Alice has the unenviable task of keeping track. Over to you, Alice. We have Alice, Jane from Crawford Technologies, Amy from the BBC, and Jack from Jadu. They are your experts today. We will go in the order of Jack first.

JACK: My name is Jack Niland. I'm a UX designer at a company called Jadu. We primarily make products for the UK... you can't hear me?

FLOOR: No.

JACK: Sorry about that. A good start. So, yeah, I work for a company called Jadu. We make a suite of products of CMS, CRM and forms products in the UK for local government and in Australia our main clients are higher education. So, all customers that are really accessibility focused. Me personally, accessibility has always been a passion of mine. My grandmother was blind and my son is profoundly deaf. He uses BSL as his first language, so me and my family have all learned BSL.

Over the last couple of years at Spacecraft, although I'm a UX designer, I've come into more of a role of accessibility training with our clients, so I go out to our clients and teach them about how to implement our products accessibly, because a big problem in the past I think was sometimes a client would get our product and it would all be built to 2.1 standards, and they would think job done, that's accessible. But, obviously, it all depends on what content they upload to their websites. I find that something that people engage with is social media when I do this subject because it may relate to their personal life as well.

I will talk about five tips for social media today. The first of which is alt text and how to do alt text on your different social medias. There are various different levels of difficulty for how to import alt text into your social media. Twitter is the most awkward. You, first of all, have to go into your settings and enable alt text before you enable alt text on your images. Instagram and Facebook are easier. When you upload your photo, you can into Advanced settings and it will allow you to import alt text. LinkedIn is probably the best of the four social media options, with those as soon as you upload your image there is quite a key call to action to change the alt text. So that's alt text.

The second thing is accessible hashtags. This one is really simple. All you need to do is to make your hashtags accessible is camel case. The first letter of each new word you want is capitalised. If you don't do it, it will be read out as one long blurb to a screen reader. If you use the camel case, it will be read out properly.

I want to talk about emojis etiquette for your social media. Sometimes on social media, some companies use funny things, maybe you use a long list of emojis all in one post. I have seen some companies using where you have a word and then an emoji and then a word and then another emoji. I'm not sure why companies do that. If you imagine how a screen reader interprets that, they will read out the emojis individually, it can be tiresome to listen to that, especially if there is a line of smiley poo! I will encourage you to listen to your tweets using a screen reader, if possible.

The next thing I will talk about is mentions. Sometimes if you are composing a tweet with lots of different people, maybe you're going to tweet about the whole panel today and talk about how this is the best session you have seen... no! Maybe. We're not at the end yet! A good way to do that is rather than at the start of the message, you put it at the end, so the core content of your message is presented first. It is advice for generally any accessible content, but you really should be thinking about that with your social media posts as well.

Finally, I will just talk briefly about captions because I know Amy will talk about accessible videos as well. Just to drive home the point to use captions on all of your social media content, so everything from videos, Instagram stories. There is loads of great apps you can use, Autocap and Clipomatic which will interpret all of your content for you. I do a lot of my social media on Instagram in BSL, and I've used Autocap before and it is quite funny, my sister said to me, because it has the watermark Autocap, unless you want to pay for it, I didn't, it had the watermark at the bottom, how did it interpret your BSL and read it out, she said? It is not that advanced yet but it will interpret any spoken language.

Before I finish, not specifically on social media but I just wanted to mention as well about BSL interpretation. It is something I always recommend to our local authority councils. Obviously, they've got a responsibility to include that level of accessibility on their sites. It can be a harder sell for private companies. If you do want to have access to the 90,000‑odd members of the Deaf community who use BSL, I would recommend your social media and the content on your site to have BSL interpretation as well.

ALICE: Thank you very much, Jack. Amy.

AMY: Hi, my name is Amy and I'm part of the internal communications and engagement team at the BBC. I'm also a BBC Accessibility Champion and as such it is a big part of my job to make sure that all of our internal content at the BBC is of a good quality and is very accessible.

I'm going to talk specifically about video today because we're using it more and more to convey messages internally at the BBC. You know, we're a media corporation and because we're such a big organisation it means we're delivering messages in video to colleagues, a very diverse workforce in a lot of different situations and environments and it is our job as a team to make sure that our content doesn't limit anyone in any way and, no matter where they are, they are able to access the messages that we're delivering.

So, about six months ago, we made an internal accessibility content policy. It just provides some quick and easy guidelines for everyone on what we expect on our content, on our internal channels. This has raised a consistent bar for what we want for our content to make it accessible. We launched that in time with Global Accessibility Awareness Day this year. Not only does it show colleagues and content contributors what we expect from the content but sends a broader message to the colleagues we have made a commitment to making sure that our content is accessible to everyone.

And Keep Video Accessible, a couple of things that we do, the obvious one, ensuring that the videos have subtitles and captions on them, always. And on our intranet we used closed captions, that means that they must be toggled on or off and all of our internal channel, our digital streams or social media internally, we use Open Captions to ensure that everyone can see it and understand the message as our digital screens have no sounds so they do need the subtitles on them.

Then another important thing is transcripts. These are popular at the BBC for non-disabled and disabled colleagues alike. We get the feedback that it, that people find it quicker and easier to read the dialogue of the transcript rather than watch the video, they can get the message and find out the gist of the comms a lot quicker. It means that it is useful for people who are on the go, who are accessing our comms from smartphones or on a train and perhaps don't have the internet connection to watch a video, that they can easily download a Word document, have it open and are able to read what the message is, the interview is with high-profile senior leaders and they are able to get that message.

Another one which is signposting. So, we always make sure that we know that our videos always have subtitles on but to let people know that subtitles are available as on the intranet they are closed captions. So to let people know that they are there, if they are familiar with them, to present the video, so we use iPlayer as a web app on the intranet to know it can be toggled on or off, adjusted or moved on the screen, it can be a large or a smaller text, depending on what is best for the person. Again, with transcripts, sometimes with an internal broadcast for senior leaders or Tony Hall has a message, normally they come with live subtitles but we always make sure there is a transcript available as well but the video itself must be broadcast urgently, so we let colleagues know a transcript is soon to follow.

Another one, to tie in with our accessible content policy, it is just providing simple guidelines. We are a small team; we get content coming from lots of different departments and region. We have an area of people covering lots of different things at the BBC. They like to use video, we like to enable people to give us the content and we provide simple guidance, how to make their content accessible.

So what we find a lot with colleagues when we say to people that we need to raise the level of accessibility on the content, a lot of people will say that they don't make content accessible for the fear of doing it wrong or that they are doing something wrong or will make a mistake, so it is having the reassurance to people it is easy, that there are resources available, there is training available and because we have our accessibility champions network at the BBC that if they can ask me, if I don't know, I have this whole network of people. One of them will be bound to know the answer.

So, it is knowledge-sharing and providing a positive community around accessibility which leads me into my fifth and final point and one of the biggest points, I think, it is educating people. It is sharing knowledge, sharing the skills. Raising awareness of all of these kinds of things. Accessibility, it is a win-win situation. It should be everyone playing a part in making our content accessible internally. So, it's about getting more colleagues on board. I know that this has been spoken about today, it was a big thing yesterday but to get them sharing their own stories as well, creating a culture where accessibility is thought of much more quickly, at an earlier point in the workflows that we have to make content.

Our Director-General, Tony Hall, he is a big fan of saying that the BBC is for everyone, it should be. This is part of what I like to do as an accessibility champion, it is living by that, knowing that the content we do, it is accessible. If there is anyone, as I'm still quite new to this, so we make our channels open, if there is feedback for anything, if we can act on that, if we can develop a more open culture around accessibility on our internal content.

ALICE: Thank you very much.

JANE: I'm Jane Black, I work for Crawford Technologies. We help make documents accessible. We like to help that process made as simple and as easy as possible. For the purposes of the session, which is about accessible content, I wanted to share thoughts on what content is, what purpose it serves and what format it can be delivered in or in what form it can be delivered in. I was looking around to are a definition of content. My favourite that I discovered was that content is both information and communication. I think that, that, whatever type of content you are talking about, that is true. You are communicating with your customers or users and you are providing information to them that is useful for them. I guess the question is, how does that tie in to what we do at Crawford Technologies, what we do with accessible documents. Interestingly, for many businesses, documents are actually the most common form of content that they create. It is the primary way that they communicate with their customers and users, it is the primary delivery method for information.

Historically the documents would have been delivered by mail in a paper format, now with businesses moving to digital channels most will be delivered in a digital format via PDF or HTML. So, if we are talking about permanent documents or more generic published documents that companies may wish to share with interested parties like annual report, product guides or user manual it is really important that content is not forgotten when it comes to accessibility.

I was asked as part of this conversation to share five tips. They are relatively high level but I think that they are important. First and foremost is to understand what an accessible document really is, how it works with assistive technology and how the extra layers of metadata within the document allow an assistive technology device to read it. I guess that leads into my second tip, which is think about the digital experience of the people that are coming to your website or using web portals or web apps and think about whether they really have, as equal access to the information that you are providing as their sighted counterparts do.

I guess that the third would be about inclusive design, it is important. It is important to think when you are designing documents to build accessibility in from the beginning but the reality for companies is that they often have lots of legacy documents or historic communications that have been created many, many years ago. We would also say that there are solutions out there for people that need to deal with those documents and obviously going forward make your documents accessible at composition going forward but for those of you that is documents that are still an important part of your business, look at remediating those and making them accessible as well.

I think the fourth point would really be about collaboration, so documents can be produced by lots of different parts of an organisation. Lots of different teams can manage the content within them. I think it is important to get all of those people, not just an accessibility team but all of those people on board so, people that manage the content, people that deliver the content, people that create the content.

Then, I guess that my final point would be really a just to act. People within organisations are obviously very scared by the size of their accessible document problem. Often, they do nothing for fear of, like Amy was saying, getting it wrong or just having too much to do. The important thing is to start, to collaborate with other people, to bring on board partners and to make sure you start to make those documents accessible to all of your customers.

ALICE: Thank you. I think you made a good point by existing documents that are already out there. That can be very daunting for a company to have them, and what to do with them.

JANE: Absolutely.

ALICE: While you were talking, we have had a lot of questions coming through. The one at the top talks about the automated creation of things like closed captions and subtitling, it flows through to social media with images. Do either of you have comments?

JACK: I think both automatic subtitles and the automated alt text you get through AI both, 100% must be checked. There, I have seen lots of examples of them being dodgy. So, they definitely need manual testing, you cannot just rely on those at all.

ALICE: Have you seen good examples of them?

JACK: Good examples would be somebody that is taking the time to make sure that the subtitles are accurately reflecting the content.

ALICE: Great. There is also one talking about Open captions versus closed captions. Amy?

AMY: So, we use both open captions and closed captions at the BBC. I guess it all depends on the channel and the environment that they are being used. For example, we will always use open captions on our digital screens because there is no point playing a video in, you know, where we have our digital screens around lifts and receptions, they are busy and loud so they don't have sound, so it is obviously really important to make sure that they are, they have captions on all the time because otherwise no-one will understand the message.

For things like our intranet we have closed captions because its, it gives people a choice. They may not need the captions or want them but it is showing people where they can and where they can turn on and off depending on their preference. So where we can give people the option, we make sure that they are closed captions but where they are required, for example in our social media feed, where it is just play, they may not have headphones, it is a quiet environment, so the subtitles are there, they can get the message across. Others, we give people, we like to give people the option and let them know that the subtitles are there.

ALICE: So, there's a question that says, "What about your thoughts on videos that have text but no speech, just music?" I guess it is maybe about the audio described used on videos, is it always necessary to have a video audio described.

AMY: I think there definitely is because even though if it is just music and text, if you're deaf, for example, you can't hear the music and you can't hear if there are any sound effects, if there is energetic music and someone is running, you can hear the feet and the music. It is just trying to describe what they could be missing from not hearing that music or those footsteps.

Absolutely, definitely it needs captions just to give that whole sort of communication to know it is there. Otherwise you are watching it and you can't hear anything. Audio description is definitely something we are looking to internally; it is definitely going to be helpful. At the moment, we are still in the research kind of level where we're looking at what we can use and what's the best way and the best instances to use audio description.

JACK: On Amy's point there, it is important if your video doesn't have any audio, you let the user know that as well. On Instagram, you can press a button that says "no audio". I found that really buggy, I don't know about anyone else in the room. If I press that, the video uploads but it still has audio ‑‑ it hasn't worked basically. Within the post or within a transcript that you've got, I will indicate "no audio" so the user is aware that they're not missing out on any part of that experience.

ALICE: From the tech side, gifs with text are so popular. How do you go about that? How would you go about describing that on social media?

JACK: Yes. Gifs, it is a difficult one. To my knowledge, I don't think there is any way to make them fully accessible. I don't think you can add alt text. We had one of our clients asking if they could have a lot of animated gifs on one of their news sites but obviously our clients are public sector organisations and we don't advise them that it is not perhaps the best approach. In terms of social media, I'm not 100% sure. I don't know anyone else in the room is aware of how...

FLOOR: I think it is common practice because... [inaudible]. What I have seen a lot of people do on Twitter when they want to put alt text for gifs since Twitter doesn't have built‑in support for that, they will put square brackets and put alt and put it in the tweet message.

ALICE: Great. Sorry, I have lost where my question was. Mark, did you notice any?

MARK: There is one here about maps. Have you done the maps one?

ALICE: I have not.

MARK: Making maps accessible.

ALICE: Any thoughts or ideas about maps?

AMY: It is an interesting one. It is not one that I have had the opportunity to look at to make it accessible. I'd be interested to know if there is anyone out there who has had the task of making a map accessible or similar.

MARK: Anybody who wants to fill that gap in the market! [Laughter]

FLOOR: My name is Emma. I work at Pearson Education, a publisher. We are very interested in looking at that. My colleague and I are working on it at the moment. We've done a lot of research into it ourselves and have seen varying ways of doing it with varying degrees of success. It kind of touches on the areas of obviously not relying on colour alone, using shapes, using symbols and using keys and labels, et cetera. But doing that successfully on complicated things, it is very tricky. So, anybody here with any other experience I'd be really interested to hear about that, too.

FLOOR: Hello. I'm from the BBC as well. Hi. So, maps are a really tricky one. You are never going to find an exact answer for the map itself. Obviously, we do a lot of maps, not necessarily in Amy's space in internal communications, but always on the broadcast side, et cetera. There is a certain amount of stuff you can do.

On the broadcast side, what they do is they have the map but they always describe what the map is conveying in the editorial so it is not just conveyed and so the person that is presenting the news talks about what the map is telling you, that is then subtitled and people can access what the map means. Sometimes it is a bit of a rabbit hole around the map, there is a lot you can do but you can't do everything. But to always make sure where you use a map on the page, every single key piece of information is delivered within the text of the page as well. There is a right to information that that map is conveying. You can do things with colours, for people with colourblindness. Have a look at Italy in the years of black and white TV, they always had 13 political parties, we can find another way of putting that information across. So, there are ways of doing stuff but always make sure that people have the right to access the information that the map is conveying, as well as trying to optimise the map itself. We've got guidelines around infographics but it is a continuous area of improvement and discovery as we find it breaks in more and wonderful ways.

FLOOR: I've been doing some research on it recently in terms of looking at other companies and the way they've tried to approach things as well. I'm discovering what you're talking about in that often you seem to have to provide the context and the alternative and it is not possible to do everything in the map itself. Sometimes because of the kinds of maps that you might be sharing, whether they're political or whether they are specific to geography, for example, certain types of geographical maps and things like that. I've not yet found a successful way of doing that as a holistic approach so having the alternative it is really good to hear you say that and to think that we're not missing something!

FLOOR: We don't make all of our own maps as well, which is another thing. During an election or an event, there is stuff that goes out and is being used by the widest media and sometimes it turns up in maybe not a format that you would have done yourself. It is why making sure that it is being conveyed by the presenters and conveyed within the text and no‑one is missing out on the rights that the information that that map contains is the number‑one priority.

FLOOR: I'm curious, in a presentation view, where the viewer can't necessarily interact with it, but if anyone else has any experience at all of ways that people might interact with it or have to use it in a personal environment. I came across a company called High Charts, they are very interesting but I've only just come across them and looked into what they're doing. I'm curious to know if anyone knows about that. I'm also... still from looking at that, I don't think they've entirely got it either! If anyone else has any experience it would be great.

ALICE: There's a hand over there.

MICHAEL: Hi, there. Maybe a longer story but it might give some insight on how to tackle the problem and maybe the problem isn't the problem. So ...

MARK: Michael, can you introduce yourself?

MICHAEL: I'm Michael Vermeersch; I'm from Microsoft. I'll be speaking a little bit later on. I have no sight loss. I do have a cognitive disability. When people present me with a map, I say hey I'm not a bird, can you present that information to me in a different way? We get a 2D map, we're not birds, really. It is not how we navigate normally. It is a problem for me, maybe not a problem for you, maybe your brain works differently. Now, just keep that thought. So, I've worked with the person who creating Seeing AI, and the person who created Sound Scape. I know about Be My Eyes, those are three apps. Seeing AI runs on the iPhone and again has a number of use cases that it covers. Sound Scape will help you navigate based on sound in a particular area. Be My Eyes is where you ask for help, somebody else to do something and that could be something mundane like making coffee or swapping a cable over, or actually navigating in a city. But three different apps and the key thing about this is that accessibility should be about choice and how information is provided and how information is consumed. When I talk to [inaudible] who invented Seeing AI, I was lost with him in Seattle. Here I am, I'm guiding him and I was lost and I'm walking with somebody who is blind and I'm the one who is lost. I said to them, I don't know where we are and we need to go to this pub, I don't where to go. Kip said to me, "What is on your left‑hand side?" It is a bathroom store. "What is on your right‑hand side?" It is that. Okay, I know exactly where we are. He guided me to the pub. He had the whole map of Seattle in his head. The only problem that he would face was the obstacles in the road or certain things that have happened.

When I would talk to Amos who is the inventor of Sound Scape, he had a totally different experience of navigation or blindness because he has a dog. Obstacles are no problem to him; his guide dog would help him. However, what is specific in his app is hey, we know you want to go from A to B but did you know between A and B a new coffee shop just opened, would you like to have a visit there? It is what the app would bring, that richness which the dog can't help with.

I guess the key message here is maybe don't just focus on the map; focus on the experience that you want to provide and provide choice to the person with the disability, which actually will then help everybody. We're all disabled when we go to a foreign town, et cetera. We don't necessarily be mathematical geniuses and by the way north is there, if they say there is a fire, just run to the north exit, we will all die, because I don't know where north is! That's my answer to that.

MARK: Thank you. There is somebody behind there.

FLOOR: Morning, everyone. John from RNIB. A few years ago there was a European project called ‑‑ it was an FP7 project called Hapti Map, the whole point of that was to try to create both web and client‑side tools to try and enable individuals and companies to create accessible digital maps. I suppose it depends (a) if the outputs of that project are still able ‑‑ if someone has a look at the web, they might find that project. I also guess it depends on your starting point. Are you thinking about a digital map and what can you do, or are you thinking about a map that is going to be printed into a physical format and what can you do? From a digital point of view, maybe try Hapti Map.

MARK: Thank you. I'm going to ask Alexander, from Be My Eyes...! He is sitting next to Hector. How many people use Be My Eyes? What sort of stuff does it get used for? Who knows what Be My Eyes is?

FLOOR: Be My Eyes is a volunteer‑led app. Everything happens through a live video. If you need anything described, or help walking down the street or finding the right house number or getting the coffee made, you will just click a button and it will help you through live video. You can call Google, Lloyds Banking Group and Proctor & Gamble through the platform. It has been used by about 175,000 people with blind or low vision who are being supported by just over three million volunteers across basically any language. The companies on the platform like Microsoft and Google and Proctor & Gamble. If you have issues with your Google or Microsoft product, you can call their customer service centres directly.

MARK: You are talking about mapping and moving around, I guess the navigation‑type stuff. What proportion of calls are dealing with something along the lines of that?

FLOOR: Very, very... a lot of the calls that we do like navigation on the streets, finding the reading of opening hours on the side of the door, but also indoor navigations through supermarkets. Yes, we do a tonne of navigations, navigation in a place like this n a big complex building, and all of these navigational tools that are based on GPS doesn't really work inside. So being able to connect to a sighted person who can help you navigate is a really big deal. We do a lot of thousands, thousands today.

MARK: It is an interesting suggestion, Michael, that you look at the problem from a different angle. The other one that reminded me of the slides on presentations. We had that yesterday with Scope. They had a lot of information on the slides and we were talking about it afterwards. They made sure that they explained the basic trends they were referring to. There was a lot of data on slides, as there are with charts and maps. As long as you have got the basic message across that there was seven or eight groups of different information, they picked off the two most important ones and explained why they were the most important and put some context around it, the way you said, Gareth, in terms of putting it into context. Great stuff.

ALICE: So, this may be opening out to the room, this question but what approaches have worked and not worked when attempting to scale accessibility across functionality in large organisations? So, if anyone has any suggestions of what has worked or has not worked.

MARK: If you don't put your hands up, I will give the microphone to Gareth, it may make you put your hand up! So, scale, the BBC?

>> We are small. Well, compared to Google we are small in comparison to scale. It is not just organisational scale but complexity, complexity of output. We heard a lot yesterday around this from the leaders, if everyone was in the leader's session, that talked and tackled a lot about this. But it gets down to the whole thing, it is, you know, you should move away from why we are doing this to how do we do this? You realise you have tipped the balance in an organisation when no-one asks why anymore and everyone is talking about the way you are doing stuff. It is where we are.

The champion's network is an interesting one. It has existed, Emma will do a whole thing in her session but it existed for many years. It ends up, it is not just about technical delivery, it is not just about design and technical delivery, it is everything. Having a champion in internal comms with Amy, we have to deal with information to staff, it is not just access to the desktop, it is a right to information. That is where you have to go. If people can't access the things that they need to know to be able to function and to progress within an organisation then something is wrong with the way that the organisation is dealing with its communication. So, the first step was the policy, sitting in, the pair of us are seeing events, you are sat there making a list, thinking we need to train the people to sit on the panel to say who they are, or you get a bunch of people who don't say who they are, if the audience don't recognise or see them, there are forms on that.

There was a situation a while back, no captions on the video, we lost the sound, only the lipreaders in the audience had access to what was going on. You learn through the mistakes. It is okay to make the mistakes; they are the best thing. Failing is a good way of learning, as long as you learn from the failures that is the whole thing with anywhere organisation at scale, it must be willing to do that, tools! Nigel has something to say about tools.

NIGEL: I wanted to make a point in addition to that stuff, hello, Nigel Meggit, also from the BBC. What can be a barrier to helping people is if they don't have the tools to do it, it would be good to it subtitle that but how? One initiative I have led is creating a tool for staff, without paying money or downloading special software, to be able to create subtitles that will work without Player for the closed caption side of things. So, people can do, that they make the video, upload it, it takes ages making subtitles, it is a fact, it is hard. We have never seen a way to make it be superefficient but they have the ability to do it, if they don't have that, it will never happen. Not without minimal requirement.

>> I'm Steve from Guide Dogs we have a lot of people creating internal and external content, we have an accessible documents course and the organisation was supposed to attend the course, a face-to-face course, that was difficult to maintain and to do. We turned it into an e-learning course. That is good that people can take up. When you are talking about creating alt text for those bits of content it does not take long for people to think how does that work on a tweet. It starts a conversation; it is a great way of getting across.

MARK: The questions of scale are about the champions network discussion this afternoon. That is where people will bump into this question. I have not heard but we subtitle our short form videos with Zubtitle. It uploads it, you can correct the transcription, you can download it, it is 50 cents a minute, it will not do longer than 30 minutes. We don't do webinars with it but we do all short content. It is Zubtitle with a Z. Anybody else got a tool? Once you get people to do it, they don't step. Getting them to do it they don't stop! Getting them to do it is the hard bit.

>>: We use Lecture Capture. We had a conference at Pinopto, there are questions being asked in higher education but it is ... Pinopto is the software we use to run lecture capture, so in all lecture theatres, the lecture is recorded so the students can watch it back after. That is available to all students. Obviously without the captions. Many students are missing out. We found huge benefits of captions for many students beyond the deaf community as well.

MARK: Thank you. Another tip we have had is we always, actually Gareth, we do it as if we are speaking without pictures. So, doing presentations or webinars, in particular, you do it as if there is audio, so describing what is on the screen. That means that often the captions are not so important as in a long session, it is possible you can let the auto captions do their job. The only thing that takes time is correcting it. But if we labour over explaining what is on the screen you are bound to get the idea sooner or later. For us, the cost of doing an hour's captioning on a webinar is the time we spend correcting the auto captions, that is the bit that is the hardest for us to afford in AbilityNet so we must be pragmatic about how much of that we will do. And like Michael said, we tell people if they have not understood anything to tell us, speak to us, that is what we are doing, we are explaining, communicating with people, on the other end of a phone with an email or a tweet if they have lost track of stuff.

>> Something that we started doing in the 1990s on broadcast in journalism, it is to do with By Media Production. TV news is scripted as if without pictures. It was a way, an efficiency saving it meant we could clip the audio from the news broadcasts and use it from one of our 60 radio stations it is a really efficient in the organisation as a tool. It is like a Hitch hiker's Guide to the Galaxy thing. It is all in the dialogue. No visual jokes that are not described by the cast. They say the joke, it is a radio script. So, script your stuff as if you will not have pictures and then film it, it makes it is a lot more accessible.

MARK: We are moving along. I will ask James and Michael to come up. I don't know if we will get a chance to come back to you. If you can sit there while we get the other guys up. We will see how it goes. Thank you very much to the panel. I would like to introduce you to James and Michael. If you want to come up to the lectern. So, one of the areas we were looking at, thinking of things that were helpful to fellow professionals, it is testing. We know, I'm sure you know, any of you working with any sort of advocacy roles you spend time telling people you don't test at the end, that is a bit late. All of that retrofitting stuff. So, we thought we would have an overview of testing and Michael is showing us a Microsoft tool you may not be aware of and talking us through ways of doing testing as you go along.

JAMES: I'm James, I am an accessibility consultant at AbilityNet. I work at AbilityNet and do a lot of auditing of websites and apps and user testing. I previously worked for a company that provided automated testing, which is what I am particularly interested in. In a second, Michael is giving a demo of Microsoft's Accessibility Insights Suite of Tools for accessibility testing. I will provide to put it into context, a quick general introduction to accessibility testing and points around things to consider around automated testing versus manual testing.

So, first, in terms of what we mean when we talk about automated testing, this can include running automated checks in free browser add-ons, so accessibility insights, other ones you may have encountered, Axe, Wav, Google Lighthouse. These are used to analyse single pages but automated checking can be done on much larger enterprise scale systems which scan multiple sights at a time and so there are a few systems like this. The thing to know about automated testing is that although it is extremely useful for catching a certain proportion of issues that can be reliably checked for automatically it does have limitations. There is a lot of things it can't really check for. So, it is very good at checking that form fields have a programmatically associated label or that images don't have a completely missing alt attribute but it is unable to say if the label is actually useful or if the alt text is descriptive.

The effect of this is that you can only test a certain proportion, some say about 30 to 35% of issues that come under the web content accessibility guidelines that can be checked through automated checking. Having said that, if you are aware of the limitations, then the automated checking is good for capturing the issues which it can get. You can run it relatively quickly and at a large scale on websites. So, you can use it to get a good quick idea about how accessible things are and you can integrate it with integration testing during development to keep track of the issues which it is able to catch. Then on live sites it is useful to run automated scans to ensure that after the projects ended and the sites are made live that you are not introducing issues when the sites are live. I think it is reasonable to say that a lot of organisations are not using automated checking to the full potential, at AbilityNet when we audit sites and use testing, we encounter issues that could be causing problems that could have been found by automated testing. So, it is something that is quite important to do properly. Alongside automated testing we need to think about manual testing for the issues which can't be either completely or that can't be completely automated. When we think of manual testing we often thing of very large manual audits to the web content and accessibility guidelines or expert review, producing long reports, often at the end of the process when the websites are complete or almost complete, this can potentially be costly but it is important when think being manual testing as well that this should include covering basic manual checks that teams can do while they are developing websites and apps.

This is something that we will see, there are tools now, Accessibility Insight, Ax Pro, there are now tools that can be used to help to provide step by step support for teams when they are working through manual checks. This is something that can be very useful to help with that.

As Mark said, it is very important that the testing is something that happens all the way through the development process, not something that is done in one big chunk at the end. Finally, as well as automated checking and manual checking, is very important to consider user testing as well. User testing, involving people with disabilities at all stages in the development process is very important. So, although automated systems can get you a certain way, with the checks, there is still a lot of insights to get from user testing which makes it very worthwhile to use alongside the automated and the manual checks. I will pass to Michael who will give us a demo of Accessibility Insights.

MICHAEL: Yes, so do I need to go further with the introduction or is that good enough? So, my name Michael Vermeersch, I'm from Microsoft. I work cross industry sectors. My main focus is to ensure that our products and services land in the most inclusive way, it includes accessibility and making sure our products land for everyone, not a percentage, not 80% and so on.

I was asked to do this presentation and I have been a developer, I have been a tester, although that was a long time ago, when I was small and younger. But, hey, I got this task and I'm going to try to make this as fun as possible.

Now, two stories. A couple of years back, we were asked by an international bank to train up a couple of thousands of developers to think more around accessibility. Now, that sounds great, right? It is an opportunity.

Here's my thought, I will leave you with that thought on that story; what are you doing in the meantime because that takes time to train thousands of developers? What do you do in the meantime, you stay on inaccessibly? That's that story.

A couple of months back, we got interns, early in career people. One of the fun things that they do is they come along with us and they shadow us. Normally they shadow us and they sit in the meetings with the customers and things like that. This one a couple of months back, I was with this bank and she was with me and we were going around the table and we were talking about the internet bank of that bank. We go, yes, maybe we need to do some things. And then suddenly oh, I'm not going to say her name, "Did you want to contribute something?" She said, well, "I was a customer of your bank. I'm dyspraxic and dyslexic and I just couldn't engage anymore with your internet bank and I just moved to another bank." It was a mic‑drop moment! You were just supposed to be shadowing and maybe okay... that was the clearest message that we could have given to that bank. It is another thought I want to leave you with. People have choice and they can walk away from inaccessibility.

Anyway, so I will go on with the presentation. So, yeah, we got a set of tools which is called Accessibility Insights which is freely available and it covers a number of situations. You can text on the accessibility for web and test accessibility for Windows applications and it also can be used as a part that you can integrate in your normal development and testing methodologies and your packages.

I'm not going to go... yeah, maybe I should ‑‑ I will talk a little bit about the slides, otherwise ‑‑ I made the slides just to make sure that you also have that visual representation rather than just me talking. You can download them now if you have a laptop. The link is aka.ms/accessibilityinsights. It runs as a plug‑in on to Chrome and Edge insider if you already have that, any beta version of the newer version of Edge. I think that's about it. Here's the thing, right, this is to help you and think about those two thousand developers who are maybe still being trained. Just a little bit about on accessibility insights for web. It has two modes; I will show that anyway. There's a fast pass, fast pass is fast! It checks the website in about five minutes and gives you all kinds of information, where things are going wrong and things like that. At the same time, you can also see where the tabs go, it is really interesting. This is really key where tabs are going for a keyboard user. Then, it's got a more automated check where you can walk through and choose what you do with it as well. I will show you the difference there. Ultimately, it is using the same kind of technology or engine.

I put up there the level that we ‑‑ certify is the wrong word ‑‑ but that we test us. It is WCAG level AA. It might mean more to some people than other people. It is not the ultimate standard that's for sure but it's a good standard. Now, we go to demo.

This is always a little bit tough because I was, like, who will I name and shame! [Laughter]

Ah...

FLOOR: [inaudible].

MICHAEL: All right. Who votes?

MARK: I vote for them.

MICHAEL: I do need to launch the new one. I will do refresh. It is not too bad.

MARK: There is at least three.

MICHAEL: Bless you. So, I had to pick on somebody. I thought why not pick on ourselves and let's pick on TechShare Pro and the website there. You know, the other reason is because if you have to compare it with the rest of the world there's fewer errors and otherwise we would be here for days! How's that! As I said, I'm running Edge here. There is a little icon here. I will show you the TechShare Pro website which you might have browsed already. You see some information here. It is just typical website of an event, it has got a map, it has got some details on there, everybody who sponsors, yay! You have the logo and a bit of explanation and stuff like that. A typical website. Now, if I click on the little plug‑in here, it pops out...

MARK: You can see the black bar there, that's the subtitles.

MICHAEL: You're not missing too much. There's a little icon in the bar in the menu bar ‑‑ thank you for pointing that out ‑‑ when you do pop out it does show you a nice menu and you can do Fast Pass or assessment. We will do Fast Pass which promises less than five minutes.

So, I'm in the Fast Pass mode and it was less than five minutes, right. It went straight into automated checks. I pointed out some errors. Oh, no, who is responsible for this! We can do them on the fly, maybe and see what happens. Okay. So, there are some errors here. At the same time, I can kind of see on the website hey, there are some little red flags here so it is nice and visual. You could switch that off but why would you? As you see, overall there's not too much, right. There is stuff on the top and then the map itself. Hey, was that not a topic earlier on!

MARK: We need Be My Eyes.

MICHAEL: That could be good. What do these tell you? I will go straight on to the website. It already says IDs used in ARIA. Says it must be unique. Why would that be? If you are going around with a screen reader, it could be really useful information rather than ‑‑ we had it yesterday from the person from Google who was saying "button, button, button", how useful is that? Not. It brings me to another site. Does anybody ‑‑ you will know this, James?

JAMES: Yes. It is an excellent resource. I think it is really useful having those linked through, it makes it more educative potentially for developers so they can actually go through and see why these are issues.

MICHAEL: That's the idea about the tool. On the one hand, the developer can already be more accessible by just following the tool guidelines but at the same time if the developer has the time ‑‑ probably never ‑‑ but, you know, has a time where the curiosity, the developer he or she can start to learn what it's about and why it's important. It describes here how to fix the problem, why it matters and the rule description. But at the same time who is impacted. It is not always people who have loss of sight. There are examples where, for example, people with ADHD, this is not quite the interface you want to provide. It shows all of that. You know, you kind of address two problems here, the problem of what do you do in the meanwhile, you get the education part, but at the same time you need to solve the problems.

So, going further. Again, in the little box here, it says where are we in violation? It could be handy because it could mean you're working in an organisation which has some very strict rules and say what we are going to comply with is this particular rule. At the same time, you have that reference as well. Don't you just hate that as a developer you not only have to develop this great code, there is compliance issues and all of this stuff and you can see you have done this one and I have checked everything for this kind of thingy that you want me to do, and this is about understanding success criterion 4.1.1 on parsing. In that sense, we are empowering developers in that sense. I will go to that one later.

I can check the HTML code. I won't talk about that HTML code. But there is it a button to go straight to the HTML code. You do not want to read this. What you are seeing on the screen is lots of HTML code. But I can go check that and go straight to the line, the culprit, where is it going wrong? Again, it is a great help for developers and testers, you can see where I went wrong. It brings you straight to the area where it is going wrong.

Now, sometimes you're just a tester and you are like, "This is not my problem. This is for the developer." You will have to stay over until six o'clock or something like that. I can just file the issue, I need to set this up, but I can just completely file all of these issues and then hand it over to the developer and as a tester I can go home at four o'clock in the afternoon and the developer will have to stay a little bit later, tough! I'm just joking, right! But this is all baited in the tool which makes it not just a tool which says all of those things you need to fix; it can be nicely integrated in your development practices.

Now, a little bit about the automated testing, maybe.

How are we doing for time? I'm having fun and there are loads of things that can be done here. In that case, I might go a little bit back. Let's go for the key tabbing. There are some interesting things there as well. I'm going back to Fast Pass, run that. I don't have to scan it but I go to the tab stops here. I can interface in different ways. By the way for example, I'm going to go a little bit on Fast Pass again. You see some errors here. I will deselect everything and just go to this image‑alt here. We talked about providing alt text for images. I can click on that and I can see again the line of code and again specific detail in the tool, I can file it here and again how to fix guidelines and all of that kind of stuff. I'm really empowered as a developer.

They could now hand me this tool and it is like, okay, by the way, okay, so I don't have to learn why, but still all of that... but here, you know, I'm getting all of that insight on how to fix it in an easy way. It takes a lot less time. Tab stops. I will switch that on.

This is good for a keyboard user. There are scenarios that are support fundamental for keyboard usage. There are areas when you use keyboard that suddenly you get into an area of your website and you are stuck, you can't tap back out again. That's bad design. It is really annoying if you are a keyboard user or using a facility which is functioning in the same way. As you see, I am going to tap through, it shows me, it shows me every tap what is next. So, I am getting a numeric roadmap of the tap site. This is going fairly well from top down to left to right which is probably what they had in mind. I don't know why that one is there but hey! Then we suddenly jump up and hit some feedback. But at least we captured this. You can see, okay, is this what I intended? But it also makes perfect sense.

With the map, we are going a little haywire but it does kind of make sense. We are showing where Google is, where the manage any fiction is but the next thing is the description of the area and where the button for directions and so on. So, it kind of makes sense. At the very least you have a full view of what is happening and then you can try to correct it or not. Cool. So, was that the animation you wanted to show? Yes. Now, absolutely, I did see an interesting one ... it was day two. No, day one.

MARK: If you go up the screen, the navigation for us is we have lots of services, I don't know why 5 suddenly went into the menus, the others didn't. That is the question I would come up with, why is that one going all the way up, the others they run across. That is a simple example, this is a probably a piece of code in the actual drop-down button.

MICHAEL: I didn't want to point it out to the public!

MARK: That is the only way I will see it. I'm the client in the sense of that one.

MICHAEL: Absolutely. That is what I wanted to see. It is really important for screen readers, or, as I said, keyboard users who want to get somewhere. Sometimes you just don't have access to a mouse either.

MARK: The other thing to add into that one that I find useful is navigation is one of the hardest things to do. Lots of people grapple with this, multiple people using the site for multiple services, the tack thing, I was playing with it before, it showed me what people get and how easy it is to find what they were looking for as I was having to do it with a tab. Doing it visually, you can pretend you can see it.

>> Tapping order is something that we are constantly discussing, there are two different ways of approaching it, either through a visual order or by a hierarchy of need. In the media players it doesn't go to visual order, the thing that most people want is the law and the pause button, so it starts there, it goes through and we monitor how popular the functions are, that dictates our tabbing order. It is one of those, with everything, there are always edge cases, you have to think about that, that is not just an accessibility thing.

MICHAEL: That is what James pointed out, we need humans to test these things. The worst case is that, I only want to contact the store, why do I have to tap everywhere to get to the phone number, which I have seen! There are sites they hide it. Utility companies, have you ever tried to get through to talk about your gas bill! I don't think that they want to be contacted, unless you change contracts. Did I say that?

MARK: Shall we take questions?

MICHAEL: Al? Have you spotted any, Alice?

ALICE: Are there tools that can be used at the design stage that does not use full HTML prototypes?

MICHAEL: This is Windows application but at the design stage I will go away were this, what I would recommend for the design stage is to do inclusive design. We do have a tool map for that. It is free. It is at www.microsoft.com/design/inclusive. So, there is a free toolkit there on inclusive design. That is where you work really user-centric, so to your point, Mr… I think you are from the BBC, to your point, Gareth, you look at the personal requirements, and how that should kind of look and feel. It is really looking at the user scenario there. So, go there first. I know I am skipping the question here but I think that is more key.

>> Somebody reminded me earlier about something I spoke about last year, which is something we have for our designers, it is not a tool but it is a three-word thing to think about. So yes, I highly recommend the Microsoft toolkit, it is great. We recommend it to our people as well. But for our designers we recommend that they think about labels and focus and colour. So, it becomes three things that they can keep in the back of their head. Have I thought about the labels? So, the labels are headings, buttons and link text. Have I thought about focus? The order of it, what it looks like and have I thought about colour and how I am using it? You need to think about contrast and if the colour has meaning and that kind of thing. So, they are three things that we give to our designers, not a tool but a useful memory aid, I guess. I wanted to add that the automated testing, if somebody is failing your automated testing, it is a good indicator that they are not thinking about the stuff you manually test. That is, it.

>> It works on Acc Share. If you put it through accshare.com, you can run it through.

>>: How do you spell that?

>>: It is ACCSHARE.

MARK: Time for one more?

ALICE: Does insights test for non-guidelines in documents?

MICHAEL: Not that I am aware of. Probably, no. But that is where you have the ability checker across the Microsoft suite. So, in Word to PowerPoint, and a question to the panel, this is not the only solution but that is what we trying to do to make accessibility mainstream, built into our products so that the accessibility checker across the suite make it is easy, then you still have to get into change management, that people are aware, that they know why they are doing it and reinforce it so you ... because this is changing habits.

MARK: Thank you. So, I think we have neatly dove-tailed a whole load of information and ideas there. This is obviously the practical stuff that a lot of us grapple with every day. We have an amazing set of questions, if you have been following them, there is no way we have scratched the surface of most of them. So, doing what we can to pull it together. Slido is still the best place to record them. Somebody asked about the BBC guidelines, where they are. If you have top tips or mentioned something, or want to make sure people have understood a reference you are making, please put it in Slido. I want to say a big thank you to our guests and experts. That was great. An amazing bunch of ideas and expertise you have brought to us. Thank you so much. A round of applause.