THE BRAILLISTS FOUNDATION

AN INTRODUCTION TO UNIFIED ENGLISH BRAILLE

Matthew Horspool: This episode of BrailleCast Extra is made possible thanks to a grant from the Winston Churchill Memorial Trust. For more information about the Trust, visit its website at wcmt.org.uk.

 Welcome back. This is a recording of a session entitled An Introduction To Unified English Braille. It was recorded on Tuesday, 19th January 2021 and introduced by Holly Scott-Gardner.

Holly Scott-Gardner: Thanks, everyone, for coming to this Braillists Foundation Master Class. Today we're going to be talking about the code changes introduced in Unified English Braille, as opposed to Standard English Braille. Hopefully this will clarify a few things for people who learned Braille before Unified English Braille was introduced because I know lots of people still have questions about that and this is something we get quite often at the Braillists Foundation.

 I do want to mention that this meeting is being recorded. We record all of our Master Classes and make them available on the website after the event. So you can find recordings of previous events at braillists.org/media and you can listen to those recordings whenever you would like to. We have all kinds of things on there. We have Braille music, we have a session on the Orbit Braille display, we have a session on language learning, on using a slate and stylus, on labelling and all kinds of things. So if you'd like to go and listen to those, then feel free to do so.

 We also run a book club which takes place on Thursdays. We run an open forum which takes place on Fridays and we are running a Braille for Beginners course which is already started and has started extremely successfully so that's all good stuff.

 If you want to find out about our events, you can go to braillists.org/events and you can also join our newsletter on our website.

 Today, as I mentioned, we'll be talking about the changes introduced in Unified English Braille and we have James Bowden with us. He's technical Braille officer at RNIB so he will be explaining all these different changes.

 So, hi, James, thanks for coming back to run another Braillists event.

James Bowden: Thank you very much, Holly. Bless you.

Holly Scott-Gardner: It's really great to have you here today. Feel free to start whenever. I think we're good to go now. We have quite a lot of people in.

James Bowden: Yes, hello. It's great to see so many people here and I hope this will be useful to you. I'm sure as Holly said you have lots of questions and please do feel free to ask those. However I would ask you if you could be quick with your questions, no ramblings, please, because we do have quite a lot of material, if we can get through.

 Now, I would also encourage you, if you are able, feel free to take notes. There is a handout which will be available from the Braillists media page after the event but in the meantime, please do feel free to take notes in whatever way suits you and to ask questions throughout.

 So Unified English Braille. It was originally thought of as a concept, believe it or not, nearly 30 years ago and moving through the time scales, it was started implementation in the UK in 2012 with a completion five years ago. But even now there are lots of questions and people aren't really sure of all the details. So I hope to clarify some of these and to start with, we'll look at some of the benefits that UEB offers. I'm not saying it's unadulterated benefits, with no drawbacks. With all of these systems of change, you get a mixture of advantage and disadvantage and I will say right at the top, for your own use, you can use whatever Braille code you like. UEB is the official code and will be used for official publications like books from the RNIB or bank statements or utility bills, all that kind of stuff. But for your own use, you can use whatever you like. I'm sure many of us have interesting shorthands and abbreviations that we like to use.

 So one of the advantages of UEB is it brings more accurate Braille translation, particularly in the direction of Braille back to print. Now if you use, for example, Braille input on a Braille display, to control a phone, for example, you'll have encountered this very quickly when you have to enter email addresses, web addresses, passwords and so on and so forth.

 Another benefit is it's one single code for all subjects, excluding music. So there's no such thing anymore as a separate computer code or a separate maths code. It's all part of the one UEB.

 It's also one code right the way across the English-speaking world. Now I went onto the ICEB website this afternoon and there's quite a list of countries there, right the way from Australia through to, I think it was Zimbabwe. So it's a pretty big list.

 All the major English-speaking countries are using UEB now, Australia, Canada, Ireland, New Zealand, Nigeria, South Africa, the UK and the USA. Tried to get that in alphabetical order.

 So having the one code across the English-speaking world and with things like the Marrakesh Treaty in process, hopefully there will be an awful lot more Braille for everyone that we can share.

 So, for the changes, there are nine contractions which are removed in UEB but before I get into the details of which they are, I should say that means there are 180 contractions which are absolutely the same as they always were. So there's a lot of things which are actually the same between SEB, the Standard English Braille, and the UEB, the Unified English Braille. So it's worthwhile mentioning that.

 So the nine contractions which are retired and I'll go through a little bit of the reasoning why these were removed. I won't go through the reasons for everything but some of them, I will, might be useful. The nine are, if you're taking notes:
ALLY or dot 6 Y;
ATION or dot 6 N;
BLE or dot 3 4 5 6;
BY, the lower J;
COM, dots 3 6;
DD, the same as the full stop;
INTO;
O'CLOCK;
and TO.
As I said all the others are the same, all your dot 5s, all your dot 4 5s, all your short forms like "about", "across", "according", all your single letter signs like "still" and "will" and "shall". They're all the same.

 Now, because nine contractions are removed, some words appear slightly differently. So for example the word "really", now as there's no dot 6 Y, you use the EA sign as the only contraction that can be used. So R-EA sign-L-L-Y.

 Similarly a word like "nation", there's no dot 6 N anymore so you write N-A- and then the TION sign, 5 6 N.

 Another word, "doubled". There's no BLE anymore so instead you can use the ED sign. So D-OU sign-B-L-ED sign.

 So that's a few words and how they've changed.

 Now why were these nine contractions removed? Well, first of all we must look at the changing nature of text. In particular we now have capital letters in the middle of words. That would never happen in ordinary text when the Braille contractions were last seriously looked into, which I believe was in 1932. I wasn't alive then, believe it or not, but you would probably very, very rarely, if ever, have a capital letter in the middle of a word. Nowadays it's reasonably commonplace, particularly in marketing speak. So for example there's a publisher called HarperCollins. It's written as one word with a capital H and a capital C in the middle. There's even a Braille related word like that. It's the popular BrailleNote Braille display and note taker. It's written with a capital B and a capital N in the middle of it. If you have an ATION sign, it's ambiguous, if you really meant Braillation Ote or BrailleNote and if you're translating with a dumb machine, it may get that wrong.

 Same is true for ALLY of course. It's another capital.

 Now then what about BLE? BLE, as you've probably realised already, doubles as the number sign and these days it's quite likely to have a number in the middle of a word as well. You can think about email addresses, joebloggs92@yahoo.com and I don't know if that's a real one so please don't quote me. But the 92 could have been misread as BLE IB, because it's in the middle of a word. Now, as an intelligent human, you're unlikely to make that mistake but for a dumb machine, it's very likely to make the mistake.

 There are actually instances of humans misreading words and thinking they were numbers when they actually weren't numbers. My favourite example I heard at a conference five years ago where someone said the word "bumblebee" and they misread the BLE sign as a number sign and came up with the number 255.

 DD, similarly, I mentioned it doubles as a full stop. Now, that's no good having this ambiguity and with the prevalence of email and web addresses these days, all of which have got dots in them, DD unfortunately had to go.

 Now, nine contractions, any contraction that I haven't mentioned in that list still applies. So once again, the nine which have gone, if you're taking notes:
ALLY
ATION
BLE
BY
COM
DD
INTO
O'CLOCK
TO.

 The next little change is that technical term coming up, sequencing. That is when we used to write "and", "for", "of", "the", "with" and "a" without a space, is no longer used. So you always put a space where there's a space in the original text. So this is why INTO, TO and BY were removed because they also were sequenced in the old code. Nowadays, no sequencing so space between each word.

 There are minor differences in contraction use. So for example you can use the EA sign in words that you use every day like "caveat" and "genealogy". Hopefully that won't come up too much but just in case it does, you can use the EA sign.

 There's a little change to words like "silenced" and "fenced" and the surname "Spencer" or the name "Spencer". Whereas we used to use the EN sign and the C and then the ED or ER sign, now in UEB, you use the ENCE sign followed by letter D or letter R. Now I find the way to remember that one is we have the word "advanced" which we always used to and we still do write as A-D-V-dot 4 6-E-D. Now "silenced", S-I-L-dot 5 6-E-D, now follows the same pattern.

 So it's all about patterns for me and so that's a nice one to remember.

 The last one that I want to mention relating to contractions is a little bit advanced but if you have two words with an oblique stroke or slash between them, you cannot use what they call short forms, which is your "above", "about", "across" etc because those short forms can only be used when it is standing alone. Now standing alone is another technical term but let's not get into it too much. It basically means surrounded by space or common punctuation. That's a layman's definitely, if you like. So if I had "above stroke below", you can't use ABV and you can't use lower b-L, because it's not standing alone. Those two words are actually together with a stroke between them. The reason for this is not because we're just being picky. It's because the web addresses often have slashes in the middle and so do mathematical expressions and so on and as UEB is the one code for all subjects, you've got to be a little bit more precise.

 So I hope that's okay. So far, so good. Does anybody have any questions so far?

Ben Mustill-Rose: Quick reminder, if anyone wants to raise their hands to ask questions, that is Alt-Y on Windows, Option Y on Mac, star nine if you're dialling in on a phone or if you're on an iDevice, you can press the More button in the bottom right-hand of your screen and press the "raise hand" button. We have a couple of questions so we're going to try and make sure we get through as many questions as possible but equally we've also got quite a bit of content to go through. So we're going to go to Carly first and then we're going to come to Max. Hey, Carly, you are now unmuted.

Carly: Thank you. I just wanted to ask a quick one. All of the changes so far, bar one that I can see, seem to make the Braille code longer. Braille is quite bulky already so has anything been put in place to address that?

James Bowden: No. So one of the UEB things is not to shorten the Braille. In actual fact, how extra long it is, from what I've heard, for standard text, is 1.8% or we're coming onto the next thing which is capitals, is about 5% longer. So this is a definite known, that UEB is 5% longer for standard text.

Ben Mustill-Rose: Well, there you have it. Thank you. A good question though because it's something that you often hear levelled against it but it's good to know some numbers behind that.

Matthew Horspool: Could I butt in? Sorry, I promised I wouldn't butt in this early in the conversation but this is a particularly relevant question when it comes to Braille displays. When it comes to paper, one thing that I would add is that there's actually quite a lot of wasted space in hard copy Braille. So, for example, if you're got a 40 cell line, quite often the line only extends to, say, 36, 37 characters and so actually sometimes the added space just makes it extend to, say, cell 38 or 39. So the line count doesn't increase very dramatically and the page count increases even less dramatically. So the effect on hard copy books is actually not that significant.

Ben Mustill-Rose: Good additional comment there. Thank you, Matthew, one of our other residential Braille wizards at the Braillists. Thank you, Carly. So we're going to come to Max now. Hey, Max.

Max: Hi. James Bowden, I think I've met you before, haven't I?

James Bowden: You have, yes.

Max: Yes, brilliant, hope you're well. I know some it is a long-winded thing but I've actually picked up a lot on the Braille signs now, like the "and" sign, the "the" sign, all the short forms in the alphabet. So all of these signs that you're going through like the BLE, as well as having the "and" sign, I do sometimes find when I'm typing Braille that sometimes it can be confusing where to write them in my words and especially with the EA and the "A capital letter dot 5". Sometimes I get a bit confused, trying to tell what's a dot A or what's a dot EA sign or the dot 5, within a word. Is there a way to trying to maybe figure that out so I don't get confused?

James Bowden: It comes with practice, as part of it, and, for example, the dot 5, write a word like "bear", in the old fashioned way of writing B-EA-R which is the way we used to write it years and years ago and then write the word such as "bright" which is B-dot 5-R and see if you can tell the difference between them. So it's one dot that's moved from dot 2 to dot 5. So you can see what that feels like. Okay?

Ben Mustill-Rose: Great tip. Sorry to move you along there, Max. We've got Jess with her hand up. So we'll quickly come to you, Jess.

Jess: I just wanted to check, you did say there was a handout, didn't you, that we could get?

James Bowden: That's right. But once again, very quickly, those nine contractions which have been removed are:
 ALLY
ATION
BLE
BY
COM
DD
INTO
O'CLOCK
TO.

Ben Mustill-Rose: Thanks for that, Jess. Tina has popped her hand up. I'm aware that we do have a few hands raised now but I'm also aware that we have quite a bit of content to cover. So we're going to Tina and then I'm sure there'll be time for questions throughout the rest of the session.

Tina: This is something I've always been flummoxed by. How are you supposed to write an email address because I've never actually managed to grasp that?

James Bowden: Okay. So if you wait, a little bit later on I shall be covering the symbols you use for email addresses and the good news is, because it's UEB, there is now no special way to write email addresses, you just use the ordinary symbols that you normally use.

Tina: But they all have @ in them.

James Bowden: I'll show you what the @ sign is in a moment. And the forward slash and the underscore and anything else that you'll need, we'll cover that.

Ben Mustill-Rose: We will get to some other hands later on but I think for now we're good to go.

James Bowden: Thank you very much.

 So continuing on, we've covered all the changes to contractions. The next thing that people will notice very quickly with UEB, particularly if you are used to the Standard English Braille is UEB includes capital letters. Now this is not actually a huge change because the rules are exactly the same as they were with Standard English Braille. Standard English Braille actually had a dual standard. You could optionally use capitals and in education they did.

 So dot 6 before a word is a single capital letter. Dot 6, dot 6, so that's two dot 6s, is a capitalised word. And three dot 6s, so dot 6, dot 6, dot 6, means the start of block capitals for three or more words. At the end of that block capitals passage, so after the last word, you would write dot 6 and dot 3 which is the end of capitals.

 Now here's another little pattern in UEB. All the "end of" something, end of italics, end of capitals, etc, they all end with a dot 3. So there's another little pattern there.

 That's capitals. The other one which we often had in Standard English Braille is what we used to call a letter sign or dots 5 6. It's now called, wait for it, a Grade 1 indicator. Its function is basically the same as it was to prevent misreading something as a contraction or a number etc, but you don't always need it now in so many places as we used to have in Standard English Braille.

 So, for example, in Standard English Braille, you would have written a letter sign in front of the word BBC or in front of PM. That is no longer necessary in UEB because BBC or PM can't be misread as anything else, no contractions etc. So where would you use it? If for example you had a CD collection, CD is the short form for the word "could" so you have to say, "I don't have a could collection, I have a CD collection," so you have to use dot 5 6 and then CD is written in capitals so it's dot 6, dot 6, CD. So I'll repeat that. It's dot 5 6, Grade 1 indicator, dot 6, dot 6, capital word, and then CD.

 So you would still use the Grade 1 indicator if you had mixed numbers and letters so that's letters A to J are the same as the digits so if I had a postcode that ended "1AA", you'd still write that potentially if it was lower case with dot 5 6 A. If it was capital letters you'd use the capital sign. I'll say that again. If you had "1a", if it was a lower case a, you would write the numeric sign and A for the number one and then "5 6 a" for a lower case a. If it was a capital A, "1 capital A", you'd have the numeric sign A and the dot 6 for the capital A.

 The reason why it's no longer called a letter sign is because the Grade 1 indicator or dot 5 6 can also be used before things which aren't letters. Now I'm not going to go into advanced mathematics where it comes up quite a lot but if you had strange things like a question mark written all by itself. Obviously lower h being the question mark on its own is also the contraction for the word "his". So to say this really is a question mark, you put dot 5 6 before it. So dot 5 6 lower h is a question mark in an unusual place. It's a little bit weird, little bit out there, but the point is we can now do these things in UEB which were a little bit harder to do in the previous codes.

 That kind of leads me on a bit to punctuation and we'll cover the first little group of punctuation signs and then we'll have another little pause for some questions.

 Most basic punctuation signs are exactly the same as they were. So comma is still dot 2; semi-colon is still dots 2 3; colon dot 2 5; full stop dot 2 5 6; dot 2 3 5 is exclamation mark; dot 2 3 6 is still the question mark; and your ordinary quotes are still the lower h, lower j, dot 2 3 6, dot 3 5 6; apostrophe is still dot 3; and hyphen is still dot 3 6.

 So far so good. All your basic punctuation is exactly the same as it was. Where things change, is the rarer punctuation and the more interesting, intriguing stuff.

 We'll start with quotes and brackets. So I've already said the standard quotes are the same, that's the normal double quotes but for single quotes which you might across if someone said, "He said something," so that's quotes within quotes, for example, the single quotes are opening dot 6 2 3 6. Now that's the same as it was, dot 6 2 3 6. The closing single quote has changed. It used to be dot 3 5 6, dot 3. Now it's dot 6, dot 3 5 6. So that's dot 6, lower j.

 If you like, the standard quotes are lower h, lower j and your single quotes are dot 6, lower h, and dot 6, lower j. Again it follows a little bit of a pattern.

 Now there are other types of quotes but I don't need to go into those because I've never actually read one in a book yet but again they're based on the lower h and the lower j sign which is really quite nice.

 Now to brackets, there's another lovely little pattern with brackets. All the brackets are based on what we know as the GH and the AR signs, dots 1 2 6 and dots 3 4 6. If you are familiar with the old British maths code, you'll recognise those as the maths kind of brackets. Now GH and AR on their own, obviously are the GH and the AR signs. They still exist and they're still used exactly the same as they were. So an open bracket is dot 5, GH, and a close bracket is dot 5, AR. Dot 5, 1 2 6 is the open round bracket and dot 5, 3 4 5 is the close round bracket. Different signs for open and close because it's the same Braille code for all subjects. So in English you would normally have a space and an open bracket and then a word and then a close bracket and a space and one can say it's fairly obvious which is which but if, for example, you're doing mathematics or computing or some other technical subject like that, it's absolutely vital to know if it's an open or a close and you can get them in all kinds of weird and wonderful orders. So that's why there are two different signs for open and close bracket and they are distinct from each other.

 That's round brackets with dot 5, GH, dot 5, AR. Other types of bracket use what we call different prefixes. So square brackets, if you are familiar with your computer keyboard, those are the ones to the right of the letter P, square brackets are dot 4 6 and then GH for open square brackets and dot 4 6 and the AR or 3 4 5 for the close square bracket. So again there's a lovely little pattern beginning here, all the brackets based on GH and AR with different prefixes. I could talk to you about curly brackets and they're dot 4 5 6, GH and AR. Don't know if you'll come across them very often. And there's also angle brackets which are dot 4, GH and dot 4, AR. Again not very often encountered.

 One slightly strange kind of bracket which isn't actually a bracket at all but functions like a bracket is the transcriber note. It is dot 4, 4 6 and then GH or AR. So dot 4, dot 4 6 and then 1 2 6 is open transcriber note. Dot 4, dot 4 6 and 3 4 5 is your close transcriber note. It's like a kind of modified square bracket, if you like, because the square bracket is just dot 4 6 and GH or AR. Transcriber note is dot 4, 4 6, GH or AR. A transcriber note is some text which the person transcribing the book into Braille has added so the text does not actually exist in the original book but the transcriber thought it necessary to put some text in. Now, a typical example might be a description of a photograph, for example. Or it might be one of those things that frequently occur in things like Braille bank statements, "The following table has been Brailled in paragraph form. The column headings are..." So that text doesn't actually appear in the original statement but the transcriber has thought it necessary to explain how it worked.

 So that's brackets and quotes and let's take another little break for a couple of questions.

Ben Mustill-Rose: We have around about 25 minutes for questions and we have a few hands already but just a quick reminder to any new joiners that to raise your hand it's Alt-Y on Windows, Option Y on Mac, star nine if you're dialling in by phone and if you're on an iDevice, you can press the More button in the bottom right of your screen and press the Raise Hand button.

 So a good selection of hands already and we're going to come to Sheila first and after Sheila, we're going to come to Mark. Sheila, you should be unmuted now.

Sheila: Hello. I'll try to be brief because I am one of the people that absolutely detests UEB. One of the things you mentioned earlier was with the question mark, to indicate it's a question mark you put a dot 6, or whatever you said it was, before the question mark. To me that's unnecessary because doesn't the content of the sentence indicate that there will be a question mark at the end.

James Bowden: No.

Sheila: Sorry. The other thing that I wanted to say was when I'm reading for pleasure which is usually what I'm doing these days, with the UEB, I'll come across something and I'll say to my husband, "Well, there must be a word in there somewhere but I can't find it," because there are so many punctuations and asterisk and all the rest of it before it and after it that I can't find the word in the middle of it. I suppose it's not really practical to have SEB for leisure reading and UEB for anything else but I would have thought there would have been able to be a line somewhere. For education I can understand why UEB works.

James Bowden: You asked two questions there. The first one is the question mark on its own. So in ordinary text, you're absolutely right, the context would give it away as a question mark. What is the capital of France, question mark. And that one is totally normal and totally ordinary and is Brailled as normal with dots 2 3 6. The case I was mentioning is if you just got a question mark on its own, not connected with anything and that could come up in weird things like, "The computer said question mark," just on its own.

 You must remember that UEB is designed to be able to represent any arbitrary string of characters. Now, your reading for pleasure means you're going to have decent, hopefully, ordinary text but unfortunately these days people misuse text quite a lot more than they used to.

 So for example I talked about capital letters in the middle of a word. You could class that as misusing text. I did even hear of a pop singer who put a dollar sign in the middle of their name just to be different. That would be weird. These days email addresses can have all sorts of random characters littered in them and so can social media tags and all this kind of stuff, random collection of characters and you've got to be able to represent it somehow.

 So don't worry too much about particular ins and outs of it but it's there if it's needed. That' s the point.

 Now coming back to your point, "I know there's a word somewhere in the middle," what I would suggest is you break it down bit by bit and see if you can work out what's going on. We will come on to more of these interesting signs that you may come across such as italics. So, yes, where they would have had no capitals and just one sign for italics, that will be a little bit more now in UEB.

 Can I leave it there for now, Sheila, because we want to get through as many questions as possible and I do have quite a bit still to cover?

Ben Mustill-Rose: Thank you for that, Sheila. So we're going to come to Mark now and after that we're going to go to Steve.

Mark: Some very strange new changes but one thing I remember, when I used to do GCSE Physics, for example, one really odd one which, I don't know if this has changed. Well, two actually. Say, when you're doing Ohm's law, two ohms would be two 4 5 6 W which is "world".

James Bowden: So capital Greek letters have changed ever so slightly. I wasn't going to cover these today but since you asked, your lower case Greek letters are the same as they were, prefix dot 4 6, so 4 6 A is alpha, 4 6 B is beta, 4 6 G is gamma and 4 6 W would be omega, small omega. Then a capital sign goes before it, so a capital Greek omega would be 6, 4 6, W. No ambiguity with "world" anymore.

Mark: Right, okay.

Ben Mustill-Rose: Interesting question though, thanks for that, Mark. So we're going to come to Steve now and then Isabel.

Steve: Two quick questions. You mentioned the stand-alone question mark was 5 6, lower h.

James Bowden: In an unusual position.

Steve: What would a UEB multiplication sign be?

James Bowden: Coming onto them but you will skip ahead. The arithmetic signs start with dot 5. So plus sign is dot 5, lower f. Minus is dot 5, bottom c. Times is dot 5, lower h. Equals is dot 5, lower g. The one I missed out deliberately because it's slightly different, divided by is dot 5, ST sign. And there's a reason for that and it's all to do with patterns.

Steve: Another brief one. You mentioned angle brackets, dot 4, GH or AR. Do you mean the same as less than and greater than signs?

James Bowden: Exactly so. Well done, sir.

Steve: Okay, thank you for that.

Ben Mustill-Rose: Is there anything that this man does not know? Thank you for that, Steve. We're going to come to Isabel now and then last, we have another question from Max.

Isabel: When do you use the end capital sign because if you're writing "CD", you wouldn't use it there?

James Bowden: That's right. So all the block signs, or passages as they're actually called in UEB, are used for three or more words. So if I had for example a sign in block capitals written, "FIRE EXIT", you would write dot 6, dot 6 FIRE, space, dot 6, dot 6, EXIT. Two words. But if I had, "THE NEAREST FIRE EXIT," in block capitals, that's four words. So you'd write three dot 6s at the beginning and then you'd write, "THE NEAREST FIRE EXIT," and at the end you'd write dot 6, dot 3. So it's three or more words.

Isabel: Brilliant, thank you.

Ben Mustill-Rose: With about 15 minutes to go, we have a question from Max.

Max: I was just wondering what the pound sign is.

James Bowden: This leads us right on to the next section with numbers and so on, so, Max, I'm going to not answer your question right now but I will answer it in two minutes, pounds and dollars and all that kind of stuff.

 So let's move on and we'll have another session of questions later.

 So there are some more punctuation signs which are slightly different. I'm going to rattle through these, they're all in the handout, just use them where needed.

 So where we have dot dot dot, the technical word is ellipsis, you may have heard that used by a screen reader, it's the same as dot dot dot so we use full stops, dots 2 5 6, 2 5 6, 2 5 6.

 The dash which is like a long horizontal line in print is, if you like, a capital hyphen, that's the way I remember it, so dot 6, dot 3 6. And there's a long dash and that's a weird one because it's dot 5, dot 6 and 3 6. Don't often see that one but it does sometimes come up.

 The first sign for web, email and that kind of stuff, the hash sign or hash tag. This looks like a little bridge, dot 4 5 6, dot 1 4 5 6, or 4 5 6, TH.

 These are all in the handout so don't worry if you don't get it noted down straight away.

 Asterisk or star is dot 5, 3 5. Now I personally like that one because if you've got a line of stars, it's a lot easier to read 5, 3 5; 5, 3 5; 5, 3 5, whereas the old one was just a line of IN signs.

 Here's the next computer one, the at sign used in emails is dot 4, dot 1 so dot 4 and the letter a, the at sign. So joebloggs92@ was the email I gave before so you'd write J-O-E-B-L-O-G-G-S, the number sign or numeric indicator 3 4 5 6, 9 2 and then dot 4, dot 1, joebloggs@ etc.

 Another one that you might come across occasionally, sometimes in email address, sometimes where there's a blank to be filled in on a form, is the underscore character. That's not the same as underlining text. The underscore character on your computer keyboard is the shift key and the hyphen (next to the zero) and the screen reader will say "underscore". That character is represented by dot 4 6 and 3 6. So again note the pattern. It's a horizontal line kind of thing, it's based on 3 6 and then a different prefix goes before it.

 So moving on to numbers. We've already covered the arithmetic signs so I won't repeat them. The basic numbers are exactly the same, dots 3 4 5 6 followed by letters A to J. If you have a comma in the middle of a number, for example in a long number like a million, 1 comma 000 comma 000, the comma is the same in a number as it is in ordinary text so it's dot 2. Dot 2 is now always a comma.

 That leaves the decimal point, the same as a dot, which means a decimal point is dots 2 5 6. So if I had zero point five (0.5), you would write the numeric sign, 3 4 5 6, the letter J for zero, 2 5 6 for the decimal point and then the letter E for the number 5.

 Sometimes print uses spaces within a long number instead of commas and the very typical case is phone numbers. So the phone number for the RNIB helpline is 0303 123 9999. Now I paused where there was a space in the print and to show there's a space within a number, you use dot 5. So numeric sign, 0303, dot 5, 123, dot 5, 9999. Interesting one, that one.

 One final example here which can appear in numbers, are fractions. ST sign is the numeric fraction line, slightly different if you have algebraic fractions for advanced physics but we're not doing that today. So if I had a fraction of one half, you don't use lower numbers anymore, you write the numeric sign, the letter A, the ST sign and the letter B. So 1 fraction 2 is a half.

 Other things that can come around numbers are, as Max was asking about, the pound sign and the dollar sign. These all start with a dot 4, another little pattern. Pound sign is dot 4, L, which is actually half what it used to be in SEB. Now you're going to come back and say, "No, no, pound sign was L." No, it wasn't. Pound sign was L some of the time in SEB. It was dot 4, L in unusual places so if you had X pounds or as I once saw on a bank statement, "pounds point pence", then SEB would have used dot 4, L as well. So it's now always dot 4, L for pound.

 The dollar sign is dot 4, followed by the letter S for Sierra. Now why S and not D? It's S because the print sign for a dollar is like a letter S with a vertical line through it. So dot 4, S is the dollar sign.

 And for those who are interested, this one has not changed, the euro sign is dot 4, E. It's exactly the same as it was.

 Percent sign is dot 4 6 and then 3 5 6. Now written without a space just like it is in print. So 100% would be numeric sign, A, J, J, 4 6, lower J.

 The final one in this group is the degree sign which is 4 5 and the letter J. So if it says, "Put your oven at 180 °C," that would be numeric sign, 1 8 0, A H J, 4 5 J and then immediately followed by a dot 6, C for Celsius.

 That's all I'm going to say about arithmetic and numbers and so on.

 I want to move on briefly to accent signs and type forms. We're running quite low on time but I'll go through these very quickly. UEB does not have a single sign for any kind of accent. Instead there are lots of different signs depending on the particular accent needed. You use these only in English text with the occasional foreign word.

 So for example, "They went to the café." The e acute in café is written as dot 4 5 and then the 3 4. Now all the accent signs for standard accents in Western European languages start with dot 4 5. So I've listed four here but there are plenty more. If you need them, we can look them up.

 4 5, ST is the acute.
4 5, 1 6 is the grave.
4 5, 1 4 6 is a circumflex and
 4 5, 2 5 is the German umlaut.

 There are others.

 So finally and briefly, bold, italic and underlined text. Sheila, this might be part of the lots of dots, I'm sure there's a word in there somewhere. UEB can show if there's bold text, italic text, underlined text. If you really wanted to, you could show green, underlined wiggly text but we don't need to worry how to do that.

 The bold single word is dot 4 5, followed by dot 2. I kind of think 4 5 is a little bit like a backwards B so it reminds me of bold. Then the dot 2 is one word. It's almost like a one. So dot 4 5, dot 2 is a single word in bold. You put that before each word if it's one or two words. If you've got three or more words, you have a bold passage and there's one sign at the beginning which is 4 5 and then lower G for passa**G**e, that's how I remember it. Lower G, passa**G**e. Then at the end after the last word, you have dot 4 5 and all the terminators or end signs end with dot 3. So 4 5, 3 at the end is a bold word .

 So, "Amazing fact" written in bold would be 4 5, dot 2, Amazing, 4 5, dot 2, fact. But, "Really incredible amazing fact," is four words so that's more than three, you'd write dot 4 5, lower G, really incredible amazing fact, 4 5 and then dot 3 at the end.

 Italics is exactly the same idea but you use dot 4 6 instead of dot 4 5 and underlined text, should you ever encounter it, is dot 4 5 6 instead of dot 4 5. So an italic word is dot 4 6, dot 2. And an underlined word is dot 4 5 6, dot 2.

 Now I'm very conscious I've whizzed through a lot of stuff there and there's probably loads and loads of questions. There are reference documents which will help and you're very welcome to download them. They are free of charge from the UKAAF website, www.ukaaf.org/ueb. There's a single page reference card, there's a longer list, right the way up to the full reference book which is six volumes in Braille and this is also available from the International Council on English Braille, ICEB, website at www.iceb.org/ueb.html. All these are in the handout.

 On the UKAAF website, there's also a series of podcasts, so little bite-size chunks go through all these changes we've done at a nice relaxed pace and they're all free to download. It's at the bottom of that UEB page, www.ukaaf.org/ueb. You have to tab quite a long way down the page to find them but they are there.

 If you want hard copy Braille, all those reference documents I've mentioned are available in hard copy Braille from the RNIB. Call them in the usual way on 0303 123 9999. Or you can go to the RNIB shop which is shop.rnib.org.uk.

 I'm conscious I've gone through a lot of information. We've just about got time for a question, I think.

Ben Mustill-Rose: We have Jane with her hand up.

Jane: Hello, James, thoroughly interesting but on the last bit I'm a little bit confused, the bold, underline and the passage bit.

James Bowden: Yes, so the way I remember it is the 4 5, dot 2, 4 5 lower G, 4 5, dot 3. They all start with 4 5 which is like a backwards B, they're the bold ones. Your 4 6, dot 2, 4 6, lower G and 4 6, dot 3, they're your italic ones. 4 6 is the same as it was. Your underline all start with 4 5 6. 4 5 6 dot 2, 4 5 6 lower G, 4 5 6, dot 3. The L is like a backwards L for under**L**ine. That's how I remember it.

 Now, your passage thing is always three of more words.

Jane: Okay, that's what I getting a little bit confused with.

James Bowden: If we had an italic passage, it used to be dot 4 6, dot 4 6. Now it's 4 6, lower G and it's three or more words.

Jane: Okay, thank you for that clarification.

James Bowden: I'm happy to stay on longer if people have more questions.

Ben Mustill-Rose: Let's try to get one more in. Let's go to Mark quickly.

Mark: You mentioned this handout. Where can this be found?

James Bowden: The handout will be available on www.braillists.org/media. Is that correct?

Holly Scott-Gardner: Yes.

Ben Mustill-Rose: Holly, do you want to sum up?

Holly Scott-Gardner: I don't have anything else to add other than we will be putting the recording on the media page as soon as possible so if people do want to go over it, it will be up and I'll make sure that everyone knows that that's gone up as well.

James Bowden: So I know this is the official end of the meeting. I don't know if it's allowable but I am very happy to stay and answer more questions if people have them.

Matthew Horspool: I'm happy for that to happen. I notice we've got a hand raised from Tina.

Holly Scott-Gardner: I'm happy with that.

Matthew Horspool: It is a subject that a lot of people do have questions on.

Dave Williams: Let's just take this opportunity to thank you, James Bowden, for your time and expertise this evening and being willing to take this subject on and answer everybody's questions for the Braillists Foundation. Thank you very much, James.

James Bowden: Thank you, Dave.

Ben Mustill-Rose: So as Matthew mentioned, we have a question from Tina.

Tina: Very quick one. I actually did phone up the RNIB helpline and asked them, like you said, if they have information to help you convert from Standard English Braille to Unified English Braille and they said, "No, you'll have to ask the Braillists Foundation."

James Bowden: That is incorrect. We do actually have leaflets. If you could email the Braillists and if you're happy for me to have your email address, I'll ask the Braillists to forward your email and I will make sure you get the right stuff.

Tina: I do like reading Braille and I learned Braille from the age of five. I still do use Standard English Braille for my own use but it would help me when I'm actually reading Braille books on my Orbit Reader and things like that.

James Bowden: Absolutely. Now, if you've got an Orbit Reader, you've actually got a summary of the signs on the card, depending on when you got it. How long ago did you get your Orbit Reader?

Tina: I've had it since not long after they first came out.

James Bowden: Have you got the card with all the books on it, the 700 books?

Tina: Yes.

James Bowden: Have a look in the RNIB and the reference folder to see if there's a summary of UEB there because you might already have it. We put one on the latest cards. If not send an email to help@braillists.org and if you're happy to ask them to forward it to me and I will make sure you get that document and anything else we've got and you can put it on your Orbit Reader and read it to your heart's content. How's that?

Tina: That would be fine.

James Bowden: I can also ask the RNIB to send you the documents in hard copy Braille as well.

Tina: That would be easier.

James Bowden: That's fine, no problem at all.

Ben Mustill-Rose: Thanks for that, Tina. A question from Steve now.

Steve: Several years ago, after UEB had come in, I had a couple of books put into Braille but it was optional, for private use, to have bold, underlined and italics, I think, turned off because I didn't feel they were necessary in the text that I was going to use. Would you expect that now to be mandatory to have them put in?

James Bowden: So this is a question that comes up time and time again and some people say bold and italics and so on are overused and other people say it's crucial to show them and there's always this little battle, where's the balance. So if you're transcribing a book, the problem you have is you don't actually know who is going to read it, in the end. Typically the transcriber is not connected with the end user. They may have a contract in the middle, there might be a third party contractor. It just might be a general book and you don't know if that's going to be for a university student studying English literature or just your average pleasure reader. So all that to say is the norm is to show bold, italic, underline within the text.

Steve: That's okay but my question was along the lines of, I rang up one of the transcribing services for the RNIB and said, "Could you put this book into Braille for me?" Personally I don't feel I need the bold, underline and so on. Is that still an option or would you expect it? Because that book could potentially end up anywhere.

James Bowden: Exactly. So I honestly don't know the answer, if that's modern practice. Certainly library books do show underline, bold and italic.

Steve: Okay.

Matthew Horspool: If I could come in on this, there's a question of semantics here. Sometimes bold, italics and underlining is used because something needs to be put in bold. "My name is Steve," or, "My name is Matthew," and the Steve or the Matthew is in bold, in which case I would expect more transcribers to use the bold sign in that case. If it's a heading and the heading is in bold because it's a heading, I wouldn't necessarily expect bold or italics or underline to be used there. I would just expect it to be treated like a heading and for the bold to be dropped. This is not universal practice and there needs to be some clarification around that, which we'll hopefully do over the next couple of years but as a starting point, that's sort of the direction of travel that we're heading in terms of bold, italics and underlining.

James Bowden: You're absolutely right there, Matthew. It is standard practice not to show bold in headings because most headings are by definition in bold. So the fact that it's centred or with a blank line above and then justified one paragraph, if you like, or one five paragraph, that is sufficient to show it's a heading and you don't need to show the bold as well. But you will show the bold in an ordinary paragraph of text.

Steve: Okay, thanks for that.

Ben Mustill-Rose: We have a question from George Bell next.

George Bell: Just a quickie on that question of bold, underline and italic, most of you know that I am involved with Duxbury and one thing and another. Within Duxbury certainly, if you were transcribing something for yourself, you have the option to ignore bold, italic and underline. Now, if a professional transcriber happens to be using Duxbury, you can always say to them, "Look, this is for my personal consumption. I would prefer if you would check the bold, italic and underline to be ignored." That's one point. It's quite simple. Then they just re-transcribe it and all the indicators go.

 The second thing is, and this is what James, I hope, will empathise with me here, if something is a heading, Duxbury certainly will follow the rules to the letter, or try to anyway, so that a heading one, heading two, heading three in a Word document, brought into Duxbury, will not carry any attributes at all. In other words, it's just the text you're going to get and the reason you know or should know that it's a heading is because it's in the place or positioned on the page as it should be according to UKAAF guidelines.

 Where we often have problems is the reverse of that, when we'll get teachers ring up and say, "Oh, it's putting all this emphasis onto the headings and it's-" blah, blah, blah. Usually that is because the originator of the text in Word has emboldened the text, italicised the text or underlined the text and as far as the Braille translation software is concerned, it's a bit of text that's been made bold, underlined or italic. It's not been styled as a heading, if that makes sense. Maybe we can have a session about that on another time but I just want to make those points.

James Bowden: Yes, absolutely right, George. We've seen that before. You've got a piece of text just been marked up as bold. The translating program doesn't actually know that you meant it to be a heading because you didn't tell it that it was a heading and therefore it will just show it as bold text.

George Bell: Perhaps we might have a session on how to sort Word documents out and styles but that can be for later, if anybody's interested.

Ben Mustill-Rose: Maybe. We've got our head of courses listening behind the scenes so maybe something will come up in the next few weeks. We don't have any more hands.

James Bowden: I should have said as well during the talk, one of the ways I got myself familiar with UEB was not just reading it, but also writing it. So for example when I had to write something in Braille, while I was kind of making sure I was familiar with UEB, rather than just slinging it through Duxbury and the embosser, I would deliberately write it out manually on a Perkins, just so I became more confident and more secure with the changes, particularly, for example, those nine contractions and adding the capital signs and so on. Writing on a Perkins really makes you think and that really helped.

Ben Mustill-Rose: Good tip.

Matthew Horspool: That's good timing. I don't think we have any more hands. I think we can draw this session to an end. Thank you once again to James. It's been good to do the session. Thanks to Ben for moderating and thanks to everybody for coming along and do join us for the next session next week when we'll be talking about how to use Braille on Windows, how to connect your Braille display to a computer and how to use it with your favourite screen reader. That's the Braillists Foundation. Thanks very much and have a good night.