AT Banter Podcast Episode 308 - Bristol Braille

📅 Fri, Oct 21, 2022 7:59AM 🕐 57:11

R Rob Mineault 01:05

Hey, welcome to another episode of AT Banter.

S Steve Barclay 01:09

Banter, yawn, banter.

R Rob Mineault 01:13

Oh man, even the cowbell is asleep today.

R Ryan Fleury 01:16

Zoom is squashing the audio.

R Rob Mineault 01:19

It's fine. We will let let the let the cowbell sleep in.

S Steve Barclay 01:22

Insert cowbell sound here.

R Rob Mineault 01:27

Hey, this is of course the podcasts where we talk with advocates and members of the disability

Hey, this is of course the podcasts where we talk with advocates and members of the disability community to educate and inspire better conversation about disability. Hey, my name is Rob Mineault. Oh, and joining me today in this very early hour, Mr. Ryan Fleury.

R Ryan Fleury 01:44
Good morning, everybody.

R Rob Mineault 01:47
And the only man who podcasts in his pajamas. Mr. Steve Barclay is also here.

S Steve Barclay 01:54
I'm not wearing pajamas.

R Rob Mineault 02:08
Sorry. Good night, everybody. How are you guys? I don't know when the last time I've I've interacted with you guys so early in the morning has been.

R Ryan Fleury 02:20
Hi. I'm good. How are you?

R Rob Mineault 02:23
Yeah, I'm good. I got my coffee. I'm good. Absolutely. Steve might be the weakest link in here. I know Steve's not a morning guy.

S Steve Barclay 02:31
I'm so not a morning guy.

R Ryan Fleury 02:35
Oh, well

S Steve Barclay 02:36
We don't do this every week. Right. And there must be some reason why we're up this early.

Ryan Fleury 02:41

There is a reason.

Rob Mineault 02:42

Wow. Look at that. Steve taken over that segue. He's never done that before. He's shot out of a cannon this morning.

Ryan Fleury 02:49

He is a morning guy.

Rob Mineault 02:50

He must you didn't you must have had a cup of coffee. Right?

Steve Barclay 02:55

I'm working on my first glass of water.

Rob Mineault 02:57

What? Wow. All right. Well, Ryan, we can't we can't let that go past, why don't you tell people what we're what we're up to why we're up so early.

Ryan Fleury 03:08

Sure. So today's show we have with us, Charlie Harding, from Bristol Braille Technology to share information about the Canute 360 and some forthcoming updates. So Charlie, welcome to the show.

Charlie Harding 03:12

Hi, everyone. Thank you so much for having me. Thank you so much for getting up at this ungodly hour. It's PM in the UK, and I've been up for hours.

Ryan Fleury 03:33

Our pleasure!

Rob Mineault 03:35

Well, we are excited to have you. You know, we've known about Bristol Braille for few years now, and have been watching with great interest what you guys are doing. But maybe if we could, just start with you giving us a little bit of background information on Bristol Braille itself, and sort of how it formed and sort of the story behind it and your role in at Bristol Braille, that'd be great.

Charlie Harding 04:06

Yeah, absolutely. So our founder Ed Rogers, who sadly can't be with us today, he sort of came up with the the concept of multi line Braille machines about 12 years ago. He was at university, you know, doing bits and pieces and then sort of became very interested in Braille and the subsequent decline of Braille usage and people learning how to read Braille and realized that the, the things that were on the market for for people that read it weren't brilliant. They were sort of very much stuck in the past, you know, big bulky Braille books, the absolute huge and massive amount of storage to have. So we set to work trying to make life a little bit easier for people who enjoy reading and have found it very difficult because of the restrictions that the technology has unfortunately put on them. So the last 12 years, 14 prototypes have been created - some kept and gather dust on the shelf. And in 2020, we finally managed to launch the Canute 360 in its current form out to distributors and the general public. So it works. It's the first multi line Braille machine of its kind, we've tried to keep it as affordable as possible. So you're looking at, depending on where you are in the world, depending on what distributors are charging for it, you're looking around just sort of over 2000 pounds for a machine, which is probably about the same as at a very good quality desktop computer. It's designed to be a desktop machine. So you wouldn't have it on your lap on the train. Still, yes, I'm gonna sit and use to read. So it's mainly made up of 360 cells, hence the name Knut 360, which is divided up over nine lines, and each line has 40 cells. And it's a refreshable machine. So you decide what you'd like to read. Download that onto an SD card using the Braille file, plug that into the Canute, and then you get to set the pace. And so you can just start reading the Braille. Press the button, it will refresh from the top, and then you can just continuously read whatever it is that you want to enjoy, and just makes the whole thing far more pleasurable.

Steve Barclay 06:37

And I should throw in here that the Canute 360 is part of Canadian Assistive Technologies demo pool. So if people want to try one out, we have them available.

Charlie Harding 06:46

Absolutely, please do.

Rob Mineault 06:49

So he's up early, and he's plugging already. We have to do these first thing in the morning more often. So now I'll open this up to actually do anybody because I'm sure Ryan and Steve can actually answer this too. So whoever whoever wants to take this, but so for people who aren't really familiar with electronic Braille devices, can you kind of explain what makes the Canute 360 and the whole multi line Braille unique? What is it that that sets that apart from say other 40 cell braille displays?

Charlie Harding 07:30

Yeah, I mean, say just coming from a sighted point of view, from like chatting away to our Braille community here in Bristol and beyond the one line, Braille machines just become an incredibly restrictive way to absorb information, essentially. So perfectly okay, scrolling through websites and things like that. So quick reading, etc. If you want to sit and read a book, or a scientific paper, or you want to look at a simple graph, you know, all this sorts of mathematics, music, all this stuff that the can you can do becomes very, very difficult with the smaller one or two line Braille readers that are on the market at the moment. And obviously, like I said, on the flip side, the Braille books, you know, they've done a really great job for a really long time that very, very popular, but they are bulky, hard to ship about and just having to have, you know, a book delivered to you in chapters like they did back in the Elizabethan era, where you'd have to wait for somebody to write the next step, you know, it's got to be incredibly frustrating. So it's just basically the Canute's main purpose is to make reading just a much more pleasurable and smooth process.

Ryan Fleury 08:43

And most proficient Braille readers will start reading with, you know, one hand like start reading with their left hand, and then continue on with their right hand. And as they move down to the next line, that left hand will drop down to that next line, and basically almost start reading that line right there. Just kind of like your eyes are tracking a line of text, your fingers are kind of doing the same thing. So being able to have a device that can auto scroll, or you hit a button and scroll, and you set your pace, just makes like Charlie said, reading a lot more fluid.

Rob Mineault 09:15

Well, that's really interesting. So in some sense, are you surprised that it's taken this long for somebody to develop something like this? Because it sounds incredibly valuable to people who read Braille on a regular basis.

Charlie Harding 09:31

Um, it'd be yes and no. So say way back when I had sort of sort of started getting quite passionate about this. It was just correct me if I'm wrong, but Braille had been considered quite an old fashioned, very slow technology way of people to interact with the world and it just people just aren't putting money funding anything into Braille because I mean, especially from chats that I've had with people that aren't very aware. And they said, Well, you know, can't they just listen? it's like, well try listening to a book and then try reading a book. And then tell

me you've absorbed the same information. And I think there's just technology moves forward so fast that it moves forward for majority users, and people that are using other ways to interact. Like I said, it's just they're kind of been left behind. And subsequently, I don't know what the situation is in Canada, but especially in the UK, we are very short on Braille teachers, like trained Braille teachers, and schools that are set up specifically for blind and visually impaired children. So if they're not pushing, learning Braille, reading braille, and the options of having Braille as a skill that you can do, people are kind of making do with what they've got. And unfortunately, again, I think it's just it's the thing of the times, it's the minorities that suffer. So we are always quite surprised that people aren't more interested and jazzed about, you know, this great machine that everybody that uses it says, you know, this is made everything so much better. But yeah, when it comes to really trying to push like Braille and getting people to learn it, it's much, much harder task.

R **Rob Mineault** 11:20

Well, yeah, and it's very much the same here. I mean, we, for years now, you know, we've been sort of helping do what we what we can to really push the idea of Braille literacy. it has been an issue. There was this real idea that sort of came about that well, with screen reader technology, and smartphone technology that you know, everything's talking. So why do we need to be teaching Braille? Here in Canada, things are getting better. Braille literacy campaigns are sort of having having a little bit more traction than they did like, even five or six years ago. But it is a real, a real battle, even today. Do you think that that's sort of why things like the the actual, the actual technology that drives electronic Braille devices hasn't really changed for so many years? Because really, that's what drives that that really high price point for an electronic Braille device. Is, is the actual technology, like manufacturing these devices are so expensive. Do you think that, that those two things are kind of tied together?

C **Charlie Harding** 12:35

I think they are. I mean, it's just the the Canute is a complicated piece of machinery, you know, it's it's hundreds of moving parts. Because we have specifically designed and had people come in, who are Braille readers to use it, and, you know, made sure that the cells are made of, you know, a material that is the right amount of hardness to it, that you can read without getting, like finger fatigue, essentially, you know, it's, we've spent a lot of time, a lot of money, creating something that works for people. And I think that level of effort, and creation of manufacturing and all that kind of thing, it's just, it's something that if you already run a printing company, you're already printing Braille books, then why would we bother investing? And I think that there are other Braille machines that I see pop up on, you know, sort of crowdfunding websites, you know, and I can't think of the other ones are called, but you know, it's like, oh, we've reinvented the Braille machine. And they're like, we're using this thing and this thing and this thing, and then it doesn't really go anywhere, or they just, they disappear. And I don't really know what happens. So I just, I feel, yeah, I think it's just, it's a complicated thing to make. It's a complicated thing to make. So it's actually usable. And the people, you know, the community using it actually enjoy using it instead of just going back to what they used to. And I think that a lot of places just don't really want wants to bother.

R **Rob Mineault** 14:19

Really, what's interesting is when you talked about the sort of the, the formation of the company is that, you know, right around 2012, that's when I feel like all these discussions were happening. So really, you know, you guys are doing the work that you that you have been doing for a while it's I mean, that 10 years now, I think has been really important. And I think that the other thing that I would love to for you to speak to is that I think that what makes you unique as a manufacturer is that you are very involved in the community. Can you speak a little to that?

C Charlie Harding 14:57

Oh, absolutely. It's I think If you are ever part of any sort of minority group via sort of a disability group or race or anything like that you are constantly bombarded by everybody else coming in and saying, Don't worry, everyone, we're here now, and we're going to solve all your problems. And that is just not the way to do anything. So what's incredibly important to us is that we work with the community. So I mean Ed, when he first started bringing Bristol Braille Technology together, he had a lot of people who were Braille readers that wanted to be involved. And through that, a charity called The Braillists, and was created with which Ed is a board member. And their entire reason of being is to encourage people to learn braille be run online, and in person - Braille lessons, they have weekly meetups. And they're just the whole reason for being is to promote, like, learning how to read read Braille. And so and these are the people that we are making this machine for. We don't want to just make a machine, have it done, and then put it in front of somebody and say, Oh, we've made this for you. But that's pointless. Nobody, like you know, that's, that's not working with anybody. That's trying to fix a problem that we weren't asked to fix. So we're, you know, the best thing for anybody who wants to make machines that make anybody's life easier is ask those people that need the machine, or whatever it is, like, what do you need? How much? You know, what, what do you need? How should it look like? How can we make this easier for you? And then from that you can build something. We have absolutely no interest in storming into a room and telling everybody don't, don't worry we're going to fix this for you.

R Rob Mineault 16:46

Well, and you'd be surprised, you'd be surprised at how many manufacturers and R&D companies do exactly that. You know, they'll design something that nobody's asked for, or thinks that they're solving a problem that's that's nobody had or, you know, they, they, they designed something that's completely unwieldly and unrealistic to actually use on a day to day basis.

C Charlie Harding 17:11

I just think that's a real shame. It's a baseline is incredibly rude.

R Rob Mineault 17:18

Yeah, no, it's true.

C Charlie Harding 17:22

And it just takes away anybody's agency, I think it just takes away anybody's, you know, it makes me very uncomfortable. Because I have seen other manufacturers do something similar, you know, I do keep an eye on what's going on. And you will see these things go out. And and I'm part of lots of forums, people that are, you know, interested in this thing, and a lot of them are saying, well, I didn't ask for this, and it won't work, and how am I supposed to use this? And you know, and it's just, obviously, nobody sat down with anybody in the community and said, what, what do you need? They just said, this is what you've got. And that's makes me very, very uncomfortable.

R Rob Mineault 17:56

Yeah, and I think that there's, you know, certainly innovation is good, and trying new things. But, you know, we've seen everything from you know, like smart canes that are like $600, and that way, like 30 pounds, you know, that, you know, and or like haptic shoes, or like, you know, there's all kinds of things that, that people will try. But at the end of the day, you know, if you don't engage the community, you're your product isn't isn't going to be successful. It's already problematic, because a lot of these assistive technology devices are the price points are very high. But if you have something that nobody's actually really going to want to use anyways, or isn't practical, then you know, it's your it's going to die on the shelf.

C Charlie Harding 18:43

Exactly, exactly.

R Ryan Fleury 18:45

So Charlie, you mentioned being able to use an SD card to put your books onto the Canute. Are there plans to tie it to some of the online libraries like CELA, incorporating Wi-Fi?

C Charlie Harding 18:58

So we have plans for all of these things. So we have built the Canute to have the ability to use Bluetooth, to use Wi Fi to have an external battery, these are all things we're asked a lot about. Because this is what the people want. This is what the people need. They don't want to have to keep plugging their Canutes in if they want to go and read in the conservatory, for example. Unfortunately, it is just a case of funding for us and manpower. So it's, we have a plan, there's always a plan. We've had an issue with as everybody else the global issues with parts of manufacturing. So that sort of that that side of the innovation has unfortunately, caused at the moment and then sadly, losing Zack a couple of years ago as well. He was our incredible developer who was sort of the forefront of making the key work. It was all quite sudden and we lost a lot of his knowledge, expertise and everything with that. So trying to find somebody who even has half the knowledge that he's got, and the passion has been quite difficult. We are working with a couple of different people at the moment. And we're hoping to start bringing all

that together, hopefully by next year. But I haven't got anything, unfortunately. But we are very, very aware that's what people want. And we're very, very keen to get in as soon as we can.

Rob Mineault 20:27

Yeah, it is really interesting that that you guys launched in 2020, of course, the same year as the pandemic. So let me ask you this, how did that impact you guys? Like did that take a few years for those supply lines and those manufacturer problems to sort of rear their heads and impact you guys?

Charlie Harding 20:49

Yeah, so the first one went out in the January. And then the UK was locked down by the end of March, I think 2020, if I remember. So it meant that nothing has been done. We were not in the manufacturing area, we're not in the office, Ed was, everybody was on furlough, it was doing the best that he could. I came in to the company, it was in late 2020, to sort of start picking up those conversations with distributors that had been interested in stocking the machine and unfortunately, didn't manage to get the hands on any, because you know what happened. So it took us a good long while to be able to get up to the point where we've managed to reconnect with those, with the people selling us, you know, the the insides of the canoes, essentially. And then we'd sort of got cracking back on it. So yeah, about 2021. If I remember correctly, we had like a whole set of people coming in and doing the manufacturing for us, we essentially have outsourced it and we bought it in house to just keep an eye on how things were going. And it just it felt like it was better with it sounds a bit back to front because of COVID. And because people weren't really coming into work as much as they were, and all the regulations that were passed that we've helped bring it back in house was just going to be an easier way for us to manage it instead of outsourcing to a factory in Wales that we were using. And then everything was going great guns were doing really, really well. And then we started hitting a snag where particular motors that we use became very, very hard to get hold off. And then from there, they became impossible to get ahold of. And then we were told that we were gonna get sent this many and it didn't turn up. And then we were told we could have this many, but it was like 15 times more than we needed. And we just didn't have the money in the coffers to buy a million of these things, these motors, even if they existed as well, there were lots of people promising us stock and actually turned out to be a scam. So it just became untenable. So we decided to shut down manufacturing again, which was heartbreaking. I have to say, I think we finished, I did the last shift with our last manufacturer, just before Christmas. And then everything we've got on the shelf is basically what we've got. But we have been chatting to a couple of people who have really great connections with the manufacturers of these motors. So we're hoping fingers crossed that we're going to be able to get back into production next year. But it was COVID has not been kind. But we have had so much positive feedback. We've had so much support, the understanding and the patience of the people that we work with. I felt every other week I was sending an email saying we've got Canutes coming. And then actually we don't, actually we do, and actually we don't. And then somebody would get COVID. And it was all it was it was very, very hard work. So we're very, very lucky that we are working in a community. We're just very, very patient and nice and probably cursing us. But weren't too cross with us, so thank you to you guys. Thank you very, very much.

S Steve Barclay 24:30

In the meantime, you guys have been working on other other stuff as well. I received an email the other day to inviting me to England, thank you very much, to see the world's first Braille gaming console. Can you tell us about it?

C Charlie Harding 24:53

I'd love to. So because we've not been able to manufacture Canutes, we decided to bring a few of our freelancers back to try and create something that will enhance the Canute in whilst we were in the position that we haven't been able to make any. So what we've come up with is the Canute Dock. So basically what it is, is a dock system, which the Canute plugs directly into. It's got a high vision contrast screen on it for people who have some sight, it has a pullout keyboard. And essentially what the Dock has managed to do is increase what the Canute is able to do. So it's still in prototype stage at the moment. So we're not ready to launch it, but we're really excited about what people might want to use it for. So, yeah, so yeah, basically, it's just, it's something it's something that people can eventually be able to buy if they already own a Canute, or they would like to buy it together. And they can kind of use it for for work or play. It's really designed it to be ergonomically suitable for people using multi line Braille. So we've done lots of people of different heights and sizes, sitting down and using it to make sure that you're not getting any wrist fatigue, that the keyboards you know sort of pulls in and out and is usable it means would be with the screen that the can you can be used as a display of sorts. So we're able to run word processing simple graphs, charts, you're able to use it for computer programming and coding. Which brings us on to its ability to run Braille computer games, which was a very exciting experiment that Ed sort of had a go at, and then realized, oh, there's something in this. So we downloaded a load of old arcade games, and ran it through the dock, and just using sort of the multi lines and all the cells were able to do like a map crawling game.

S Steve Barclay 27:29

Snake

C Charlie Harding 27:30

Snake, we did save a lot of videos of one of our Braillists, playing Snake for the first time since he was a teenager. He was saying when he got his first Nokia phone when he was about 14, he would spend hours and hours screen as close to his face as possible, because he just wanted to experience this game everybody else is playing. But you know, it's just most of us are taken for granted. And so for the first time in 25 years, he managed to play Snake in a way that was really accessible and fun for him. And it was lovely, actually, it was really, really lovely to watch. We also programmed our own game based very, very slightly, so we don't get sued on Grand Theft Auto. So we basically took a very centralized map of Bristol City in the UK. The map then is displayed on the Canute, on the Canute braille display and on the screen. So the potential there for multiplayer games to come about with both blind and sighted people. And then you are asked to follow some instructions. So some chap turns up and says I need you to take this package to Bond Street, for example. So you navigate your way around the map using the display at the top. And then once you get there, you're given another task. So it's this sort

of top down spatial gaming, but it's just it's really exciting. It's like a new medium. We're hoping like we've had a few people play a few games, and it's they've really, really enjoyed it. So we're hoping to get some computer programmers and gamers involved who wants to like create games that can be used on the dark. Sorry, that was just a massive dump of information.

R Rob Mineault 29:24

I feel like a lot of manufacturers out there, you know, when they run into things like you know, COVID supply line disruptions and when manufacturing is kind of put on hold. They just kind of sit around and just wait. I love that you guys decided to continue innovating.

C Charlie Harding 29:45

Absolutely. And it was one of those things where we knew that people were using the Canute professionally. We knew that we'd sold one to somebody that comes to university to do an English degree. We'd sold ones for somebody who had done a Music degree, and still continues to write music and found that he was really made it much easier for him to sort of annotate and chop and change his his music around and things like that. And I think from there, we were like, well, you know, people are in professional careers and they need something that's going to work for them. So originally, the dock was going to be more of a, you know, you could do word processing, like have your calendar in front of you. You know, it works on Linux. So there is an element of computer knowledge needed at the moment to use it, but you know, it would, it would absolutely work for a professional computer programmer or coder, who'd like to have like a desktop, Braille display, you know, it's brilliant. And then we just sort of realized that there was this really fun element that didn't have to be dry, you know, we can move the plan with the Dock is to do a Braille aracde, essentially a mobile Braille arcade. And we want to bring it to schools essentially, with with blind students and Braille reading students and kind of get them into the gameplay. And then sort of let them understand that actually, Braille is a great way to get into computer programming and coding. And like Braille is fun, it's not just a boring way to learn to read, it's actually can be used for loads and loads of really cool other stuff. And if you get really into it, you can start making your own stuff. So it's just like a, it's become this kind of tool for us to really promote people learning Braille, as well as really trying to expand access to other people that need something professional, that, you know, really helps them having these these multiple lines.

R Ryan Fleury 31:47

And Charlie does the dock have to be plugged into power, or can it run on battery as well?

C Charlie Harding 31:52

Again, this is at the moment, it needs to be plugged into its power. So it's still a prototype. So it would be lovely if it also ran off. So you have more of a laptop feel to it, it has a kind of laptop feel to it already, it's sort of a box with a hinged lid, which is the screen. So it's a chunky laptop,

but it's a laptop. Yeah, ideally, it'd be really nice to be able to kind of lighten it up and reduce the size, and make it a bit more portable. But at the moment, if again, it'd be very much used as a desktop.

R Rob Mineault 32:27

I think that it can't be understated that, you know, the the idea of of gamifying education, the idea of, you know, getting something like this in the hands of youth who are going to enjoy, like playing something like a Braille game, while learning braille and while getting really familiar with something like an electronic Braille device. I mean, that's incredibly important, especially in during this time, when we are really fighting about Braille literacy and getting, you know, getting that idea out there. So I think this is an incredibly not only innovative idea, but I think it's also a really incredibly important one.

C Charlie Harding 33:09

Thank you, thank you. It's just what we're really passionate about is just letting people have a choice at the end of the day, you know, if their choice is to read things and sort of hear things, and if their choices to go into careers that require, you know, a more specialist piece of tech, we want kids to be given the choice. We want anybody who perhaps has gone blind later in life who misses reading, or that kind of, you know, we just want everybody to have a choice, and bringing this kind of technology to, especially to kids, when they're when they're already kind of thinking, what do I want to do, and perhaps they don't feel like they've got much to look forward to in some situations, especially if they're in schools that aren't really set up for them. And to show them that actually, you've got a choice, you've got opportunity. Here's the thing that is going to make this a bit easier and a bit more fun, then that's just that's brilliant. So we're not here to save anybody, we're not you know, we're not swooping in. But we just want people to have access just to access to a quality what would be considered a level playing field. And if that means while in your day away playing Tetris on a multi line browser, then absolutely go for it. If that means that you're going to get really nerdy about computer programming, and then you know, go and get a job and absolutely brilliant, but you should be given the opportunity to decide what it is that you want to do. And if the dock and the Canute can kind of give people that choice then we've done on jobs, essentially. Yeah.

R Ryan Fleury 34:53

Can you put Wordle on there?

C Charlie Harding 34:56

We have! We've done Wordle and then we then we contacted th Mr. Wordle, the Wordle man, but he just sold it to the New York Times. So he didn't answer our email because it was probably money, which he gave us none. But it's when we can basically what is it. I think that's a computer - Doom - it's a bit of a gaming programmer meme to put Doom on any electronic device. And so you can play on any electronic, fridge and things like that. So we'd love for somebody to get in touch and say, let's see if we can put Doom on the Canute. Like, that's kind

of what it's the reason we've got the tour happening. And so we're having this sort of launch in Bristol, in November. And like the, again, it kind of comes back to what I was saying before, like, we don't want to plunk this machine in front of people and say, there you go, we've solved it. Like the whole point is we're having asking people to come in, try the machine and tell us what they'd like for it to do. You know, it's got this incredible potential, it can do all these wonderful things. We'll put anything on it. Like, if we can do it, we'll do it. I want to hear from people that are potentially going to use the machine what they'd like to use this machine for. So yeah, we're not here to tell people what to do with it. Come and come and tell us tell us?

R   Rob Mineault 36:18

Well, so. Okay, so you guys are in you say it's in prototype at the moment? And I know that this can be a tricky question, you may or may not be able to answer it. But so how far down the road do you see this being on shelves?

C   Charlie Harding 36:35

Well? It's, it's a bit of a piece of string question. So we are about to launch our Crowdfunder. We are very, very passionate about not having the community fund, and that the machine community, what we want is for tech companies, gaming studios, you know, people that care about accessible technology and equality to come and help us fund making more of these machines and making them available to sell and potentially put in, you know, places like libraries, and learning centers, and schools and all that sort of thing. We feel like there's been a history, which, as I say, history still happens now, where, you know, members of the blind community are asked for their opinions, they're asked for knowledge, they're asked for their money. And you shouldn't have to self fund this sort of thing. So depending on how well the crowd funder goes, and you know, we are, we're very positive. And the people I've spoken to are, you know, incredibly interested. The gaming is just like a little cherry on that cake as well, like, it doesn't make it a far more interesting idea. So hopefully, next year, but again, it's a string, we'll just have to sort of see how it goes. But yeah, the Crowdfunder is on the website, the link, if people haven't launched it yet, you can go and have a look at where we're at.

R   Rob Mineault 38:10

So in now, and I just want to sort of step back and talk a little bit about its capabilities a bit outside of the gaming part, I know that the gaming is a big piece of that. But can you walk us through like sort of the other implications of the device and sort of what else and can be used for like on an educational level? Or like, because you talked about coding and stuff? Is it? Is it able to sort of display, you know, say scientific diagrams, is there? Is there a real educational piece of this component that really expands on what the Canute 360 can already do?

C   Charlie Harding 38:42

Yeah, so obviously, we are, you know, we have the display that we have. So there are restrictions on what it what you know, how much detail can go in. But you know, we have had success with the charts and basic graphs. So there was a lot of manipulation with the data to

make it fit, but you know, it will work. Tables, calendar word processing, expands the amount that we can do with, like maths, and science as well would be because it's running on Linux. So let me just double check. Yes, so it's a Linux workstation. So it's basically like plugging a computer into a home computer. But it's been adapted especially. So in that respect, like what it can do has been expanded hugely, because you know, what it's running on. So we are restricted by the display, but it just it turns the key from a machine that makes reading a lot more pleasurable to machine that is basically a home computer essentially with certain restrictions.

R Rob Mineault 39:55

Wow. And you know, and that is huge. You know, I think because I have in the past, the sciences, even Computer Sciences, coding and stuff like that, that's actually the, it's been a bit of a barrier for people who are blind or partially sighted. So I'm, I'm thrilled that that, you know, we're starting to see these devices that do, we can actually start to see people entering into those fields, because they're, they're great fields to get more people from the community into, like, especially the young people.

C Charlie Harding 40:29

Absolutely, and I don't know what the bit is like in Canada, but I know in the UK, but, you know, if you're registered blind or visually impaired, that the chances of you being in full time work are not great. And as much of that is, you know, excuse the phrasing, but meaningful work. So not, you know, something where you are in a career, rather than you just turn up, do your job and go home again. Sadly, very, very low, and it's just everybody's got the same capacity to be able to do this stuff, they just need to have the, you know, the technology literally at their fingertips to be able to do it. And it's that adapting, like the workplaces, it can be difficult, obviously, you know, certain programs, computer programs that, you know, businesses use are not always compatible with, you know, the machines that we have, you know, all that kind of stuff, but it's all stuff that could be potentially overcome. You know, people just thought about it for five minutes. So it's, yeah, so getting that the dock in front of kids that already have an interest in gaming, like the friends are gaming, there are plenty of blind or visually impaired people on YouTube who are gaming with traditional computer games. So we haven't invented gaming for blind, clique, by any stretch. But this sort of introducing Braille is something like I said, that can be quite fun and accessible, and then can lead on to, you know, further education and a career and independence and all that sorts of stuff. It does feel like a no brainer. But so hopefully, people feel the same way.

R Rob Mineault 42:05

Um, another question about sort of engaging the community. You know, obviously, you guys are based over in the UK, but is our like, is there a way that you guys sort of engaged with the blindness community, all over the world, or are you are you is a more focused in, you know, sort of localized where people you can kind of have people in and get their hands on the device.

Charlie Harding 42:32

So, before, before things got very unpleasant with the pandemic, Ed was, you know, constantly popping all over the world. You know, he will go to the large exhibitions, and things like that. We have a lovely guy in India who's been sent the Canute on loan, to take it round and he's been taught how to use it. So he's walking around communities in India, that potentially we'd like to use it. We speak to a distributor in Australia. So we do rely a lot on our distributors, and Canute owners from other countries to kind of introduce us to the communities because it's difficult when you're over in the UK, you can't just walk in and give everybody a wave. But we are we try and keep our hand in as much as possible with communities all over the world. But mostly Canada, America, and England are where we're most known, I think, and we will try and go to these exhibitions as and when we can.

Ryan Fleury 43:43

You know, Braille literacy is so important. We've talked about it ad nauseam on this show, and we know the numbers of Braille learners seem to be declining over time. But there's been enough studies to show that those who are literate in Braille do obtain and retain employment, I think a lot more a lot easier than those who don't have that, that knowledge or that skill. And so, you know, having a device like that Canute that supports math, Braille music, Braille, the word processing, being able to read graphs, charts, tables, is just another tool in our toolbox that you know, sort of levels the playing field for us. So kudos to Bristol Braille Technology for continuing to work on a product like this because there aren't many devices that do this out there.

Charlie Harding 44:38

Thank you. Thank you. I mean, I just sorry to jump in. I just wanted to leave you with a quote from Stuart Lawler from Sight and Sound Island and it's just, it's something he said off the cuff one day and I've written it on a little card, because I look at it all the time. And it says "if I want to remember something, really remember, I need to read it in Braille." And I think that just kind of sums up why Braille is so important. You just cannot interact with the world, especially an online world in the same way, when you are only listening, you have to be able to read and absorb and process information. And I think it's really important that people have the ability and the choice to be able to do that.

Rob Mineault 45:20

I mean, 100%. I think especially in this day and age, when we are bombarded with stimulus all the time. With so much media, so much material, it does change the brain chemistry of the general population. And I do feel like it is harder and harder to retain things through, especially just through audio, when you're when you're constantly bombarded with it. So yeah, I think that I think that there's, there's such a huge case study for why Braille literacy is important. And you guys are doing really incredible work in driving that forward. And I think that, you know, you guys have really, you are doing things the way that I wish a lot of assistive technology manufacturers were doing. You're engaging the community, and you're actually building products that that have a lot of value to the community. So I echo Ryan's kudos. And you know,

if people want to learn more about Bristol Braille, get involved however they can, or learn more about the Canute 360 or the the game console when it comes out, where can people find you guys online?

C Charlie Harding 46:35

Right, yep. So our website, www.bristolbraille.org. If you head there, and then we have a page called Braille Arcade, so that's got everything to do with the dock, the crowd funder. And if you have any UK listeners that can make it to Bristol on the fourth of November, we are having an event. We will be taking the dock on tour in London, and hopefully Dublin. We'll see how it goes. And then yeah, hopefully with the crowd funds or what you know, the money that we earn from that, we're hoping to then get out to Europe and over to you guys. Which should be wonderful. And then you can find us on Facebook and Twitter @BristolBraille. Come and say hello. I like it when people say hello.

R Rob Mineault 47:28

We definitely will. And listen we will we're happy to have you guys on once the dock has been released and we'll talk about it more

C Charlie Harding 47:36

Brilliant. Yes, we'd love that would be great. Thank you.

R Rob Mineault 47:39

Just not at eight o'clock in the morning. Next time will be your turn to get up at three o'clock in the morning. Well, listen, we want to thank you so much for coming on, it's been an absolute delight. You guys are doing amazing work. And yeah, best of luck with with the development and eager to have you guys on again to talk all about it when it's released.

C Charlie Harding 48:14

Yeah, that'd be brilliant. I love being on podcasts. I love the sound of my voice. Thanks so much.

R Rob Mineault 48:25

See, isn't that worth getting up at eight o'clock? Or? Well, I guess it was up at six?

R Ryan Fleury 48:30

Yep. It is what it is, you know, we gotta get gotta get these guests on get the word out.

Rob Mineault 48:37

Well, you know it. And we didn't even actually dip into this, but it should be mentioned that Bristol Braille is a nonprofit. They're, not a for profit manufacturer. So the work that they're doing, the tireless work that they've doing. I mean, you think about that, you know what nonprofit to be working on something like the Canute 360 for 10 years, they worked on that thing? Well, I mean, I guess eight until the launch, but still. The amount of engagement that they did with the community to actually build it. I don't know. I don't see a lot of other manufacturers around the world that are doing things like that in the way that they're doing it. I mean, I I know that there are manufacturers out there that do engage the community on at some level in the R&D phases, but I don't know, I feel like these guys are just are way more involved in the community than then typically.

Ryan Fleury 49:41

Well, I think any organization that is trying to develop and push forward Braille must have a real passion for Braille because we see year over year the numbers of Braille learners are diminishing, right? It's getting lower So why are these organizations putting so much time and energy and money into developing Braille? Because they're passionate about it, they know there's a need for it, the need to have literacy. And the only way a blind person can have true literacy is through Braille. You can't do it with audio.

Rob Mineault 50:18

Yeah. So what I, what I find interesting, too, is the fact that, and I don't know, you guys would have a better sense of this, because you guys are obviously in in that assistive technology sphere, but things like notetakers, or braille displays - there really hasn't been a heck of a lot of innovation in in that area for what, 10/15 years.

Ryan Fleury 50:51

Yeah, I personally, you know, the the notetakers are basically your laptop computer in a different more portable form factor with, you know, Braille input and output, right? And, yeah, there's really no innovation when it comes to the notetakers. It's iOS and Android in a dedicated blindness device.

Rob Mineault 51:11

Well, I don't want to say that there's no innovation, but certainly there, it's limited to sort of, I don't know, sort of the the innovation that's going on with the devices that they're connecting to, or that they're using as a platform, for example. So I like I know, like that, like things like notetakers, what they're using iOS and Android platforms. So they're kind of limited to the amount of innovation that that they can do based on those those operating systems, correct?

Steve Barclay 51:43

Well, it used to be they had to, you had to write your own operating system, if you wanted to have a device like that. So really, that that's really the big improvement now is that the, the, the platforms, they're able to leverage platforms that have accessibility baked in.

Rob Mineault 52:09

I guess now I feel guilty about - I don't mean to crap on all the other, you know, sort of Braille device manufacturers that are out there that are doing good work, and that are, you know, producing devices that are very important and very powerful. So, you know, everybody's doing good work. But I just wish, I just wish somehow, we could just develop the technology that we could just, we could get the price point down on some of these devices, because I know that can be a real barrier for people.

Ryan Fleury 52:45

It would have to be a Google or an Apple that come out and do it right. They have that audience those numbers to be able to bring that price down to a mainstream price because these dedicated blindness companies just can't do it. The numbers aren't there.

Rob Mineault 53:03

And all right, well, anything else to say about the Canute? I forgot to ask what the name means. Does anybody know? What's the deal with the name? What is it?

Steve Barclay 53:16

Canute was a Danish king.

Rob Mineault 53:18

Oh, really? Hmm. You know what the connection there is?

Ryan Fleury 53:23

You had me a Danish.

Steve Barclay 53:26

Mmmm, Danish.

Rob Mineault 53:27

We all need breakfast All right, well, shall we get out of here?

Ryan Fleury 53:35

Yep.

Rob Mineault 53:36

Hey, Ryan.

Ryan Fleury 53:38

Yeah, Rob.

Rob Mineault 53:40

Where can people find us? They can find us online at atbanter.com. Hey, they can also drop us an email if they so desire. Especially if you're a scammer. We love we love scammers. No, just kidding. cowbell@atbanter.com. Oh, go ahead, Steve.

Steve Barclay 54:20

Well, hey, you know, if people want to engage with us in some sort of anti social way, they can find us on social media through Facebook and Twitter. On Instagram.

Rob Mineault 54:32

You know, we really should ask her more about the whole, I don't even really understand what the hell's going on over there in England right now. Like with another prime minister sucks or something or I don't even know understand what's going on. I was just starting to get used to this Boris Johnson guy and now he's gone. So I don't even - they they need to figure out-

Steve Barclay 54:51

His party turfed him, and then they were they replaced him with a woman named Liz Truss and she came out and said she was going to cut taxes and do all this stuff. And then people who actually know about these things went to her and said, Are you out of your mind? Look at the pound dropping, just because you're talking about what you're gonna do. Stop it. So she fired her finance minister after what? A week or something. Replaced him with a new finance minister who said, yep, we're not doing that. So now, now she just looks feckless and waffling.

Ryan Fleury 55:29

Yeah.

Steve Barclay 55:31

Anyways, just for further on Canute. Canute was a Viking King of England, Denmark, Norway, part of Sweden and governor or overlord of Shellswig and Pomerania.

Rob Mineault 55:47

Wow.

Steve Barclay 55:48

So he was the only man to be King of England, Denmark and Norway as well as ruling part of Sweden.

Rob Mineault 55:56

Not bad. Well, aptly named then. An overlord. Yeah, I want to be an overlord. Sounds fun. So way better than a king. Overlord,

Steve Barclay 56:08

You better check with your cat and see if it'll let you.

Rob Mineault 56:11

That's right.

Steve Barclay 56:12

That's usually their job.

Rob Mineault 56:13

Yeah, true. Ah, all right. I think that's gonna about do it for us this week. Big thanks, of course, Charlie for joining us and we will see everybody next week