Robin Christopherson

Interviewed by

Jane Bird

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Via Zoom

Welcome to the Archives of Information Technology, where we capture the past and inspire the future. It's Thursday the 24th of November 2022, and we're talking on Zoom, as has become customary during the coronavirus pandemic. I'm Jane Bird, and I have reported on technology and the IT and telecoms industries for newspapers such as the Sunday Times and the Financial Times since the early 1980s.
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Our contributor today is Robin Christopherson, Head of Digital Inclusion at AbilityNet, the charity which he helped set up in 1996. AbilityNet specialises in adaptive and assisted technology, helping people gain qualifications and design software that is easy to use for all. Robin raises awareness of the inclusive power of technology through writing articles and speaking in the UK and internationally. He is very active in advising Government and organisations on digital strategy, and in 2018 was an expert witness for the House of Commons Work and Pensions Select Committee inquiry into assistive technology in the workplace, part of Government's aim to see one million more disabled people in employment in the next decade. Robin has received a number of awards in recognition for his work on digital inclusion, including an MBE in 2017. In 2019 he was listed as one of the World's 100 Most Influential People in Digital Government for his work on government committees and campaigning for better digital services. In 2021 he was awarded an Honorary Doctorate in Computer Science from the University of Suffolk.
[00:01:52]
Robin, welcome. I'm very much looking forward to hearing more about your life and achievements in the world of assistive technology and digital inclusion.

Wow, thank you so much for that introduction, that was amazing. I hardly recognise that person. It's just, you know, like I've been paid to play with technology and tell people about how empowering it is for the last decade, two and a half decades. So, yeah, but thank you very much.

Well I'm sure you're a source of inspiration to many people. But if we could start at the beginning perhaps. So, you were born in Durham in 1970,and you had, I guess, a, it sounds like a fairly sort of, a happy family background and growing up there. Did you enjoy your childhood?

I very much did. I've enjoyed, you know, my life, every single day of my life, absolutely. A rather unconventional family, because, both my parents were blind. My dad had glaucoma, which is quite a, you know, normal, common condition. My mum had a condition that's actually unique to our family, so we've been kind of, lab mice at Moorfields Eye Hospital, which is the, you know, a world-leading eye hospital in London. We went there several times a year at the beginning, and once a year until we were sort of, late teens, for them to, wonder what they could do to help, perhaps allow us to retain some vision. But yeah, my mum's got no vision at all as a result of this condition. All of my, my two siblings, my two sisters, are blind as well. My sister's son has also got the condition. It's looking like our two grown-up children haven't, which is nice. But, it was absolutely no barrier to happiness, or a functional family. It was a rub-along family. So, you know, everybody had a vision impairment, but you just get on with it, and thank goodness for technology as well.

[00:04:00]
Well that, that's marvellous. It must have been an inspiration to you I suppose to have your, your father particularly in that role. He was, he had a job as a land registrar, didn't he, and of course your grandfather had been Vice-Chancellor of Durham University. So, I suppose you had quite high levels of expectation professionally as well from an early, from an early age.

If I did, if there was, then I didn't feel it. I think people… You know, our family is very accepting, and we were able to choose whatever path we, we wanted to. Certainly, vision impairment wasn't seen as the end of the world, like it might be if people aren't surrounded by people getting on quite well. Growing up in Durham, we lived in a, in a big sort of Victorian terrace, and Dad was out at work every day, and Mum, even though she couldn't see, she was bringing up three small children, and she was running a student hostel at the same time. So she was an inspiration as well, probably more so. She didn't have as much vision as, as Dad; even though he was registered blind, he could still read with a magnifier, and, you know, could sort of function to get around the house visually. But, yeah, for people that aren't aware, being registered blind doesn't mean that you've got absolutely no vision. It can mean anything from, you know, no central vision, so that you can't actually sort of see any details, but you have got some mobility to only central vision, where you might,

everything might be completely, you know, black but just this tiny little tunnel vision in the middle. So, I remember somebody saying to me once that, she had to give up reading books on the bus to work every day with her guide dog, because she had this little tiny central vision, which is what you need for reading, but it was absolutely no good for mobility. And people just couldn't, you know, appreciate the subtleties there. So, people were querying all the time whether she needed the guide dog, et cetera, because she was reading a book. So, there's lots of complications when it comes to disability, and, you know, that's why AbilityNet, which I'm sure we'll get on to later, exists, because, it's a pan-disability organisation, and technology is incredibly empowering to help people across those different areas of need. And sometimes there's an overlap as well, you know, my hearing's going a little bit. For other people, they might have, you know, a vision impairment plus an essential tremor, or whatever it might be. There are so many different combinations of impairment that you need to have the right sort of technological solutions, and what might be right for someone who's just blind for example, might have a conflict with someone who's blind and also needs to use Dragon, or some sort of voice recognition software, to make sure that those two things work well together. So, yeah, technologically, we've come on a long way, but in those days, you know, Mum was just, getting on with it; Dad was having his adjustment, which was his magnification, big, big magnifier with a built-in light. And we were just rubbing long. So, yeah, I mean, they were amazing though as role models, for us to just, you know, think, OK, let's get on with it.

[00:07:23]
It does sound absolutely, for most of us to imagine that is quite impossible, particularly your mother running a hostel as well. So, it does sound, yeah, fantastically empowering for you and your two sisters as well. Was there, in terms of education, you were state educated, weren't you, all the way up.

Mm.

So, was there a sort of, how was, was… The family did, presumably, obviously support you in managing to get your education. It must have been difficult at school,

being, well, you already had sight impairment when you were at school, didn't you? So, how did you cope with that?

It was a very gradual reduction of vision until I had no vision left in, say, mid-twenties. So, it was very easy to adjust, you know, you just had to get closer and closer to the front of the class [laughs], for example. And then at university, it was a real challenge, because, I couldn't see the lecture, you know, well there weren't slides in those day, they were blackboards, or OHPs, overhead projectors. And the lecturers were reluctant to give me their notes, which is what I would have been able to read from. So that was a real challenge. So… The ones that did give me their notes were almost indecipherable, which is probably why the other ones were reluctant to give me theirs, because, I think, you know, if that's anything to go by, then their notes were, were, you know, really, [laughs] not…

Well it's engineering you studied, wasn't it?

[laughs] Yes.

They're not, they're not noted perhaps for their language.

Yeah. Yeah. So that was a struggle, although I, I did have a, a talking laptop. It was DOS in those days, you know, where you've just got characters on the screen, there's no graphics or anything. And it had a built-in hardware speech synthesiser. And it was really heavy, and, you know, but it, it did the job, and so I was able to write notes and things. But I probably picked the wrong course, if someone's losing their vision, and that's mainly because, you know, I did double maths and physics for, for A Level, and, it was, you know, what next? kind of thing. Well, engineering, I mean, I had the history of engineering in our family. My grandparent, you know, Sir Derman, was an engineering fellow before he became vice-chancellor. So, I thought, you know, I'll go for that, and if I have to retrain later, then fine; as opposed to, you know, not going for what you want and then always wondering whether you should have. But, yeah, so that, that was challenging. The state schools that I went to were absolutely brilliant. You know, these days, I am sure that there are many more sort of special needs centres and teams within secondary schools for example, but in those days there

wasn't anything like that. So, you know, but luckily for me, just kind of, getting closer and closer to the front of the class, and putting my hand up, I wasn't shy about doing that if I couldn't read something, or, see something. So, yeah, muddled through, I think is the, is the phrase.

[00:10:39]
And you had some, you had some inspirational teachers? It sounds like your physics teacher was, was quite a character.

Yeah. I mean, there are certain things that stick in your mind. One time he would get everybody to line up, we were doing about static electricity, and you know those Van de Graaff generators with the kind of metal dome. He got all these plastic trays, this was in the physics lab, and he lined them all up on the floor beside this Van de Graaff generator, and got the whole class to stand in these trays, and join hands. And one of them, at one end, had their hand on the Van de Graaff generator and the person at the other end was in their socks on the floor, and you could imagine the, the result from that. Everybody got a shock all the way through, through to the person who got, you know, a much bigger shock at the end, because he was grounded. So, something like that, and…

I find that highly dubious, and rather dangerous.

It wouldn't happen, I don't think, these days, would it, yes.

Yeah, I can't imagine it would be permitted.

[laughs] He also kept on bringing up this metal wastepaper bin from under his desk, because it was empty, and he would say, you know, 'This is the volume of a mol of oxygen at standard room temperature and pressure, STP.' And a mol, if you're interested, guys, is, ten to the twenty-three molecules of a particular gas. I can't remember now why a mol is important, but anyway, that is, that's a standard kind of volumetric measure of, of gases. And he would keep on putting it down and bringing it up again and saying, 'And this is the volume of a mol of nitrogen,' and he would take it down and put it up again. And, basically what he was saying was that all gas is

pretty much, use up the same volume or capacity. I can't remember what the importance of that particular nugget was now, but, I remember it having an impact. And, it definitely made me think that… I mean I've always been interested in science. I still listen to loads of science, you know, radio programmes and podcasts and things like that. I can't get enough of science. So, technology is, you know, definitely in that category as well, so, yeah.

[00:12:47]
Yah. Yes. So, so it was a good experience at school, and empowering, and you didn't find that your disability held you back. Although, perhaps…

In sport certainly, it was hair-raising. So, yeah, getting around, particularly when it was dark, on, you know, nights back from school, I'd have to cycle a couple of, well, three miles back home, and nearly came a cropper many a time. But yeah, in sports, with cricket for example, I was given a, a bright, luminous pink plastic cricket ball. It looked like a cricket ball, it had a kind of, a fake plastic seam, you know, the sort of sewing, the stitches around the cricket ball that you would have with leather, but these were kind of, reproduced in fake luminous pink plastic. And I was the only one using that one, because as it hurtles towards you, you don't, you know, you really want to be able to see where it is.

Mm.

What people didn't know was that you only had to tap that ball and it would go really far. So people thought I was a really good batter, but, as long as I made any kind of contact with it at all, it would go really really fast. [laughs] So… But yeah, lots of areas that were challenging. And obviously later on, as the vision went more and more, and then completely, that all brings the same challenges as well.

[00:14:05]
Yah. And apart from your physics teacher, would you, and your parents obviously, are there any other sort of role models that you remember from your childhood in those early years, mentors, influencers, that you think sort of, well had a bearing on what, you know, how your life has turned out?

I think probably Professor Stephen Hawking. Because there's somebody with, you know, a very significant impairment. Only had the ability to nudge a switch with his head, that's all he has, and from that, in a very pedestrian way, he was able to interact with a screen using technology, the onscreen keyboard, and, you know, various phrases. It's called an AAC, an augmentative and alternative communication device, allows you to build up sentences quickly: well, more quickly, from a bank of stock phrases, or from, you know, rows and columns of an onscreen key board. And he was able to obviously provide huge insights into the scientific world or domain. So, I very much remember growing up thinking how amazing he was. And again, you know, the science angle there, and astronomy in particular, absolutely love astronomy. So, yeah, that's all I can think of really. It's more about, people around me that were just helping, you know, with a really positive attitude, and everyone just gets on, just gets on with it you know.

[00:15:50]
Mm. Yup. OK. So, so yes, you were at Cambridge doing engineering, and, you did a master's as well. And then… There's a couple of years, I was just wondering, between '92 and '94, where there didn't seem to be anything on your CV. Is that a mystery, or…?

No. So I went… I'm a Bahá'í, which is my religion, and it's very common, or usual, for Bahá'í youth to do what we call a year of service, like VSO, but not, not through kind of, the VSO channel; more going to different projects around the world, there are many to choose from. I decided to do six months in Russia, going around different towns and cities in Russia teaching English as a second language. And they were so receptive, they were so amazing. You know, we would go to a new town, we would go to the university, and we would say, 'We're here from England, from the UK, and we'd like to talk to your people about our country, and help them practise their English.' And they'd say, 'Come back tomorrow afternoon at two o'clock.' You'd come back. They would usher you in to this auditorium. Picture, like, the biggest lecture theatre that they have on campus [laughs], and it would be absolutely full with students. And they would be rapt for an hour and a half, however long it is. We'd be talking about, just the UK and how things are, and answering people's questions.

And, I think it must have been part of their syllabus, because they knew more about the UK than we did. They knew more about all the different counties, and the geography, and the history. [laughs] It was a real education for us. And then, on an evening we would say that we are going to a certain place, a community centre for example, to, if anyone wanted to carry on the conversation. And so, we'd go there, and dozens of people would turn up, and we'd have really in-depth conversations. And they'd be, you know, hanging on our every word. It was amazing. And, they would ask us questions in a very earnest way, like, 'Do you say offen or often?' And by the way, their English accent was cut glass, it was really RP, received pronunciation. It was amazing. And, I remember my friend and I looking at each other, and, [laughs] both at the same time, we said, one of us said, 'eether' and the other one said 'either'. And, they, you know, they were absolutely beside themselves with laughing, these people. So, yeah, Russia, six months over the winter, like minus 40 degrees. A real education there. And then six months in Honduras, over the summer, so that's like, plus 40, helping out in a hospital in the rain forest on the mosquito coast, which is really dense jungle. And, that was a real eye-opener as well. The only kind of primary healthcare, and certainly, you know, surgical unit, for hundreds of miles along that coast. And because it was a paid-for service, even though everyone who was working there was doing it voluntarily, they had to charge for, you know, medicines and that sort of thing, because they had no funding. So, people would always wait till the last minute to come in. And, you know, we would always see the extremes of the results of alcohol, and the fact that every hut in every village had a machete for cutting down cassava and things like that. Lots of pregnancies at the very eleventh hour that were having complications coming across to the hospital from nearby villages or whatever. We had mums giving birth in a kayak or canoe across the lagoon which you have to cross to get to the hospital, on the steps of the hospital, you know, in the reception of the hospital. Hardly ever actually on the beds [laughs] in the hospital, because they were like, right at the last minute. So, yes, that was really amazing. That was a little over a year doing that. And then, I was very fortunate afterwards, not knowing what I should do, to have a place at the RNIB, the Royal National Institute for the Blind, they had a residential kind of rehabilitation centre. Because at that point I really had very little vision left. And I thought, I'm going to need to get some mobility skills. I can't really get about without help. And luckily enough, this place was available. It was back in the

Nineties, in the days when the Government were willing to pay for a thirteen-week residential placement [laughs] for a visually impaired person to learn the ropes of mobility, to learn some IT skills, and daily living as well, which I don't think I needed because I grew up in a visually impaired family, but you know, how to safely pour a cup of tea, and cook and that sort of thing. Which a lot of people new to sight loss would have to do.

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Yeah. But I mean, that, that cost for that thirteen weeks must have paid back hugely in dividends in terms of the professional influence and, and impact that you've been able to, to have.

Well not just me; helping visually impaired people in this case to get into employment, you know, to be a taxpayer rather than a, you know, recipient of, of benefits or whatever. You know, something like Access to Work and, you know, we can talk about what we've been advocating for, and, you know, involved in the discussions within Government. Something like Access to Work, which is a Government policy to help fund equipment and adjustments for people with a, with any disability, to help them successfully, be interviewed or to, you know, go into employment with a particular employer, so that the employer isn't disincentivised, even though it's a legal requirement; if they're the right candidate for the job, then you should, you should hire them regardless of what their impairment is, and then put the adjustments in place. But some of those might be costly, and so, you know, and there are challenges around making sure that they're embedded, and, and you know, working well and happy within an organisation. And there are government schemes to help with that, but they've been pared back and pared back.

Mm.

And it seems so short-sighted, because, you know, just, pay a few hundred or a few thousand pounds to help them have the, the tech and the skills that they need, and get them into work. As opposed to, having that barrier, in some cases that insurmountable barrier, because there really is quite a significant employer contribution these days. And we see the stats that we've got today where, in the case

of vision impairment, 73 per cent are still out of work. And they've got an awful lot to offer. And, you know, let's get them in work, and let's get them contributing, and, rather than, you know, just having the, the lower self-worth I think which comes with, not being able to be employed, and, you know, contribute to society et cetera.

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Indeed. Absolutely. So, that, that period at RNIB, I mean that, part of that then leads to you becoming a co-founder of AbilityNet.

[hesitates] So, I did the thirteen weeks. And then, thankfully [laughs], at the end of it, they said, 'Would you like to stay on and be an IT instructor?' Because, apart from using my little talking laptop, I had never used IT before. But part of the training of that thirteen weeks was in different areas of IT, and I, you know, feel like I have an aptitude for it, and they had a vacancy. So, I stayed on for another eighteen months as an IT instructor at that place. It's actually shut down now, which is such a shame, but it was a brilliant, sort of, springboard for people to, you know, really get skilled up and, and confident. So, yeah, I was there for a further eighteen months as an IT instructor. After that, the vacant, that position was no longer available. So then I was thinking, OK, I need to, you know, I'm out in the big wide world now. I've got qualifications that, you know, show that I have the ability to study to a certain level, but aren't really applicable to what I want to do. [laughs] But thankfully, that eighteen months as an IT instructor was enough to get me the job with AbilityNet, or rather with a charity called the Computability Centre, which was a precursor to AbilityNet, back in 1996, as an assessor of IT, or assistive technology, for people with disabilities, and I moved to Warwick where that was.
[00:24:51]
So, the Computability Centre was a charity set up by IBM to deal with all areas of assistive technology. There was a freephone number where people could call in who had disabilities or, you know, had family members that did, to talk about what technology could help them, or how they could adjust the technology that they've already got. We also went out into people's homes and did assessments and that sort of thing. So that was brilliant, that, you know, IBM spun off their special needs team that dealt with the two or three special needs products that they had at IBM, and into a broader charity to help people with disabilities. And so, in '98, that charity joined

with another one, called FCD, the Foundation for Communications for the Disabled, in Worcester, and the two got together to form AbilityNet, and I, you know, have been there ever since.

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So, AbilityNet now has locations all over the country. We deliver a huge range of services, and it's, you know, really grown, along with the growth of the importance of technology, and of digital obviously. So, we are very much needed in helping people to get the most out of the technology they've got, or to see what technology could be added on, how we could augment what they've already got, to really help them perform at their best, whether that's at home, in education, going into work, staying in work, in retirement, that sort of thing. So, yeah, that's how AbilityNet came about, and I thought that was a, a brilliant move to make it something that would, you know, bring together two leading charities and that would then be on a really good footing to, to grow. We've never actually had government funding, so we do have commercial services, but we also, you know, every penny that we earn in that area, we use to deliver free services to disabled individuals. And working for an organisation like that is a, an amazing feeling.

Mm.

You know, technology's great, but when you're applying it to something that makes a real difference in people's lives, that's a gift, a real gift.

[00:27:13]

Indeed. Now, just to sort of backtrack a little bit then. You mentioned about your DOS machine that you used at Cambridge when you were studying engineering. I'm just trying to get a feel for when you first came across computers, and how that was, and then, obviously, you know, it evolved and you, you were able to move into that whole area professionally. But, but it might be interesting just to cast your mind back, when you first encountered computers, and whether you recognised from the very beginning that these could be so powerful in helping people with impairments.

Sure. So, one of the things I did at school was typing on a manual typewriter. Because, that was what you did, to, you know… And that could be a whole, a whole

area of career. So, getting touch-typing skills, particularly if you're going to lose your vision, was, was really important. So I did that on a manual typewriter, [laughs] so that was my first kind of use of technology. My mum's got a braille typewriter, it's called a Perkins, and in fact it's only got six keys; there are only six dots in the braille code, and depending on, you know, the combinations of those, each of those cells of six dots forms different letters and numbers and combinations of letters, that sort of thing. So that's how a braille typewriter works, called a Perkins. But, it was only, like I say, when I went to university, I had a talking laptop, really chunky, really heavy, really ludicrous looking these days, and that had speech output which was called JAWS, standing for Job Access with Speech, JAWS for DOS. So that was my first encounter with, you know, technology that can help people with disabilities. Then when I went to the RNIB, they had a range of technologies, and Windows had come out, so Windows 3.11 was the first version of Windows that had accessibility built in. So, you can't really make a computer talk, for example, unless the operating system allows that to happen, has got the right hooks in place to get access to that. And there was a lot of consternation in the blind world when Windows came out, because, oh, it's not, you know, it's all pictures and graphics, and we're not going to be able to, you know, we're going to be left behind. When it was just rows of characters that was, that was doable. But luckily, not too long after Windows came out, I mean obviously Windows 1 and 2 were a thing, but they weren't really widely known, Windows 3.1 was probably the first widely used version of Windows, and it was only when 3.11 came out a couple of years later that we were able to start getting them to talk, and they had some other, third parties that created software, like magnification software, to blow up the screen so that you could see it more easily if you had low vision. So, that was my first introduction to technology.
[00:30:21]
Obviously at that RNIB place, they had lots of other gadgets, like a liquid level indicator. So, it was basically a thing that you propped over the side of your cup, and it had two electrodes that pointed downwards, and when you filled up your, you know, cup with boiling water, it would bleep when you got to the right level, so you wouldn't spill it, and stuff like that. I still use the ouch technique where I just put my finger in [laughs] and wait until it gets to that point. So, yeah, there were other gadgets and gizmos, and these days there are a million specialist gadgets and gizmos, but there's also a million apps that can leverage a lot of the smarts that are in your

phone for example. So, it's a very different kind of world today. But, yeah, technology really for me, in those early days, was around getting access to the desktop, [laughs] the advent of the Internet in the late Nineties, and kind of, oh, what's this going to mean for us, kind of thing. And luckily back in those days websites were very text-heavy, you know, there were images but, connections weren't broad at all in those days [laughs], you know, they were metred connections and dial-up and that sort of thing. So, websites were very sort of, text-focused, which lent itself to blind people. So yes. But as the decades went on, technology has got smarter and smarter, more and more prolific. Accessibility thankfully hasn't been deprioritised, so, the big players, Apple, Microsoft, Google, very much prioritise accessibility, and have been very visible. Last week at our TechShare Pro IT conference, for example, we do that every year, and there are, you know, key sponsors, and, provide lots of speakers, and stuff like that. It's a very active community, thankfully, which is great because, it's a digital first world now. So, you know, just imagine leaving millions of people behind. It's not to say there isn't a lot of inaccessible websites and apps out there for people with a range of impairments, there certainly are, and that's why we have to kind of carry on raising awareness, and making sure that the Government prioritise that, and we can talk about that if you want to later on. But, yeah, so, it's a mixed bag, but all the tools are there. It's incredibly powerful what, everyone's using these days, but that can, that power can be leveraged to great effect for people with disabilities too.

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Yah. Yah. OK. Yah, well, well indeed we will talk about your government work. But maybe we should just sort of finish off on your kind of, professional sort of, you know, working life, or what you were doing, or have done over the years at AbilityNet. I mean you've given us quite a lot of examples there already. Are there other kind of milestones, or kind of achievements that you might pick out?

So, in the first few years that I was working for AbilityNet, it was very much end user focused, so helping people, you know, they call on the freephone number, there's an email address. We would also go out and advise people. So it was very much dealing with disabled individuals, and helping them get the tech that they need in their hands. Then, with the advent of the Internet, and, in 2003 there was a code of practice that

was published that accompanied the Disability Discrimination Act. So the DDA has obviously been around since '95, and it says that you need to cater for people with disabilities. You can't discriminate. And that certainly, in our mind, covered technology and digital as well. But it was only until 2003 when they published this code of practice like an appendix to the DDA that definitely said, you know, you must include digital in this. It gave an example of a blind person being able to book airline tickets on a website. So, from 2003 we suddenly started to approach companies and say, 'Look, you need to start thinking about accessibility, it's now definitely a legal requirement.' I went to see my first, our first client, a company in London, in 2003, and, they were happy to pay for us to help sort out their, their online, their website. And from that point onwards, the accessibility team was born. So, since 2003 the other aspect of what we do, which is working with companies, to make sure that their apps and websites are inclusive, all their digital, so, you know, the emails that they send out, the marketing campaigns, social media, that sort of thing, are fully inclusive. So, you know, that's been the main growth in what AbilityNet delivered, and that was a steady growth since 2003, and there's something like 30 full-time consultants now delivering those services. And obviously we're only sort of scratching the surface when it comes to the number of organisations out there that have online websites and apps and that sort of thing.

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And that is a service that AbilityNet consultants are paid for, I mean that, that helps you raise funds for the organisation, presumably.

Yeah. And we do in-work, you know, workplace assessments. So, not only do we help disabled people in their homes; we also do workplace assessments, and they're paid for as well. And we are a provider of the Disabled Students' Allowance assessments, DSA assessments, which will be familiar to many people. So, another government scheme which helps disabled students in higher education perform at their best, you know, to be able to, [laughs] do better than I did at university, hopefully. So, they, yeah, that is another paid-for area. So that is a government-funded scheme. And many organisations deliver those DSA assessments, and we're just one provider, because as you can imagine, there's a huge volume of students each year that need to have those adjustments put in place, or at least have, be the assessed

for what needs they might have. So yeah, we've got a range of, of paid-for services that as a charity we would say provide a surplus for us, not a profit, and those surpluses are ploughed straight back into our free services. So, yeah.

[00:37:11]
And you cover all sorts of disabilities. I mean obvious your special area is loss of sight I suppose. But, all kinds of disabilities are, are covered presumably?

Yeah. I mean, you know, by default I guess I've, I've got more of interest in vision, but certainly we, we needed to know about all different areas. Because you can't advise someone unless you have the full picture. And people tend to have other needs as well. So as well as the vision impairment, for example, they might have organisational challenges, or they might want to know how to, I don't know, get from A to B, because, you know, that is part of their vision impairment, or it's part of their learning difficulty, or whatever it might be. So, you really do need to have a broader picture. And that's the real power of AbilityNet as a kind of, a one-stop shop. Because, otherwise you might find yourself going to different organisations, getting potentially conflicting advice. So, we are very aware that it's a really important gap to fill to be that one-stop shop, a pan-diversity, pan-disability organisation, and obviously that includes, you know, mental health now, anxiety, you know, ASD, autism spectrum disorders, that sort of thing. So it's a really really broad picture now. And, we've got a lot to say on our website and in our training courses et cetera, webinars, around, you know, a diverse workforce and how to cater for those, or how to put on inclusive online or hybrid meetings, that sort of thing. So it's really quite a broad remit that we cover. A lot of companies come to TechShare Pro, for example last year, or attend or webinars, that have nothing to do with disability or accessibility per se; they might be diversity and inclusion people, or they might be HR people, or OH people, or, whatever it might be. So, you know, there's a real broad application of what we're talking about here to cater for, you know, a diverse workforce for example, or a diverse student cohort. So, yep.

[00:39:22]
And presumably, COVID also created, well, opportunities as well as challenges I'm sure.

Yeah. I mean obviously, we all know what an impact COVID had generally speaking. For people with disabilities, it really gave them things that they had been calling for for, for a really long time, which was more flexibility in their work, and the option of home working. So for a lot of people, their jobs, like mine, is completely online. I do have to go to see clients, or do presentations, from time to time now, but it really is the exception. Most meetings and presentations I do every week are, are online or hybrid, and that's just so convenient and so much more efficient for everybody concerned. So, you know, when COVID came along, it was a real, double-edged sword I would say for, for many employees, but particularly for those with disabilities, because, you know, they got a lot of the flexibility that they wanted, but for many of them it also came with accompanying challenges of isolation, you know, if you're not in an office you can't quickly ask for someone to help physically, to borrow a pair of eyes, to, you know, whatever's the kind of tangible support you might need with people in person. A lot of the socialised, social, you know, aspects of work, isolation and that sort of thing, became a problem. And we have been, you know, involved in putting out information and resources to combat a lot of the downsides. And there are a lot of, you know, technical solutions, and kind of practical tips and hints that can help people overcome some of the more challenging aspects of it. But certainly from a digital first point of view, obviously digital became all-important all of a sudden, and that really, we saw that in the level of interest in our services. Because, it's really going to leave people wide open if they're, you know, not being able to cater for customers who now rely one hundred per cent on digital, for example, to get their groceries delivered. You know, there are some real world impacts here if people are dealing with inaccessible online services, they could literally go hungry, and they're vulnerable and they're isolating and that sort of thing. Or, disabled employees will literally have nothing to do, because the adjustments that were in place, which, for example, might be that, for five per cent of your week, somebody else will do tasks A, B and C for you, because, work hasn't got round to making those particular internal systems accessible yet; but when you're on your own at home, who's going to be able to click the mouse for you, and stuff like that? So, you know, there are some real problems there. So it really did focus on the importance of digital inclusion, and we saw that reflected in the number of demands or calls for our services et cetera. So, yeah, we, we've seen a massive up-, you know,

I was going to say a spike, but actually it's remained at that new higher level since COVID and… So yes, we're busy at the moment.

[00:42:43]
Yah. Yup. OK, so, then, in terms of your… So, are your Government activities and your speaking events and so on, are they all sort of, as part of your role at AbilityNet, or, do you have a kind of separate independent role, would you say?

They're really all part of my role at AbilityNet, going to different conferences. Mostly B2B conferences where diversity, or digital, is an element, not specifically accessibility-related conferences et cetera, because digital is so important, it, you know, it is a thread in everything, and diversity obviously is hugely celebrated at the moment, you know, there's a real kind of, festival of diversity that we're experiencing here, which is amazing. So it's a really hot area, or number of areas, that we touch upon. So yeah, I do a lot of public speaking, a lot of advocacy, and sort of, both internally within organisations that are having challenges getting the right kind of traction within their organisation to make sure that accessibility and inclusion is sufficiently prioritised. But I also do things in my spare time. I do a lot of podcasting, I've got a number of podcasts that I host or contribute to, very much into podcasting, all on technology. And, yeah, lots of side involvements with other organisations as well.

[00:44:18]
OK, that sounds like quite a, a heavy workload I guess, you're doing this kind of thing a lot of the time. It's amazing you manage to find time to have a family too.

Well we're empty nesters now, so…

Right.

That's very novel, but, they're both really really happy. So, yes, that's… New phase, new stage in our lives, so, yep.

Yes. It's never too late to take up more challenges by the sound of it.

Yes. [laughs]

[00:44:51]
So, how do you see… How do you see the sort of, the next five or ten years panning out?

In terms of the area, you know, of technology and, and how it can assist people with a range of different impairments, I mean, it's a really fast-moving area at the moment. With each new version of an operating system, or with each new iteration of a smartphone, there are new, sensors, like LIDAR for example; there are new built-in capabilities that can help. During COVID, for example, many devices had built-in person detection using the LIDAR for social distancing, it would tell you exactly where people were, you know, what kind of o'clock, like, there's a person at three metres at eleven o'clock, and it would start beeping. You could set the, the parameter of two metres, or one metres or something, so that you, you know, could avoid people, and keep the social distance to two metres. Something as simple as being in a queue in a shop, to know when to move. When the person in front's taken a step ahead, if you can't see, you can't, you know, you'd have to say, 'Oh can you tell me when you move forward?' or something. But with this, it would tell you exactly when they had moved, and it would allow you to keep that, that sort of distancing. So, there's been loads of advancements. AI obviously is at the heart of many of them. There's an app on my phone called Seeing AI, from Microsoft, and, it uses all of those different sensors to, tell me what's around me, help me find objects, that you can say, 'I want to find my keys,' or, you know, dog's harness, or whatever it might be. Or just my shoes or something. It can read text, you know, either quick snapshots of road signs, whatever, or buildings as you're passing by, shop fronts. Or, whole documents. It can read the colour of what your clothing is, so that you can, you know, see if you've got the right coloured shirt on or something. It can read banknotes, so it can tell you what denomination you are about to hand over et cetera. I never use money these days though, so… But yeah, so there's loads of stuff that's built in. And that is moving apace, it really is.
[00:47:09]

So in the next five years, I definitely see AI being at the heart of further developments, across all platforms, you know, not just in your, on your smartphone, but online, biometrically, to be able to authenticate yourself so you don't have to remember passwords and usernames et cetera, which for people with a range of disabilities is a huge barrier. You know, there's this kind of, cross-sector initiative called passkeys now, to try and make sure that all platforms have these passkeys that are like a token that can be authenticated with your thumb or your face or whatever it might be. So that passwords and, you know, usernames and passwords are going to be a thing of the past. From a security point of view, that's really really important as well. But, we've all had challenges trying to remember passwords, particularly when you've got a service that's asking you to change them every six weeks, like our work systems do, which is a real pain. [laughs] But, you know, imagine if you've got a disability, like a learning difficulty, or dyslexia, that's going to be a, you know, triple challenge. So, there's going to be loads of advances in that area. Wearables, I've got, you know, my Apple watch on here, which I use for fitness a lot. I also use it for authenticating on websites that have multi-factor authentication, it'll just ask me to tap 'allow' on my watch, rather than having to deal with the authenticator app, for example, that sort of thing. But I'm really excited about other wearables, like glasses, so, there are a range of smart glasses out there. They're not that affordable, and they are quite limited, and I'm seeing in the next five years loads of patents coming out which, I'm hoping some will turn into a reality that will make glasses, certainly Apple have been strongly rumoured to be bringing out a headset next year, in 2023. But, so yeah, we'll, we'll have to wait and see what the future holds. But, literally sort of, every few months there are new and exciting things that open up huge possibilities, for all of us but particularly when you think about what the application of those will be for people with disabilities. So, yeah, it's, it's like, you know, being on this amazing journey, and needing to stay abreast of all the amazing, you know, cutting-edge tech that's out there, and ponder how that might be applied to, to help people live a better life. So, yeah, really really exciting.

[00:49:47]

So it doesn't sound… I mean, you know, we tend to ask people if there are things that they could have their time again that they might do differently, or decisions that they might have, might have made the opposite or something. But, it sounds like things

have pretty much gone, gone according to what you might have hoped, from fairly early on. Is that… What would you say?

Yeah, definitely. I've got no, no regrets at all. The only thing that sprung into mind when you said that was that, when I was a teenager, I, of the three of us siblings, I volunteered to, well I, you know, it was me that went into hospital to have loads of tests to see if they could find out what our eye condition was, and whether there was any kind of treatments for it or anything like that. And the one thing that they did put me on was a really strong dose of steroids, like, really, very, maxed out, probably much more than, you know, would be normally given, over quite a long period. And physically I think that's had some, had its impact on me developmentally and that sort of thing. So, you know, like, I feel like, I'm permanently… Because, I think it, at that age anyway, kind of suppresses development. So, I feel like I'm kind of trapped in a [laughs] teenage body in some case, in some ways, and I certainly feel very young at heart. But…

A lot of people would, yes, pay money for that.

Well, yeah. But I mean, I don't know, what… I mean, my son for example, my son, he's 21, he's a personal trainer, and he, he does work out a lot in the gym admittedly, but you know, he's obviously got very different genes from me, he's absolutely enormous. And I would, you know, this is sounding very frivolous and trivial, but, the one regret I feel is that, you know, I kind of missed out on a few years of, of kind of physical development because I was on those really high doses of steroids that actually, compared to my siblings and how the condition progressed with them, had absolutely no effect at all. [laughs] I mean they have to try these things obviously. But, so yeah, I mean that's the only thing that popped into my mind as to, you know, if I could go back and say, 'Oh, let's not bother with those.' Because they had some other side-effects as well. Obviously they have to try things. So, that's literally it, that's the only difference, you know, looking at my son and seeing how kind of chunky and beefy he is, I thought, oh, I'd quite like that. But obviously you have to lift weights and stuff like that as well.
[00:52:26]

So… For me at the moment, I'm addicted to spin classes, which, for any visually impaired people out there wondering what exercise could be for them, it's challenging to, you know, go jogging, or, I know there are lots of blind people that run marathons and things like that, but, our options are slightly more limited. And jumping on an exercise bike, and following some amazing spin classes on YouTube. There's a, a brilliant global cycling network, GCN, channel on YouTube, and there are different lengths of exercise classes that can really get you going, and give you a really good workout. So that's kind of my addictive exercise area at the moment, I'm really really addicted to that. So yeah. But, to lift weights and stuff like that, I think, I would like to be able to do that as well, but, to be able to have some of that, you know, ability, I think. Because I, you know, you need to, I feel like, have the right body frame to be able to lift the sort of weights that he lifts, and, I, part of me wonders whether that was something that those very high dosages steroids has put paid to. But anyway, I have very very few complaints. I think that's it, I think that's the only one.

At least you advanced the field of medical research in the process of…

Yeah. Except it would have only been applicable to our family anyway, so… But no, that's fine. Yeah, it might have broader takeaways from that, definitely.

[00:54:00]
So, what would you perhaps highlight as your proudest achievement?

[pause] [laughs] I think just, carrying on doing, you know, hopefully making a slight difference, either in dealing with disabled people directly, or with, engaging with, you know, Government for example to make sure that the policies are all that they should be. And believe me, you know, you would think that once they had prioritised it and, you know, dealt with digital inclusion and given it sufficient resourcing and focus in one piece of legislation, that that kind of level of understanding would be brought forward into other bits. But no, it doesn't, [laughs] it doesn't work that way in Government. So, that's an ongoing challenge. But, yeah, I mean, proudest is something that was given to me, you know, the MBE for example, and the, the Honorary Doctorate, those kind of things are like, wow, where did they come from? Why are they, you know, why me? kind of thing. So I feel very very proud to have

been kind of, singled out for those. So… But, you know, that's almost like, how the cards fall really, because there are so many other people doing amazing things in this area that, that just don't happen to have been recognised in the same sort of ways. But yeah, it's an amazing area to work in, and, so yeah, I, just, just hopefully being able to carry on doing what I'm doing for the foreseeable future will help me feel proud about, you know, what I'm, what I'm doing.

[00:55:43]
Yes. Would you say that the UK is, you know, is a world leader in this area? I mean do you think that's a fair claim, or should we be looking overseas to learn from what are happening in other countries?

I certainly think we should always be looking overseas. Europe is definitely a leader in this area, and there's been recent legislation that made it into the UK law books before Brexit which gave public sector bodies and those that provide services to public sector bodies a real boost to prioritise accessibility. Because for the first time, unlike the DDA and the Equality Act, there was going to be a named body in the Government monitoring and enforcing and fining organisations. Whereas before then, it was up to disabled individuals, or to organisations like the RNIB for example, to do a kind of, class action against a website, against the organisation, to get them to fix it. And oftentimes they, they would settle out of court, and they would fix it, but there wouldn't be any profile, there wouldn't be any appreciation that these actions were going on, because part of the settlement would be that it shouldn't be publicised, anonymity. So, you know, there is some of that going on, but unlike in the States which, you know, where legislation and litigation is very high profile, here in the UK, it never really registered, and so there wasn't the urgency, but with these public sector body accessibility regulations, it suddenly became very public, and that massively, you know, increased the level of accessibility within those organisations. Unfortunately, the second bit of the EU legislation that covered the other sectors didn't make it before Brexit came along, so that's now in force in Europe doing amazing things, and I just hope there's an appetite for something similar here in the UK.

What sort of aspects, what does that cover then, the second half?

Everything that isn't public sector. So, private organisations, charities et cetera. So, the majority really. Why there were two separate bits of legislation? I mean there are lots of stuff in, in each set of legislation that kind of, is specific to those, I can see that, but they could have easily brought it into one. But anyway, they are separate, and one made it into the UK and the other one hasn't. So that's a real shame. But, I think as, as a nation, we do prioritise inclusion. We do, you know, care about disability, and making sure that, certainly the right initiatives are put in place; whether they're actually delivered or sufficiently funded. Sometimes they identify, you know, they, they say a number when it comes to, you know, funding that particular initiative, and then you find out later on that actually that number isn't new money, it's been scraped from elsewhere, and other people suffer and that sort of thing. So it's a real challenge really, keeping on top of that and making sure that there are sufficient resources and, you know, prioritisation for, for certain issues across disability concerns, not just digital but obviously digital is really important. So, yeah, Europe definitely; other places in the world are, you know, have really good examples of good practice. So, I wouldn't say we're better. America unfortunately is a very mixed bag, but that's the case with a lot of, you know, their, aspects of their life really, because it's much more state by state. So there's a real mixed picture there.

[00:59:39]
Yes. What would your advice be to, to young people, and I suppose particularly young people with any kind of impairment, what would you say to them, particularly whether they should, I suppose be looking for a career in digital, as that might be why they are looking on the AIT website?

It's a brilliant area for you to get into. Because technology itself is the great enabler, it's a great leveller. You know, right back when the PC first came out, there were what you would call redundancies in sort of, engineering terms, choice basically. So, you know, if you can't use a normal keyboard, there are loads of different keyboards that you can choose, including very specialist ones, or you can talk to your computer, or if you can't see the mouse on a screen, then you can use keystroke alternatives. You can change the responsiveness of your keyboard to help you not get, you know, multiple keystrokes or erroneous keystrokes. The mouse, there's a million ways you

can adapt that, or there's a million different pointing devices alternatives. The screen, you can make bigger, physically, or kind of, virtually on the screen, change the contrast, dark mode, change the text size. I could go on and on. There are loads of different ways that you can adapt technology, right back from the PC in the Eighties, and that's certainly the case for newer technologies as well. So, to work with technology to deliver a career in digital is massively empowering. So, by all means do that. Having said that, you can use technology to do most careers these days. So if you want to be a journalist, if you want to, I don't know, be a, whatever you want to be, you can, you can probably do that from your home using technology: well maybe not whatever you want to be, but certainly, you know, there's loads of choice there. So I would, you know, definitely say that you're going to be keeping your options open there. Go to the AbilityNet website, or call our freephone number, and talk to us about optimising your technology for your needs. Even if it's just going through the accessibility settings on your iPhone. I actually don't think anyone should settle for the vanilla experience when it comes to any of their devices. If you look at the accessibility settings, if you did a sort of, a spider diagram of all the settings in the settings app on your phone, over 60 per cent of those will be in the, under accessibility. So that's an area of configuration on your device that you avoid or kind of, ignore at your peril. Because, you know, we're all different shapes and sizes, particularly when it comes to, you know, mobile computing where you're kind of, computing on the edge, or extreme computing, you know, you're juggling your phone one-handed, sunny day, small sheet of shiny glass, bumpy bus, noisy café, whatever it might be, you know, everybody actually needs to have their devices optimised to, you know, for the exact same reasons that someone with a vision impairment 24/7 for example would need to have slightly larger text, or good colour contrast, that sort of thing. So, go and have a play in those, and you can certainly go to AbilityNet's website to discuss how you can best use technology, and, you know, we can talk about what careers could be more amenable to your particular capabilities and, you know, challenges as well. There's a brilliant website that we maintain called MyCompterMyWay.com, and that has the accessibility settings of all the main devices, Windows, Mac, Android, IOS, and then main software suites like Office, with all the accessibility settings laid out in a step-by-step way. And unlike a lot of guides online, which might say, you know, click on this and click on that, we also say what the hot key way of doing that is. Because, you know, a lot of people aren't

going to be using a mouse, so, you're left behind if you don't also tell them how to make those changes independently on the keyboard. So, MyComputerMyWay.com as well.

[00:04:06]
OK, that's great, thank you. So, is there anything else we haven't covered, Robin, that you would like to highlight?

I don't think so really. No. I mean if people want to check out the podcasts [laughs] that I do as well, which are mostly around the Echo, though smart speakers are hugely empowering, really amazing for people who haven't got into technology or smartphones et cetera. Very affordable. You do need a Wi-Fi connection, but once you've got these set up and running, you can basically just ask questions. You know, talk to the air and you should get some really useful feedback, you know, results, information. Services as well. So, there's a podcast that I do every day called Dot to Dot, which is about different Echoes and what you can do with them. And each day is a five-minute demo, so a practical demo of hearing what you will, you know, when you talk to the Echo about a certain thing, this is what you get back. And we're up to episode two thousand one hundred and something now. We've never missed a day. So, there's a lot you can do with your smart speaker, so if you want to check out Dot to Dot. And the other one that I do on a weekly basis, which is much more long form, again about the Echo, is called the Echo Show. So, I've flagged those because, this is one area of technology that is growing very quickly, and really providing a lot of utility for people, and they're very inclusive, even the Echoes with a screen have got all the accessibility features built in, speech output, magnification software, the ability to be able to have text, you know, live captions, live subtitles coming up for what's spoken on the screen. If you can't talk to it, then you can tap, and then it'll bring up a keyboard or some common phrases. So, there's loads of accessibility considerations built into those devices as well. So yeah, that's another kind of burgeoning area where people get a lot of benefit from having a play in that area too.

Well thank you very much, Robin, it's been a pleasure talking to you, and truly inspiring. And, good luck, and I hope the next few decades will be as rewarding and productive as your past ones have.

Thank you very much, and, what a brilliant initiative you are doing, and, I am honoured to be part of it and, thank you very much indeed for, for asking me, and, keep up the good work.

Well it's been a pleasure.

[End of Interview]