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Season 3 Episode 31 – How does Narelle find digital accessibility?

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Kim: Welcome to The Digital Access Show this week. And as you can see, I'm not actually Narelle. My name is Kim Amor and I'm from KN Website Design. And Narelle and I... have a lot of conversations about all things digital, and obviously accessible. So, Narelle is in the seat today, as the guest. And welcome, Narelle, to The Digital Access Show.

Narelle: Thanks, Kim. Look, thanks for being the co-host, and stepping in because I couldn't think how to do this, and then I dumped you in it. So, thank you.

Kim: Anytime, anytime. Well, we have an excellent topic here today. And to begin, let's just, let's throw you in as the guest, and tell us a little bit about what is DASAT, why this work actually matters to you, and what you mean when you say that... every person has the right to communicate independently.

What DASAT Means and Why Accessibility Matters

Narelle: Yeah. DASAT is Digital Access Solutions and Assistive Technology. So, we shortened it to DASAT for a nickname. And we have the belief that everyone, and everyone has the right to be able to access information. And it doesn't matter whether you're blind like me, or... you're a Victorian like you, Kim, or... it doesn't really matter whether you've got an impairment, a hearing impairment, whether you come from overseas. You know what? We all need to access information. And we all need to be able to... make decisions based on that information. And that's what DASAT's all about. And we have this vision that, you know what, it just becomes a standard operating procedure that people don't have to go... and send an email back to someone saying, can you please put this in an accessible format? Because they

can just read the information, without stress, without frustration, a lot of frustration, but listen, everyone does it, that it's just normal, just the same as it's normal for us now to pick up our phones, our mobile phones and make a phone call. And after all, that happened what, 20 years ago?

Kim: So, it's really about that independence, and being able to do it yourself.

Narelle: Yeah, because I'm not independent. And Kim, you can attest to this. I've actually had to have Kim read stuff for me. I've actually had to have Kim's partner, Nick, read stuff for me. I've had my son's read it for me, because it's not accessible. And... in this day and age and with the technology we've got, there's no reason for it.

Kim: Yeah, definitely. And again, sitting from working in the backend of the website, again, it is a simple process. It's just a knowledge that we need to share. And that's exactly what we're doing here today, and through all your messaging with the work that you do.

From Innovation to Access to Information

Narelle: Yeah, it is. And it... It's been really interesting, because I was telling you about... the reason why we're doing this the way we're doing it today, I did a speech at, it was an innovation hackathon at a company called Wonderbytes Technology in the Valley, last week. And when I was writing the speech, and I was thinking about innovation, really, haven't we come a long way from just a pen? Just writing things by hand.

Kim: Definitely. It's... We used to get our pen licences back in school.

Narelle: Oh, my God.

Kim: We strived to achieve.

Kim: It took me so long to get my pen licence. I failed it repeatedly. I'm sorry, Mrs Oram. I really was not a very neat writer. But I still am not, but I can type very well. But the thing is, you know what made the difference? Think about it. 1400s, 1300s, up to the 1400s, it was all done by parchment, and paper. I mean, there wasn't a lot

of paper, it was expensive. It was brought across from China. But parchment, which was actually cowhide, treated cowhide, treated skins of animals. And that's what they wrote on, with ink. And I think it was a feather quill or something, wasn't it? Or a stick. So, the information wasn't accessible when you think about it. It was really... the church. The monarchy. You know, those people with a lot of money, or a lot of power could access the information. So, sorry, our level, we didn't have any access to information. We couldn't read. We couldn't write. And we just had to trust... that what we were getting told was right, because how did you know?

Kim: I'm just thinking stories around the campfire, that sort of communication was back in the day where we... where communication started. So, we've evolved so far from that now.

Narelle: Yeah.

Kim: And I guess your speech that you presented, you were looking back at Gutenberg, Time Now and the printing press, things like that. So how does this history... now tie into what we talk about digital accessibility today?

The Printing Press and Access to Knowledge

Narelle: Okay. Johannes Gutenberg... in the 1440s actually invented the movable printing press. And the reason that's really important... is that it allowed him to produce books at a faster rate, which meant more people could access the books, the documents. It just made life a simpler way to... access information. However, it was still only written in Latin. If you didn't know Latin, you had Buckley's. It'd be like for me reading something in a foreign language. I can't do it. I wouldn't understand it. You know, anyone that doesn't know any other languages, it was all written in Latin. And don't forget, we're talking the English courts, they only spoke French. The German courts, I'm not sure, but a lot of those... upper echelon... of people... spoke French, they spoke Latin. Nothing was printed in English. So, if we look at the UK, it was still really a closed... system of communication. People still couldn't access the information. However, 1494, a very important man that most people have never heard of. William Tyndale was born. The reason he was important, he had a bit of a busy life, was he had a belief that... everyone should be able to access information

in the language... that they spoke in. And that's so different to what was happening at the time. The Bible was printed in Latin. Everything was. So, he had this bright idea in the 1520s to start translating the Bible... from Latin into English.

Unfortunately, it did get him in a bit of trouble. So, he had to take over and go to... Germany. And he kept it up. And he ended up translating the New and the Old Testament. And in 1526, it was printed in Germany. However, good King Henry VIII, yeah, it was Henry VIII. And the church... actually banned it in England. So, this was during the period, I think, don't quote me on this, when Henry VIII was married to the Spanish princess, Catherine of Aragon, so all during that period, right? And banned this book. And... they actually tried William Tyndale... for heresy. But people started, the book still came across, the Bible came across, so people started to be able to read the book in their language. I mean, they could access information. And it meant more people could access it, more people could understand. You didn't have to necessarily trust what the priest was saying, what the rulers were saying. Probably did because you would have gotten in trouble otherwise. But it opened up... access to information for more people. What was really funny about it is, yeah, they actually arrested William Tyndale and they killed him. He was, yeah, for heresy. He was a naughty boy. However, let's now jump, so we had now started to have stuff being printed in English, which meant more people could understand stuff. The courts were still speaking French after, I think they were all interrelated, weren't they? You know, those... They married each other and you ended up with, over in Spain, some very odd looking people that were your monarchs, because of that... interrelationship with, with family. There was a guy over in Italy, so, we're going to go to Italy now. His name was Pellegrino Turri, 1808. He actually produced or devised the first form of a typewriter. And the interesting part, and I know you've heard me speak about this time and time again, it was actually built for a woman who was blind, a countess, so that she could write her letters legibly.

Kim: This is where a lot of that technology that we use every day, we don't realise the foundation of where, or why it was created in the first place.

Innovation, Disability and the Typewriter

Narelle: Yeah. Exactly. But again, it started opening up more access for people to be able to write. You know, people with disability, if you had enough money, let's be honest, information was still really accessible... for those with more money, but it was coming out and more people were able to read. People learnt to read... by following along with what other people said in the Bible. It's simple stuff, but... the simple stuff always makes a difference. I mean, William Tyndale's been dead and buried for years. 1809, there was another very important bloke born in France, Louis Braille. And he was the one that came up with the six-dot cell, which is what Braille's built on. It's a whole language on its own. Again, that now started opening up more access for people. You know, it's... just innovation, simple things. So, it's not the tools, it's the way the tools are used is what's made the difference.

Kim: So, we've evolved from translation, to getting it into writing, to then printing it and bringing it over the seas, literally. And the typewriter has come into play to bring in... the braille side of things. We're already seeing this pathway, this journey of how this is getting... more accessible. But again, as you say, it was very expensive back then.

Narelle: Yeah.

Kim: And to actually bring these things to... to the common people who weren't your lords and your dukes, and your duchesses and all of that.

Narelle: Yep.

Kim: I guess you think back to that evolution. Where are we going? What are these examples teaching us? And again, I've touched on it there about accessibility. It's so exciting. It's not just innovation. It's the accommodation of it all.

The Foundations of Modern Computing

Narelle: Yeah, it is! But then it gets interesting, gets even more interesting. There's a bloke called Charles Babbage, and Scottish, and he built the analytical machine, which is the basis for computers. However, he, I don't know whether he had an affair with her. Her name was Ada Lovelace, but they definitely knew each other.

Ada Lovelace actually had a connection to royalty because her father was Lord Byron the Poet. Yeah, and it's all intertwined. It's really interesting stuff. She was the one that's credited as being the first person that realized analytical machines could be programmed. She actually wrote a series of instructions on how to program Charles Babbage's machine. So, now we're bringing in someone... whose father was... he was well known for a number of things. Let's face it, Lord Byron, he did write beautiful poetry, but I believe he had a lot of affairs. And she's able to... start us on the journey to computing. So, from then on, things started speeding up to the 1930s, 1940s, the people like Alan Turing... that, you know, was the basis of all the computers, and everything we've got now. It's... and it was...

Kim: I'm going to throw it in, awesome. That came from girl power. I'm going to throw that in. The women has actually taken that, that... level, sorry guys out there. We love you all but there's a point where it's like, hey, check that out. I didn't know that bit of your story but there we go. Or the story.

Narelle: Yeah, I mean, if you go and read about Ada Lovelace, it's interesting stuff. I mean, she was a bit... I don't think she had any kids, but she did marry cause her mother made her marry, and she did a debo and all that stuff, because who her father was and everything. There's some gossip that she had an affair with Charles Babbage. And look, there's all types of stuff. There's all that emotional stuff.

Narelle: But the fact is...

Kim: Kind of like gossip too. [Narelle] Yeah, but you know, it makes it a bit more interesting. But now we're hitting like Alan Turing and we're hitting, you know, the 1930s, the 1940s, and everything that's happened since then. You think about the transistors, because they're another aspect. You know, the old, and you would have seen... pictures of people with the big hearing horns and everything. The reason that transistors came into being... was so that hearing aids became more mobile. And then they became the basis of a lot of other stuff.

Kim: Well, I'm going to say I'm a child of the 80s, so I'm thinking that's probably where the Walkman came from.

The World Wide Web and Universal Access

Narelle: Just, hang on. We've got to go back a little bit.

Kim: Okay, who's to say?

Narelle: Okay.

Kim: Showing my age.

Narelle: Okay. Showing your age. There's a... a guy called Tim Berners-Lee. And in 80, he actually developed in the... 60s, 70s, he invented the World Wide Web. The first website was actually... published, I think it was about '89. But one thing that I really like about Tim Berners-Lee, he's another guy from the UK. And he was working for CERN over in Sweden... when he did this piece of work. What he says is the power of the internet is in its universality, equal access to information for everyone. Now, earlier this year, I actually attended a lecture by Tim Berners-Lee. And it was really interesting because he came, straight after he said that, he said, it's still not the case. And it's not. There's so much information that's still not accessible. So, what we're talking, five, six, well, 1400s, 800 years, okay, from when the movable printing press was done, through to William Tyndale going, translating into English, getting killed, Pellegrino Turri doing the first... form of typewriter for a blind lady, braille, Louis Braille with... his creation of this language, Ada Lovelace, Charles Babbage, Alan Turing, Tim Berners-Lee. And you look at what we do now, everyone hops on the internet... to find stuff.

Kim: It's literally in demand.

Narelle: Yeah, it is. Your mobile phones.

Kim: What are the barriers, I guess, that you're coming across for people with... these physical and sensory disabilities? Like, what challenge are they facing? Now, we've obviously got websites and all sorts of things, PDFs and forms and documents and apps. Tell us, what are the challenges? Where is the... Where is it going?

Digital Accessibility Barriers Today

Narelle: Bad label of, bad labeling of forms, bad labeling of labels, no keyboard accessibility, limited keyboard accessibility, bad structure. It's all down to what people don't realise. All the screen readers, all the braille devices, most assistive technology, the way it works, it reads the code in the backend. It doesn't read the website the way, sorry, Kim, the way you read websites, I know I sit and joke with you, and say you have a higher power bill than me, and you do, because you have to turn lights on. I don't. But there's all these things that... we use that have been the basis... for... innovation. And... it's being used by people normally. Think Siri, think... the ARPANET, emails. One of the original developers of the ARPANET he actually... had a wife that was deaf. Emails, he could talk to her. Messaging, Siri, Voiceover, which is the tools that I use, that was developed, I can't remember what year, I think it's the 70s, speech-to-text.

Siri: Okay, I found this on the web, but which is the tool that was developed at...

Kim: Perfect example right there for us.

Narelle: That was Siri. I'm sorry. I forgot.

Kim: She knows your voice.

Narelle: She does know my voice. And... it all happens. But... what we're still finding is... PDFs that are image-based PDFs. Assistive technology can't read an image. It just can't. An image is zeros and ones. You know, we talk about it all the time. I ring you and go, ugh, because of the fact I can't find something. There was another day... on a government website. I actually talked, Shannon Towell, I was talking to her and said, I need this phone number. I can't find it. She went, she was able to get it. I couldn't, because the way the website was structured. So, I'm reliant on friends to find me numbers, and it shouldn't be that way. My access to information is limited, because of the structure. And it's not the... message itself. It's the format. It's the way it's been built.

Kim: You're talking to a web developer, right? Yeah. Again, the actual building of something as simple as... hyperlinking a phone number in the backend of a website

build, it's a very simple process. Not only is it good for, obviously, accessibility, it's good for... the mobile phone user, no matter who they are. You can, from that mobile phone, connects straight through. So, from a business owner's perspective, there's that benefit of being above your competition that, if that person wants your services right now, and your phone number's clickable on that phone, there's a higher chance they'll connect with your services. So, that's what we call SEO as well in our world, that search engine optimisation.

Narelle: Yeah.

Kim: SEO is optimising for people who have physical, and sensory disabilities ultimately.

Narelle: And that's it, and AI. Kim, I mean, AI is also dependent on text.

Kim: Completely.

Narelle: Now, if you send me...

Kim: Oh, don't start me on alt image text. Again, good file name convention on that. It actually brings you up in the SERPs, the search engine... results. And if you're above your competition, again, in those search results through Google, AI is now looking at those things as well and bringing you up... into their answers. So, now you've got me on the wagon as well, Narelle, thanks.

Narelle: I did. Not a problem. But you think about it. We started in the 1400s. So, we had, I don't know how many years, B.C., where they had hieroglyphics, it was on stone. It was... on parchment. Then we went paper and the pen, the quill and all of that stuff. 1400s, it really started, when we got Johannes Gutenberg did the movable printer press, and then it, it wasn't the movable printer press, it was William Tyndale saying, let's just translate it into the language that people understand. Such a simple... But he did get killed for it. But...

Kim: Innovator.

Narelle: Innovator, true innovator. He was only in his 30s when he was killed. executed, I'm sorry, executed.= But... then just the fact that we had like, you know,

Turri over in Italy went and did the... typewriter, the form of typewriter, and started making it more accessible. And then look at the typewriter now. It's just, well, it's on your keyboard.

Kim: Keyboard. They're laptops now. They're on our phones. There's little keyboards at the bottom. You know, I've got stronger thumbs than you, Narelle, because I have to text.

Narelle: Yeah, yeah. And this is it. But all this innovation, and now it seems to have, we're innovating in some ways, and they're coming up with this, you build stuff with AI and everything else, but they're not improving accessibility. That's what I was trying to get with the point with that speech. We've come to a stage where... there's been no improvement to accessibility. Information's there. Some people can access it, but not everyone. It's Tim Berners-Lee dream. It's just not being met.

Kim: Just as a side, how are you finding the AI systems, and AI chat? Again, I often talk to my AI system. I've got a few favourites. And it... I haven't articulated well enough for it to actually understand which business name in particular... that I'm looking for, or a detail or a friend's name. Remember back in the day when we started doing voice to text, and you get a message, something like, hey, the purple monkeys are flying off the roof.

Kim: That's not what I said. I said, let's catch up, and have dinner tonight, Narelle. Completely different. How are you finding that voice AI system evolution right now?

Voice Technology and Inclusive Innovation

Narelle: Don't forget, when I train in assistive technology, I always tell them not to rely on voice... activation ever. because exactly what you said, everyone's tone is slightly different. They talk slightly differently different. Different accents. Think the Scottish accent, you know that lift... video that you see every now and then. If you haven't seen it go look on YouTube, scottish people in a voice activated lift. It's really funny, but it makes a really good point. Don't rely on voice. I actually have no troubles with AI, because I use a keyboard. I don't have any problems.

Kim: Oh, goody.

Narelle: It is accessible, but it just has to be done properly. And I'm challenging everyone, use innovation. Use AI. Use your SEO... to make things more accessible to everyone. Because... it's not just the people... that can't find your information that are missing out. It's... you guys are missing out... The lost sales, the innovative ways to work that are more efficient. I mean, if we were still doing... what we did before the emails, which won't, don't forget. Fax machines.

Kim: Fax machines were fun. [in unison] Yeah.

Narelle: Don't forget, the ARPANET, you know, one of the guys had a deaf wife. I'm not saying that was the only reason for it. Transistors to make hearing aids more accessible, more mobile. Zooming, that was magnification. Text-to-speech, that was for disability. Let's innovate. Let's see what we can do to... bring everyone in as a community, to allow everyone... to have access to information, and to make business lives easier. Because I'm telling you, it's so much easier when you use innovation, and you follow the digital accessibility rules... to do anything. Make sense?

Kim: Makes a lot of sense. I guess you've almost summed it up there, but again, if you had to put it into one idea from this discussion, again, you did summarise mostly there. But... So, it's about accessibility, not just about the technology. We can have all the technology we want. It's about giving the people the equal opportunity to access and understand and act on all this information. But it's that independence to be able to do it independently. Would that be that one point, or do you have to wait for it to be burning?

Accessibility, Independence and the Future

Narelle: Yes. But do you know what it also does? I just want to remind people, everyone gets older. And when you get older, you start to lose your hearing. You start to lose your sight. Well, I've already lost mine. I'm way ahead of the game. But you start to lose your sense of touch. And if you... are not able to access something, because it hasn't been built so you can access it. You should only ever need one document... that is completely accessible. One website. You don't make multiples of anything. The only... outlier for that... is easy read documents. And they are equally

important. And being prepared to do that. Because... we all spend money. Some of us like spending money more than others. Actually, no, I don't. I don't like spending. But what I'm saying is, access to information is the way to everyone having freedom, having... being able to make their own choices. After all, before... William Tyndale came along, we still had the printing press. People still couldn't make choices. William Tyndale turned it around.

Kim: It's only evolved from there.

Narelle: It's evolved from there. Kim, thank you. Thanks for stepping in and doing that.

Closing Reflections

Kim: Thank you for sharing that. Again, it's so great to actually get you in the hot seat... to share because you are a wealth of knowledge, and you have such a great way of approaching it, and just giving... the detail, that level that people need to understand. It is. It's actually quite simple. Making things accessible is simple. So, yeah, you're a wealth of knowledge. If people haven't had a chat with Narelle personally, they really should. So, I'll throw back over to you to close your own... podcast today. And thank you for letting me be your guest co-presenter, your sidekick.

Narelle: No, the co-host. The host for today. So, look, yes, this is Kim... Amor from KN Website Design, being our co-host. Look up Kim's work. She's also part of a group called Do Better Access. Have a look at that on the website, dobetteraccess.com.au. And if you like what we do, if you want more information about what we've talked about, please contact us. It is really important. Innovation... is the way that things are going to be better for everyone. And... like, subscribe, share, review. And we'll see you next week on The Digital Access Show. Bye, bye.

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