Creating accessible PDFs - Guest spotlight with Tess Hutley

Transcript

Ivett

Hi, my name is Ivett Csordas, I'm one of the founders of LCS Spotlight. That stands for learning content accessibility and we're a biweekly newsletter and a LinkedIn community, and the aim is to share an accessibility-related guideline to people who are new to accessibility and also start a conversation around accessibility with those that are already familiar with accessibility to keep it at the forefront.

And I'm really excited about this spotlight. I'm always excited when we have a guest talking to us about something, but this is something that I'm not totally familiar with. We'll be talking about PDFs and accessibility and PDF, and I think I have the right person for that conversation. Tess Hutley is an inclusive content consultant who specializes in PDFs and digital accessibility, but you might be able to share a bit more information about yourself, Tess

Tess

Sure. Thanks Ivett. So, yes, my name's Tess. I work for Intopia. We're an inclusive digital accessibility agency and consultancy and my specialty area is word and PDF and also other forms of content. So video and media in general, but my true love is PDFs and all their strange quirks. And that's my cat, Cara, who will probably come and go.

Ivett

What's her name?

Tess

Cara.

Ivett

OK. And we just discussed quickly that I had sent you over some questions that we gathered in the Community and some of the questions that I added and you didn't just, you know, prepare the answers, but you prepared slides as well as presentation. So I guess we can just get started with those.

Tess

We absolutely can. So actually that's the question is, do you want to actually ask the question? Or should I just go through them all?

Ivett

If you've prepared it, then you have my questions already. All I wanted to do like the way I Imagine this is that we would discuss the three parts of creating PDFs, accessible PDFs, and one is the preparation work that goes into, like how you prepare the document before you actually start editing it in the PDF tool. And then obviously all the editing that goes into making it accessible and then anything that you need to do when you're expecting it and sharing it. But I think you can just go through your slide.

Tess

Awesome. Alright, so I'll share my screen so that we can see my slides. So let's grab those up now and yeah, of course if you know I miss anything, if you have questions, just jump in and we can chat about anything that I'm saying.

Ivett

Yeah.

Tess

So I start from the first question which is what do you need to create an accessible PDF? And the short answer of that is you need whatever you're creating your document in, which is often a Word document. But sometimes we're creating PDFs from Indesign or other programs like CMS, LMS. Often we save content that's already been created. The thing about accessible PDFs is that there are two main components to what we need to consider for PDF accessibility.

The first one is the actual content of the PDF and the second one is the technical accessibility of the PDF and the technical accessibility. Are the unique features of PDFs and programs and how they interact with the assistive technology. Often when people think of PDF accessibility, they jump straight to screen readers. We call screen readers the poster children of accessibility because people tend to know what they are once they learn about accessibility. They're one of the first things they learn. And that's amazing. And they are a huge component of PDF accessibility, but our content accessibility is also really important and that's what our document contains. So that's things like what colors are we using, what fonts are we using? How are we structured? This Information. Have we put in semantic headings and all of that is not done in the PDF program, it's done in whatever program we're creating this PDF in first.

Our technical accessibility, which is how the PDF can communicate with assistive technology, that is, stuff that we then do in the PDF program,but also a lot of that comes from what we create in the source program too. So when we create a Word document, if we use heading styles, for example, those are then given to the PDF program as semantic data to use. I'll talk more about how that works in a little bit, but the main point is that the majority of our PDF accessibility lives and dies on what we do in our source program.

So if you create a source program, a source document well, and you've made it really accessible and you've used those programs in built Accessibility Scanner, if they have one. So Microsoft Word for example has one, Adobe Indesign has one.

And then you export it the correct way, which is a whole other kettle of fish and can cause problems in itself. Umm, but then if you do those two steps, you'll probably end up with a PDF that is more or less accessible. There's often tiny hiccups, but tiny hiccups are things that are easy to fix or you know, are not going to necessarily break the entire document for the person using it.

Umm, the only thing we'd ever really want to add to a PDF content wise in a PDF program like Adobe Acrobat would be interactive form fields. Other Than that we don't want to be editing our content in the PDF program. There's a really good accessibility reason for that which I will also mention later.

Uhm, I will explain what tags are, because I think they're really important to understanding accessible PDFs. So when we are creating accessible PDFs there are 2 phases, there's the creation, and then there's there mediation and remediation is when we open up our PDF program and we look at the tags and a couple of other things, but things make up the bulk of it and tags are the system that PDFs used to communicate with the system technology and they look a little bit like HTML. You can find them in the tag panel, it's on the left in Adobe Acrobat. And in fact I think it's on the left in most programs.

And every piece of information in a PDF has to have a tag. And this tag tells assistive technology mostly screen readers, but also to some extent keyboards, switch devices, voice to text what's on the page and these tags are automatically generated out of what we put into the original document. So a well formatted Word document that has proper heading styles as I mentioned or has tables used correctly, has alt text on its images. All of that is exported into the PDF if it's exported correctly and used to generate those tag structures. So if a Word document is well created, it will make it a more easily accessible PDF.

It is harder when you're working in other programs. Not impossible, but most programs designed for this making PDFs have these sorts of settings when you are making PDFs from elsewhere, off the Internet or off programs online, often you'll run into more hiccups, more likely to have errors. And those errors look like no tags at all, or they might just be incorrect tags.

So I would recommend when you're thinking about PDF accessibility to also be thinking about the accessibility of your program that you're working in. For me, I do most of my work in Word and that way you'll get really good PDFs.

So that's the long answer.

Ivett

But which question?

Tess

Our first question.

Ivett

OK, talking about that. So you mentioned that, you know, like there's a lot going into preparing the document before you put into Adobe Acrobat for example. And you mentioned Microsoft Word having

built-in features. Is there a difference between some of the tools that are out there? I read that google Docs is not the best for creating or turning into accessible PDFs. Which program would you recommend to use or are they the same?

Tess

They're not the same. Microsoft Office products are like the gold standard. Specifically the desktop versions, because they have more functions than their Office 365 versions. If you are using Office 365 online at the end of your process, it's worth just downloading it to double check everything with their accessibility checker and the Microsoft Accessibility checker is amazing. It's got a recent update that's made it even better. It's really cool. I love Microsoft. They do great work with this stuff.

Similarly Adobe has accessibility tools across all of their tools suites, so you can create accessible documents when you know how to. They're Usually require multiple steps, so InDesign, for example, has settings that need to be turned on when you export or all your work will just be for nothing. And they can be a little bit harder to get the hang of. I don't think Adobe really makes their products that easy to learn, and they also have blatantly incorrect information in their walkthroughs, particularly their accessibility walkthroughs. So I was cautioned with that and there's lots of communities out there designed to help.

But things like Google Docs, so Google Docs don't actually create accessible PDFs, period.No matter what you do, if you download straight from a Google Doc to a PDF, you will have absolutely no tags. This is because of the file type that a Google doc is. It's not actually a word processing document. It basically saves us kind of an image. The way around this would be to actually download your Google doc as a word file and then in the next step just to export that into a PDF. There's two steps. It's very simple and it will actually convert all of that information into tags.

In terms of other programs, a lot of PDFs sometimes come from CMS. My company we use Confluence which is an Atlassian program and you have the ability to download these pages that we create as PDFs and they are tagged. But often I find the tags are wrong, not always and not completely, but there's always significant work needing to be done. So generally speaking I think most CMS programs are going to have a mixed bag.

And Canva I know does PDFs now and I haven't actually had a look at how good they're tagging, but Canva is a company that cares a lot about accessibility. So I would expect them to be pretty good.

And Firefox has just released the ability to edit PDFs in the browser. Any edits come up as comments, but the tags structure stays the same, so when they first released it, they had a bug where it was breaking the accessibility of documents and they seemed to have fixed it overnight. So that's also fantastic.

So yeah, it's really a mixed bag, but generally I always recommend if you aren't sure, download your document as a word file from whatever program you're using and then just check the formatting on that and then you can export that as a PDF and you'll probably going to fix half of the errors that would have otherwise happened.

Ivett

OK. That's really good to know.I wrote it down, so download it as a word file, check it and then in the word file in the ribbon there's an accessibility checker as well that you can run, right?

Tess

Yes, yes.

Ivett

OK. So you would recommend to have it to run that accessibility checker before you move on to editing it in Adobe Acrobat?

Tess

Always, I reckon use the word checker first, then the Adobe accessibility checker. And especially because you only get the accessibility checker in Adobe if you have the license version. If you have Adobe Reader, you don't have any accessibility toolkit, so all you can do is look at the accessibility and word make it as accessible as possible, and then you've got the best chance of creating an accessible PDF.

Ivett

OK so. I'm happy to move on with your slide.

Tess

Umm, actually that kind of works nicely in the sense that it brings me to the are there any free programs question? Didn't make any slides for this cause it's a quick answer but there aren't actually any free PDF software that have accessibility features, so Acrobat Pro is the best option because Adobe basically invented the PDF format, they are the most comprehensive.

Other licensed PDF programs like Foxit and Colfax are common, and they have the similar suite pretty much all the same features, but again only in the licensed version. There are plugins, though, that you can use to check PDF accessibility, so Commonlook is a company that create a lot of plugins for people. They have a Validator which is a free plugin that basically functions as an accessibility checker. You can install that in Adobe Acrobat Standard and it will check the accessibility of your program.

And they also have another plugin that is a Remediation tool. So you can use it to fix your tags and similar things that one does cost money, but it is pretty great. It does have a bit of a steep learning curve, but it is really comprehensive. And then yeah, if you don't have any way to get paid for program for remediation, as I mentioned before, your best bet is to just make sure your source program is using the accessibility checker there. Microsoft Word for example. And then you'll most likely have a well made document.

Ivett

So you mentioned Commonlook, Validator and what's the third one?

Tess

Uh Commonlook Validator is one program and Commonlook. I think it's just Commonlook PDF plugin I think is what it's called, but if you go to the Commonlook website, it's all one word Commonlook, they have lots of different products and they're all designed for various forms of remediation and various platforms.

Ivett

And that's a plug in. Where do you plug it in?

Tess

Uh, you can download it and plug it into your Adobe, your free version.

Ivett

Oh, I see. OK.

Tess

Umm, so you can. It basically adds on the accessibility toolkit without you having to pay for the Acrobat license.

Ivett

That's really good to know.Thank you.

Tess

It's great and they have a lot of walkthroughs on how to use it. They'll even set up a time to, like, show you how it works and things like that. They're yeah, they're doing really goodwork.

Ivett

Yeah, I'm happy to be carried on.

Tess

Great. OK. Well, we've, we've sort of talked about our accessibility features in common programs, which I think is our sort of first section which brings us into editing for accessibility. And that question of what are some common issues in PDF. So I thought I'd just go through some of the most common issues and talk about why they happen and what we can do to avoid them.

So my first one is that the PDF isn't exported correctly and this is a really common issue. You can do the most amazing work in the world in your source document, but if you don't do it the right way, when you export it, you'll lose all of it. This happens because there's a couple of ways to export. We'll use word as an example. If you use save as PDF or save as and select PDF file type perfect, no issues. If you use print to on any program, you will destroy all of your accessibility work and that's because print to basically

functions as a screen shot of the document. It doesn't transfer any semantic data over, so we always have to make sure that we're using the save as function.

When we create a PDF in Indesign, there are actually settings that you need to select and turn on to export all of your data, and you can find more information on that online working into it because it's good, it would take a while, but basically you need to make sure you're always exporting the right way, and that's our main issue.

Ivett

Sorry, do you mind? Are we talking about exporting PDFs incorrectly before we're editing them in a in Adobe Acrobat or from Acrobat?

Tess

So. Once we've finished in our source program like our Word document, and we're going to create the PDF, I actually have a video I can show you if you'd like of what happens with the two different save functions that I recorded in real time so that it's more clear what I mean.

Ivett

If you don't mind.

Tess

Yeah, so this is what happens when you save. There's no sound on this video, so it's just showing. I've got a document and I'm using the save as function which is just save as select a PDF file type and it will generate that PDF for us. So this is the first step in ourPDF creation. And what happened? So I've got my PDF that's been saved as I open up my accessibility menu and my tags and I can see that I've got a beautiful tag tree structure that's been generated for me because of the semantic data.

But when I do print to PDF, so similar process, we go to file and use print and save as and this is a really common thing that people do to create things. And particularly when you're getting off the Internet and things like that, but basically, if you do the same thing, you go to the accessibility menu, you open up the tags and you get no tags whatsoever. So all of that semantic data is gone. And that's really the first step in any PDF creation is making sure you're exporting it correctly, because that will affect how much work you then have to do afterwards.

Ivett

And not having those tests, just to clarify, not having those tags would mean that for example, a screen reader would be confused in what order to read information?

Tess

In some extent it would be confused about the order in some extent, it won't even see the information. So a tag contains a piece of information, and each tag contains the file type so one tag, let's say a paragraph

tag will then contain a paragraph of text and the screen reader goes to the tag and goes. This is a paragraph and this is paragraph contains this paragraph of text and read that text. But so when there are no tags, some screen readers can sort of guess what's on the page, but the order will be wrong. The type will be wrong. Some screen readers won't be able to read anything at all. It's basically like they've opened a blank document, so it's really problematic. Tags are really, really important, and tags are also used for umm, assistive technology, so if you're a keyboard only user and you navigate by tabbing and you've got a form which has those interactive form fields, you need those fields to be tagged as form fields so that you can use the tab key to go through them. And if you can't do that, you can't access those forms. So someone who doesn't have a mouse and can't click would have no way to then enter one of those form fields and fill it out. So it really impairs the document for anybody who uses any kind of technology.

Ivett

OK, so save as PDF. Gotcha.

Tess

Save as PDF and Speaking of tags, is kind of links into my next one, which is that the PDF wasn't finalized by before we export it. And what I mean by that is there is an edit PDF function which many people will be familiar with in PDF programs. Uou can open it up and you can actually edit the text on the page, change the color, change the font and the problem with that is that it creates this scenario where itt deletes all of the tags associated with the text that you're editing and I have got another video again just to show exactly what I mean by that.

I've just done it in real time,but so this is what A tag looks like and you can see the element is just that line of text that I've got. So if I open up edit PDF and I'm just changing the color of the font so nothing overly complicated, changing the size of the font and I'm closing it, suddenly that element is blank. So that would tell the screen reader there's nothing there and not only does it do it to that line, it does it all around it. So it has this kind of bomb radius.

Ivett

Wow.

Tess

And suddenly I've got this sort of black hole in the middle of my document. Which is really frustrating and most PDF or mediators like may have very early on done. You Know two hours of work on a document, realize there's an error and gone to fix it and then destroy it. Half the tag tree and that's how we learned that this happens. And but once you learn it once, you never let it happened again.

So really, the key takeaway here is we don't want to be editing our PDF once something is a PDF,it's done. That's it. If you can avoid it, because otherwise you need to manually retag that and fix the tag tree. And that's sort of advanced PDF accessibility knowledge which most people are not going to have the skills all the time to learn the skills for. So basically, if you do find an error in your PDF, it's going to be

better to go back to the source document, fix it there, and just re-export it. Don't play around with edit PDF text edit function.

Ivett

That's a really good that you showed it as well what it does because it is a good deterrent, like have it finalized, have it reviewed, have it checked and then and then we want to edit it.

Tess

Exactly.

Ivett

What else?

Tess

OK. So next one is uh, so this is talking about our content. The design work isn't accessible. So I mentioned this earlier, but there are things about our design that we need to consider things like color, things like font.

So for example, here's a fancy PDF flier that I've got and I need to mention color contrasts for this one. So for people with low vision colors with low contrast against each other can be practically invisible. This also affects people with color vision deficiency. I think is the official term colloquially known as color blindness, and there are these free tools all over the Internet. This one is a really good one. I think this is the web in one. I've taken a screenshot of, but basically it will analyze it's got these little eye droppers and you can eye drop from the two colors, compare them against each other and it gives you a contrast ratio. So this is awe're tag thing. The web content accessibility guidelines that we want everything to have a contrast ratio of 4.5 to one.This one has a contrast ratio of 2.1 to one which is too low. So What that means is that this orange text against this red background might be invisible to some people, all very difficult to read. Actually, it's not just people disabilities, but it effects when you're on a screen in bright sunlight. I don't know if anyone's. You probably have experience with this. I can't read my watch when I'm in bright sunlight because the contrast is too low and it's similar. You're Using your phone. If you don't have high contrast, it's yeah, impossible to read. So it's actually a practical thing for a lot of people.

Ivett

Absolutely. It doesn't look that good. You know, like I can't see those letters without really looking. Yeah.

Tess

Exactly.

Ivett

That's also something that's done before you move on to Adobe Acrobat, so you design with that in mind.

Tess

Yes. So yeah, design your content before you create your PDF finally. And similarly it's things like fonts as well the understandability of our content. So our font choice, our layout, the styling. If it's really hard to read, it's going to affect people with blurred vision. People who use a screen magnifier, so they might be zoomed in up to 400% up to 600%vI think. And it can be really hard to figure out what letters they are if the font is really fancy or what the word is. People with cognitive disabilities or people who in your divergent can really struggle to read things that aren't clearly laid out with good spacing, so it basically exhausts our cognitive energy. Again, this is something we I wanna fix it before it becomes a PDF.

So let's talk about semantic formats. So semantic data is the data that we're kind of coding into what we're creating. So for that to explain, when we use Microsoft Word, if we use the list tool, it's actually putting a little bit of code in saying This is a list. And so when we transport it into PDF, PDF notes, that's a list and will actually tell a screen reader this is a list. It's actually read out as list with five items, bullet item, bullet item. And then when they finish, it goes out of list back into wherever you are. It's pretty cool. Similarly with tables, iit will say this is a table with five columns and seven rows and then it will go through each table.

And I always want to talk about tables because a lot of people use tables for layout. This happens in Indesign or in Word. And what I mean by that is people won't use the columns feature, they'll put a table on the page, they'll put data into cells and then they'll make the table invisible and in doing so they'll create a series of columns, or they'll put things around the page, or they might use it instead of a text box, they might use a single cell. And I understand the logic of doing that, but the problem is that when it's exported into a PDF, a screen the reader thinks that that's a table. It doesn't know that you're just using the table to create 2 columns or to create a text box, and it will actually read out this is a table with two columns and two cells and 1st column, the heading will be whatever you put in and then it will try and associate the data together.

I can actually show you an example of a screen reader reading a table so that you understand better what I'm talking about. I hope this is gonna work with my sound. Let me know if you can't hear this because I'm less familiar with this on Teams. Where's my play button? Here we go.

Ah, no. Yeah, that should have sound. So unfortunately, I don't have my sound shared.

Ivett

Would you narrate it maybe?

Tess

OK, I can tell you exactly what the screen reader will say. So basically when it gets to the first column it would say so it would say here is a table, we've got 4 columns and however many rows that is 9 rows and then it would say first column flexible AMI retail tariff. Column two, row one GST exclusive, column three row three GST inclusive, column four, row 4 units. That's the heading row.

When we get down to the second row, it will remind you what that heading row says, so it will say column one flexible AMI Retail Tariff, Row 2 Summer Peek Something similar. So each time it encounters a cell, it's going to remind you what the column header of that cell is before it tells you what the content of that cell is. And that's great, because if you're in a really long thing and you're 17 rows deep, you might not remember which column is which. But the problem is that if you've used your table for layout, it's going to start associating really random stuff together like. You know, I wrote a paragraph about sharks and then I've gone down to my next thing and it will actually read that entire shark paragraph out again as the header before it does the next one.

Yes. So that's that's the issue. And basically again this is before we export into PDF, we need to make sure we're not using tables for anything other than an actual table, not using it for design and not using it for making it invisible or doing anything a person who's using a screen reader has no way of knowing whether you've accidentally used a table for the wrong thing or whether the table is broken or the tags are missing or something's gone wrong. They don't know. So it's going to create a very confusing experience.

And that's actually what a table tag system looks like. It's really complicated, so it relies on identifying each cell of the table and matching it. And I'm just showing that so that to make the point of this is complicated, tables are complicated. They really should only be used for actual tables.

Yes, and that's that. Well, uh, sorry in the example it's tagged. An entire paragraph example is 1 cell, yeah. And another thing that we often do that is the incorrect function.

Ivett

Sorry, can I just go back? So you we were talking about semantic language before and then you would talk about table versus columns and lists, but with semantic language we also mean like headings, paragraphs.They're all labeled correctly because then they will be converted into the tags.

Tess

Yes. Yep. So if you use heading styles to create a heading rather than just, you know I've Made my font bold and blue. So it looks like a heading we actually want to use the heading styles feature because then the screen reader knows this is the heading and it will actually read it out as heading Level 2, heading Level 3. That kind of thing and screen readers can use headings to navigate around a page so they can open up a little menu, see all of the headings and jump between them. They use them as navigation landmarks. So having a great heading system in a document means it's really easy to navigate.

Somebody or just as it is for someone's side and it's so much easier to find stuff when you can open up the bookmarks menu or the Navigation Pane in Word And just look at all the headings so they are important for everybody.

Ivett

Yeah. Thank you. Sorry, moving on to using enter.

Tess

Yes, using enter to create all page breaks. Basically, if you finish a page and you want to start on the next page, we want to actually use the insert page break function or the shortcut of that is control enter and it will start a new line on the next page. You don't want to hit enter 35 times to get down to the next page and the reason for that is each of those lines will be tagged as a paragraph. When You get into a PDF and it will read each of those out a paragraph, blank, paragraph, blank, paragraph, blank so on and so on. It's enough to drive anybody up the wall. But it's also confusing because people might not realize there is the next page. Umm so always use this semantic data as well. Is this semantic data to say here is the page break and it starts on the next page so it's and it's the same.

Ivett

If you wanna create like a bigger space between for example the heading and the text, you would format that break, that line to be bigger size rather than three enters.

Tess

Yes, in the insert line and paragraph space menu, there is a way to, yeah, edit exactly how much space is before and after the paragraph or the line in individual or the heading, and that is the best way to add space into your document. And yeah, avoid using the enter key basically at all costs. I look it's not the end of the world if you enter once or twice it's fine. Ithappens. It's, you know, people get used to it. It's more when you've got 20 of them, but it's a real issue.

Ivett

Yeah, I can see that in the example that could be really annoying. Yeah. OK.

Tess

Oh yeah, alright. So our next one is that our images need alt text. Umm, this is something that you can do in the PDF. So we're finally at the point where you don't have to necessarily do this in the source program. I Always suggest doing it in the source program because someone might be reading your Word document not your PDF program orPDF document. So start with your alt text in your source. But if you forgot or you missed it, you can really easily add alt text. So all images need alt text so that a screen reader knows what they are. If they are meaningful images and a meaningful image is something that's conveying information to the reader.

There is a function in Adobe That is the set alternate text function and what it will do is go through everything in your document that has the tag figure. So figure tag is what it tags images as. And it will go. Here's a figure. Here's your alt text in the little menu you can add alt text if there isn't any, or you can change all text if there is already alt text and it will just go through every single one and you can keep clicking next until you're finished. So it's really easy to do.

We wanna make sure that good alt text is conveying all relevant information that is contained in the image that it if any text is in the image we wanna put that in the old text as well. So even if you've got an image where it seems like there's a whole sentence and you're like, surely this is irrelevant, well, that's not

necessarily up to us to decide. We just want to give the reader all of the same information that someone with vision would get, and that person can decide whether this is irrelevant. Not we wanna exclude some unnecessary details, so I often see things really over described. I literally yesterday saw an image of it was a woman running in a park and that's the relevant information is it's a woman running in a park. But they've also said behind her isa white gazebo. And on the road there are three cars. And Honestly, people with vision on it, even clocking that information, that's not what we're taking from the picture.So there's really no reason to over describe that to someone with a screen reader if it isn't the point of the image.

Umm. And of course our tone is considered, so we need to think about what the image is doing in that document. So if it's there for humor, we can even try and make our old text a little bit light and humorous. You know,how do we tell someone what a meme is, for example, through old text? We don't wanna just describe the meme in the most basic language. You wanna actually try and capture the spirit of the image. So that's sort of next level, but you know it's something you eventually get into it and it's quite it's really interesting.

There's a lot of dialogue outthere about all text, what makes it good, what should be considered people going back and forth on things like when do you, for example, mention what gender or race somebody is in animage? When is that relevant and when is it not? Umm. And there are different schools of thought on that. The whole conversation about describing yourself and your clothing when you start a speech. Umm, actually from what I've Seen more of the uh, blind community doesn't like that and find it irritating. But they're, but they're different,you know, schools of thought as It's yeah, you can spend an afternoon reading about if you're interested.

Ivett

No, I did. We did a spotlight on all text and and it's like an art. And there was a really good article that we shared in it as well that showed how the alt text can vary depending on the context like the one image can have four different all texts depending on the context where you're presenting it, why you're presenting it and cetera. But it's very interesting. But you also mentioned that, you know, you only Add all text if the if the image is relevant, if it's just decorative, where it doesn't add anything, then you do. You need to mark it as null.

Tess

Yes, Sir. If you haven't marked it as decorative in your source program, you can do it in Adobe.It's called an background slash artifact or artifact straight from the tag tree. There it's very easy to do in the same menu you're using to add alt text. There's the little button that says all markers decorative and you can tick that and that will actually mark it as what they call an artifact, and even just remove it from the tag tree. So once you've marked it as an artifact, you won't even see it in the tag tree anymore. It's Gone.

Umm. And there's an interesting thing about PDF. Since you brought this up. There's a function called reflowand it basically means that when you zoom in and out of a PDF, it organizes all of the information on a page to always be present, similar to how a mobile layout on a website will reorganize it so that you don't have to scroll left and right,you can only scroll up and down. Umm and images disrupt reflow,so

there's no way to reflow a page that has a meaningful image on it if it is marked as decorative, it will be ignored and the rest of the content will reflow. So when we are creating a PDF or when I'm creating a PDF, I'm often a bit more ruthless about what I consider to be decorative versus meaningful, and I'm more likely to mark things as decorative than not because while if I was in a Word document I might include the woman jogging in the park because it's fun and it adds tone. In the PDF that could prevent the entire page from reflowing if I give that old text and it's really not adding very much, so I'll probably mark that as decorative to preserve the reflow function.

Ivett

Interesting.

Tess

Yeah ,it gets very frustrating trying to figure out, you know. When you reform, when not, it's a whole thing in itself.

Ivett

I'm learning a lot from this.Thank you.

Tess

Well, that actually brings me to the end of the most common issues and and from what you can tell, most of them occur when you're creating the PDF, they're not, you know, things that happen in the PDF itself. Most Of what we do in Adobe is just fixing up those tags. So those tags might be the wrong tag, often the heading level might be wrong or they might not have realized it's a heading. They might think it's a paragraph and we can just really easily change the tag type through the tag tree.

I didn't want to get too deep into the weeds on remediation because I think it's probably not the extent to which most people are going to be looking at PDFs. I think it's more important to get it right when you're creating the content because there won't be as much needing to be fixed or possibly even anything. It's possible to create a perfect PDF document if you make a really good Word Document.

Umm, so I think that goes to our next (question) one, which is uh. Our issues are different from word accessibility.

Ivett

Sorry, so we've gone through the most common issues and I thought actually that you know one of the issues was going to be the tagging as you said as well not labeling things correctly. But I also thought that it was going to be the focus order, is it not one of those things that you would have to fix?

Tess

OK, so that's a really complicated question in the sense that

Ivett

Sorry. In a nutshell?

Tess

No, that's fine in a nutshell. There are two ways that a screen reader will figure out the reading order and there is a lot of information online that thinks it's the order panel and that's what people think of the reading order. And it's not for most screen readers. Itactually comes from again the tag tree. So if we have all of your tags in the right order and it's really easy to reorder tags, you just drag and drop them. And we'll have a screen reader that can read in the right order.

There is one screen reader that takes it from the reading that sorry, it's called the Order panel, but it's colloquially often referred toas the reading order panel, and that is Apple products. So Apple voiceover. for some reason goes from the order panel, not the tag panel. So yes, when we have a PDF we do want to check that the order is right on both of them.The tags are more important, but we do need to look at both of them. The auto panel is much simpler than the tag panel. It doesn't show you what the structure types are really, it just kind of has each piece in a row and again you can just drag and drop them into the right order. So very easy to reshuffle around, but the majority of our time and focus goes into the tag panel, making sure we have the right tag type and making sure the tags are in the right order.

Ivett

That was beautifully done. Thank you.

Ivett

I think it will come up again at some point, I think. So if I talk about the word issues.

it's really actually it's kind of as the same conversation that of the accessibility issues in Word different from PDF. Hopefully it's kind of evident now that tags are the main unique thing about PDFs and that our word accessibility creates accessible PDFs. So the only thing that I would caution is there's actually a way to make interactive forms in Word and it's completely inaccessible. It will never work with the screen reader, no matter what you do.

So if you have an interactive form, you always want to create it as a PDF, not as a Word Document. And they, you know, they can tag the PDF forms and it works really well. The gold standard for interactive things is HTML. We always say if you can avoid making them as a document, it's better to have them as a HTML website because that is usually the easiest to make accessible. But if you need it as a document, PDFs are the best possible format for our interactive forms, but that's in terms of content. The content accessibility is very similar across both words.

In PDF and everything, every program of course has individual quirks, but if we understand the principles of what makes content accessible, so things I Mentioned like colour contrast and our layout. That is what we need to know if we're the we're making a Word document or a PDF or a slideshow or a spreadsheet. Even Microsoft Office products all have a really basically the same set of buttons in each and functions.

So if you know how to make a Word document accessible, you know 95% of what makes a PowerPoint accessible and an Excel document accessible. So it's best to focus your efforts there.

Ivett

Thank you. Of my next question, you know that's happening.

Tess

Next question is what steps do you take to avoid issues when creating a PDF? So again, I'd from, you know, familiarize yourself with content accessibility, use your semantic formatting properly. So yeah, using our columns and our tables and our heading styles, not just making things look nice. And then running that accessibility checker in the source program that we're using, if it has one. Usually they do and then making sure we export it correctly, and then once we're in the in the PDF, we can actually run the accessibility checker again to pick up any further issues. So those are kind of the basic steps and it's why I keep coming back to most PDF accessibility doesn't happen in Adobe. It happens in the source program.

And your next question,

Ivett

Sorry, also like so in Microsoft Word for example, there's an accessibility checker and it runs through it and it flags up any any issues that it thinks it has that you can fix. And then that's the same in Adobe as well. Is that the first thing that you would do that you would run an accessibility checker in Adobe or would you do that after you like? What would be the exact steps that you would do in Adobe just like in a nutshell of like step one, two, and three? When you open Adobe?

Tess

Sure. I have a slide on that.So When I when I open up a PDF the first thing that I would do is is double check all the contents. So are the links working? Is the color contrast oK? Are there any typos? Is There anything that needs to be fixed in the source document before I go any further with the tags? I don't wanna work on the tags. Realize there's an issue and then lose all of that work.

Next I am going to open up that tag tree and I'm going to go through each tag I click on each tag and it highlights what on the page that tag corresponds to. So by doing thatI can check that every piece of content on the page has a tag and I can check with those tags are correct. It's very easy to change A tag type, you right click the tag, you click properties and you can just select a new tag type in themenu. No drama. Super easy.

Once I've done that. So that's tag remediation. If something's missing a tag, I can use this the reading order tool in the accessibility menu. You can manually tag that way, and There's also an auto tag document feature. So if you do get a PDF that you didn't create and it's got no tags or it's got like one tag and they're all wrong or something. If you run autotag document, Adobe will try its best to tag everything for you. It's not 100% correct, it's never going to be, but it can make life a lot easier for you if you're

starting from scratch and then you can just go through and fix those tags up again.Just make sure they're the right tag type and in the right order.

Ivett

So that auto tag thing is, is a part of Adobe?

Tess

Yes, it is. It's in, it's in the accessibility tools menu. Uh, right up the top. It's the first option. So if you've got Adobe pro, the license version, you've got that feature. And I think the plugins have similar ones like commonlook, I'm pretty sure has an auto tag. So yeah,pretty much any remediation tool will have that for you.

Umm, once we've sort of done remediating the tags, that's when we go and check the tab order, so I'd go through the document hitting the tab button and check that any interactive fields, so that's form fields and links are in the right order and accessible through the tab key. If they're tagged well, they will be and then I'd go to that order panel and make sure the reading order there is correct too, because of those Apple products and also some older screen readers. I think back in the 90s they originally were going off that and those products are still around. So some people might have that.

Umm. And then at this point this is when I'd run an accessibility check. Once I've done all of my manual work to see if I've missed anything and that's gonna pick up technical errors like missing tags or weird tag order, missing alt text.

Umm, it's also always has two prompts that come up and they're not issues, but it just reminds you. Have you checked the color contrast? And have you checked that there is a logical reading order? And logical reading order just means that all the tags in an order that makes sense to a reader. It can't check those because those are things that it doesn't.Logical reading order is a human thing and color contrast. You Need an external thing to do. So it just reminds you that you can do them. And you can actually mark those manually as Yep, I've done it and it's passed.

The accessibility checker is not100% infallible. But it will get 99% of your issues. For that 1%, often the only way to pick them up is to test with a screen reader, which is something I do as a professional remediator, but I'm I wouldn't expect you know, your average PDF created to get into.

I use NVDA which is a free screen reader program and it is something that is, if you're interested in. It's really interesting to learn how to use and to listen to how things are read out. So it's definitely fun to have a poke around with and it will really expand your understanding of how PDFs are read by people who use screen readers. So it is, you know, I wouldn't expect everybody to learn how to use a screen reader. They are. There's a lot of learning that goes into it. It can take years to master, but there are guides to your basic functions. And getting the hang of that, you can do a really quick check through a PDF to see that it's all reading right? So those are the sort of main steps that we go through as remediators.

Ivett

That's beautiful. You just answered my question.

Tess

Excellent.

Ivett

Where were we before I interrupted?

Tess

Umm, we were honestly, I think we.

Ivett

I'm aware of the time. I Don't know how. How quickly you want to wrap it up.

Tess

I mean, I'm alright. I'm nearly finished so I can just if you got time, we can just go through the rest.

Ivett

I'm fine. I'm fine. I'm just worried about you.

Tess

Cool. No, I'm all right.

The next one was the external tools. This is a really easy answer because I've pretty much already answered it. The Commonlook and things like those plugins. Other than that, the main external tool that you want to get the hang of using is one of those color contrast analyzers. Tbgi has one WebAim has one. There's a bunch more, but these are free and they're really good and worth, UM, I think the WebAim is just an inbuilt browser one. The Tbgi has one on the left is one that you can actually download to your desktop, so you always have it. That's my favorite one.

Ivett

So Adobe doesn't have one that is built in?

Tess

No, they don't. And they can't even tell you if you like. They can't compare colours there.It's really interesting. I don't know why. Like, I would have thought that it wasn't that difficult, but I've never understood why it's not something that's built in, especially because MicrosoftWord has very recently gained the ability to tell you when your contrast is off. It will. It's not complex the way this is like it won't tell

you a contrast ratio or anything like that, but it can say, hey, I I think the contrast on this is low. You should go check. Adobe doesn't do that at all. It's Just like hands off. I don' know. So yeah, it's odd, but Iexpect eventually it will be something, but it's just never been a priority I guess.

Ivett

The there are just so many other tools that you can use it, so yeah.

Tess

Exactly. And then I think that brings the last question, which is the best way to share accessible PDFs.

And basically, if your PDF is downloadable, then all of the tags will come with it. If you view a PDF in a browser,none of the tags will be available and it will not be accessible to a screen reader. So you want to make sure that people who need it can actually physically download that file rather than just open it up. And you also want to make sure that any content you're sharing is in a tagged PDF format. We don't want to say, oh, look for event companies, for example, we'll often send out an email with information and then say just save this email, this is your ticket, you know, this is your information. And to save an email you usually use the print to function to save it to a PDF. And as we now know, print two will create an inaccessible PDF. So we actually always want to be giving people an accessible PDF, not asking them to create a PDF from information that we've given them, because they'll probably not make an accessible PDF out of that and they might be someone who needs that. And we get issues.

And I'd also always suggest a secondary format if possible. So iif we have a PDF and we aren't able to fix some of the errors or we don't have the ability to spend a lot of time remediating tags, what we can do is just offer a secondary file format that's going to be more accessible. So word documents. We can host something as a webpage in HTML and also epubs or text files are great for just text based documents. The New Zealand Government uses text files for some things because they're just really they're designed to work with technology, they're optimized for it. So when it is only text and you just, you know, wall of text or whatever, text files are a great alternative. So yeah, always offering a secondary format basically can circumvent you know, getting pulled up on WCAG stuff if you're PDF isn't accessible because you can say no, it's fine, the information is still available just here.

Umm. That was our last question. I think other than sort of resources that I can recommend to people.

Ivett

OK, I have three more questions.

Tess

Of course.

Ivett

So that's just random. Whatever you think. If you get like a three page document, how long do you think it will take you to to to make is it accessible?

Tess

It really depends if if it's a three page document, it's been well done in in the source program and it's mostly text and it already has tags, you know I might only spend 10 minutes on it, it just runs all the checks, a couple of changes. It's so easy to change a tag type.

If it's, uh, three page document and it's full of lists that aren't tagged tables that are tagged wrong, you know there's no old text or whatever, all of the issues might take longer, it might take an hour.

Umm, you know, I can the 20 page document can sometimes take 8 hours or something to go through and some of that is even not just doing the work but just actually checking every single piece of information to make sure that it's all there and it's in the right order and that's all tagged. That's sort of where a lot of the time goes. So Unfortunately the answer varies based on the document.

Ivett

No, no, that's a great answer. Because then again it highlights how important it is to get it right in the source document because you can save a lot of time there, yeah.

Tess

Yes, so much time.

Ivett

And actually it once you have it right, it doesn't even take that long because 10 minutes isn't that long to make something accessible. So we can do it.

So my next question is, I don't know Adobe. We in and my job, we basically outsource, you know, media creation. We have a team that does that for us. So I don't touch Adobe or I don't create PDFs. I just have the the source document in a way. If I were to pick it up, how easy would you say I would be able to create accessible PDF? So I'm just trying to encourage people to do that.

Tess

So it takes practice, I would say, and I Think more than time, it's more how often are you doing it because Adobe, and honestly, all PDF programs, they're odd and they're fiddly, and I don't think they are often designed with the user in mind. Ease in mind. And So what I'vefound in my own, you know, the learning journey is that things constantly change. Uh, i forget where tools are we, new bugs every time they update screen readers, new bugs appear that weren't there before and it helps me really plugged into the community. And there are amazing communities online of people who are PDF professionals and will answer any question you have in three seconds.

So it's sort of like a constantly updating practice. I think it it's. It can seem scary to get into because I think tags can seem really overwhelming, but as a sort of hammering home, if you have a well created document in the source, you don't have to do that much work with tags. Once you open up the tag tree and you have a click around and you learn the layout of the land, you can get started in two hours.

We run a course and I spend between two and four hours teaching people how to use the tags in more depth, and then they're off and they can go out into the world and do it. And you know, two to four hours is done enough to be an expert, and Adobe brings up so many bizarre bugs that you will encounter. And sometimes the bugs I've found bugs that have never been documented before,and I'm the first person that's been like that. And because there's actually, it's quite a small community of people who get really into the weeds on PDF.

But you can be more or less proficient accessibility created a in yet a day basically less than you can get the hang of it and get started, and then you'll get better and better as you go. And the more often you do it, it's just if you do it really stop start. I think you'll probably forget things and or yeah not know about updates and things like that. So it's always good to if you are doing it only rarely in occasionally to get plugged into those communities that can help.

Ivett

Yeah. And it sounds promising. You know, like two or three hours to learn it one day to learn it and and looking at it, it didn't seem that complicated and you can even drag and drop down like, ohh,try me.

Tess

That's good.

Ivett

OK. So that was my last question. My last last question is just basically if if anybody wanted to find out more about this topic, do you have any resources that you would recommend?

Tess

I do so I've got a bunch of links I can send you actually so that you can share them with the group with this video. And those links that I'vegot just checking what they are so I can tell you. So we've got.

Ohh. Well, yeah. First of all, I run a course. Come learn from me, but so we've got a simple guide for you. That's like a basic one page do don't think in creating accessible PDFs which is easy. And then I've got things that get harder. So we've got a PDF. So the web content accessibility guidelines we tag actually have a series of PDF techniques. These are all online. Umm, they're sort of your bread and butter of getting to learn about what makes a PDFaccessible. Each technique is one step in making an accessibility accessible, so this step might be make sure you know all your headings have actual heading levels, something like that. I do caution with them because some of the techniques are wrong. It's not good from a usability perspective. But there's only like two or three of them that I wouldn't. They're not gonna break a document. Their supposedly for accessibility, but they actually make it worse. User

experience, even though they make things accessible. This is a weird concept we run into a lot in the accessibility community, which is that accessible does not equal usable. We have to think about the person behind the technology.

We've also got our WebAim Consortium online, who do huge amounts of accessibility information, and they've got a series of PDF walkthroughs. Umm. And there's also an accessible and usable PDF documents guide that you can purchase. I think it's about 60 American dollars. I'm not sure, but it's amazing. It's like every single possible thing you could ever run into, and it's just all in one, you know, 200 page PDF. And you can kind of go through and it's think accessible PDF, which is the the best part.

So yeah, basically I would also mention to be cautious with Adobe itself. Adobe has walkthroughs and a lot of them say that they are walkthroughs for how to make your PDF accessible and most of them are alright, but some of them have blatantly wrong information. For Example, Adobe still thinks that screen readers take their reading order from the order panel, not the tag tree. In some places on their website and that's wrong. So always use caution when you're looking at Adobe specifically because you'd think you could just gothere for the single source of truth, and you can't.

Ivett

OK. And is that it?

Tess

That's it. Umm, my only other thing is if you would like me now. Ooh, sorry. Turn my camera off instead of stop sharing my screen. Have I stopped sharing my screen?

Ivett

You're back but you're not screen sharing anymore, but I can see you.

Tess

I'm back. Fabulous. Excellent. UM was if you would really like right now. I can also open up a PDF and just really quickly show you how something might be manually tagged if you would like to see something like that.

Ivett

I'm going to say yes.

Tess

Awesome. Let me grab..

Ivett

And while you're doing that. We will arrange a way to send you for you to send these links over the link to your course, and then the WCAG PDF techniques and everything that you mentioned just now, yeah?

Tess

Yep. Yeah, I will. I'll send those through to you and you can yes, distribute them.

I think that should work. I wanna make sure if I open up a pop up can you see that reading order panel?

Ivett

I see a panel.

Tess

Does that come and go as I close it?

Ivett

No.

Tess

OK, I might need to just share my desktop rather than the actual program. That's fine. Screen 2. Here we go. OK, so here's a completely untagged PDF that I've got. Ohh, nevermind, the PDFs are here. I can untag that here.

OK, great. Cool. Alright, let's other pages. Got it. All right, so in the tag panel. This is an accessibility menu here. Hang on. It lives down here. Accessibility and reopen it up. This is the order tag document. So if I ran that it would tag all of this content on the page and that would be our first step. But right now I can just show you how to manually tag things. So this is the the reading order tool brings up this little panel. It's so confusingly named because it works both at the tag panel and the Reading Order panel. But allI I do is drag my mouse and structure and I give it a type. So this is an image, so I call it a figure. And when I do that, it appears here in the tag tree and then I would do the same for the next heading. This is a heading level 1 and bam. So in my tag I've Got the content block. To change this tag type. It's literally just properties from the local menu and then I could set it to anything. That's wrong, man. I shouldn't do that. But it's just to demonstrate how easy that is.

Umm. And you get things like these tables so that comes up. We've got each row we can get into an inside each row, I can see each column.

Umm, when we have images like this so. This is tagged this image as a meaningful image and I want it to be a decorative image. That's Where I would select background slash artifact and it would literally just disappear. But I'll not do that so I can show you the alt text.

This is what happens when I use the set alternate text function. It actually can identify up tagthis as an image. So now it's come up and I can either type in the alt text or I can mark it as decorative if I mark it as decorative. It's going to turn into an artifact here. And now that won't be read out by screen readers.

So that's really the majority of what PDF tag remediation looks like. And it's just going through, you know, each line checking that they're all tagged, finding what's missing and fixing them.

And I'll show you while I'm Here, this is the accessibility check function.When I stopped checking, it comes up with things in different categories, so this is that logical reading order I mentioned and the colourcontrast I mentioned. They've got the blue question mark because they need me to check, but it's able to say this red Xis like no this is an issue you haven't set a title for your document. That's something that's done in document properties. So it goes through each of those. It's saying, hey, you've missed tags.

Umm, this is something with references and here it's saying you're heading level is wrong,so I can actually go to element one when I click on it, it shows me exactly which one it's talking about. And once I've can go show in tags panel, I can find it and then I can, you know change the heading level to what it's meant to be, which in this case Ithink is a Level 2 done so.

Ivett

This is how you make it look easy.

Tess

This is how you make it easy.

Ivett

Make it look easy.

Tess

Yeah, it's like I'm I go pretty fast, but. Yeah, it takes a while to get up to that level of speed. But you are the more you do it,the more familiar you get with the interface and it just becomes the second language to you. So I find it fun. I Don't know some people I work I think PDFs are the devil,but I find it deeply satisfying. And if you're somebody who likes order and structure and making things neat, this is like the best thing in the world. It's so fun. So yeah, recommend getting into it.

Ivett

Now I can see how it's fun. Thank you. Is there anything else? I feel like we've covered everything and more than I hope that we would discuss.

Tess

I hope so. And yeah, I do. I Will just reiterate, I mean the reason I spend so much time on the content accessibility today, not the tags is because if you get the content accessibility right, you just don't need to do that much to the tags and you know I think for the average person who isn't an accessibility specialist and who is working in a environment where they are dealing with PDF, it is better to focus your energy on getting your content right than it is to spend all of that energy learning about PDF remediation and the

above. Obviously, in a perfect world both. But I know we're all very time for these days and particularly educators ,so it's really the content that is key.

Ivett

Yeah, I definitely took that away text and and and preparing your source document, preparing everything out of it. OK, that was really, really helpful, Tess. I'm really glad that you agreed to have a chat with me and show me all these things. And if anybody wants to try your course, we will share the link with, like in the description. And basically if they wanna connect with you, they can do that via LinkedIn?

Tess

Yes, absolutely.

Ivett

OK. Well, I'm gonna let you go then because it's been a pleasure, but it's also been a long recording.

Tess

Yes, so sorry if anyone still sitting here watching it.

Ivett

No, not for me, I'm not worried about me at all. Tess. Honestly, not for me. But I'm like, I know it's morning for you. So you I have to get to work as well. But I really appreciate the time Tess. And it's been so helpful. So. So. Thank you very much.

Tess

No worries at all. Thanks so much of it and I'll send you through those links. So you can, yeah, share them.

Ivett

Yeah.

Tess

See you.