a website, it's important to have the document that's attached to it be as accessible as the website. There are a lot of people that come in and say, "our website is W3C compliant" and they have documents that are attached to it that can't be read by a screen reader. Or it's just full of images with no alt text, so it's just as important to have that information.

How can you improve accessibility in communicating with clients, suppliers and the public? Again, this I mentioned in the Clear Print Guidelines. Large print, captioning, so if you're going to show a video, it's important to have captioning, electronic text, Braille CNIB (so that's something we do provide as well), audio format, so making sure you do have, for something that isn't text, if you're going to have text up on the screen, it's important to have that in audio format.

This is where I hand it over to Debbie for conducting accessible meetings.

**DEBBIE:** Sound check, can you hear me? I love using this remote for PowerPoint; it's just so cool. And it's actually an accessible gadget too.

I'm going to talk about conducting accessible meetings and much of what I'm going to say does not apply to a room this size or this many people. But there are some common courtesies and such that do apply, but much of what I'm talking about applies to a room of about 20 people or so.

It's pretty well common sense. Treat individuals with common courtesy and respect. If you are going to provide handouts, with technology – it's happening less and less these days because presentations are being handed out or distributed on memory sticks. That is a real bonus to those with access issues. It means that you may not have to prepare your material in Braille or on tape or ahead of time because the presentations are all nicely bundled together on a memory stick or a CD and that is a case where technology has truly benefited those with disabilities. Many people have electronic PDA-type devices, no matter what disabilities you may have and some people are even using their iPhones and so forth to access the material that you provide, provided they have been able to save it ahead of time.

Describe the room layout and assist a person. Ask the person if they require assistance getting seated, explain the room layout so the individual knows how to navigate the room safely and effectively. If you're in a small group, which is not what we have today, you could have self-introductions. I wouldn't want to do self-introductions with all of you today, we wouldn't get out of here till noon, but that's okay. Verbally summarize any visual content, such as charts, videos and other visuals you may be using. Again, you don't have to go for War and Peace for the description but it is helpful to let a person know if you're going to refer to something that's onscreen, you

need to say what it is you're talking about so that the person who is blind or low vision knows what it is. By saying, "that image there," isn't going to convey what it actually is to the user.

And, describe, incidentally, when you leave a room and or new people enter a room, let the users know that maybe you are leaving or that someone has entered and who they are because the person who has vision loss may not see them or know it and it saves them from talking to air if you've suddenly taken off and they don't know you've left. So again, that's just a common sense type of thing.

When to offer assistance? Always ask first. The person coming into your space probably has a good idea of what they need and how best to assist them to get where they're going. Assume that they understand what they're there for and what's going on and so forth and they will give you directions as how best to assist them. Do not touch or speak to service animals, they are working and are focusing mainly on the handler's safety, especially if it's an unfamiliar environment. If you're walking down the hall and there's a set of stairs coming up, for example, and you're too busy talking to the dog, that dog may not alert the user to the set of stairs. It's not that people probably don't mind you talking to the animals in that sense, it's just that they need to be aware of what they're doing. And always ask first if you can pet or talk to a service animal. That way it's a respect thing for the handler and the animal as well.

Ask first before you touch a mobility aid, such as a wheelchair or walker or any other special equipment. This way, you don't appear aggressive and forward and the user will tell you best how to assist them. And last but not least, be familiar with your company's emergency procedures in case of an emergency. You may have to assist a person with a disability in an emergency situation. All companies publicly do have protocols for this process. For example, when I go to a new environment, and I must confess I don't do this as regularly as I should. But if I'm going to a hotel for example, I try to find

out where the emergency exit is so that if there is something, a fire alarm or whatever, I know where to go, how to get out safely. A friend of mine was caught in a situation like that and luckily everything was fine but it really brings it home when you see it happen to people that you know.

What I'm going to do now is we're going to have some fun, at least I hope we're going to have some fun. I'm going to take you on a virtual tour with me and I'm hoping that I'll be able to convey my experiences with a new environment. Now this is going to be very interesting because normally when I do this part of the presentation, I'm not in this building. So what you see today, you're going to know, understand where you are very quickly. And what we're going to do is highlight some of the features in this building that make it an accessible space.

There will be time for questions following this presentation. And this is why Naveesha and I have tag teamed the two presentations together, to allow you time for this. So don't hesitate to ask questions at the end.

The first thing for a person with a disability, especially in my case, with very little vision, is when I get out of a vehicle. Where's the entrance? How do I get there? Are there obstacles in my path? Now, different types of disabilities have different types of issues with this kind of thing. If you're a dog user, the dog is most likely going to take you to the front door, the main entrance, if you direct it to do so and if it's in the line of sight of the dog. But if you're a cane user or have a mobility disability, how far do I have to go to get to your main entrance and where is it from where I currently am? If you're driving somebody to a building, particularly in this case with vision loss, make sure you let them know where you are when you leave them at the building. "The doors right in front of you or over to your left." "Be careful of the fountain." This kind of thing may be useful. Don't drive off in general without making sure that your passenger

is comfortable or familiar with where they are going. The next thing you're going to notice on this slide is a level entrance. There's no stairs up and down, it's a straight run in from the accessible parking to the front door and there's another interesting feature here: the automatic sliding doors. Not only do they provide convenience for those entering the building but they also act as a great sound cue for those with vision loss.

You'll also notice within this slide that we have different areas of contrast as you enter this building. Again, contrast and colour are used extensively for navigational aids for those with low vision - and we've tried to incorporate those into this building space but we try to do it subtly so that you're not necessarily aware of it. But I now know when I go out in the hall, if I see all of you standing around talking about these features, that you're studying it and that's a good thing.

The other thing about this is that we've used, in this case, an intuitive numbering system on our signage. We've laid it out like you would a street grid, with the numbers going higher as you proceed north in the building. And for those of you who are vector based, and I'm sure many of you are being graphic designers, the west side of the building contains even numbers and the east side of the building contains the odd numbers so it's very much like a street grid. This provides clues to those people who have never been to the building and if they don't know you have accessible signage, and they may not, they're not actually, necessarily going to look for it either, that will alert them to the fact that yes, this building - this is 126 for example and down at the front entrance at the south end of the building is 101.

Back to signage and contrast for a minute. Notice the colour contrast on the walls between signage. And we've used non-glare materials and raised print and Braille on the signs. Some of you may wonder why we've used raised print. There are people who (and I personally

have read every tactile sign in this building when it was put up but some of them have changed since then). There are those people who have lost their vision who used print and are comfortable reading print and know their print letters and so they access it by touch. Be sure to make sure that the placement of your signs is consistent throughout the building. So once an individual knows that you do have signage, such as at a hotel. For example, the Marriott hotel chain is one of the best I've been at and I've travelled quite frequently both in North America and outside of it, that once I know signage is available and I'm not sure where I am I go to the nearest wall and look for a sign. And if it's not consistently placed, throughout the building, I don't really want to look too hard to find it. I just want to find it and move on just as you would.

That brings up another point regarding assistance and signage. If you see somebody who may need assistance, go ahead and ask, I don't think they'll bite - at least Nike wouldn't anyway - but they'll tell you. You may not know how to offer assistance. We don't expect people to know how. People will let you know what's best for them so it's a very comfortable, relaxing experience.

Back to the colour contrast and features of this building. I mentioned earlier that colour is a real aid to navigation for those with low vision. In this case you'll notice doorframes, art work and wash-room entrances. Once you realize that there is information like this available to the user, the user will quickly realize the pattern which you've used.

We're going to go to another feature now in the next slide and that is flooring: an aid to navigation. It may look subtle but every type of tile and flooring in this building was specifically chosen for the specific location. Different surfaces have been chosen to denote specific purposes. I think I just won the bet with Naveesha, she said I wouldn't be able to say that in this presentation. You'll notice for example in this case, that we've used non-glaring materials and

the main spine is a tile type of material. We're going to move on to the next slide, which shows carpeted areas. Now as you came in through the front entrance and I'm assuming some of you did and some of you may have come up on the elevator, both of those areas have different subtle cues. The front area, for example, where the counterloop is and the TTY and the accessible phones and so forth, there is a carpeted space where the seating areas are and that allows users to know that they've changed spaces. They are no longer on the main spine; they've come off the main hallway into another space. And when we opened this building, that had to be put in after the fact because there were some issues about how to know where to find seating in the area.

We've also used vinyl and plastic in this building for acoustical sound cues, corrugated tiles at the top of the stairs and also the visual contrast to let you know that the stairs are approaching. Many of you who have taken subways have seen the yellow tiles along the subway platforms as well, and the little textured spaces in the subway at the stairways. There is a textured pathway down the café to assist a person using a cane with guidance.

I'm going to move to my last slide in this presentation, Before I turn it back to Naveesha, if you really want to know more about accessibly built environments and design, attend the session this afternoon with Greg Neely and also please purchase our book, *Clearing our Path*, authored by Leslie MacDonald. We are able to provide it to you today and we do accept credit cards. This book provides the most current information that you need to make your spaces accessible to those with different disabilities including vision loss. It includes the latest research, international standards and universal design principles. And as a matter of information, we do go out and do built environment assessments. Naveesha and I, the traveling road show, are going, I believe, a week from today to another venue to do that. And when it's necessary, we also bring Leslie MacDonald. We go for preliminary evaluations and then if you really want to get

involved we bring in Leslie MacDonald, author of *Clearing our Path*, who is our lead accessibility in built environmental space.

I'm going to hand it back to Naveesha now to – oh no I'm not, she did the same thing! I'm trying to hand it back to her early but she did it to me too. I'm going to give you a little bit more about service animals. They are not only used for people with vision loss, they are used for people with hearing impairment, autism and epilepsy. It is imperative that you do not distract the animals as I mentioned to you earlier and the handler's safety depends on it. And I had to put that slide in because I don't think Nike here would be too happy if she wasn't included. I'm now going to hand it back to Naveesha and we'll take some questions.

**NAVEESHA:** Okay, if there are any questions. Yes, down to the right.

**AUDIENCE MEMBER:** There were two terms that you used in your presentation that I was unfamiliar with so I was hoping that you could define them. One was electronic text and the other was uncontracted Braille.

**DEBBIE:** Ah, okay. This is not going to be a long, drawn-out answer. Electronic text is anything that is computer generated but is not in hard copy print. So for example, if you have material on your computer screen, that's electronic text. If you put it through the printer and run it off and give it to me as a hard-copy piece of paper, that is now hard-copy print. You may know the term soft-copy versus hard copy. Now back to electronic texts, there are different types of electronic text. There is the straight text but there are also Braille-ready fonts. So if you say, I want to have this in Braille but I don't have an embosser to run it off in Braille, as long as the file is in Braille, the user can take that file and load it into their particular PDA device and they can read your file. Have I answered your electronic text question?

**AUDIENCE MEMBER:** Yes.

**DEBBIE:** Okay, uncontracted Braille. It's a quick lesson in thirty seconds about Braille. Uncontracted Braille is simply letter for letter. They used to call it Grade 1 Braille but it was changed because of the education request, you know, it seemed less of a grade than grade two Braille. So Braille is now known as contracted, which is the full Braille contractions, which means that there are a combination of letters that are put together to make words, very similar to short hand. Uncontracted Braille is letter for letter. Did I answer that question?

**AUDIENCE MEMBER:** Yes.

**DEBBIE:** I'm two for two. Okay, next?

Come on, there's got to be more.

**NAVEESHA:** Oh, down to the right, the man with the glasses first and then the one without. That's you, go ahead.

**AUDIENCE:** How does one guard against the abandonment of design? If, as a designer one is restricted to using lower-case letters, in black and white, at a large size and in Verdana and Arial type-faces for instance, doesn't the range of design opportunity become quite small for the general population at large? Do you see for instance, well...yes, can you answer that question Naveesha?

**DEBBIE:** Yeah Naveesha, answer that question. I do this to her all the time. You can tell we do this a lot.

**NAVEESHA:** Alright there, you can use other fonts. We do recommend Arial and Verdana only because they have been accessibility tested. There are other families that do belong to the Verdana area fonts. So that you can also use. However, what we're trying to say is try to stay away from fonts that do run into each other. For example, things that have the curve to the corner of it that run into the next letter or maybe will look really fancy? It might look great to somebody whose got perfect sight but even to someone who's over

the age of seventy and has lost part of their vision, it makes it very difficult to read those types of fonts so it's very important to keep it very simple.

Did I miss part of your question?

**AUDIENCE MEMBER:** Yes, you missed the main idea, which is will design in general become boring and dull for the majority of the population if we cater to those with special needs?

**NAVEESHA:** No, not at all. There are still a lot of different ways to present information. For example on our Access Content website, there's many different ways that we've presented information by using either the colours, not to convey a message but to demonstrate that there are better ways to make a website look right and also be accessible. Different sizing and texts, the spacing, everything is there, the only thing that we're leaving off is fancy fonts. But you'll notice that everything else on the website is accessible and looks good as well. So you don't have to take away from your design or your website or anything else that you're producing just by keeping it simple.

It's kind of hard for me to show you what I mean right now because I don't have the Internet to pull up to show you some examples. But there are a lot of websites that do have accessible design incorporated and look great and you would never know that they have appropriated accessibility into their documents.

And yours?

**AUDIENCE:** A couple of times in your presentation, you mentioned that its good form to present information in alternate formats, one of which is auditory. And that's also reflected in the information and communications standard. But I'm wondering; I've heard some people argue that if you offer information in electronic text, in a way, the need to convert and produce a specifically auditory document or version is unnecessary because you can use computer speech to create an auditory version of that document. And I'm just wondering

what your feeling is on that? I mean, if you want to post a document in an auditory format, are we talking about a human narrated document or is it okay to repurpose an e-text document using computer speech or leaving that up to the user?

**DEBBIE:** This information is also on our website about how to do this but I'm so glad you asked this question. It's one of my favourites. Basically, electronic text and audio is not, in my opinion, reading because you're listening. For example, if you're using the word 'there', how am I spelling it? Is it "there" or "their"? These are issues that electronic text in audio only are not going to provide you, whether you use a screen-reader or whether you use a narrated piece from a DVD. So you need to be able to read as well. If I asked you, that you can no longer read print and everything be taken in through your ears, I don't think you'd be any happier about that than I would. But the basic reality is that audio is necessary. Again it's a user preference and again, strictly audio, there's a big debate always about should there be narrated audio by human voice or synthetic speech audio (what you would receive on a computer using a screen-reader). And this is one of the reasons there are so many various voices in a screen reader because you may choose certain types of voices for certain types of material that you're listening to. But I for example, and it's at the back table there, I also use a Braille display in conjunction with my computer screen to read the information and edit presentations like this one.

Next?

**NAVEESHA:** What I just noticed is that there are two microphones on both sides of the room, so somebody has just come up to the right speaker - if you do have a question, if you can make your way up to one of the microphones, that would be great.

Go ahead.

**AUDIENCE MEMBER:** I have two questions. One is about

accessibilitycontent.ca. Do you follow the W3C Accessibility Compliance standard or do you find that your standard is better? Who do we follow?

**NAVEESHA:** We actually follow the WCAG 2.0 as well as the W3C because of course they are linked together, as well as the Clear Print Guidelines. A lot of our site is actually based on usability, which is something that's not mentioned in the WCAG 2.0 because of course if you are blind, there is no way of telling if the contrast is great. So, our webpage does comply with those standards and the CNIB guidelines, as well as that it is usable.

**AUDIENCE:** In either your standard or the W3C Compliance, are there different levels of accessibility? Is there just general? Like it has to be accessible, i.e. audio, visual, etcetera?

**NAVEESHA:** Yes. To be complied, it has to be double and single A, so triple A, is not mandatory so there are different levels if that's what you're referring to. So, our website does comply with majority of triple A, but it does comply with single and double A.

**AUDIENCE MEMBER:** As we developed web application, we can indicate, develop, multiple appliances as well as desktop appliances and putting code that basically identifies what appliance that person is accessing. Is there any movement or afoot that sort of thing that would happen if somebody was accessing the website that had an accessibility enabled computer where you would design an accessibility-rich environment versus a standard web application?

**DEBBIE:** The answer to your question is yes. There is code available that allows a person using a screen-reader to tell the website, I am using assistive technology and this is what I have. And we cover that in our web accessibility and usability best practices workshop. And again, it's crucial. There's an example I can give you and it would be a quick one because I don't want to monopolize the morning for everyone, so we'll try and answer your questions but when the

chair says it's time, it will be time in respect to the rest of the speakers. But basically, yes there is code available. If you have a table for example, you can provide a table summary on your website that tells your screen-reader user what the table is. There are varying thoughts about table summaries, I have some of my own; I think the idea is good but sometimes in practice it gets a little bit clunky. That's just my personal view. But that's basically an example of code use to help accessible design.

Moving on to the left microphone.

**AUDIENCE MEMBER:** Backing up on that answer, where do you see - I feel like the focus is now on web developers to place all of this stuff in their code and I'm wondering if you guys are putting pressure on the creators of operating systems and of browsers to actually make this a part of the browser? If getting images can figure out that I used an image of a layout or a watermark and I never paid for it, I figured it can tell me that I have an arrow or a face on the screen and I feel like - you know, that's 360,000 people. That's a lot of people to educate. Approaching Microsoft and IBM and larger companies or maybe the big accessibility operating systems. I know my Apple can talk to me. Do you guys play a role in the influencing of those?

**NAVEESHA:** Yes. We aren't the ones actually forcing you to do it but we are advocates of it, only because it is part of the law. So with the AODA and WCAG and what not, there are guidelines and legislations that are there to help you do that. There's no pressure on it. There is a deadline for it. We are trying to encourage you to incorporate accessible text, however, there is no one there to force you to do anything like that. There are websites that can help you on the WCAG 2.0 to help guide you in terms of coding. They provide samples, they provide the code for the samples, they tell you why it's important and who it's going to affect.

**AUDIENCE MEMBER:** I actually know a lot about accessible websites

and I do my best to make them convenient... Do I have to educate people who are making those websites? So I'm not, you know I think that's a lot of people to educate and in fact, W3C has a lot of blanks in their recommendations. "Oh you should do this thing, which is not yet recommended."

**NAVEESHA:** There is a lot of people to educate and this is why we try and reach out to a lot of people and provide these workshops, attend conferences like this, all over different municipalities. So yeah there is a big target out there and I guess if everybody being advocates, one by one, you know target a certain area or start somewhere then at least there are people to follow.

**DEBBIE:** The other thing to add is that we don't expect you to know what you need to do. I mean, if you've never encountered this environment before, it can be a daunting task and this is what we're here to help you with. And one of the things we do as part of our services, we do an extensive evaluation with you to find out what your actual needs are and we'll check your site and provide you with audits and proposals to assist you. And once we've done that, we just don't abandon you, we stay with you and when you call back we can assist you in continuing to update your site (which is part of our site-check certification program) and we always make sure that we don't abandon our customers. It's just not worth it.

**LIONEL GADOURY:** Maybe just before we take two or three more questions, I just wanted to let you know that the next two speakers that are up, Jenn & Ken Visocky O'Grady, are really in an ideal position to continue the conversations and to address some of the concerns that are coming up from the graphic designers in the audience. And so, I think a lot of you will find that they are very well positioned to enlighten us and answer some of the questions that are arising. So perhaps just two or three more quick questions.

**AUDIENCE MEMBER:** I'm working right now on transferring some print content to Braille and I've been shown some products that

have been developed... and they're just entirely different from one another and I have no way to evaluate them to figure out which one is the best. So I don't know if you could either describe the ideal Braille book or if you could direct me to either a book I can read to educate myself about the subject or a website. Thank you.

**DEBBIE:** I knew this was going to be mine. Basically, I would say come and see us at the CNIB but we do not help assist alternative formats for external use these days so I'm not able to do that - assist you with the actual production. But your best bet is to talk to other producers in the market. If you're going to look at doing it yourself, there are bits of software that are very useful and very helpful. Duxbury is one of them, the one that we use at CNIB and it's about \$700, but it does conform to the Braille Authority of North America standards. It is a bit of a learning curve but if you learn a bit about Braille prior to beginning to produce your document in it, it will help you a great deal. There's also something called, and I believe you can get it from CNIB and to be honest I'm not sure which division to go to on this one. I think I'll let this go to our communications department. It's called Six Magic Dots. It teaches you about Braille and it lets you know the basic configurations of a Braille cell and so forth. In my previous position I would have been able to help you a little bit further but I don't do that now, I'm into technology these days. That's the best recommendation I can give you and it will really help you a lot when you start producing documents. Does it format? Do I follow the rules? What does this mean? Because that's part of the problem. There are other producers out there who would gladly produce your materials for you and we can provide you with a list of those as well.

**NAVEESHA:** Alright there are two more questions. We'll take the one at the left first.

**AUDIENCE MEMBER:** Good morning. The Accessibility Directorate of the Ministry of Social Services and Community has resources, in

terms of accessibility for web design information, co-munications and etcetera. The website is WebAIM. So, I'm wondering if CNIB uses that as a resource as it does cover cross-disability/accessibility features and if, in particular, if what you're proposing in terms of accessibility aligns with what they recommend?

**DEBBIE:** The answer to your question is again, yes. We're very familiar with WebAIM and I get the newsletters every month and they did a great survey (two parts) on screen-reader users and what they need and what makes a site. Online shopping was one of their surveys. They also have great webinars available. WebAIM is a tremendous resource, which we use often. To answer the question earlier as well, are we doing anything with other companies? We work closely with Microsoft, for example in their products. And HP, their products to assist in accessibility and we have good understandings and contacts there that we deal with on a regular basis. And Naveesha and I, yet again, usually in November go and present at Microsoft to the digital session in Mississauga and we thoroughly enjoy it. It takes me back to my youth, what can I say?

**AUDIENCE MEMBER:** That was a two-pronged question. They also have a tool which allows you to put in a URL and it points out where the website has accessibility issues.

**DEBBIE:** Yes, you're talking about the Google waive?

**AUDIENCE MEMBER:** Well, it's under WebAIM, it's a very specific tool.

**DEBBIE:** Yes, we use it. It works with Firefox, it does not work with Internet Explorer. We also have a contrast analyzer that we recommend to use. Again, these are things we didn't cover today because that's covered in our one-day workshop in web accessibility and usability. You actually get copies of those and you get to try it yourself.

**NAVEESHA:** Alright, the last question to the right.

**AUDIENCE MEMBER:** Just a comment about the audio files. You have to be careful if you're providing audio files because imprint read is a licensed format. You would need to get a license unless you're a non-profit or a college or university. They do have some exceptions. There is an open source file format called OGG. Again, if you're using a computerized voice, each one of those voices is proprietary and licensed and so you need to investigate whether you can purchase the voice to use and distribute it. So just when we're talking about audio files and terms of accessibility, there may be some licensing issues around both the file format and the voices that you're going to be using.

**DEBBIE:** Good comment, very true.

**AUDIENCE MEMBER:** One last question.

**AUDIENCE MEMBER:** Hi, this is a question about signage and Braille. Is there a minimum size for Braille?

**DEBBIE:** The answer to your question is yes. Unfortunately for those of you who are graphic designers, Braille is not scalable. We've had many, many, many people come to me (and that's why I got grey hair over the years) that have said, I want the Braille to fit in this space. Braille only is one size and that's it so when you design your material in general, if you're going to use Braille, build the design right into it. Don't come after the fact and say, can I put this into Braille? A general rule of thumb is Braille, in general, is two and a half times the size of print. So, two and a half pages of Braille will equal one page of print. And we can't always fit it in a two-by-six space. Also, the way people read Braille - in print as you all know, you can read it and it doesn't matter in which direction it goes, round, around the can, diagonally - Braille is generally read left to right in a linear fashion, so you're not going to turn the document this way or that way to read the Braille because you change the angle. One of the big reasons for that is if you change the angle of the Braille the shape of the letter changes and it could be a different

letter and that's one of the problems you have doing that. It does create great design headaches for graphic designers and I can empathize with you entirely.

**AUDIENCE MEMBER:** I'd just like to build on that question because earlier in your presentation you talked about signage. And the question asked earlier about contracted versus non-contracted Braille? I'm curious because in your building here you use non-contracted Braille. I understand that because you have new users coming in here that are just learning to use Braille and I certainly understand that. I'm a little confused because when you go to the American Disabilities Act, which is probably one of the widest implemented disability acts, they use contracted Braille on signage and you know blind people generally read contracted Braille. So I'm curious between this dichotomy between standards in Ontario and standards that you can use uncontracted Braille, but really blind people are reading contracted Braille. So, I'm curious to how that plays into it?

**DEBBIE:** The simple answer to your question, it depends on the lobby group that you deal with. In the United States, there was a great many - the two main organizations, The National Federation for the Blind and The American Council of the Blind, and they both agreed to have contracted Braille. There are advantages to using contracted Braille. It does take up less space than uncontracted Braille does. According to the latest CSA information though, as you mentioned, the advantage of uncontracted Braille is good for new readers. But a seasoned Braille reader does read contracted Braille. And if you ask me, yes I prefer contracted Braille but again not everybody is a seasoned Braille reader. In Australia for example, I believe they've now gone with uncontracted but there is a real debate and again, it's a lobby issue. And you're correct the ADA is - most U.S. signage is contracted Braille. Sorry, the CSA ruling is seven words or less, uncontracted. But who is going to count that? I'm not sure, that sounds like a compromise to me.

**NAVEESHA:** Leslie MacDonald is actually at the back of the room and she can take that question.

**LESLIE MACDONALD:** A perfect question, thanks for asking. Just to elaborate on what Debbie was saying, CSA does say 10 words or less and the reason that we use more uncontracted Braille is that it's more accessible. More people can read it, whereas contracted Braille, not everyone can read that. So we really advocate to have uncontracted Braille because it's more accessible.

**NAVEESHA:** Okay, that's about all the time we have. We just want to thank RGD for putting this together. It's great that everyone's getting aware of all the accessibility - are required in websites and print. If you do have any further questions for us later on, we are at the far left corner. You can come see us over there. Thank you.