

THE WE CO

## THE FACT & FICTION OF DOCUMENT ACCESSIBILITY

Wednesday, December 4, 2019

Transcription provided by Caption Access and Nicole Fuller

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The WeCo

The Fact & Fiction of Document Accessibility

Monday, September 30, 2019

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[Broadcast connected: 6:51pm EST.]

Speaker: It's so nice for you to come out on a nice night. Summer is trying to linger still.

[Laughing.] We could have had it on the roof. They have a beautiful rooftop with a projection screen. We'll have to do that next year. There's a grill up there. We can BBQ.

Speaker: Can everybody online hear alright?

Speaker: Yup. You're not coming in as well.

Speaker: We can fix that.

Speaker: Is that better?

Speaker: Yes.

Speaker: Hello, everybody. We're about to get started in a few minutes. I want to welcome everybody that's joining us online and to everybody in Minneapolis. Yay! Okay.

We weren't sure what large group we would have with documents accessibility. For those of us in accessible documents, we thought the ship had sailed. People were convinced that document conversion could be done by automation.

As a result of that, a lot of companies that did document conversion by hand went out of business. As a result, we got a competitor's converter, Jen. It seemed that we had reached a

point where no one thought you had to do the process by hand. You just use software, and it's fine.

What we found, as accessibility specialist with disabilities who need screen reader technology, these documents coming out of those were largely inaccessible. One of our larger clients in the medical space expressed extreme unhappiness about the software, especially when the blind testers could not find the document points.

At WeCo, we added this to the program, because a lot of folks are realizing that--like a lot of things with accessibility--it's a process. It's not a feature. The day may come when that will happen, but we decided to add this to the menu this year.

This evening, online on WeCo's virtual office is Jen Hurst. She is an accessibility specialist with a background in document accessibility processing. She worked for another company, but came here when they stopped working by hand.

Jen, can you introduce yourself.

Jen: You took care of most of it. I've started in .pdf remediation work. They dissolved that department at the place I worked. Lynn reached out to us. I'm doing document and web accessibility work for WeCo. I'm happy to be here.

Lynn: I'm the president and founder of WeCo. I'm on the meet up this month, because I started with document and website accessibility with the Minnesota Department of Transportation in 2008.

An engineer came up to me at MDOT and said they were going to release a complete street document and wanted it was accessible. It was accessible eight weeks later and wanted to jump off a building. I learned by finding out what was inaccessible and experimenting.

Myself and [Inaudible] worked at Matter Aspect. We did accessible document training with the typing pool at MDOT. We trained about 30-word processors to do accessibility work on 10,000 inaccessible documents on the MDOT website. We didn't get through all of them.

We learned how to make a document like a plat map accessible. MDOT builds. We had to notify people when we were putting a road in through their neighbor. How to you let someone know without the benefit of vision know that's going to happen?

I worked with the ADA Transition program at MDOT. It was all people with disabilities advising on their construction projects. We asked the people on the committee what they needed. That's how we started the company. Some of the people from that committee are a part of WeCo's board.

As John Mets, a known accessibility specialist says, "Accessibility is a process. It's not a feature."

The best way we know to make documents and websites accessible is to go through steps that make them work. That's what Jen and I will be talking about tonight.

Tonight, we'll talk about document accessibility and myths. A lot of myths come from not understanding how people with disabilities depend on the code structure behind a document. Even for people who can visually see the document, they rely on the code structure.

People with different devices, such as screen readers and adaptive keyboards work with websites in different ways. We'll give you notes about .pdfs you can use before you post.

We offer this in a workshop. Under Resources, there's workshops that will teach you everything you need to know about creating an accessible document. We have one starting in October. If you can't come to Minneapolis, we can set it up via the web.

Let's get into the myths about document accessibility. The biggest myth is that you can just buy the software, run a document through it, and that reminds me of that engineer. He wanted me to 508 something for it to work. There's no magic wand for accessibility. People rely on the software and don't understand what it's supposed to do. You can't measure if the outcomes are met. That's a big issue.

"If I make a document accessible, it will make it not look as nice." If you know us, we understand that people live with all different disabilities, including cognitive disabilities, including myself. We like things to look interesting and engaging. Documents can be beautiful and accessible.

Some people think it takes too much time or there's not enough market share. Most of us will be disabled in the years to come. In a developed country, most people spend eight years of their life with a disability. It's a matter of when, not if.

Jen, did you want to share any myths?

Jen: I can't think of anything you haven't covered.

Lynn: It's mostly not being aware of what makes a document accessible. People think it can be fixed with the flip of a switch.

How do we know this stuff? What do we base this on? Testing is our business. That's a lot of what we do at WeCo. We train people, and we test a fair amount of documents during a year.

Everybody at WeCo that tests is required to live with a disability. We view that as a skill. Our testers live with disabilities. If you've known a group of people with disabilities, they share their experience a lot, especially with websites and documents. During almost every meeting, we hear frustration over documents and websites that don't work well.

Jen can attest to this. I'm always sending over new document tools. We get the free trial and test it. We want to know if something works. It makes our jobs and our clients jobs easier.

We have found tools that work some of the time. Even the really good ones--they say they can make the document completely accessible, kind of sorta. We're constantly looking for new software.

If you think we've missing something, let us know. We may have.

[Speaker too far from microphone.]

Lynn: It depends on the document you're working on. Some documents are highly complex. They can have, for example, tons of textboxes, like newsletters. They have different call-out boxes and text boxes to highlight information. If they don't have alt tags, then screen readers can't get into them. It's tough to gauge their success.

Jen, do you want to add anything.

Jen: I couldn't hear the question.

Lynn: She wanted statistics.

Jen: I saw something that said 70% accessibility depending on the document with software alone.

Lynn: It's a concern, because some clients are involved with court cases. And, 70% accuracy is not what the court is looking for.

When we look at disability and devices impacted by inaccessible documents, that can happen in several ways. With attention deficit disorder, there's terms they don't often understand, especially anachronyms. With structural inaccessibility, it mainly impacts people with blindness, and mobility issues.

With blindness, it can't find navigation points. When a screen reader reads aloud, it's like you reading a page a letter at a time through a soda straw. There's a lot of videos about this on YouTube.

Without navigation points, the person has to read the whole thing to find something at the bottom of the page. When you don't have visual issues, you can see headings. You can go right to the information you need on Page 2, because you know where it is.

Screen readers are commanded by the person operating it to read the headings. If the document is just typed--we taught this at MDOT--I can create a heading by typing it in all caps. I can bold it or put a feature next to it. If it's not formally marked as a heading in the code, it's going to read as plain text.

When the screen reader wants the headers, the screen reader will not recognize those. We'll talk about that more.

With mobility, people might use adaptive keyboards. They might use speech recognition software, too. When someone needs to give a command to the software product saying, "Jump to the third heading," the software cannot do it without navigation points.

We'll show you what it's like to experience an inaccessible document. At WeCo, we have a rule that we can't kill you by PowerPoint. We don't do this to our PowerPoint slides.

This is what it would look like in a document without navigation structure. There's no way to determine what the key points are or what the bullet points are. It's thrown together like that. When you put a document on a website that's inaccessible, that's the experience you're giving the user. Does that make sense?

Any questions?

Speaker: [Inaudible.]

Lynn: I'll do that.

Let's talk about how we don't have that happen.

What you need is to create navigation points in a document. It's the same thing we do with a website. When we started WeCo, I taught making accessible documents and worked with web developers. This is what we taught them.

You have to identify headings, bullet lists, and titles. They need alternative text on pictures. They need to label visual aspects. This escapes people.

If it's a large page, then you need a table of contents. You use the Word feature for a table of contents. This is what we teach in the class. In Word, if you mark each title and heading, it will navigate there.

For WeCo, we have a huge guidebook for our staff, because we have employees and contractors. Without that interactive table of contents, I wouldn't be able to navigate it. We can go through the table of contents and click the hyperlink.

For some of you folks, this will be very basic. For some people, don't be embarrassed if you've not heard this. Many people don't know about this part of document accessibility.

Jen, can you talk about text boxes?

Jen: The best way is to use text styling instead of text boxes. The users might not realize the text boxes are there at all. You can do styling without text boxes.

Lynn: There's a great example of this. We have a great graphic artist that's worked with us a long time. She set up a branded PowerPoint template.

I send the template to Jen to have her check it for accessibility. She said, "We have to talk to Jackie." She had embedded our logo into the slides.

When you start a PowerPoint, you get one or two box options. Have you seen those faint things where you can put in smart art or bullets? She took those boxes out and put her own text boxes in.

When you strip out the designed boxes, you take the screen readers ability away to read the code. I did a video with my phone of fixing her slides. I'll put that on YouTube soon.

We've done this with a number of government projects with PowerPoint accessibility. This is government outreach to people with disabilities. Their creatives do these great PowerPoints, but there's no structure. We have to rebuild the PowerPoints.

If you're going to strip the structure of a document, you're probably stripping the accessibility and the code. If you work with what's in there as intended, you'll get along better.

Where do documents go wrong with automated accessibility? Jen, do you want to talk about this.

Jen: I'll do my best. Automated checkers are pass/fail. They can't confirm metadata. There can be underscores or abbreviations that doesn't make sense, but the checker would pass it.

You can have style tags applied inappropriately. You might have something standing out, but it can make a whole paragraph a navigation point. The checkers can't find that.

The checkers can find some navigation points, but not others. They can't verify logical reading orders. That's based on the code. Depending on how you added the items, like text boxes, they can end up in the wrong location which is confusing.

Alternative text tags, charts, etc., there's no way for the checkers to confirm it's accurate information. Complex tables are often a problem. You might have headers that expand multiple rows and that can be an issue.

Lynn: Any questions? Any experiences you want to share or ask about?

Speaker: [Inaudible.]

Lynn: "How could the checker identify some points and miss others?" That's the question.

Jen: That happens when it's tagged improperly. Or, maybe they just used bold, but not the header. It won't see it if it's not tagged as a heading.

Lynn: Any questions?

Speaker: [Inaudible.]

Lynn: "Scientific documents have things like charts graphs. Can you make these accessible, and how?" That's the question.

We did that at MDOT. We did fun things. We decided to run a screen reader over a plat map to see what it could read. Experimentation is important for people to do. Run a screen reader over a document and see what comes back.

On the plat map, the only thing it would read was the legend. In one respect, we knew what it was reading. We decided to do different work-arounds. We looked at the plat map to decide what visual users are getting from it.

They are learning there's a new highway going through the neighborhood. In that instance, we devised a "long description alternative text tag."

In other situations, we had more problems, especially with historical documents out for public consumption. Some of these were hand-drawn maps that were very old as part of the Department of Transportation. Some of them are a part of active projects.

Some of the things were so difficult to make accessible. We put contact information down. If someone want the information, they could contact us. I had a friend that looked at maps to find Indian burial locations. She would contact the Department of Transportation to let them know about complex Indian burial sites from old maps.

Does that make sense?

We could do that, because I was fortunate enough to be exposed to the ADA transition committee where people lived with disabilities different from my own. I asked, "If you needed to know about this, what's the best way for me to tell you." That's why WeCo exists. When it's complicated, you have to take it apart to figure it out.

Speaker: [Inaudible.]

Lynn: To the original document and the author?

Speaker: [Inaudible.]

Lynn: I'll rephrase that. Suresh said it sounds like we need access to the author of the original document to find out something you might not understand or might not be able to explain in a long alternative text tag. That's true.

At MDOT, we usually had long-term access to the study engineers. Sometimes, people don't have that luxury. That's a unique problem that a scientific organization could have.

Another thing we had to consider was how much information and what type of technical knowledge are we expected to convey to the general public. You have to consider the audience. They have a legal right to it. If we go through all this work, are they going to want to know what rebar goes in the road? Probably not.

We had to balance the legal needs of the agency with what the public would want to know. Does that help?

Actually, I think that kind of stuff is really fun. If you need help with that, let me know. I love the logic of conveying information to people.

Any questions? Do we have online questions?

We're having trouble with the chat feature. If you have a problem chatting online, you in [Background noise.] to get your question answered.

Speaker: We're going to get into the DIY of document accessibility basics. These are things you can apply to any document and website. We teach a lot more in-depth in the document accessibility course online or in Minneapolis. This is going to give you the basics.

Next slide.

Forgive us if you know this, but it's often news to people.

All WeCo staff with vision have to go through document accessibility training. [Background noise.] [Typing.]

You have to build basic navigation points. In Word, there's a tool bar. There's all these boxes at the top of the Word document that say "Title, Heading 1, Heading 2, etc." Most people don't know you need that. You make it big and bold it. When you go into code, it's going to say plain text.

When you create a title, you can just type it, select it, go into the box, and select title. You can do the same thing with headings. You can also hit "Heading," and then type on the page.

When Jen and I do document conversion, we take pre-constructed pages. We add all the navigation points in. It's a lot more work to do it that way rather than when you create the document.

Maybe your organization generates a lot of documents. You might want to teach document creators how to do this. It's not difficult. When people learn it, their document creation speeds up. It's easier than just creating visually. You might also have a division of operations or administration that can convert the documents.

Let's see what a document looks like with proper labels. This is an exercise we use in the document training class. There's the title at the top. There's the subtitle, and the first heading.

Below the heading, we have normal print and then a bulleted list. When you see the dots, it activates that as the identifying code.

With organizations, we get into what all the different headings are. There's some give and take with that. We recommend you don't skip Heading 1 in the hierarchy. Make them identify the content correctly. If that's Heading 1, then use that.

For web developers, you can make that change in the cascading style sheet. You can get that changed. Don't use a different one because it looks better.

Does this make sense for the navigation points? When a screen reader, or speech recognition software user goes in, they can command the software to identify these different navigation points. It will give them the navigation points they need.

Jen, do you want to talk about alt tags?

Jen: The best option for alt tags is applicable. You right click on the image. There's an alt text field. You can right-click the image. There's an option in the first menu.

How would you describe the image to someone who cannot read it? You don't want to give unnecessary information. Describe the main feature of the image and what the author is conveying by including that image in the document.

Lynn: My favorite story to tell is about the first time we taught this in 2012. We had an instructor who was blind since his 40s. There was someone in the room who was born blind. They had differing views about what the alt text should be detail wise. Any guesses?

The person who was born with blindness wanted a more succinct alt text. The person who was blind from his 40s wanted more information. You never know who is in your audience and what their preferences are. Among two different blind people, they had an argument about shorter or long alt text. I've seen that happen many times.

I always think about what is the middle of the road. What are most people going to want to know about? Often, I include, "This is an image of someone receiving an award, and is smiling." I think that's important. You can never guess right all the time. Alt tags are difficult.

Alt tags can be difficult if you don't understand what you're describing. At MDOT, we talked to engineers about what was happening in a graph or a map. Not everybody has the luxury to do that. Sometimes, you have to do the best you can.

Alt tags are probably the area of accessibility we get the most questions about. People struggle with it. It's never going to be precise and you have to deal with it.

Speaker: [Inaudible.]

Lynn: I don't think that exists. The question was: "There's a title and a description in a Google document."

Jen: For Word documents, assistive technology doesn't always recognize the title box, so you put it in the description box.

Lynn: A board member who is an adept screen reader user hates the title in the box. Some people love the titles! I tend to listen to my Advisory Board.

Any questions?

The image on the slide is dated. It's from Word 2007. Jen and I were so busy that we didn't put it together. We'll need to update that. When you're in Word, it's just a right click now with "Edit Alt Text."

Let's talk about a table of contents. It's not difficult, but it's very important in making a large document accessible. You're going to make sure you apply the headings first in everything you've written. Or, you can put the table of contents in and apply the headings as you compose. Then, you can update the table.

You just go into the reference tab. Hit the TOC dropdown. There's different styles. You enter it into the page and it populates. It automatically links to the headings. I can see how much drill down you want for the TOC. There's options for Headings 3 and 4.

It will make you type your headings correctly. We use Gallery Minimalist templates in Word. Their headings are all in caps. Sometimes, you forget this. This says "About the Changes." I could type it in lowercase, but it becomes capitals. It will translate that into the TOC.

In the table of contents, it can look goofy. It might have a capital A in some places, but not in others. Sometimes, you don't realize the caps lock was on or not. Make sure you see how it translates to the TOC.

Do you want to add anything, Jen?

Jen: I had a recent document that was 100 pages. They just typed all the talk entries. All updates need page number updates, headings that need to be updated, etc. There were missing headings. I made an automatic table of contents.

[Lynn laughing.]

Lynn: Yup! It's learning basic things that will make your life easier, and not just with accessibility.

Jen, can you cover the .pdf notes?

Jen: The best way to get an accessible .pdf is to make sure the native document is accessible. There's some work that will have to be done. Word and .pdf needs more work done.

There's other option for not remediating on the .pdf. You can have secure Word documents that are password protected. They can also be converted to an .html format.

Speaker: [Inaudible.]

Lynn: The way that I've seen it done most of the time is instead of converting it to a .pdf and posting it, the web developer will give it its own page. We did that with MDOT. We were hiring all these people to convert documents who don't learn how to make them accessible. It's easier to give them to web developers to insert into web sites with headings. We recommend that for a lot of clients.

Speaker: [Inaudible.]

Lynn: The questions we're getting is about doing an .html conversion. We advise people to post them on the site with headings.

In the early days of WeCo, we used to have ".pdf confrontations." I'm not kidding. People were .pdf'ing everything. One of these groups had a huge Medicare outreach to people with low income.

This organization was sending out information about finding a doctor or information about claims. A lot of people with disabilities are low income and have medical needs. Almost all their instructions were in .pdf.

I sat down with a digital design group to talk about the use of .pdfs. We had to unravel everything. We tracked everything down. We tried to explain we were not judging. We just wanted to know why.

There's a lot of emotion around .pdf creation in large organizations. In the end, they gave reasons like sending things to the printer. It has to be print quality, or they will not get good brochures.

I had them prioritize the needs of different people. Is it your convenience? Is it the printer? Or, the person who needs the information?

We got comfortable. The managers were listening. They determined the most important need was the printer. They believed that. It's not that they didn't want the customers to have the information. Maybe they were told it was not print quality a lot.

The powerful thing was that the managers were sitting in the back of the room. That organization let the managers deal with the printers. Anything for the web page was sent to the developers who could make it accessible in .html.

Speaker: We export .pdf files from .html. If the .html is accessible, is it generally accessible?

Jen: If you have an accessible document in Word and convert to .pdf, it's mostly accessible. There's still going to be clean-up. The conversion is not always perfect. There's bugs that need to be cleaned after the .pdf is created.

Lynn: Our developers didn't do a direct cut and paste. They would go into the code to make sure everything was present.

In that case, it wasn't going to be accessible. With that organization, they were not cutting and pasting, because it was an In-Design project. They rekeyed everything with the elements.

A lot of organizations use In-Design, because it's easier to make printable.

Speaker: [Inaudible.]

Lynn: .html to .pdf?

Speaker: [Inaudible.]

Lynn: If the .html is accessible, it should convert to .pdf and be accessible. With a .pdf, if the original is accessible, it will convert fine.

When people create something inaccessible, they convert it to .pdf, run it through a software, then it doesn't work. Well, it works, but it's limited to about 70% like Jen said.

We'll conclude with one more slide. Make sure your documents are properly added to web sites. This is what Jen and I were saying. Make sure the document is accessible before you put it on the web no matter what format.

Ensure the links to the documents are identified with the document type. This is not a part of the Web Content Accessibility Guidelines. This is just for WeCo. This came out of the MDOT transition board.

When you put a link on your document, we think you should put the format in parentheses on the side. People get frustrated if they don't have Excel. They are blind. They go into a document that doesn't open and they don't know what's happening. If it said Excel, they would know they couldn't open it.

All people appreciate that. It's a courtesy. Let people know what the document is that people are going to open. We coach that in our experience.

Limit the number of documents. Make sure they are organized. It's easy to use a web site as a filing cabinet.

Working in government, we see that all the time. It's easy to think that everybody wants every back edition of every newsletter you've created. With a scientific web site, that might be a problem.

We tell clients that if people want access, then make an archive page or two. You want the front page clean. Some with ADD might be so overwhelmed that they can't stay on the page.

It goes a long way to showcasing your work with a clean page. Then, you can have another page where people can search deeper.

Anything else you'd like to add?

Jen: Not much. You do want to organize or limit pages. Banks often have .pdfs of meeting notes, agendas, and dozens of links to documents. There's no organization or structure. It's tiring to go through them. I don't want to see what they are.

Lynn: We've all done that.

I don't know what it is about newsletters. I love to write them. After a while, no one was as in love with my newsletters as I was. [Laughing.]

Any final questions or thoughts? We are around all the time. We have two courses this winter on document accessibility if you want to take them.

One more question?

Speaker: [Inaudible.]

Lynn: I believe a human being is the best person to do accessibility work.

Speaker: [Inaudible.]

Lynn: The question is: Do you have to pay more for an Acrobat program for an accessible document? I don't believe that.

I have created, converted, and authored many documents through the years. Word makes it very easy. They are leading you down the garden path about automation with accessibility. You don't need it.

We use the new accessibility checker in the Word document a lot. It's quite good. There's some things I debate. I will use wrap-around text. Our screen reader users don't have a problem with an image that's not on line.

It will catch thing you forget. I used Word on a huge proposal. We landed the proposal partly, because it was so accessible.

I think there's a place for those tools. At the stage we're at now, it has not yet replaced human conversion and a person checking it. Jen and I are looking all the time.

The day will come that it will convert things for us. That day will come. It isn't here, yet.

Another question?

Speaker: [Inaudible.]

Lynn: They are. The question is: When you can create a document that's accessible on a computer, will it be accessible on voice-over? They are, right?

Jen: For the most part, they carry over.

Lynn: If it's truly accessible in the native format, it seems to transfer fine to everything else.

I'll wrap up. We have a few announcements. Last week, WeCo was honored by the National Organization for Disability in Washington D.C. I accepted the award last week. It was an honor. We were among Barkley's. They were next to Wells Fargo and Disney. We were the only tiny company. It was really an honor.

[Applause.]

I wanted to say, "Thank you" for supporting our work. We have two types of customers. We have the public customers that use the free stuff and the clients that pay for the services. You're all important to our mission. Thank you for allowing us to do the work, so we can be a leading disability employment organization.

In January, we're changing the format of the meet-up. We've been doing meet-ups since the fall of 2016. It's free of cost, but it's getting bigger and more expensive to deal with.

We asked the meet-up membership to see how to reduce the cost. In January, Accessibility Twin City Meet-ups will be \$10 each. That's affordable.

If you're a company that would like to sponsor the meet-up, you can be an annual sponsor for \$250 if you have 50 employees or less. You'll get 50 employees in for free.

If you have more than 50 employees, it's a corporate sponsorship for \$500.

We need help with the food and the beer. We have a new operations director, Kelly Ryan. Laura is in the office. We have more staff to do these things. We want to keep doing them, but we need help.

We'll announce that to the membership. If you have feelings about that, please contact Andy or Kelly. They will forward your ideas to us. It's a group that involves all of us. We run it, but we run it everybody.

That's all we have for the program. Thanks to everybody online. Thanks, Jen. The Accessibility Team is very busy. I appreciate you taking the time.

Thank you Deborah, who is a specialist in training and did the slides.

Thank you, everybody, for coming.

Feel free to hang out. There's more pizza and beer. [Laughing.] More questions?

Speaker: [Inaudible.]

Lynn: Are you still on, Jen?

Jen: I am.

Lynn: Where does the ADA stand in making all digital spaces accessible? I'm pretty sure with documents that there's no specific--the rules were withdrawn with ADA. Does 508 cover documents?

Jen: The Section 508 covers documents.

Lynn: Does the website portion cover documents?

Jen: It can.

Lynn: The web rules with ADA were withdrawn. The United States Access book said to look at Web Content Accessibility Guidelines 2.0. [Inaudible.]

For video games, audio books, and digital books, it's more obscure. The problem legally is that if it's for public consumption it's under the ADA law.

Speaker: [Inaudible.]

Lynn: It could.

Speaker: [Inaudible.]

Lynn: We had an intern a few years ago. He was remarkable. He had limited use of his hands. He was hired by a gaming company to set up early testing criteria.

I could give you his contact information. People are thinking about it. Most of the rulings we've seen are about web sites.

Forms are wrapped into that a lot. That's a big part of a web site's accessibility, the forms attached to it. It's an interesting time, isn't it?

Speaker: [Inaudible.]

Lynn: Sure. Absolutely. I'll have Kelly grab my card. We don't have cards out.

[Session ended by host.]