

[music playing] [Narelle] Hello and welcome

to our latest episode of The Digital Access Show. So in the last month, or last week, really, we've been looking at what good, usable digital communication is. Last week, I chatted to

Jackie McRae from CopyCred, and she was talking

about the content, the writing of it, how to make the

content understandable, readable, and looking at all those parts of the Web Content

Accessibility Guidelines. This week, we're going to actually

look at the whole of the Web Content

Accessibility Guidelines. We're actually going to look

at another principle associated with good, usable

digital communication, and that's accessibility. So to do that, I've actually asked CEO of

DASAT to come on, Mark Muscat. Thanks Mark for coming on. [Mark] Thanks, Narelle. [Narelle] Mark, you and I both have

been doing a fair few audits in the last... 12 months. Two years, actually.

It's quite a while. And with your work in teaching people how to

use assistive technologies, the vision impaired

in particular, to be able to access the

information on the web, and with what you've seen with... the work you're doing

through Job Access, I would love to

really talk about, what are the common faults that you're finding

and that I'm finding in digital accessibility? What's easily remedied,

or fixed, resolved? [Mark] Sure. Where do you want to start? [Narelle] Well,

can you, for a start, when you're training someone with digital accessibility, what do you tell them? When you're training

someone to use an iPhone or an Android or a computer, you know, using screen readers, what's the first thing you say? Do you say, yeah, look,

every website's accessible? What, what's your

message that you tell them? [Mark] Well, it's like, it's like going to a person's

house or a workplace, or a building. It's going to be different. So it's about navigating and how to use the tools that assistive

technologies provide us to allow us to navigate, and actually successfully

negotiate the tasks that we want to do with

certain websites or apps. And no, I don't say

every accessible, every app or site is accessible. I like to think that, um, that people will learn how to... actually do some problem

solving themselves, to actually get around and, um, and be able to navigate the app or the website that

they're trying to negotiate or use for whatever tasks. Could be, shopping, um, booking tickets, etc. So, yeah, it's, it's about that. Some websites, it's just

downright inaccessible, and whether it gets to a stage where you have to use somebody

with some sight to help you that can be problematic. And let's hope that, uh, you know, that, that we see

fewer of those in the future. But there are still sites that... do result in that happening, [Narelle] Yeah. What about with the Job

Access side of it, Mark? Because you're actually going

in and working with businesses, and with people

with vision impairment to get them to be able

to navigate the sites and the, the tools that they

use at that workplace. [Mark] So that's, let's

just go back a little. So Job Access is actually

government funding that allows people

in Australia to... to maintain their work through... um, workplace

modification funding. It allows them to have... workplace assessments conducted, um, that will identify

any barriers or issues, and a lot of that is related to digital access for

vision impaired people, but there's also physical

aspects for some people. And they, um, those assessments

will have recommendations. Let's come back

to your question. Yeah, there is, there is, a great deal of websites, especially for, um, workplaces, that are somewhat

difficult to use as a visually impaired person. Mainly because... they're not exactly

public websites. They're not like websites that

you would go to if you're using... Google or Facebook or, or

the ABC here in Australia, or any news outlet. They're public websites, so they've got to be

somewhat accessible. So that's why people in

those organizations make sure that their, their accessibility

is actually up to date. That is quite a

bit of testing, um, a lot of feedback that

gets, gets acted on, which is great. But when you're

working in a workplace, sometimes you're using websites, especially for databases, um, call centre

type phone systems, um, the, sometimes people

will actually use, um, mail systems

that virtually still, um, involve using web

based applications, And sometimes they're not... as accessible as you would like. And that's where, that's where some of

the issues get identified. So yeah, that becomes a

digital access type issue. And sometimes, they can be assisted

by some training. They can be overcome by, um, providing some assistance

to people how to negotiate, navigate those websites. But other times, and this is where

Job Access don't fund, sometimes it's considered as

a general accessibility issue, which is what they would determine as being... reliant on the business actually to make that accessible. So, um, if that's the case, then sometimes... the businesses will need to make sure that, um, they apply the accessibility guidelines that we'll talk about to, to those particular websites. [Narelle] Okay, so let's get into it. So the first principle in the web content accessibility guidelines is perceivability. And perceivability is all about all the elements on the website. The forms, the images, the colour, the font, the font size. Everything that goes up to making it. What is the most common error that you see in perceivability? [Mark] Well, still the biggest problem that we still see, even though it's actually now... now very much prominent, um, in getting people to put alternative text for graphics, we still see a lot of people putting... very interesting alternative texts. Sometimes it even involves, um, numbers and strings, which are not really anything that makes any sense to people. So yeah, we see a lot of bad alt texts even now, even though people know that they need to put that in. I think sometimes the, the, the non-flowing aspects of formatting. So when I talk about that, I was thinking like, you know, you got headings that don't look like they're actually structurally not... flowing, aren't they? You're having a level, um, three heading, you know, under a heading level one, where you should have a heading level two, etc. There's, there's just

sort of that aesthetic look. Contrast is a big one, isn't it still? -[Narelle] It's a massive one.

-[Mark] You could talk to that. [Narelle] Yeah. Contrast seems to be common for every website that I've actually, um, audited in the last six months. There's always a contrast issue. And of course, for everyone, contrast between background and foreground should be 4.5 to one. For text. If you're looking at an image or a control field, three to one. But text, 4.5 to one. [Mark] What Narelle is describing there is ratios that can be identified through various contrasts and accessibility tools that are available on the web. And they are often providing a ratio between foreground and background, and that's very useful tool to have. And, um, what I was about to say to that is that we talk about these principles and the guidelines, these guidelines are being thoroughly researched. People just don't pull these ratios out of the hat. They've basically done, they've had work groups that have conducted a large amount of academic research to, to find the ideal ratio for contrast, and they have obviously fed that back to the, um, the WAI, which is the Web Accessibility Initiative, and that in turn, put it into the guidelines. But I don't say that, just full contrast. Pretty much what I've been saying to a lot of people, developers included, is that when you make something... compliant to the WCAG, it's more than likely that you're going to be fitting into the majority of people with disabilities, because it's the

people with disabilities that provide the feedback, through various research... programs that provide

the information that gets... put into the guidelines. So that's something to,

to take into consideration. [Narelle] That's it. [Mark] Perceivable? - [Narelle] Let's go...

-[Mark] Probably... [Mark] Yeah, let's

go into operability, Because somebody thought I was

about to say it's operability. [Narelle] Let's do operability. So for everyone, operability

is how you access it. Do you access it

by keyboard only? Can you only use a mouse? Is it Braille? Just, yeah, Braille

keyboards only, or is it touch only? Everyone... has different requirements. Operability is a big one. [Mark] It is. And it often relies on the the, the ability to be able

to develop your system so that you can allow

for multiple devices to access the information

that you're providing, whether that's actually through... mouse or through touchpad,

or via keyboard control. It all, it all comes down

to providing access to the information for everyone. And, um, so, yeah, I still see some

big issues with keyboard. And that's probably

understandable in the sense that most developers use a mouse to click on various controls They sometimes should

remember that they, you know, maybe

they need to, you know, put the mouse to sleep and

give it a go with the keyboard to give it, to give,

to give it a test. And for people like you and I, obviously we can't use a mouse, most of us can, but we probably

don't use a mouse as much as, say,

a person with sight, because we use the keyboard to... control the way

our computers work in interacting with our screen readers. So we don't, we don't have the access sometimes that you would think we'd have in some websites. So what's the problems that I see? Tab orders not being followed correctly. So when you press tab, it's not going from A to B, and sometimes it goes from A to C then back to B. Other aspects are that you go into the dialogue box and you can't get out of it by pressing the escape key. I think that's one you and I have probably found the most. -[Narelle] Yep. Even menus. -[Mark] And the menus. -[Mark] Yeah. -[Narelle] Go for it. [Mark] Menus are sometimes the big ones, because you don't know whether you're inside a menu or outside the menu. And when you are inside the menu, pressing escape generally won't get you outside the menu, which is sometimes not a very good feeling, you get frustrated because you're not sure where you are. Things like that. Yeah. -[Narelle] Yeah. [Narelle] I'll throw one more in, skip to main content. So that is a piece of code that people don't see visually, but when you use a keyboard, you always hit it, and what it should do is if the page is constructed properly, you've got your menu up in your heading. Skip to main content drops you down to the body of the website, so you don't have to go through the meting, the menu every time. It's a major one that is

missing in a lot of websites. ]Mark] And I think sometimes the big one for me, and it's not so, such a big problem any more, because I think some newer libraries are out and there's a lot more accessibility included. But sometimes in the older websites, especially when you look at, um, workplace type tools, when you press the button for menus, it's not telling us whether it's expanded or collapsed. So sometimes that can be a bit tricky as well for people, especially if they're trying to do their jobs day in, day out, and they're trying to find a certain menu item. And if they're not sure where they are, that sort of makes it a bit difficult. So, yeah. But that, as I said, that's now improving so it's a little bit better these days. -[Narelle] Yeah.

-[Mark] But yeah. [Narelle] Well, let's look at understandability. And understandability is exactly that, that people can understand the web page, that the website does what you expect it to do every time, and that there's enough input assistance so you can input good data. So what are the errors that you find, Mark? [Mark] One of the biggest ones is, um, the form. So when you, when you're filling a form, and you're basically, you've entered the information and you go to the submit button, you find generally that you get some error message saying, please attend to



the following items. And you're not sure what the items are, because they're actually coloured, and there's no textual reference or textual messages to say, okay, um, the, um, date of birth or whatever is not correct. And sometimes, you know, it would be nice to have... that sort of indication of what's not filled in correctly. [Narelle] Yeah.

I've got one for you. What about dates? You know, you go to enter a date, and like you're in

Australia, it's day, day, slash month, month,

slash year, year, year, year. But sometimes, you find it the opposite. And you don't know

and you get an error, and you think, well,

I've entered the date. But because there's

nothing to tell you... how they want the date entered. And don't forget, date pickers

are not always accessible. So if we can't

access the date picker and there's no indication

of the format of the date in the label or something

that we can access, it's an issue. And it's not just for

people with no sight. It's all types of people

struggle with that one. [Mark] Yeah, I agree.

I think, um, I think that comes down

to getting good instructions. And sometimes

forms lack instructions, sometimes where you'll get, you know, little arrows that

point to certain parts of forms. And yeah, that can be a bit, you know, misleading or

difficult for anyone to follow. [Narelle] Yeah. [Mark] You know, if you have

arrows and text on their labels, that, that's more

beneficial, I think. Yeah, I, I was doing a survey, which was a rather important one

by the Queensland Government. And I wasn't able to finish

that survey, unfortunately, because, um, certain

radio buttons weren't, you know, clearly

grouped properly, and that's another big problem. So, you know, if a government

is doing that in their surveys, um, it's not really

fair on the people that they're representing, because how could they

say they've actually got... good data from

people if they're, um, if their survey

collection tools, that being their page,

is not accessible? [Narelle] That's it. I've got a

last one for you in this area. What about abbreviations? You know, you find

that abbreviation and you've got no

idea what it means, because it's never been

expanded out in the page. Or it might be on another page, but you haven't

accessed that page, because you've gone to the

page that you want to look at. [Mark] I think if you're

going to use acronyms, you should really

have a glossary page. That's what I tell people to do. So I often think that

you have a three, you can have an acronym

for whatever, you know, and then you might have a link. And that link, so you could have ABC

as a link, for instance, and if you hit enter on that, it takes you to the glossary

page explaining what ABC means. And that, and that, sometimes,

I know it's a bit of work, but I think if you're using a lot of acronyms, it's probably useful. Otherwise, yeah, you could do exactly what you suggest, and that's, um, expanded out for the first instance. And then, you know, refer to it. But that also requires... that you would do that on every separate page that you have the acronym there. So that's some, there, um, there's something to think about. Acronyms are not, I mean, they're a problem in the sense that, um, if you don't know what you're meaning with acronyms, you have to look up what they are and all that sort of stuff. And that could be a problem, but yeah, -[Mark] Yeah.

-[Narelle] Yeah. The last one is robust. And robust basically says all the information that a person can see visually, someone can access it through audio. And it's the same information on mobile, on an iPad, doesn't matter which way you access it. Everyone has access to the same information. What's your biggest one there? [Mark] Robust is mainly the bit of the code that is used. So it's often very difficult to develop for multi-platform or multi-environments, because... you have to do certain, you know, you know, code for, for different browsers or you know, or for different, you know, user interfaces. So often it's, you know, very difficult to, to, um, ensure that you're robust in your system, because to do that successfully, you really do need to test for every scenario. And sometimes a lot of it, you know, means a lot of

money that needs to go out, and people just don't have the time or the resources to actually test on every device, or every interface. So that leads to some problems. So robust is, look, it can be achieved by simulation, and that sometimes works. But often it requires, you know, physically testing things out on different environments and different interfaces. It also means checking to make sure that your code's validated. So your HTML, your styles, so all tools that you use for those, you know, they're probably worth using. And, yeah, I'll just... A good, robust system will always be... a system that will, most of the time, work, because most of the browsers behave the same way. -[Mark] Sorry, to conclude.

-[Narelle] Yeah. And that's it. [Narelle] And the error that I find in this is lack of feedback when a page is loaded, or say, a section in a page is loaded, there'll be visual feedback. There is never an audible... [Mark] Well, that's actually, that's actually an operability, um, component, [Narelle] But it's also now in WCAG. It's 4.1.3 is the actual, uh, test, which is status messages. [Mark] Yeah. So therefore, you need to make sure that if you, if you're using a web application, for instance, so something that you're pulling data through JavaScript, you need to make sure that you also provide, um, messages to the browser or to the client that says, yeah, getting data, received data, or finished receiving data, or something like that, because you shouldn't be relying

on the browser to do that. Because not, you know, so for instance, um, the best one I was

looking at is, um, we were looking at the, the selection on Google, or

no, that was getting refreshed. But I wasn't able to tell, except for there's one line

on the top there that said, updated as, you know, the time. And that was quite useful. So, yeah, we weren't

getting information... via the assistive technology. Yeah, so you do want that, but I think this one's

a really good one, because it's something that

was a bit close to my heart, in terms of, um, what we, um, what we would do if you're doing

food delivery type applications. Because you'd want to know where

your food has been prepared or whether it's been packed, whether it's been, you know, picked up, delivered, etc, etc. So you would want to

do that sort of thing in, um, you know, in some

sort of live region. And, yeah. That's

where messages like, uh, your rich application type

messages for ARIA are useful. So I just, yeah. I'm a big... But as I said, that's sort of a... operability slash robust thing, because you've

got that crossover. I think you'll find a

lot of that happens. So yep. [Narelle] It is. So, Mark, with all of that, what's the takeaway

that you can give? And we've only covered a

few of the very common errors, and there's so many of them. Titles, like, too tight, like,

use of the title, and text is another one. So there's just so

many little things that... we can build, and they

are common errors that happen in every website. What's the takeaway

that you can give? I think the biggest

takeaway still for me, um, is to build accessibility, to put accessibility

into the building, designing, and implementation phases of any program, project. And yeah, I think a lot of web developers... need to take that on board. Start using software engineering paradigms to do that. It's not that difficult to add accessibility. It's a lot more difficult to add it on afterwards, and it's quite... quite expensive, so that's, yeah. Yeah. I'll probably all die saying that. But anyway, yeah. That's, that's, um, Yep. That's pretty much it at the moment of that hasn't changed. [Narelle] Yeah. -[Narelle] So... -[Mark] So, yeah. Go. [Narelle] So Mark, how can people reach you if they want to keep chatting to you about it and find out on more information? [Mark] Well, just look us up on [dasat.com.au](http://dasat.com.au). And yeah. Our email address and phone numbers and all that are there. And they can also contact you, Narelle. -[Mark] So yeah. -[Narelle] Yeah. They can. [Narelle] So, yeah. Look, if you like what we're doing, Thanks, Mark, by the way for coming on. If you like what we do, please like, share, subscribe, review. Let us know feedback, good, bad and ugly. We love feedback. And... not sure what principle we're covering next week. We've got some amazing people coming up for our podcast show. I'm Narelle, and we'll see you next time. Bye, bye. [music playing]