

[Narelle] Hello and welcome to

another episode of the Digital Access Show.

Again, like a number of shows, I've said I've been wanting to interview this guy for quite a while.

Now Santiago Velasquez, is that - I've pronounced it correctly, have I, Santi? [Santiago] Ah,

Velasquez, but don't worry. [Narelle] Velasquez, yep, sorry.

[Santiago] [laughs] [Narelle] He's, um,

based here in Brisbane. He's originally

from Columbia, and he's doing some

really innovative stuff in the accessibility area.

And that's why it's important for people to meet Santi. And hear what he's got to say

and talk about what he's doing, because Santi - [stumbles]. Santi, I'm having

one of those days. Santi actually has

lived experience himself. So I'm going to let Santi

tell you about himself, so everyone, please

meet Santi Velasquez. [Santiago] Hi Narelle, thank

you very much for having me. It's an absolute pleasure

to be here and yeah, so.. As you said, I'm

originally from Colombia and from a very young

age I always loved technology and I figured that it can be used

to improve our world, but it needs to be

done appropriately. [Narelle] Yep.

[Santiago] And... what that led me to was to

develop a system called Hailo to improve public

transport accessibility. So, in a nutshell, I was

frustrated that because I couldn't see a bus, because my guide dog Trey couldn't tell me which bus it was or because, you know, I move around and each bus stop is different. Oftentimes I would be left behind. And that's just not acceptable. And oftentimes even if I get on the bus, I would get dropped off at the incorrect stop. And we can keep going down this list of inaccessibility with public transport. And I thought, no, no, no, no. Let's fix it. So we came up with Hailo. And, Hailo is basically a system that allows you as a commuter - doesn't matter your disability - to rock up to a bus stop, a train stop, a ferry stop. And, select the vehicle you want to get on. And select where you want to get off. And you basically are sending an electronic hail to the bus driver, train conductors, so that when they get to your stop, or actually one stop before, they know you need to get on at the next stop. Nobody's going to be hailing. And you might have, if you choose to share your access requirements, they will also know, ah, they use a guide dog, they use a wheelchair, with the whole objective of making public transport just better. They just, we're not allowed to drive, surprise, surprise. [Narelle] Yeah, I don't know what their problem is, you know.

[Santiago] [laughs] [Narelle] Driverless

cars are coming. we keep being told.

[Santiago] They are indeed. [Santiago] And not only that, we're not allowed to drive, but I don't know many people that have \$100 plus a day or \$50 a day or \$20 a day, even to just catch taxis and Ubers, even with subsidies from NDIS, from state government. It doesn't really matter. So I figured, well, public transport just has to work. So that's where Hailo came from. And I figured, if nobody else is going to do it. And I can, why not? [Narelle] Yeah. Santi, what were you using before Hailo? What were the tools you were using that weren't helping you? [Santiago] Honestly, I tried everything. I would stand at the bus stop and just wave my hand just constantly. I would use my phone and just try to time the hails appropriately. I would wave my cane in front of buses where it was very busy to make sure that everybody would stop. I had the little books that you would flip the numbers for. [Narelle] Yep. [Santiago] I tried everything. I tried everything. And, you know, when you get on the bus, you obviously ask the bus driver, hey, can you let me know when we get to stop number seven and Google Maps, Apple Maps. Everything. And the system just didn't work. Obviously, I also called up in advance and I said, oh, tomorrow I'm catching a bus here to there. Could you let that driver know? And, the difficult

part is, it's not the driver's fault. It's just the infrastructure. It hasn't been designed to help people with disabilities. And it hasn't been designed to help drivers because they don't have an easy job already as it is. And now we're just asking them to, to do more. So, it's not a well-designed system. [Narelle] Yeah, I actually agree with you because I, obviously I live in Brisbane. And for me, there's a couple of streets that I've learnt that I'd rather walk an extra half hour, and go and catch a ferry to get where I need to go, and take twice as long. Than try and catch a bus because, you know, you just can't do it. It physically is an impossibility. And also, the number of times that like you, the bus thinks there's not going to be anyone at the bus stop, so they just keep cruising. And then suddenly that, oh, there's already, there's someone there. Well, they're already past it. They can't stop in time. Otherwise, they'd be causing accidents and all these things, bus drivers don't have an easy job. [Santiago] Well, last year, I was fortunate to travel around the world on a Churchill Fellowship. And I visited 11 different countries, upwards of 25 major cities looking at their public transport infrastructure and a few things stood out to me. You know, every city does public transport a little bit differently. [Narelle] Yes. [Santiago] But, it doesn't

matter where you are. The problems are exactly the same. So in Berlin, for example, a bus - and in Japan - a bus is supposed to stop for you if you're at the bus stop, regardless of whether you hail or not. It's not, you don't have to hail them. And I thought, great, that's fantastic. That's brilliant. Let's do that. I just have to stand there, and great. Now, the funny thing about what happened in Berlin is that I didn't know that there was a tree in front of the bus stop. So I just stood at the bus stop, that's where it was. And thought, well, we'll try it. And the bus went by because I didn't know that I was standing in front of the trees. So by the time that the bus would have seen me, he would have been past the bus stop and it's like, I can't reverse. [Narelle] Yeah.

[Santiago] And... It was surprising because when I gave a lecture at TU Berlin, the University of Technology Berlin, people thought, oh no, this doesn't happen here because we don't have to hail a bus. And I'm like, well, actually, how about this story from yesterday? And they were all surprised because, again, lived experience. It's extremely important. So when we develop something, it doesn't look accessible.

It is accessible. [Narelle] Yeah. So what has been the response from government here in Australia, from the people that-

like Translink here in Queensland, what has been the response? [Santiago] Honestly, the response is mixed. So drivers love it. We have piloted Hailo in New South Wales and the drivers, the feedback has been, 'this is great.' 'Just make it available to everybody. We get their appropriate information, we get it on time and brilliant.' Depot managers say this means less complaints for us and we just provide better service. The issue is the people who approve budgets. To them, they don't see the issue. They're like, oh, is this genuinely an issue? Or if they know the issue, they're like, oh, we just don't have enough funding for this. [Narelle] Yeah. [Santiago] So, you know, we did a pilot in New South Wales, for Hailo. And it was a three month pilot. It was in Tweed Heads, in Queanbeyan, and in the B line in Sydney. And we learned lots. We learned lots. But, um, the Transport for New South Wales at the beginning didn't allow us to talk about it. And we said, we've got to publicize it because that way people will know. And they're like, 'oh, just talk to Guide Dogs and Vision Australia and Blind Citizens Australia. And just do it that way.' And we're like, okay, we can do that. That's no problem. But we need to go broader than them. [Narelle] Yeah. [Santiago] And then it wasn't up

until we were doing the trial, they realized, well, we don't have enough people. You know, we had

probably 20, 30 people and they're like, wow,

why don't we have more? And we're like, because

people can't try something that they

don't know about. [Narelle] Yeah. [Santiago] And going down that

same road, you know, it's really hard to see

that there are more progressive governments

overseas with worse public transport systems than

we have in Australia. But they're more

progressive because they have an accessibility team. And the people who

are making those decisions have lived experience. So for example,

again, using New South Wales as an example,

they don't have an accessibility

team running anything in transport for

New South Wales. Queensland has

one and we've been trying to approach

them because, you know, hey, it's Brisbane

and they're like, 'eh, we'll get to

you. No worries.' We have had more progress

overseas, which is sad. But it's fantastic. [Narelle] It is, one of the

things - I'm agreeing with you, because people don't

know what they don't know. I was in a meeting last week. With, it was some people from a

government department. And they were

telling me how they're accessible and da da da.

And, I'll be honest, it was the Queensland

Government Department. And they said,

oh, you'd use this. And I said actually I don't. And they said, why?  
And I said, most people with vision impairment  
don't use them. A classic, okay, is Translink.  
Do you use the Translink app? [Santiago] No, the fact that  
it's a containerized website makes it  
terribly inaccessible. [Narelle] Exactly.  
And, you know, I said the same  
thing. And they said, well, what do you use? And I  
said, well, we use Google Maps. We use Apple Maps.  
We'll use BlindSquare. So there's tools  
that we use, that people don't know about. And they said, but we  
didn't know about these tools. And I said, well, get people. I felt like  
saying, just get  
people with lived experience in. You know, for anything  
with accessibility, digital accessibility,  
physical accessibility, people with the lived  
experience are the ones because  
they're living it daily. [Santiago] The biggest thing  
that I would love for people to know - regardless of  
where you are, right? A lot of people  
say, oh, accessibility is just a chore we  
have to comply with, rules. And it's expensive. It's like people who have  
a disability are the best and most loyal  
customers because we don't have a  
lot of options, right? It's not... Like, when we find  
something that works, we will stick by it until  
the day we die. Now, that's not the  
only reason, right? It's good for



business, but the key thing that I also need people to know is it's important to have lived experience, but it's also important to be able to communicate how that translates into properly designing products. And not everybody can do that. So, one of the things we have found is when I've done some consultancy in the past for governments and overseas, I've done some stuff for Sonos, some stuff for the UN and whatnot. Oftentimes they say, oh, we have heard that this is an issue. Our website is not accessible here or it's not accessible there. But developers don't know how to fix that. And the reason why sometimes they don't know how to fix that is because, at universities, we don't get taught - there's no teaching about that. So, unless you pick a master's degree on digital accessibility in four or five universities across the world, you know about the Web Accessibility Standards. And that's fantastic. That's a great start. But the nitty-gritty of, oh, there is a difference between writing an app in React Native or Flutter and how do you do accessibility labels so that the button and the label are read at the same time by a screen reader. That is not known.

It's very hard. And as a user, it's very difficult for you with lived experience to be expected to know, hey, this button, the label and the

button aren't combined. Therefore that's why

it sounds this way. And that's where

we find the issues. People just don't know.

[Narelle] I agree. [Santiago] They just don't know. [Narelle] They don't know. And I look back to

when I initially did uni and it was actually way

before the WCAG standards. And, I mean the internet

wasn't even developed then, so then we're talking the

80s when I initially did uni. So the progress of

technology has been so quick. To the point

now where they're talking about how AI is

going to solve the issue. And I keep saying it's not going to fully

solve the issue. It can't. Because

people use the tools. The moment you add that

people factor in, you know, it becomes an

exponential problem, doesn't it? Because everyone

will do something in a slightly different way. That means it may

not be accessible. You can try and

aim for the most. But I do think it

should be the basis of every uni course now,

document structure. [Santiago] Well, not only that.

[Narelle] It is taught, [Narelle] and people know how to

apply the document structure. [Santiago] Absolutely. Absolutely. And there are very basic things that you can do

to make things accessible. You know, use the

accessibility checker in Microsoft Word if you're

working on Microsoft Word. Make sure that you

do alt text and images. I'm not saying go 110% because you might not

know how to do that. And it's not the responsibility of one person within a team. It's the responsibility of the company or the organisation. But another factor, and it's interesting, you're bringing up AI when it comes to accessibility. The AI models, they get trained on a lot. Whether it's a large language model or a large function model, whatever type of model. You get so many models. We have to also make sure that as people with disabilities, we're involved in the training of set models to make sure that there are no biases. When those models are being trained because I can guarantee you right now that if I were to sample a group of 150 people just on the street randomly, not a perfect scientific study but, if I were to sample them and say, what's the likelihood that I can cook a really good steak? Most people that have never dealt with disabilities, they will say you're blind. You will just burn yourself, let alone burning the whole house down. [Narelle] Yeah. [Santiago] I'm not saying I'm a perfect chef, but I can, I can feed people and I like how my steaks turn out. Little things like that can, if not dealt with appropriately, can mean that in the future if we are relying on whatever model for artificial intelligence. If we don't take care

of the biases, the model might say, oh,  
don't worry about it. Let's just call a volunteer. You can't read that or  
you  
shouldn't walk down that street or - whatever it  
is that it's helpful with. [Narelle] And I,  
yeah - and that's it. And I suppose the  
one thing for me, I keep saying to people, never  
make an assumption. When you're sending  
an email, don't make an assumption  
that the person at the other end  
can read it in exactly the same way as you,  
everyone's different. [Santiago] Absolutely.  
Just ask, right? Just ask. If you don't know, and  
if you genuinely don't know, I know that I  
love to, 'oh, absolutely. Let me show you.' I know that there are some  
people that don't like that. I know that some people  
just assume that people should know how their  
disability works and whatnot. I don't think that's fair,  
but each to their own. And to be fair, most  
people when they realize, oh, I can ask, they're  
really comfortable. They're like, wow, that's cool. But if you don't  
ask, you don't know. [Narelle] And the other thing,  
it is also, I think, incumbent on  
people with disability to actually take that  
breath and not be cranky if someone  
asks a question. Yeah, you do have your off days. But the more we talk  
about our  
disabilities and the ways that we've used it as an opportunity,

because it is an opportunity. [Santiago] Absolutely. [Narelle] To learn something

different, the better off the whole

society is really. [Santiago] It's... The world

isn't going to change overnight. And we know that. But slowly, slowly,

and slowly, we will make changes

that in 20 years' time, in 50 years'

time, whenever it is, we will say,

you know what? I remember when I was young

and I couldn't do X, why is it? I remember when the

iPhone first came out. I'm like, ooh, I wonder how I'm

going to be able to use that. iOS didn't have a screen

reader on iOS 1, right? And then now, if you

ask anybody, what phone would you get for

accessibility reasons only? iPhones are the top of the list.

Android is good. But iPhone, there is

no arguing that Apple does very good

accessibility, right? [Narelle] They do

great accessibility. [Sanitago] Correct, so, it's all these things that

slowly but surely we can change. And we can make

things accessible. And a big change

might be big for you, but might be minuscule

for somebody else. And the impact might

be immense regardless. [Narelle] And with Hailo, I can

see such a need, not just for people with

disability, the elderly. Oh, gosh, that mom

with two or three kids. You know, all those

people, the difference it will make to people's lives. In the pouring rain! When we have these big storms

here that we get in Queensland. There's so many

times that you could see where having

such a simple tool. It probably took a

lot to develop, but a simple tool can make

a big change to society. Just like the typewriter

did, just like Siri did. Just like... there's

so many - captions! Look at the difference

that captions make. [Santiago] Well. [Narelle] It's a simple tool,

but it's used by many people. [Santiago] For me and for the

team, the biggest thing that always

comes to our mind. When I started my company, I

said we have to develop something that isn't going to be a niche

product and will help everybody. Precisely so that - A) didn't

become extremely expensive. And B) it would be

able to be used anywhere. And you're correct, right? If you don't speak the language,

how do you ask the bus driver, 'can you please let me

know when we get to this stop?' If you're a child, it's

much easier to just say, 'I'm getting on this

bus, getting off there.' If you have a

mobility impairment, and if you want to

tell the bus driver, 'hey, I need a wheelchair

ramp when you stop.' If you're getting on and off the train and again,

you need a ramp. If you're a parent,

if you're visiting a new city, it doesn't

really matter why. You know, that's why we

did it, that's why. And this is the key thing that we're talking to... With transport agencies and all the governments. I'm not trying to, you know, I'm not trying to scam you. I'm trying to save you money because at the moment, you know, the NDIS spends \$700 plus million dollars on literally transport subsidies alone. I'm not saying everybody will be able to use public transport. But when you imagine that we're spending upwards of \$50 an hour for somebody to driver us around, that's insane. Not many people get that. And if we weren't a developed nation with lots of money, that wouldn't happen. And Queensland or New South Wales, Victoria, they spend upwards of \$30 million a year on just taxi subsidies alone. So, you keep adding that and that's roughly, you know, nearly a billion dollars on subsidies that... They help a lot. I use them sometimes, absolutely. And I know that there are a lot of people who might be listening who use that here in Australia. And I'm sure that there are things similar to that in other countries, but that's not sustainable. You know, what if you want to catch up with your friends after work? What if you can't call a support worker? It's just not sustainable. [Narelle] Oh, I agree. So what's the future for Hailo? What's next? [Santiago] What's next? [Narelle] How can everyone listening help? [Santiago] Two simple things. Two simple things. If you want Hailo in your area, go to our website or email

us at info@hailo.co and Hailo is H-A-I-L-O.CO. And send us an email. Say, hey, I'm in this area. Please, I would like Hailo. Because we can

use that data to go to government and say,

hey, people do want that. And the second portion

is if you work in the transport industry, if

you work in government, if you work in anywhere

that has a hand in public transport infrastructure,

get in touch with us. We are trying to improve

public transport for everybody, for drivers

to be more efficient, for passengers to

use public transport more often, to be more engaged. And just for the general

public, you know, if you see more people with

disabilities out and about, and they're working, the

general society benefits. And if we, as people

with disabilities, go out and about more

often, then we benefit. [laughs] [Narelle] Yeah, I'm not even

asking for takeaways, you've just said it

so brilliantly, Santi. Santi, how can people get

in contact with you, yourself if they want to find out more

about what you're doing? It's actually a remarkable

journey that you've done so far. And you've only just started! So how can people find

out about you? [Santiago] Simple, so

obviously our Hailo website, and we're about to update the website, it's going to

be all nice and much prettier. And don't worry,

it's all accessible. [Narelle] Oh, thank you.

[Santiago] I test it myself. [Santiago] [laughs]



[Narelle] Thank you. [Narelle] Have you tested everything, all of WCAG? [Santiago] Oh man, don't get me started with that. Absolutely. And we were trying to go above and beyond WCAG because, yes, they're 13, y'know. Um, I digress. That's a whole other podcast.

[Narelle] [laughs] [Narelle] That's another podcast. [Santiago] But absolutely. So Hailo, HAILO.CO. And then info@hailo.co. And then follow me on LinkedIn. LinkedIn is my most used platform, Santiago Velasquez. And again, hoping that we can add the show notes at the end. And I'll share my links to all of this stuff. And if you do want to reach out to me, LinkedIn is probably the best way, just because it's the platform that I post or use the most. And if I can help in any way, anybody. And/or if you want to help, please do reach out. [Narelle] Yeah, look. I can only encourage everyone because it is something that's going to help the whole of society. And not just in more efficient public transport. We're talking better use of money. [Santiago] Oh, absolutely. [Narelle] If that billion dollars is not getting used... Even if a half of the billion dollars is not getting used in public transport, it can be used elsewhere. To provide other resources for society. Well, Santi, thank you. Thank you for giving us your time. So this is Santi Velasquez from Hailo. And yeah, you will find how to contact Santi at the end of the video. We always like to add that. And I can only

encourage everyone. Go and find out about Hailo because Santi, I want Hailo. I would seriously love Hailo after my experiences last week. I'm like you, I have a severe vision impairment. And getting on a bus is not fun. So thanks again. [Santiago] Thank you, Narelle, for the invitation. I'm looking forward to connecting with more people. And again, I'll bring Hailo to the whole of Australia. We will change public transport around the world so that anybody can use it. [Narelle] Yeah. This is the latest episode of The Digital Access Show. Look, please like, subscribe, share, share it with everyone. Tell everyone, because we are about how to help the community understand about digital accessibility, physical accessibility. And the opportunities that people with disability have that some normal people will never get. Just because we can't see properly or we can't hear properly or whatever it is. We're everywhere, we're like. So we're pretty common. You can find us all around the world. And after all, a figure I heard the other day in US dollars, people with disability in the world have six trillion spending dollars. [Santiago] Yeah, actually, we would be the third largest economies in the world. [Narelle] Oh yeah, we would too. [Narelle] So yeah. [Santiago] Yeah, pretty big. [Narelle] Come and join, we are a big economy. So we'll see you next time and thanks again, Santi. [Santiago] Thank you. See you next time.