THE BRAILLISTS FOUNDATION

BRAILLECAST PODCAST EXTRA 33

Leisure Reading with Refreshable Braille, Part 1

9th November 2021

Matthew Horspool: Welcome back to Braillecast Extra and over the next couple of weeks, we're going to be talking about leisure reading with refreshable braille displays.

 On this week's episode, we're going to be talking about the various types of refreshable braille displays that are on the market and we're going to talk about specialist braille libraries that are available to people who live in the UK.

 The session was recorded on Tuesday, 9th November 2021, and introduced by Dave Williams.

Dave Williams: Good evening and a very warm welcome back to the Braillists Foundation Masterclasses. It's great to have your company once again. Tonight is the first of a two-part Masterclass where we will be exploring the topic of electronic braille books.

 At the Braillists Foundation, we know that there isn't one right way to read. What we intend to do is promote multiple ways to read, so that you have choices about the options that work best for you and somebody who I know is hugely passionate about reading and seems to get through several books a week is my good friend and colleague, Sean Randall.

 Sean, of course, was the brains behind the original Jotter Twitter extension for JAWS which then evolved into many popular Twitter clients that have been used around the world by blind and partially sighted people to gain screen reader access to Twitter. Sean is also, as I mentioned, a prodigious reader. You'll find him on many a website, waxing lyrical. Usually sci-fi is Sean's poison of choice but I'm sure he'll tell you more about that in a second. As for Sean's professional credentials, he is also an IT teacher at New College Worcester.

 Sean, it's a pleasure to have you with us. We're really looking forward to this session tonight. Sean Randall, everybody.

Sean Randall: Thank you very much, Dave. That's a very glowing introduction. I'm not sure I'm quite worthy of all that praise, but thank you for having me here. It's lovely to be here.

 So, I'm going to just tell you a bit about me first and then I'll explain about the structure really of my planned sessions.

 So, let's just talk about me. I don't like talking about me so we'll keep it brief. I'm Sean Randall, unexpectedly and many months early, over three decades ago now and that's quite a scary thought. Now, I was a hugely braille resistant child. If there happened to be anybody from my home area listening, they will be shocked that I am even doing braille in any sense. I think the combination of them not having the books I wanted to read and me not being able to read fast was just the barrier too far really. Synthetic speech was my trusty friend for many, many years. It became my go-to method.

 I spent a lot of my childhood roaming around charity shops looking for second-hand paperback copies of books, which I would then scan into my computer, page by page, to form eventually a copy that I could listen to using my robotic voices. I was very lucky to have access to a very early version of HAL, originally for DOS and then for Windows and the fabulous tones of the voice that was very similar to the hardware synthesizer of the time, on a Dolphin Apollo. I think I had an Apollo and a Gemini, kept me company while I used software to scan in my books.

 It was very rare to find a braille copy of something I wanted to read. I didn't have any form of braille technology. I didn't have a note taker. My sole braille way of working was a Perkins and that was it. So, braille was something you did at school on a Perkins, that somebody would often have to mark and correct, or that somebody would transcribe into print and then get a teacher to look at. It was a very separate thing. It was a bit a gap between me and the sighted world, almost. It's one of those things that I felt was a real barrier.

 That was then. Now, as an adult, nothing comes close really to the ability to be able to sit in silence, after a loud day at work, with dogs jingling all over the place. Thank you for the well-timed sound effect there, dog. People's technology making noises, being in a busy school environment. Nothing at all comes close to the ability to switch off your ears, because the silence is refreshing and it's magical, because now I don't have to wait for a book to arrive that's been manually transcribed six months after everybody else has finished with it.

 Now I can buy a book on the day it comes out. I don't have to have a queue, a request system in place, to wait. I don't get told, "Oh, you can have a chapter, if we have time," and it was that drip-feeding me reading material that was my big problem as a child and that's something that is no longer the case.

 Can anybody at all relate to that?

Ben Mustill-Rose: We won't take questions but maybe a quick straw poll, if that's something that you've experienced then raise hands. We have a few hands, people agreeing, they're coming in thick and fast.

Sean Randall: Yes, see, that's good. Thank you, Ben. Sorry to put you on the spot, Ben, I should have given you some warning.

Ben Mustill-Rose: No problem at all, that's what the moderator's for.

Sean Randall: The whole atmosphere changed for me when I began to embrace braille as a tool, and I'll be honest, I still can't read as fast as I can listen. My text-to-speech speed is ridiculous. I had a really difficult time with this as a child because I felt that braille was slowing me down. I was never as fast as the sighted people and that's one of the reasons I think text-to-speech and computer audio helped me keep up. Now, I can speed read faster than an average sighted person.

 I'm a big science fiction fan, as Dave alluded to, and one of my secret guilty pleasures, when I was in my late teens, was enjoying the novelisations that people wrote of Star Trek books and other types of series. But what would be a two hour, two and a half hour read for a sighted person, in my audio speed, might be a 45 minute job, which is the same sort of length of an episode of a TV show and so that was one of the abilities that I had to plough through books at such a high speed.

 It's not always the way you want to read. Sometimes you need to sit down and take in the words and I gradually began to appreciate that more with reading braille.

 I can't read as fast but I can get the book the same day as a sighted person, using very similar technologies. I always have both options now. I can read or listen. I can mix and match. I can read a bit, listen to a bit. I can listen to a bit and go back and read a bit. I can flip and jump between and that's amazing. No matter what type of material I'm reading, whether it's a library book that I've borrowed or whether it's something I'd save up for and bought, because I'm excited to read it, whether it's a newspaper or a magazine or even a long blog post or a social media post that someone has written. My fingers or ears are always there to work together, for work or leisure or anything in between and sometimes the lines do blur. I work in technology and I enjoy technology, so sometimes it's hard to know where the rabbit hole of reading will lead you.

 So, that's my background. I got into refreshable braille very late. I'd not used note takers or anything at school and it wasn't until, I suppose, I began to meet other blind people that I knew what refreshable braille was. It was a bit of a jolt to my world view, I suppose, that braille wasn't just this static thing on paper, that was the thing that separated me from my sighted peers. It was something more flexible, more robust.

 Now, just as a snapshot of my average week, I might use braille for labelling food items around the home; I might use braille when I'm playing cards with my daughter; I might use braille when doing computer games, because it's quite nice to fly an aeroplane and read the distance to my destination on the braille display, as I'm flying the aircraft with my other hand; I use braille at work for taking notes; I use braille when presenting and giving speeches, as I'm doing now, I've got my one hand on the braille display with a clock in one corner and the text of my notes under the other fingers and that's brilliant.

 So that's where braille comes in and then of course the reading side. I didn't mention that because I thought it was obvious, but perhaps it's not so obvious that a lot of my fiction is consumed with braille as an aid and a method of reading.

 The final session, we're going to spend the whole slot looking at mainstream reading solutions, the ones that aren't designed for us as blind people, the ones that are made for everybody else, that we just happen to be able to use, whether by design or accident. We'll talk about all their accessibility quirks and foibles and about the pros and cons of each of them. So, that's going to be the session next time and I must say, in terms of quantity of material or variety of material, that is where the braille technology truly shines, because it means that we combine specialist hardware, such as a braille display, with mainstream software, such as, for example, Kindle and you put those two together and you have brilliant access. So, the session two weeks from today will be covering those tools and just as today, there will be a handout coming out with all the links information and there will be a recording as well, but I'd like to have your company in person to take questions. So that's going to be the thrust of the final session in two weeks time.

 This week, tonight, the focus is going to be on the variety of braille equipment on the market, how they compare with each other, the good things and not so good things about each of them, and then we'll just touch on the specialist libraries and resources to which we have access, within the blind and vision-impaired community.

 I'm going to dive straight in and talk about braille equipment, braille hardware that we would use to read, then we'll have a break for questions, and we'll talk a little bit after those questions about the blind and visually impaired specialist library services and such that we can access, and we'll take more questions before we finish, which will take us to hopefully about 8:30, if I've planned my timings right.

 Braille technology. As you can imagine, for a poor, unsophisticated Welsh lad, seeing all this magical braille tech, seeing the dots move up and down, rather than being stuck on paper, was a miracle for me. Yet, being a bit of a geek, I was also quite disheartened at the way in which the technology was paired up with computing power. So, on the one hand, you'd have this miracle braille display, which could show you anything in the world, that you could access online or whatever it might be, and then on the other hand, it would be tied to another piece of technology that was so old and outdated that you couldn't actually do much with it. So, my introduction to braille technology was slightly bumpy, because I had the wow factor of this braille is actually moving, combined with, oh, you can't use it to go online and read the subtitles on your videos, for example, which is something I've always wanted to do, when watching films that aren't in English, and it's something that, when I got hold of my first piece of braille kit, I thought, yes, and of course it didn't support the video playback on the website I wanted to use, so that was a slight letdown.

 I've tried to group the generations of braille technology somewhat. I think we've seen a bit of a shift and I've put them into four epochs or four eras of braille technology. I'm not going back terribly far and I'm not really doing them in terms of dating specifically, but in terms of feature set and I'll explain that more in a second.

 Before I dive into my four categories though, there are some devices that just fall out of the whole mould and those are things like braille embossers. Traditionally those are very expensive and they produce braille on paper, obviously, which is not really the idea of an ebook. Yet, in the print world, in the sighted world, there is a POD, a print-on-demand service which over the last 15 years or so, alongside the growth of ebooks, has also seen a growth and what this basically means is that rather than an author and publisher producing the book and having stacks of it ready to be sold, and you can probably guess where this is going, it's printed on demand. So, when someone buys one, a specialist book printing company will produce a copy for that person and post it to them as an online purchase. That got me thinking, even though I wasn't planning on talking about paper, is there some relevance to using paper braille here? I'm assuming most of us are aware that the RNIB Library, the National Library Service, has moved toward using recyclable braille now and I suppose what's good for the goose is good for the gander. If they can recycle their books, then maybe it's not so bad that we produce more paper. If you think about it, printing braille or embossing braille is quite environmentally friendly, in as much as there's no ink or toner being used. I don't for a moment think that braille embossers are carbon neutral, but they are also very mechanical devices. They don't do much other than produce dots and a bit of hot air. There are some circumstances where having braille on paper is essential, and also, if you think about it, there's a lot of potential for adaptation on paper. So, when people said to me, when I was a child, you can have a chapter on paper, if we've got time, they meant, if we've got time to sit at our Perkins and hammer it out, and they would literally divide up, I'm sure, 15, 20 pages of a print book, do four or five pages at a pop, by hand and give them to me. That would have been what they would have meant by the phrase, "We can give you a chapter."

 If I've got somebody who I'm teaching perhaps who is wanting to learn braille and I say, "Well, how far have you got?" and then they say, "Well, I've done some of these contractions but not that set yet," often I am unable to say to them, "Why don't you read it on a braille display?" because the braille display will either show them fully contracted braille or completely uncontracted braille. So, when I say to them, "Oh, I can give you a chapter," what I mean is, I can take part of the book they want to read, I can run it through a braille translation package using only the specified learning table that they've reached, so if they've not completed the braille code, they won't have fully contracted braille, then emboss that off for them and staple it together or ring-bind it together and voila, they've got a custom chapter of a book, using only the braille they've learned.

 So, to me that's a pretty cool thing because, again going back to my childhood, the stuff I wanted to read wasn't there. If I could have had the stuff printed off with the precision I wanted whilst learning braille, I think that would have been a huge motivator. I'm not for a moment suggesting that we should all have our braille books produced to our exacting standards. My wife happens to like reading Standard English Braille, not UEB, without capitals, for example. That's her preferred braille reading scheme. I'm not saying that every book in the world could be offered in every format, not by a long shot, but equally if we do have the ability to take a book and produce it that way for her, that's what she wants to read, why shouldn't we do that?

 So, I didn't want to leave embossers out of the equation and I will of course provide more general links but one of the devices I want to mention is the Cosmo which is a single sheet embosser slash electronic Perkins. It's not the quietest or cheapest or speediest machine but it's the sort of thing that if you had to produce six or seven pages of braille for a bit of practice reading, you could do that. I don't rate digital Perkins-style devices on the market very much at the moment. I think there is a lot of scope for improvement and we can talk about that maybe next week as an aside. But the Cosmo, which is I believe sold by Techno-Vision Systems, is a very handy tool for producing small amounts of braille, if you can't afford an embosser on paper. Combined with something like Duxbury, the braille translation software, you can produce braille at the right level for your comprehension. Whether you've got a child learning braille or you're someone who needs to learn braille themselves and hasn't yet finished the course, not many of the braille devices that we're going to talk about will let you adjust the braille so precisely. There is scope for some of them to do that and we'll talk about bit more about that as we get there, but I wanted just to mention the embossing aspect, because I haven't really given it much thought. Rashly and perhaps naively in my youth, I said to myself, "Oh, we don't need paper anymore, let's go digital. Run ahead, full steam." Now I'm thinking, hang on a minute, paper might have its place in certain situations after all.

 My four generations of braille displays, I'm not going to go into particular models here but I want to just talk about what I call the four epochs of braille display technology.

 Your first generation of braille displays are those that are, to quote the computer vernacular, dumb terminals. That means they are input and output devices only. They might have a keyboard. They will definitely have a braille display or a strip of braille dots on them, because that's what they're for. What they lack is what came along in the second generation, memory. So, you can plug them into something or wirelessly connect them to something and they will show information from the thing to which they are connected, be it a phone or a laptop or a computer or a TV or anything like that these days. I wouldn't be surprised if you could connect a braille display to your washing machine in the near future, it's probably coming. But regardless of what you connect them to, when they are not receiving information from or sending information to a device, they don't do anything on their own.

 So, when I talk to sighted parents about this, and I have parents of young children coming through the school at New College quite a lot, I say to them, "Imagine this type of device as a combination screen and keyboard." If you take the screen and keyboard out of your computer, all you've got is something to look at and something to press. There's no processing in the middle. That is my first generation type of braille display.

 Now, of course, these devices aren't overly suited for reading braille ebooks on their own because the book's got nowhere to be. It would be like trying to read your email sat at your desk with your screen turned on, but your computer powered off. There would be nothing to read. It wouldn't work. That's not to say you can't do it. Obviously if you've got your braille display connected to something else, like we said, like a phone or a computer or a tablet, that is going to work and you are going to be able to read a book.

 But by far the more common generation now is the second generation of braille display. These are the ones with some memory of their own. Not only can they connect to things and show you some braille and take some input, but they can also keep things inside themselves. They've got a rudimentary type of memory or thinking power, if you like. These type of devices, when I say memory inside, I don't necessarily mean completely inside, so I class things such as, and I'm going to drop specific products in here now, the original Orbit Reader 20. I would class that in my chronology as a second generation display, not so much because it's old. It's quite new in comparison, but because it has memory of its own in the form of a memory card. So, I'm not saying the memory has to be completely inside the device. You can put a memory card in your Orbit and use it stand-alone, use it without anything else. You can read a book on your Orbit without it being connected to anything else, when you've put that book inside it somehow.

 This is where the first generation displays start to fall a bit short, because lovely as it is to read a book sat at my desk, it's even lovelier to be able to do it in a garden chair or with my knees up in bed, without having to be dependent on another device.

 There have been occasions when I've been reading with a Bluetooth connection to my computer and I've taken my braille display downstairs or into another room or two, and I've started to get dropouts and I've thought, "This stupid thing, battery must be going," or something, it's been used for too long and what's really happened, of course, is that the connection strength between the two devices has faded with distance and I've been noticing the dropping out. So, moving away from the first generation terminal devices to displays with memory was a big thing.

 The third generation is one I classify as displays with built-in translation. So, the big downside, I suppose, to things like the Orbit 20, the original Orbit, was that they could only read braille files. Most people, average Joe on the street, doesn't have a whole hard drive full of braille files lying around. They're something you have to produce or have produced for you. So, the next obvious step is to take the software that makes braille files out of Word documents, for example, out of web pages, out of ebooks, whatever it might be, and put that software on the braille display itself. So, then you can put other things on there. You can put your text documents, your text files, your Word documents or anything else and make them braille.

 Finally the fourth generation, we aren't here yet, this is coming. What I see will be the next step of braille display access will be the sorts of devices that not only let you read a book from a different format, so if you've not got it as a braille file, that doesn't matter, they will also let you read a braille book that you don't have yet. So, they will let you go online and download that book, or they will deliver that newspaper to your device when it wakes up in the morning. That's what we are seeing with some more modern devices. For example, the HumanWare Brailliant series of devices have the ability to be part of your Wi-Fi network at the moment and that's not overly useful in the UK at the present time, because we don't have an interface library for it to interface with and talk to that works here, but it's coming and it's quite feasible that over the coming six, 12, 18 months, there will be work done that means you'll be able to turn on your braille display, not a fully fledged note taker or a fully fledged computer, just a braille display of some sort, and access an online book shelf, which is updated with newspapers, periodicals, books that you've pre-ordered.

 My ideal world would be to be able to have a braille device the size and shape perhaps and with the discretion of a sighted person's Kindle, with the connection to the Internet that the Kindles have, such that if I've bought a book that is coming out next week and I'm on holiday and I've not taken any of my technology, imagine that, it's not really imaginable, is it? But the sort of dream, I suppose, of the fourth generation devices, will be that's all you need to get new content,

 So those are my four levels of braille tech, as to where it currently stands. I wanted to sow the seeds of those and to lay the groundwork, because we were talking about using some of them in different ways, both now and in the next session. So, I spent more time on that, than perhaps seems logical.

 We do have 25 minutes to go, so we'll take some questions for a few minutes and then I do want to just touch on the libraries to which we have access before we finish this session.

Ben Mustill-Rose: Thank you for that, Sean. Great content so far. We're going to come to Ellie first and then a question in the chat.

Ellie Clark: Which of your categories would the BrailleNote Touch go into? Does it really count as a braille display because it's kind of got a bit of a mind of its own?

Sean Randall: That's a very good question, Ellie. I think note takers do fall off the category thing a little bit, don't they? I was thinking more of braille displays. A bit like embossers, braille note takers are a bit of everything. They can do a lot more. So, I will mention them specifically. I think the BrailleNote and the BrailleSense are the real contenders. They don't really fit into those generations, because they are more than braille displays. They are proper computers in some ways in their own right.

Ben Mustill-Rose: We have a couple of questions in the chat. Russell wants to know what your opinion is of the ElBraille?

Sean Randall: I could do a whole session on the ElBraille and maybe if the Braillists will have me back, I will, because I love and hate it, which is no answer at all, is it? I love the idea of the ElBraille. I love the form factor. I love the fact that it's running Windows which is mainstream and very good. What I hate about the ElBraille is the fact that the way they've made it so that you have to have 25 fingers on both hands to control it with JAWS is really complicated and so I will gladly wax lyrical for many minutes about the ElBraille, perhaps in the bar when it's a bit less about reading, but as a computer, the ElBraille has got great potential. It takes what's best about the BrailleNote, which is its small size, long battery life and portability, and marries it to what's best about a laptop, which is running a mainstream operating system using mainstream apps etc.

Ben Mustill-Rose: A quick follow-up question from Milton, in a sentence or two, do you have a go-to refreshable braille display? What would you say if you had to pick one?

Sean Randall: If I was recommending one for someone going off to university, which is where I've been sending people lately, because of my job, I would say it's a bit of a toss-up between the Brailliant and the Focus. I'm leaning slightly more toward the Brailliant because of ease of use at the moment. So, it's the HumanWare Brailliant BI 40.

Ben Mustill-Rose: Last question for this segment and I guess this probably brings us onto your next topic, Katherine in the chat wants to know if anyone has used Bookshare, that's bookshare.org.

Sean Randall: Wonderful, that leads me beautifully into my segment, so I'll deal with the next segment now, which I think will take ten, 15 minutes and then we'll wrap up.

 We've covered the types of devices that you might encounter, though not comprehensively by any means. You'll have one of those generations of braille display that I talked about. You'll have an embosser or you'll have a note taker, if you're looking for some sort of braille kit. It's very hard to think of another device, although I'm sure somebody will, apart from that list that doesn’t fit. Either it's a braille note taker of some description, things like the ElBraille, the BrailleNote, the BrailleSense, or it's a braille display, which fall into one of those four categories that I talked about it, or it's a braille embosser which will give you braille on paper.

 So, all of those device can utilise braille files. Where do we get braille files from? That's the next question, isn't it? Where do we get our media? The whole point of tonight's session was just to basically run through the options that are ours, by virtue of our disabilities.

 The RNIB, of course, being our de facto national charity for blindness, I suppose, are naturally the ones who lead the pack here. Under their umbrella, they have RNIB Reading Services, which is one particular book retrieval platform. They have their national newspapers and magazines service. They have RNIB Bookshare which is different to Bookshare itself. There's two different types of Bookshare. So, the RNIB have those three, Reading Services, magazines and newspapers, and RNIB Bookshare.

 I think they are separate. Even if they share a lot of commonalities, their aims are different. Let's talk about the original Bookshare then. So, Bookshare started off in the US as a charitable thing and it's free to all Americans and it provides downloadable books and it's got thousands and thousands of them. It's got deals with libraries. You can get books from there in a variety of formats.

 The format question is interesting because we talked about the newer braille displays having support for a wider range of formats. So, for example, the Brailliant and the Focus 40 can now support not just braille files but Word documents. The Orbit 20 Plus and 40 Plus can read text files as well as braille files. So it's not just braille files anymore. You can download different types of material.

 Bookshare in America spread to the UK. The content used to be quite limited. I think and I hope that the signing of the Marrakesh Treaty will have expanded the content available. So bookshare.org, the UK arm of Bookshare is still a paid service in the UK. I think it's still US$50 a year for a subscription and I don't have the full number of books available, but I will make sure the handout that I provide along with the recording is fully up-to-date with numbers. I just queried them last week and I'm waiting for responses from all these people about exact numbers in their libraries. So, you do have to pay for access to Bookshare UK and I'm fairly certain that there will be some books you can't get in braille from them, because they are still tied to their American publishers.

 Then we have RNIB Bookshare. Now, this is the education platform. So, if you are a student or if you work with students or if you are a parent of a student even, you will have the right to ask your school to be a part of RNIB Bookshare. So, even though my daughter is fully sighted, we asked our school to sign up to RNIB Bookshare, so we as her parents could access the materials. It started with lots of educational materials and the RNIB have been very good at publicising it to content producers and publishers and RNIB Bookshare now has quicker access to many mainstream books. My wife is a big fan of the cookery books that she can look at with my daughter on there. You can get them almost as quickly as you buy them commercially. So, that's brilliant. It's a bit like how Audible has taken over in the audiobooks stakes. RNIB Bookshare has done wonders for reading if you're a student or if you're in education. They have some BRF files that have been produced by people in schools and people studying, and some that have been auto-translated and we'll talk a bit more about auto-translation in a minute.

 Then let's just tick off NTNM, National Talking Newspapers and Magazines, RNIB have a service where you can subscribe to that for an annual fee. Education Bookshare is free. National Talking Newspapers and Magazines, I think it's about £40 a year, certainly it was last time I looked but that was a little while ago. That gives you daily access to regional, local newspapers, magazines etc. and you can download them in a variety of formats as well. I would really encourage anybody with an interest in any sort of news or politics to have a look at their offerings. They've also got a lot of entertainment magazines. Again, my darling wife is often to be hidden between the pages of BBC Easy Cook or BBC Good Food and I like the local newspaper and I like some of the techie magazines from there.

 Finally we have Reading Services. This is the combination really of the RNIB's audiobook system which used to be on CD for a long time, then went to memory stick. This is the online version of that. This has replaced OverDrive. Because, I suppose, they are not recycling more of their books and producing them on demand, we are getting an increased level of access to the braille copies of those books online. So there are several thousand now, a growing number of digital braille books on Reading Services that you can download. Reading Services is free to anybody in the UK with a visual impairment and if you have any of the braille devices that I've categorised earlier on and you've got a braille file from Reading Services, you can use that braille device to read it. If you've got a very old device that doesn't have much memory, much of a brain, you might have to read the braille file with the device attached to your computer. But everything from second generation onwards supports BRF files, which are basically braille files which otherwise you would have embossed. Reading Services have many thousands of those and they are increasing all the time and it's a wonderful resource because you will get access to more and more as time goes on. It's not really been going for long. I'm pretty sure it's maybe not even 18 months old. It's not been going for as long as Talking Books and yet already we are into the four figures of content which is brilliant.

 There are other small resources for braille content. The National Accessible Library that was formerly called the Seeing Ear, for example. They hand out Word document copies of books and they've got a reasonable number. They haven't added any recently, so I don't know whether they're still going. I need to talk to Tony about that. Again, I've asked him for a comment for my summary and my handout, so don't all go and pester poor Tony with questions until you've got the handout, but that was a contender in the stakes for a while.

 Then there are specialist sources of BRF files, things like bibles which you can download from various online places, almanacs for people who still use those. I had a gentleman a couple of years ago who was very keen on finding a way of getting braille tide tables. I don't know if he was a fisherman or if he was just interested or if he was going out with his braille display on a canoe. Who knows? But BRF files can be used for all sorts of specialist purposes. Sorry, I forgot to mention braille music, of course, and a plug for Reading Services, there's also a lot of braille music in there.

 That is pretty much it, I think, for big content providers. That's pretty much where we are in terms of specialist access.

 There's one other point I want to just make. We are rapidly closing in on the end of my time here with you tonight, but I wanted to just talk about the format issue. Second generation braille machines with memory, so things like the Orbit Reader 20, the original Orbit Reader 20, the original version of the new Focus which only had support for BRF, braille displays from EuroBraille and some other manufacturers, they have memory on board but they only read braille files. As a rule, the braille files have to be pre-translated and this does cause its own series of problems as well. I was thinking of, for example, when I was reading a book a couple of weekends ago, I had it in UEB with full caps and if I wanted to share a chapter with my wife, if that had been a BRF file, she would have had no choice but to read it in that way, because the braille would have been pre-translated. If I downloaded, let's say, for example, an EPUB file on my ElBraille, and I was reading it using the ElBraille, I could have told the screen reader to change the braille table to something else and she could have read the chapter that I wanted her to read in her braille code of choice. You can't do that with a BRF. I liken BRF to an audiobook in one simple way, in that when you've got it on the CD or on the download in your hand, you can't change it. It's done and it's however it is, so whether it's been converted well or badly, whether it's been converted to contracted braille or uncontracted braille, a BRF file is unchanging until you retranslate it, a bit like an audiobook. When they've read it, they've read it, and they can't go back and reread it. A different type of document that is translated either by software on your computer or by a third generation braille device like the Orbit 20 Plus or the Brailliant or the ElBraille or anything like that, they can take a source document and turn it into braille on the fly. So, they'll take a mainstream type of file, a Word document or a text file or an ebook, and make it into braille. It's those mainstream files that give you the widest possible access, which is what we'll come to next week.

 Broadly speaking, before we take questions, Reading Services provides more BRFs and those are pre-translated and you can't change them, whereas the Seeing Ear, Bookshare and RNIB Bookshare has a wider variety of formats, so you can choose to have a file and retranslate it yourself. There are free braille packages for Windows and Mac and Unix that work by email, that will let you send a file to be braille translated and have back. They're not perfect. So as a rule it's plain BRF out of RNIB Reading Services and more flexibility from the other places in terms of the format they give you.

 Ben, questions, I think.

Ben Mustill-Rose: Thank you, Sean, for a great session. We're going to come to Peg in a moment but first a question from Jeff in the chat, who's wondering if it's possible to resume where you left off when reading a book on Bookshare without setting a bookmark.

Sean Randall: Good question. Very much depends on what you're using to read it with. If you've got a braille file out of Bookshare and you're using it on a braille display of your own choosing, then that depends on the braille display. Their online reading platform has been a bit quirky in the past and similarly things like Dolphin EasyReader are pretty good on some platforms and not so good on others. So, I'm afraid the answer is it all depends on what you're reading it with.

Ben Mustill-Rose: We're going to come to Peg now and then someone who's dialled in on the phone, telephone number ending in 517.

Peg Mercer: I'm from Vancouver, British Columbia, Canada. This has been a wonderful presentation. I was just curious to know about the RNIB Reading Services resource, that's free to the people in the UK. How much would it cost for people in Canada or the US or in other places to subscribe to it or is it available to people outside the UK?

Sean Randall: That's a very good question. I don't believe it's an international thing. I would have to double check that for you, but I will make that note in my handout.

Dave Williams: I'll just come in on that. Sean is correct. Because of the way it's funded, Peg, it is a UK service. However, all is not lost. If there was something in there that you wanted specifically, then I would urge you to contact CNIB and have them contact Reading Services, because I think one of the things that RNIB are keen to explore is to come to some kind of reciprocal arrangement between the Reading Services and other libraries around the world. Bookshare itself is an international service and is probably available to you.

Peg Mercer: Is the RNIB library itself accessible to people outside of the UK?

Dave Williams: Not directly but it might be via your library. So contact your national library and find out through them if they have an agreement with RNIB and if they don't, then maybe we could make one.

Ben Mustill-Rose: Thank you. We're going to come to the phone number ending in 517 and then Stephen Pulley.

Mary Beth Metzger: I'm from the US and I just want to make two quick comments. Thank you by the way so much for this. This is a great series. Actually Bookshare is not free to all people in the US. Some cooperating libraries have made agreements with it, but most of us have to ante up the US$50 which is admittedly very inexpensive for what you get. The last time I saw any one of those little bulletins from Bookshare, they had over 1,000,000 books.

Dave Williams: If we're trading numbers, the UK collection, Sean, has about 750,000 titles.

Sean Randall: It's so quick, isn't it? Ever-expanding. Thank you.

Ben Mustill-Rose: We're going to come to Stephen Pulley now and then Debora Thomas.

Stephen Pulley: Thanks for the session. You mentioned briefly specialist resources, one of them being the bibles. There's a resource at www.bartimaeus.us and that's got a lot of stuff, mostly in BRF files, about the Greek and Hebrew languages behind the bible, both the text themselves and also the primers and stuff to try and learn it. I'm struggling somewhat to learn it, it's not straightforward but it's great fun and very interesting.

Sean Randall: Thank you, Steve, that's really interesting and of course I never considered the difficulty that languages would pose in the translating process. Braille technology is very geared to the Western world. If you're trying to do something in BRF that is somewhat off the beaten path, then you'd want the BRF direct, wouldn't you, to get the full experience of that, so that's a really good point. I'll add Bartimaeus to my handout.

Ben Mustill-Rose: We're going to come to a question from Khalid. Khalid makes the interesting point that if a sighted person reads a Kindle book, they can adjust things like colour and margins on the fly, and Khalid is wondering whether we will be ever, or can you currently, do similar things on a braille display? So I guess he's talking about translating into different braille tables.

Sean Randasll: Interesting point. Braille is a mono-space thing, so all dots are the same size. There are ways, so for example I have hacked my braille display, in probably a way that the manufacturers don't recommend, to always keep the minutes past the hour on one edge of my display. So, at the very edge of my display, regardless of what I'm reading on it, at the moment it says 28 and that will change to 29 by the time I'm finished speaking. In terms of changing braille codes and things, some of them do, so, like I mentioned, if you put a book onto the Brailliant line of displays, you can go into the settings and say that you now want to read this in Grade 1 rather than Grade 2 and it will flip. I think the technology is coming and it will only increase as the years go on.

Ben Mustill-Rose: Sounds promising. Last for tonight, Debora, you are good to go.

Debora Thomas: It's Debora in Peterborough, Ontario, Canada. It's been a wonderful discussion. I've got a very silly question for you here. I have the Focus 40 Blue 5th Generation and I'm still learning how to use it, but what I wondered is, can you download ebooks on this type of Focus? I've never tried it.

Sean Randall: Yes, you can. There is a section in the manual which explains how to put it into file transfer mode, rather than braille display mode.

Debora Thomas: Oh, I'm lousy at reading manuals.

Sean Randall: When you've done that, the braille display shows up in your computer as a drive and you can then copy files that you've downloaded onto there and if they're in the right form, like a BRF file, you can then read them on there as if it were anything else you'd written on the display.

Ben Mustill-Rose: Hope that's useful. Thank you, everyone, and thank you, Sean, as well. All that's left for me to do now is to hand over to Dave to wrap up.

Dave Williams: Thank you, Sean, for your time this evening. We really appreciate that and thank you, Ben, for your help with the moderation and thank you to all of you for coming along and for your questions.

 From myself, Dave Williams, chair of the Braillists Foundation and the rest of the team, until next time, bye for now.

Matthew Horspool: We hope you've enjoyed this episode of Braillecast Extra. You can find more braille-related content by subscribing to Braillecast in your podcast client of choice, or listening to Braillecast: Connecting The Dots For Braillists Everywhere, on your smart speaker.

 For the latest information about future Braillists events and how to join live, subscribe to our weekly email newsletter at braillists.org/newsletter/signup.

 You can also visit our Events page at braillists.org/events.

 If you have comments on this recording or suggestions of topics or guests for future events, we'd love to hear from you. Please email help@braillists.org. You can also find the Braillists on Twitter, @braillists, or on Facebook, facebook.com/braillistsfoundation.

 Finally, if you like what you've heard, spread the word. We welcome new listeners and live participants alike. So if you know other people who are interested in braille, please tell them where to find us.

 In the meantime, on behalf of everyone at the Braillists, thanks for listening and bye for now.

 The costs of producing this episode were defrayed by a grant from the Activate fund of the Winston Churchill Memorial Trust. For more information, visit wcmt.org.uk.