**Accessibility- It's Not Just a Client Side Problem.mp4**

[00:00:00] Yeah okay cool. Hi. Hello and welcome. You're at a session called accessibility. It's not just a client's problem if you're not here for the session then feel free to leave. I won't be insulted it's OK. But this is what you're here for. My name is Stephanie Slattery.

[00:00:15] I am a front and web engineer at quick studios in Chicago and I specialize in accessibility. I've led accessibility audits and fixes for all sorts of clients and I get to.

[00:00:31] Lot of ways I said some words what did I say. I'm Stephanie I talk about accessibility blah blah blah blah. OK whatever. Great. So here's fly that has my name on it. Wow.

[00:00:39] And my Twitter handle is there also on the bottom of my slides really teeny tiny. I'm putting it up there quick. Accessibility is important to me. Obviously I'm giving this talk. So if at any point in this talk I'm speaking too quickly to quietly. You can't read a slide. My microphone is way too loud and it's hurting your. Ear. I'm not making any sense. Just give a shout out. Also these slides are up right now available online. I just tweeted out the link. So if you need to follow along for some reason on a screen Feel free to do that. Cool. Also feel free to live tweet this. I love reading people's thoughts about my talks. Cool. OK. So let's get into it. What is accessibility. Accessibility is the design of products Devices Services or environments for people who experience disability. It's also the practice of removing barriers that might prevent people with disabilities from accessing that technology and products and devices in general. Technology shouldn't be a barrier to people. It should make their lives even easier than it was before that technology existed. And that's where we have accessibility. I tend to find that the easiest way to understand accessibility and what it is and why we do this is to talk about disability. There are a few general categories of disability that we need to think about when creating technology. I mean to give you a list it's not exhaustive. Think of it as a starting point for understanding all of these can be acquired from disease or trauma or congenital conditions.

[00:02:15] So the first of these is a visual disability. This includes complete or partial blindness low vision and color blindness hearing. This includes deafness heart of hearing hyperacusis which is a sensitivity to certain frequencies and volumes of sound. The next category is motor disability. This includes things like paralysis cerebral palsy and dyspraxia carpal tunnel syndrome the sedative strain injury in general. So far as we're concerned for technology purposes these can cause an inability to use a mouse or a slow response time or limited fine motor control. And the last category we'll talk about is cognitive disability. This includes both cognitive impairments like head injury autism developmental disabilities. Essentially they impact the way that a person thinks and learning disability. Things like dyslexia dyscalculia or ADHD these can cause things like distractibility or an inability to remember or focus on large amounts of information or just cause a person to think. Differently. And then the important thing to know about all of these people is that they all use technology whenever I give a talk like this or a workshop there's always somebody who's like wait a minute what people who are paralyzed from the neck down are using my website. What how or what someone who is blind like completely blind they're using the app. What. Happened. That's a thing. It is through this fantastic thing called assistive technology. As I mentioned before technology is something that helps enable people to have more opportunities. It's not a barrier. Right. This involves a lot of different input devices and a lot of different ways to experience and perceive what you've created.

[00:04:08] So this might be something like a screen reader. There are a lot of different screen readers you can pick from. But in general they're reading the content that's on a computer to a person who is not always able to visually see it. This includes magnifiers either like a physical magnifier that goes over a screen that magnifies it or software that can increase the size of text and things like that. You may have accidentally done this before on your computer like the text is really huge What did I do. Right. Yeah. Also this includes large print and tactile keyboards also keyboards that have larger keys bigger bigger letters on the keyboard and they're physically raised you can feel them as you're typing this also includes sip and puff devices. These are I'll show you a picture in just a sec. But essentially these are things that like a little straw that a person can use to both suck in the air and blow out air as a way to send a signal that can be interpreted by a program so they can use it also. I gave them head mouse systems. So these allow people as they move their eyes for that to control a piece of technology or the way that they move their head. Supercool unless one is speech recognition which we're becoming more and more familiar with just everybody re talking to Syria or whatever. You can physically speak to the computer.

[00:05:32] Here's an example of that in puft device I was talking about you kind of see it here like a little little straw that's you have the ability to blow air into or suck air out of as a way to send a signal.

[00:05:44] And this is one of those sort of had mouse devices. It's a button that you can hit with your head. Cool. Right. The things that we have created that allow people to use technology I think are really exciting. Here's the thing that you might be thinking OK this is cool. There are people with disability that's knifes whatever. The important fact about all this is that one in five Americans have a disability Susan like some small teeny part of the population that you can just forget about. This is as of 2010 according to the U.S. Census Bureau about one in 10 Americans have a disability that directly impacts their ability to use a computer. Ten percent. And if you're like me and sometimes numbers you have a hard time thinking about them. About one in five Americans is fifty six point seven million people. That's a lot of people. That is a huge user base. These people are using your technology. They're using the thing you create you actually put this I'm sorry here's the other important thing to know. Accessibility helps everybody to use your technology better. All of those different categories of disability I mentioned require certain types of adaptations to the design of your content and the tech you're creating. But most of the time these adaptations help everybody not just the people with a disability that you're trying to specifically help out. A good example of this is like physical. It's called a curb cut. Probably seen is everywhere in the United States right there on the sidewalk.

[00:07:19] They cut down and it's like a little ramp between the street and the sidewalk called the curb. This is also the word that we use in the accessibility space to refer to things that are specifically meant to help people with disabilities that help everybody. Right. If you're pushing like I don't know a cart of groceries from the store this helps you out. You don't have to go over a curb if you're pushing a stroller. This helps you out helps out a lot of other people in the digital space. A good example is captions. This is like an example of a YouTube caption here. It says it's Jamie Lee Curtis. They think this actresses for. I tell you I have a good first aid kit to take care of your family and we can see that caption on YouTube captions are necessary for deaf users to be able to understand the content. But they're also super helpful. If you're on a bus and you forgot your headphones and you want to watch this video and you want to know what's going on. It's a cute cat video your friends shared and you want to know the narration right captions are not just hopeful that people with disabilities are helpful to everybody. So really when we talk about accessibility we're talking about improving access for more than just one in five Americans. A lot of additional people we're helping. Right. OK. So why do we make something accessible. There are a lot of reasons and they're all totally valid. They're just more or less altruistic. Right. So the first one is to improve the lives of people with disabilities.

[00:08:48] I believe that we have as technologists an ethical duty to help everybody who using what we're making. It's just that simple right. We're responsible for what we create regardless of what you're making whether it's a Web site or an API or it's an app or it's a cool robot whatever it is that you are writing code for if you make something that any other human being is going to interact with. You are responsible for making sure those other humans can use that. Right. OK. So if this altruistic like moral reason doesn't appeal and sometimes it can't. Another really great one is to capitalize on a wider audience or consumer base. So remember I mentioned that one in five Americans have a disability. That's a lot of people. Right. There's no. Like economic or ethical argument you could make for excluding 20 percent of your audience for something you're creating. Right. If you were making a web site and you decided to just exclude the web browsers that 20 percent of people use that while why would you do that right. You're losing a fifth of your customer base. You wouldn't do the same in creating a technology that excludes one fifth of people. Right. Here's the other interesting thing if you like numbers that one in five Americans that have a disability has about 175 billion dollars in discretionary income. I don't even I can't even think about a number that big it's so huge. If you are creating an app or a technology that you want to make money off of you want a piece of that. Right.

[00:10:27] Here's the other really important reason why we make things accessibly. It's the law. In fact you might be making something accessible to avoid lawsuits or to avoid bad press. And I know what you're thinking there are laws. There's a law that says that my web site has to be able to be used by somebody with a screen or what. There are several major laws in the United States that came into existence because of the disability rights movement. I didn't mention them here because they're really important for compliance reasons. The first of which is the rehabilitation act of 1973 mini history lesson. Get excited. This law prohibits discrimination on the basis of disability. In programs that are a federal program or that receive federal funding or hire federal employees or about federal contractors that's what the federal government. In 1998 Congress amended this was something you may have heard of called Section 5 0 8 that is specifically about information technology requiring that federal agencies provide accessible electronic resources and I.T. to people with disabilities. Pretty cool. Here's the thing. I said the word federal a whole lot. In that sentence this act doesn't require private Web sites that have nothing to do with government funding to be accessible. But if you're a person in this room who does anything with federal funding you might already be familiar with this. It is the law. Well and here's the law that applies to everybody. It's called the Americans With Disabilities Act. You may have heard it called the 88. This passed in 1990. It's a labor law.

[00:12:06] Technically it prohibits discrimination on the basis of disability and created accessibility requirements for public services and accommodations. Here's the thing though. 1990. That's like the baby infant stages of the World Wide Web. The 88 doesn't actually directly mention the Internet anywhere. But it works to insure that people with disabilities have equal opportunity and equal access. The Department of Justice is currently developing regulations that address accessibility of technology and specifically regarding the web but there have more and more recently ban lawsuits that make it pretty clear. That our legal system is interpreting this to also apply to private things that receive no federal funding. You may have heard about a lawsuit against Netflix. They weren't providing accurate captioning. There are a lot of shows that had no captioning so there were a you were getting that. Southwest Airlines had this problem with their seat selection map where you select which seats you want to get in the airline and the aircraft. And that was not accessible. And there are a ton more of these. A lot of these lawsuits are going to take questions at the end if that's ok unless it's it's a concern.

[00:13:23] Oh sorry. More like if you can't hear me or something. I'm so excited to take your question later though I might answer it in a second. Hold it hold it in your brain. Thank you. So right there are a bunch of these lawsuits. The interesting thing is that the way to have an organization or a business be compliant with these laws is to sue them.

[00:13:40] And I know in the United States really people could just sue people willy nilly. Ridiculous right. Very frequently the only way to get an organization to make things accessible for you as a person with disabilities. And there are a ton of other international laws that are really interesting. Really cool but I don't have time to talk about them. So you're gonna have to research it on your own. OK. So we have laws. We are legally required to make things accessible.

[00:14:06] How do we know if what we're making is accessible. I don't I don't want to get sued. I want to help people. How do I do that. The best and easiest way to make your technology accessible is to listen to people with disabilities. You can read as many blog posts as you want by people with disabilities and read every guideline and read every book. But at the end of the day you need to involve people with disabilities in the creation of your technology have them on your team have them involved in user testing. Involve people with disabilities and what you're making. Also listen to the voices of people with disabilities about what they mean. It's the easiest way to do it. There are also some other helpful guidelines you could follow. We have a few different sets of best practices about accessibility. So we have those laws that I mentioned they're pretty helpful and sets of guidelines that help you evaluate what you're creating. There are a lot of resources you can use. I'm going to go into two different examples but there are. One. More out there. The first of which is specific to the Web. It's called the Web content accessibility guidelines. Version 2.0 came out in December 2008. This doesn't specifically apply to the web however it's still going to explain it because it really provides a good framework for understanding about how to make technology accessible. It has also called the CAG or the CAG.

[00:15:33] If you heard it referred to that when it has four principals inside of it the first of which is perceivable your web content needs to be available to the senses either through a browser or some other kind of assistive technology like we've mentioned before right on the information content and UI components of your web site have to be presentable to users in ways that they can perceive. The second one is that it needs to be operable. Users should be able to interact with every control and every interactive element on your site using either a mouse or a keyboard or some other assistive tech. They need to interact with it. The third principle is that a site needs to be understandable the content needs to be clear it needs to not be confusing it shouldn't be ambiguous needs to be clearly understood. And the last is that a site needs to be robust. This means it needs to be accessible to a wide range of technologies both different browsers all those different kinds of assistive tech I mentioned different operating systems mobile devices versus desktop devices both the shining newest version of this technology and also older versions of the Knology all need to be able to use it. They need to be accessed or content underneath all four of these principles. There's a ton of other like really minute sub guidelines that talk about success criteria and it's very dense. I recommend reading it. It's really cool if you do any work on the web. Take a look at it. Another thing relevant to us is the open accessibility framework. Look at the way it provides an outline of six steps.

[00:17:12] You have to that must be in place if you're creating just a computing platform in order for it to be considered accessible. And they are actually really similar to the steps you need to follow if you're physically making something you want to be accessible like curb cut. We've talked about right. You're building a building and there's two categories to the steps creation and use. And just really quickly what these mean creation defines the precursors and building blocks that technology developers have to use to create accessible applications and products that whatever you're making you have to define what accessibility means for what you're making. You have to determine stock user interface elements and components that are used consistently throughout what you're creating and you have to provide authoring tools for people who are using that platform to make things that support accessibility with the Michale then as far as use goes they describe what's necessary in your computing environment in which those accessible applications run. So this provides this includes providing platform supports accessible application software and making in those assistive technologies into the platform you're making. So this includes like you're probably familiar we talked about like accidentally zooming the text on your browser. That's built into your browser it's not something you're having to install on top of it it's put right in the platform. OK. So we have like that because we have this set of guidelines. But here's the thing. Hammer home. It's more than just guidelines. You can read every tiny little step of the way. You can follow all those six steps of creation in years and still end up with something that is not accessible to people. These guidelines are more like tools. They help us determine if something is inaccessible.

[00:19:01] There are a really easy way to say oh well you don't meet this part of the KAG that means they're inaccessible but they're not a way always to make sure you are accessible. So again put this line here twice. You remember listen to people with disabilities about what they need and about your content and about the technology youre creating to know if it is actually accessible. OK so maybe I've convinced you maybe this is all good. I like helping people. I like making money. I like not getting sued. Accessibility. But it's still scary right. I have definitely joined teams where I lay. I'm. All right let me look at the code and it is who it is not accessible. And that is super scary and intimidating right. How can you advocate for this.

[00:19:50] How can you actually make a change and improve accessibility in whatever it is you're making a few steps for you. They should be easy enough to follow. The first of which is to collect baseline information that means to figure out how accessible you are. Right now do an audit of what you're making whether it's a Web site or whatever it is or your documentation whatever it is or hire somebody to do that. There are a lot of excellent services that will perform accessibility audits for what you're doing. They're wonderful people.

[00:20:23] There are also accessibility validator tools you can use for example if you're making a web site you just pop you Arel and hits the Met and it processes your site and tells you all the accessibility problems it can find. Which is super helpful right. That gives you a good jumping off point. A word of caution about those tools though they are tools. And as people in this room who make tools we know they're not perfect for automated accessibility validation tools usually only get about like 60 percent of the problems. And this is partially because it's a tool. Right. It was made by a person. They're not perfect yet but it's also because specifically like an example for the Web site if you're running a tool and you want to know is that are the headers on my web site. Are they clear enough to they communicate the meaning of what's in the content and you don't actually have headers in your HTL you just wrote text validate or tools going to be like. Yes sure. The headers of which there are none are all fine. But it doesn't know because you haven't written the code correctly. Right. This is a lot of a problem a huge problem. Specifically if what you've created is very inaccessible validation tools can't really help you very much because they are making some assumptions that you've written some of your code correctly at least. So be careful. But they're helpful too. OK. So we have baseline information we know. Are we accessible at all. Next we can gather support.

[00:21:54] So whether this is in an organization that's you and your buddy making a browser again or you're in a huge multinational company with like tens of thousands of people making all sorts of crazy and beautiful maps whatever it is you're small gather support in the organization that you're a part of. So it's not just you identify stakeholders in accessibility and convince them that this has value. Now you might find some folks who go you know what we should help people and they go yeah. Helping people is great. Fortunately most of the time helping people does not pay the bills for your app. So you usually have to convince them of some monetary value in being accessible which can be hard sometimes right. If you're a person who cares about accessibility you don't want to talk about oh we can make money off of people. There are few pretty straight four ways to do this though. First of all that number I mentioned before was like billions of dollars. OK. That's that's money. Hello. Let's make some money. But there's also lawsuits have definitely helped clients before who are being sued for a lot a lot a lot a lot a lot of money because their web site is not accessible. Wouldn't it be great if we didn't get sued let's fix that. Oh right. There's also the concern as I mentioned before that new laws are constantly being passed around this. It's a lot easier and much cheaper believe me to build your technology accessible from the beginning. It's pretty easy to just kind of roll it in there.

[00:23:21] Whatever we do at the right from the beginning then it is to have a new law be passed that says ha ha ha you have to follow these rules now and then you're spending a ton of money to go back and retrofit. Specifically I mentioned before that Southwest Airlines lawsuit that actually has resulted in a lawsuit specifically it's it's you know but not quite on the books yet that being written that says that the airline industry specifically just the airline industry. Their Web sites have to comply with the ACA even if they don't receive federal funding. I'm glad that did not work in the airline industry because that has not fun to go back to your giant accessibility retrofit. Right. So you're saving money in the long run. You're not going to get sued and you're not going to have to suddenly be compliant with the law. You're already compliant with it. Look at you. Right. So you gather support it's cheaper to do this now it's better to be proactively accessible. There are also some companies that do a wonderful job of building accessible technology and just saying and just communicating. Oh we have you know such and such a shopping Web site. That is you know rated it with such and such compliance level within the week. They just put that out there into the world and let me tell you. People with disabilities are so overjoyed to have something that we can use to have something that's accessible.

[00:24:42] There are a lot of sites that are chosen that people will choose to give their money to because they're accessible because they care about them because they see that people with disabilities exist and that's more money for you and your stakeholders probably care about that. So we've gathered support. Next we need to define a standard so it doesn't work so well when you go rah rah rah accessibility done and make people care. Right. You have to define what you're doing if you're making a web site. You have to say OK we're shooting for double leg compliance and we're kag and here's how we're doing it. You need to make a plan. What does accessibility mean for you. How are you doing it. What is your internal standard and actually train people on that. I've had this problem before it companies to where we will say accessibility is great. We care about it. Our client cares about it. And a few people receive training. Not the entire team and nothing accessible is actually built because people don't actually know how to do it even if they care about it right. Training is important. The last thing is to monitor conformance. So maybe you've convinced everybody. Hurray accessibility. Let's do it. Here's how to do it.

[00:25:52] And you build a beautiful shiny thing that's so accessible and everybody so happy and it's amazing. And then you let developers get their grubby little hands on it and they fix bugs and they make quick patches and quick midnight fixes when things break. And they tack on new features that the business want to add and suddenly your shiny thing is no longer accessible. No good. You need to be monitoring how accessible your technology is. Over time even after you've initially built it there are a bunch of really cool actually automated build tools that can have accessibility conformance monitoring like No all right Ed and they'll just like run a check every time somebody puts in a pull request it will evaluate are you accidently used a color that doesn't have enough contrast pull request denied. It's really cool. It's super helpful. It's really great. I'll put those resources up on my web site. You can look at them. You'll love it.

[00:26:50] OK so you've convinced people that accessibility has value in your organization you have standards. You built it accessible you monitored conformance. Isn't that great. Wouldn't that be great if the world worked like that and you could go home and everything would be perfect. This sounds scary right. You might be sitting here like well I just. Right. You know I do database stuff for this giant company. Nobody is going to care if I'm like it's possible. Right. Here's my argument to you about that though. If you do not do it then who is going to do it.

[00:27:25] If I've convinced you that accessibility is important if you don't do it who's going to do it now.

[00:27:32] Maybe your company has this huge internal team with quality assurance user experience and front end developers all working together to actively monitor accessibility and improve your content and improve your product. Cool. You don't you know you're good you're good you're fine. You do not. You do not need to do more perfect. Hooray. Good job. Ask them if they need help. Go help them. I am going to assume that for most people in the room though that is not the case. That is not a very common thing to have in a company and accessibility team devoted to this. There are companies that do run if you have anything short of an amazing huge accessibility initiative where you work or on the open source projects you work on or even just the things you make for yourself. Then you can do more. You can either start an initiative shop it around talk about it. Just start to care about it. Or join a small one that exists and make it bigger. Let me tell you I have found a decent amount of open source projects that if I just go Hamerton accessibility improvement I used a different kind of Hetter tag. Its more accessible now people are going to be like credibility we dont care. Out of here like its. Its an easy improvement relatively frictionless to make. If you don't do it who's going to do it right. And here's the thing I believe I believe in you.

[00:28:45] I don't know you but I believe in you because you came to my talk and it means you must care a teeny bit or somebody is making you come here which you care. So you're got somebody somebody cares. Or maybe you're sleeping in the back. I don't know whatever. But you're here. You care enough that you came to this talk. So therefore I believe that you are capable of doing this whether you write. Front end web code and you wrote a python conference. I don't know. I'm here whenever. You can make an improvement if you. Everything you do all day is work on an API. Chances are another human being is going to look at your API. Hahaha. You should think about accessibility around that. Maybe you're just writing docs for something you make. Those docs should be accessible. Maybe you're just doing project management a whole you should super care about accessibility you are interacting with other humans and making things that other human beings will use and you're making stuff. So I believe that you can do it. You can make it accessible. You are capable of learning it and caring about it fighting for it and really at the end of the day we are all people who make things and I believe that as a result we are responsible. For improving the lives of people who use our technology. I don't think that there are many people who are like I make this technology I make to make people's lives worse. And maybe maybe it accidentally ends up making somebody's lives worse.

[00:30:09] Maybe you do make something that's awful that people do not like using but I am assuming that for the most part your goal is not to make somebody live happier. Right. You want to help.

[00:30:20] Improve things. You want to make things better. We are responsible for improving these people's lives.

[00:30:29] So I have actually a ton of time for questions and I'm really excited to hear what you want to ask. Take a. Yeah.

[00:30:50] That's a really good question. So to repeat it in summary and tell me if I'm wrong is that Netflix for the most part doesn't make their own TV shows. They have them from somebody else. So why is Netflix in trouble. Well why does it matter. That essentially the Great. Good question. So part of that is there's an amount of Netflix exclusive content that I am a little bit. I'm trying to remember I think part of it is some of the Netflix exclusive content. The other thing is that if somebody else has a TV show or a movie or whatever whatever the Netflix content is that doesn't have a caption. And Netflix still puts it up without captions. Netflix can't go. Oh sorry. People who are deaf. Deal with it. Talk to talk to NBC. We got it from not our problem. And I mean there's an extent to which they can do that right. But it's there what form that content exists. It would be similar to what's a good example. So it's slightly different from thinking about like like Flicker. Right. Some site where you can upload an image on Flicker. You know you can provide a description of the image and whatever that's important. And if you don't provide a description of the image it's not flickers like Flicker isn't going to get sued because Stephanie didn't put a caption on her image she uploaded.

[00:32:04] But if it's a site that is creating their own content or posting the content and it is not coming from a random user they're still responsible for the way they communicate it. Think of it like maybe a better example like like a television network. Right. If you ever turn on closed captioning on your TV you will find that most all television channels have closed captioning available. If some show just like didn't give the network closed captioning which I think are legally required or whatever. But like if they just didn't give a television network captions the television network is still responsible for providing that captioning. It still has to exist. So it's interesting. I don't want to pedantically tell you like let's look up case law about Netflix together but I'll look it up or I'll tweet out and we'll figure it out. It will be really great.

[00:32:52] Yeah. It currently closed down.

[00:33:05] So the question was about Web sites being permanently shut down. It's not complying with websites. So I'm actually not aware of sites that have been shut down. You want them. Oh you're really excited. What are you to say. Yes. Yes I am aware. Yes. Which university is that. I'll repeat it in a second. Thank you. OK. So we took it. Oh an amazing moment just happened. You're all wonderful. OK. So the question to clarify was Have there been websites that have been shut down due to noncompliance. And she said excitedly Oh yes there is one. And I was like wait you're right there is one. MIT.

[00:33:46] Pretty sure it's MIT. It's a university.

[00:33:48] I don't want to. In case I'm wrong I'll just say it's a university. We don't remember where they had video courses. If I'm remembering correctly that didn't have captions and they were sued or were about to be sued for like hey guys your videos don't have captions you receive federal funding. You need to have them. And they made the choice debatable whether it was a good choice to just take down all of the videos because. So I mean that's the diversity they might not have funding to provide captioning. They just took down all the videos because of that. Yeah. Thank you so much. Through the magic of smartphones you figured that out. Cal-Berkeley. Name and shame I guess is what I'm doing. Whatever. Whatever. I'm there. Yeah. Yeah. For the most part when people are sued they usually find a way to make things accessible. It

[00:34:46] can sometimes be the case with university like that where they might just straight up not have funding to do to make something accessible. And really my argument to that is part of your budgeting for whatever you're making should include making it accessible. So like I don't have enough money I guess we need to get rid of it. It was like well you should have thought about that in the first place. You should have thought about captioning when you first decided to make videos at all.

[00:35:08] That's just me. Was there another question.

[00:35:10] Yeah.

[00:35:21] It. Yes. Oh I love this question. You're wonderful. OK. So the question was let's say I'm working on an open source project. That's not how he said and I'm exaggerating. Let's say I'm working on an open source project with no budget. How should I start improving accessibility. That is the question after my own heart. Thank you very much for asking that. So I will actually have up on my web site for you. Some like getting started links for thinking about accessibility specifically. I have more that are about like the web that web accessibility that's what I do. But there are a lot of organizations that answer that question beautifully and like are you just thinking about accessibility for the first time. Here's a getting started guide. Here is a free e-book. Here's all the information you need because there are a lot of non-profits and organizations that care about this. There are actually a bunch of really fantastic guides good places to start if they're whatever the technology is that your open source project is creating. If there is a validator tool that you can use for that like if it's a Web site right. Or an app you can plug it in. These are those are the easiest issues to open up like I've done that with open source projects like plopping into an accessibility validator and read it. Oh you don't have alt text on any of your images. So screenwriter's don't know what's going on. Let's just open an issue to put text on the threat.

[00:36:45] There's some like really easy first steps you can take and there are a lot of steps that are. Really impactful that make things just immediately easier for a ton of people. So yeah I will up with the link on Twitter for you. Thank you for asking that question.

[00:37:01] Are there any other questions.

[00:37:12] This is me pretending I know what the Winn-Dixie situation is. She asked if I know about the Winn-Dixie situation and I hope you don't someone like me and then I'll have an opinion on it.

[00:37:29] Excellent. I will repeat that. So Winn-Dixie got sued for accessibility and for once they didn't settle. Which brings up a good point. I'll talk about the lawsuit went through and they lost some huge amount of money. So you don't have the numbers. OK. But what's gobs and gobs of money. So yeah that's a bit more. So thank you for bringing that up because now I'm going to go read about it. I'm excited but so generally how this works for the most part I can talk about this example. Easiest with my firsthand experience with the Chicago Transit Authority. Anybody from Chicago in the room go see TV. I love the city except in this example. So right. They run like the elevated trains and buses and when I'm in Chicago I was on a project in an undergrad that specifically evaluated the accessibility of their public announcements. So the ones that are like doors closing and like the next train to London will arrive in three minutes. So that sort of set for it and we evaluated the volume of those announcers the sound pressure level of those announcements excuse me and the background noise and compared to the difference between the two of them which makes sense if something's not loud enough compared to the background noise you can't hear it.

[00:38:49] And there are specific like parts of the Americans With Disabilities Act that lay out like mathematically the difference between those things. And so we did that we like took measurements all across the CTA it was really fun and we put it in a report and we said hey look at this. It's not good enough. They get better and they threw it out. I'm pretty sure I don't know. So the CTA has a lot of issues in Chicago where they are much more accessible now but essentially in order to improve the accessibility of something that's a part of their system. It's generally a nonprofit that fights for accessibility will go Hey yeah you got a problem. And the CPA will go dot care and we'll go hey. You got a problem at a loss too. And the detail we like now right here they will usually tend to fix that and like fix the problem like they develop these really cool like muling buses like the buses tires deflate and a ramp comes out and so you can make sure you're on the bus. It's really neat if you haven't seen it you see it. I like both. I shouldn't lean on that. I'm sorry. All right. And so because they had a threat of a lawsuit they said whoa whoa whoa whoa we're sorry. We'll fix that. And they didn't have what happened to Winn-Dixie apparently where the lawsuit went through. Usually people just kind of settle out of court. That's the other reason why you don't end up hearing a lot about this. Right. One lawsuit settled out of court.

[00:40:16] They're usually private. The text of them is not shared. I have worked with clients before that have had these lawsuits and they settled out of court. So I can't tell you anything about the fines or what happened because it's private. But yeah there are a lot of organizations you might be surprised by that have been sued for accessibility issues that they have quietly fixed instead of going through and losing a lawsuit.

[00:40:38] Thank you for that. Good job. Are there other questions.

[00:40:50] Ooh that's a good question. So the question was if I'm building an application like a web site and I want the government to use it does it have to be accessible. What sort of context of like the government using it. Or using it like a sure or they want to pay for it. Or the other example I can think of it's like if you're making an education app that you want like a public school teacher. Right. So if the government's going to be using for it if you're receiving money from the federal government got it. Well if it's also intended for use in that sort of venue this is a problem where if you develop it if you develop software for educational purposes that flick aimed specifically at like public sector education you have to care about accessibility. Because if the people who are giving you money are required to have I.T. and technology that is accessible whatever they are giving you money for has to be accessible. A really interesting example that's free to read more on your own. Microsoft obviously makes a ton of things that the federal government uses right like a ton of time a ton of that stuff. And as a result they have a huge accessibility portal on their web site with so much information that like you can use them whenever you're making whatever platform it is help you make things that are more accessible. It's super cool. The companies that kind of have to be accessible end up doing really good work at it. We're going to. So are there any other question.

[00:42:14] Yeah.

[00:42:23] So the question was if there had been cases of people with cognitive disorders understanding complicated code that's a good question. Trying to think of the best example I can think of. I actually read an article that I have shared on Twitter yesterday. I don't remember specifically of a program that Microsoft had started. For coders who are autistic and specifically like helping them to integrate into Microsoft and providing an environment that is better for them.

[00:42:54] Not sure on the curb side I want to find out now. You should research it and tell me tweet it to me and then I can pretend I figured it out. I think that's a good question. Any other questions you.

[00:43:28] Yeah.

[00:43:44] Yeah. Cool. So this is a really good question and I'm going to summarize it. Tell me if I'm wrong. Is it allowed within guidelines specifically with the example of the web to create an alternative experience like an alternative web site. And you brought up the example of you know it's a private company it needs to be slick and guanxi and beautiful and perfect. Those weren't your words but that's what I'm saying. And you know if you make it accessible does that mean it's not cool and shiny enough for the other four out of five people who want to use it more or less what you're asking. So there are two interesting points that I want to address as a result about one in the web content accessibility guidelines I mentioned that deal with Web sites. You actually cannot it you you fail the week Hag. if you have to provide an alternate experience. It has to be as identical as possible. Now obviously an alternative experience for the audio in the video is capture but that's specifically addressed in the webcam. You can't make a separate site that's accessible and you can have accessibility features that users can turn on and off. For example you might have a high contrast mode that a user can turn on and that's fine but it's a different mode.

[00:44:55] It's like a skit on the same web site and sort of to address that second point of like well if it you know does accessibility kind of go at odds with making things amazing and designer right which is actually I deal with a lot as a friend and I in previous jobs have had designers be like look at this. It's beautiful it's gorgeous it's shiny and chrome and whatever and I look at it that's really cool. My colourblind husband is not going to be able to use that I can tell you right off the bat right. So it's there are a lot of sites that are shiny and beautiful that are not accessible on a lot of the sites you might see that are like ultra accessible don't always look good. This is for one big reason that for sites that are like super like they meet the highest compliance level for accessibility that takes more effort that takes more money. And so you don't want to redo that frequently. You don't want to make it cheaper. Super nice and updated all the time. And your central having to balance those two things. There are a bunch of really good examples though of sites that meet very high compliance requirements that are still really nice looking websites. The best example off the top of my head is the Web site for an organization called 18. Think of them like the like a Web consulting firm for the federal government. That's within the federal government. They are doing their best to create a standardized web look for the federal government and say good luck but they're cool. They're really good people and because that's what they do. They have to care a lot about accessibility. So their site is really cool and nice and super accessible. Yeah there are ways you can do it. It's not common but designers should get to the challenge.

[00:46:39] It's their job it's their job to make things accessible and pretty. So that's my good. Thank you for the question. I think I have a little bit of time left. Are there any other questions. Yeah.

[00:46:58] Oh yeah.

[00:47:05] Ooh ooh. So the question was you'll give a talk that will have code examples and you'll put those code examples up on get with like a read me. And the question is is that actually accessible. So first of all my opinion is yes. Partially because within the last like year or two is made like a huge push to become more accessible. If you saw other very controversial change were like the top bar is black now and everybody worried now because it looks different. That was actually a change for accessibility purposes and making their now more distinct. They have like a few blog posts all about improving accessibility of get home. So I would say if you're giving a talk with code example if you're giving a talk back that up. Post the slides ahead of time like I did. Or your code on get Hobb so that way somebody for a wide variety of reasons might need to read along on a screen in front of them instead of on flight. I think my time is up. You're looking at me very kindly to indicate that. So again. Thank you so much for coming. I will have tons of resources on my website. Have an awesome day.