# How can AI help disabled people? Transcript

Annie: Hello everyone and welcome to today's webinar. From a sunny Hastings today it's gone 1pm. I will give everyone a chance to join. As ever, do feel free to drop into the Q&A box and say hi. We disabled the chat feature it can cause problems for some people using screen readers but the Q&A option is still live. Glad you could all make it today. I can see the numbers going up. Hello to Marie in Northern Ireland. Matt from Blind Veterans UK in Lewes. Just down the road. We are giving it a bit longer for a few more people to join. Hello from Hampshire.

and from Washington DC, hi, Lisa. Hi everybody and welcome to our webinar, How Can AI Help Disabled People? I'm Annie Mannion, Digital Marketing Manager at AbilityNet and I'll be rung you through today's session. Glad you could make it today. I'm going to go through a few bits of housekeeping. We have live captions today provided by Claire at MyClearText. You can turn those on using the CC option on the control panel. We also have additional captions available via streamtext.net/player?event=AbilityNet. You can download the slides if you wish and fold along on our website at www.abilitynet.org.uk/AI webinar. If you have technical issues or you need to leave early, don't worry, you will receive an email in a couple of days' time with the recording, the transcript, and the slides. Depending on how you joined the webinar, you will find a Q&A window. So, if you would like to ask any questions to the panel, please do drop those into the Q&A area. Any that we can't cover in today's session, we will try to answer and add them to our website at forward slash AI webinar. We switched off the chat feature as it can cause problems for even using screen readers. Use the Q&A field for any comments. We have a feedback survey at the end so complete that if you are able. So, for those of you not yet familiar with AbilityNet we are 25 years old. We support older people and disabled people living with any disability or impairment to use technology to achieve their goals at home, at work and in education. We do this by providing specialist advice, services, accessibility testing and training and frees information like our factsheets and this webinar.

Today we will be discussing How Can AI Help Disabled People to discuss the topic today I'm delight wed we have joining us Robin Christopherson MBE, Head of Digital Inclusion at AbilityNet. Also joining us is Michael Vermeersch, Accessibility Go to Market Manager at Microsoft. And then we have also had Tamsin Keyes, Publications and Research Manager at Headway the Brain Injury Association. So, welcome to all of you. Hopefully, by the end of today's session, you will have all reassurance and ideas about how AI can be used to benefit disabled people. I'm going to start with a poll to find out a bit more about you all and your experiences of AI. I'm going to launch that now. Can you tell us how confident you feel using AI technology? So, are you very confident? Confident, OK with some devices? Not confident. Not confident at all or not applicable. Depending on how you joined the webinar you may find you can't see the poll, but you can respond in the Q&A panel.

give a little bit more time for anybody that wants to vote. Few more moments. Last few decision makers. I'm going to end the poll now and share the results. Looking at the results, the highest responses are, I'm OK with some devices or sites. That is 45% 20 confident. 19% not confident. 7% are very confident. 7% are not at all confident. Then 1% at not applicable. I will stop sharing now. Thank you for completing the poll and it's really useful to gauge the experiences of everybody joining us and today's speakers will be able to offer some really valuable advice. So, now over to AbilityNet's Robin Christopherson to provide his suggestions for how AI can help, not hinder your life. Robin thank you.

Robin: Hi, guys, thank you so much for joining. It's an exciting topic, isn't it? Today we will start off by looking at the some of the really helpful applications today that are helping empower people with disabilities or a range of impairments. Later on, in the Q&A part in particular, I imagine we will start looking forward to the future as well in some of the more cutting-edge uses of AI that promise to be around the corner. Kelly is kindly driving the slides is. If we move on to the next slide. We will look at it in the different areas of impairment. We will start off with vision and look at two or three apps or services in each area of impairment that are really helpful today. To just give people an idea. There's absolutely no way that we could cover all areas that AI is being applied to as I'm sure you are aware, there is not a single text story that hasn't got "AI" in the title at the moment. Every device is trying to layer AI on in some shape or form. Let us look at the standout applications. We start off with Be My AI. Don't know if people are away of Be My Eyes, as a blind person, it's one of the go to apps that help me to understand the world. It's been around for a while. It basically calls a volunteer. 3.5 million volunteers. If you want to add to that number, by all means, download the app. It's on both platforms. Be My AI is an addition to it. Applying AI where it can be useful rather than having to bother a volunteer. Seeing AI is another app you may or may not be aware of. Available on both platforms. It's available from Microsoft. It uses the camera and AI to be able to understand the world around you. Like we will see with Be My AI in a moment. It's very, very similar you can recognise text, objects, QR and bar codes. What's around you. It can even recognise handwriting and that sort of thing. Really, really clever stuff.

Google lens, which is Android only, I believe. Is a similar really, really powerful app. Mainstream arguably, but really, really useful. If you haven't got that, download that, and have a play with that as well. Really, really powerful for image searches for text recognition and object recognition, that sort of thing. This is where AI and the senses, in this case the camera, in your smartphone, that is with you all the time, is absolutely changing the lives of people with disabilities. If we go on to the next slide.

We will watch a quick clip of Be My AI in action as introduced by the Be My Eyes team we won't play all of these video clips I will show you. So much to cram in. Apologies when I cut them short. I will let Kelly know to stop the video. Let's have a go.

[Video Playing]

>> Artificial intelligence is set so to take a mobile phone app to the next level it will speed up how the app helps in the division making processes which I thought sighted people take for granted.

>> At the age of 17 Lucy lost her sight altogether. Now, a bit of tech is helping her picture what she can't see.

>> Open BE my eyes.

>> She is one of the first in the world to trial an artificial intelligence powered app to describe the world around her.

>> Eggs, but

>> But to contextualize it too.

>> What can I make with these ingredients.

>> Many dishes you could make as though ingredient such as a scrambled eggs, grilled cheese.

>> That is so cool.

>> It uses a tool which was updated to interpret pictures as well as words.

>> Based on the picture it seems like the milk expires is on the 21 December 2023.

>> Good to make sure I'm not going to kill myself or anyone else around if I eat mouldy food.

>> Does it always get it right?

>> 95% of the time. What are the models wearing in the photo?

>> They are wearing various outfits from the Chanel ready-to-wear selection.

>> I took a photo on the Tube map and it told me where to go. I can't wait for what else it can do.

[Video ends]

Robin: The app has been around for a while changing the lives of blind and low vision people. As we heard Lucy say there, it made her cry. So impactful. Can't stress strongly enough how big an impact AI is having on people with a range of impairments. We will move on to hearing. Ava Roger voice similar apps using AI for real time for accurate transcriptions in many cases these translation or these kind of voice recognition services have moved over to using the large language models like Whisper, Chat GDP's one to have really amazing recognition accuracy. They do real time translation into text on the screen for people with a hearing impairment. They can do real time translation from one language to another. And they, some of them have built in TTS, text-to-speech capabilities so they can speak it out straightaway. The Roger vice in particular when it made a mistake you can tap on the word on the screen and say what you meant to say. As far as I am aware that is unique in these solutions. It doesn't get it right every single time. To be able to learn like that, particularly when the people that you use it for every day, your family, and friends etc may have particular accents or you don't want to have to live with the fact it will get that particular wrong every time one of your friends or family say it. That is really, really powerful.

Heard that. I would encourage people to go to heard That when you come off the webinar and slide the interactive slider. Your ears about pop out, as your eyes would if you saw something amazing you hear the noisy background noises fade away and the person talking to be still clear as a bell. That is a brilliant app. I think it's available on iOS, I could be wrong there. Really amazing.

Orka Two is a powerful AI powered hearing aid which does something very similar, constantly adjusting its settings, it's noise cancellation settings to be able to give you the best voice to noise ratio that so you can understand what is going on. As a blind person, a lot of conditions mean you lose your vision and your hearing in older age, a lot of blind people wouldn't want to filter out background noises you don't want to get run over by a car or whatever. You need to hear the important sounds it's not a given that everyone wants to have noises cancelled for example.

A quick burst of this Signapse videos. Signing avatars have been a challenge. Everyone who uses signing on a day-to-day basis will tell you how poor they are they don't cover everything that accompany signing. Signapse use AI to do a much better job. I can't personally comment not beings being able to see. We will watch this interview where you will see the signer in action in the corner, I think.

[Video playing]

>> Hi, I'm Sally, Chalk the Chief Executive of Signapse. We are co-founders of sign apps, it's software that translate from a written text such as English to a sign language video such as American Sign Language.

>> 60 million deaf people in the world who use sign language daily with a market size of $1.2 billion in the States alone. My previous role...

[Video ends]

Robin: We will leave it there. Thank you so much, we can make these slides available afterwards we have linked a lot of these things we are including here are linked so you can follow them there and watch the rest of the video if you want to. Really, respiratory, I can't comment it's supposed to be really good. Interesting to know if there are any hearing-impaired people on the call, what they think of it. We move on to the next slide. Communication, the third of the four categories now. Google have been active in this space. Project Euphonia/relate if you think Glaswegian or some accents give mainstream voice recognition software a run for their money, then people with cerebral palsy are another challenge it's doing amazing things. Project Parrotron, is a similar idea, but it instantly translates it into text-to-speech. So, you know you can imagine someone with cerebral palsy, if you have some useful speech at all then this will be really, really useful. Let us see it in action. If we go on to the next slide. So, this is an example of the Relate technology that is in those projects that we looked at a moment ago in action. We will just watch a little bit of this.

[Video playing]

>> This is Bill. Bill is helping us with Project Relate. It's an Android app from Google and designed for people with nonstandard speech.

>> Let's do this.

>> It allows people to chat more freely, express themselves more easily and be better understood. If you think Project Relate can help you or someone that you know, sign up here. Oh, to become one of our testers.

>> We watched the whole thing.

[Video ends]

Thank you. That is OK. On the next slide we will do the last category which is learning/cognitive. Google features large as it does in many areas too. Google lens really useful. Not only for low vision to see what you are picking out of the cupboard with learning difficulties as well you can recognise objects and tap through to get useful information about it or to have the ingredients or the cooking instructions spoken out to you, for example, which you can do. So, yeah, really, really powerful. Just download it and have a play, guys. It's amazing. Fake a photograph of each other and see if it says how old you are. Always good for a laugh. AI visual search. You have tried it online to be able to find images and stuff. It's the same technology at its heart being able to, not just search for text, but search for objects and images online too. Helpicto, French only, a good example of where you can take text, sentences and turn them into pictures, helpful pictures. You may have heard of symbol-based languages like Makaton, this is useful for people with a cognitive impairment to be able to understand written text and having them spoken out by Google, the likes of Google lens or Seeing AI or whatever it helps as well. Goblin Tools is a web service. It basically just is a really smart AI powered to do list. It does use AI. It's not like breaking down things for, that you have put in there to give you each item as a time, 1 to 10, in your to do list, it will create the to do list for you. Use smarts to look at what you have put down as a particular task and go away and find out how you could break that down. Like a Google search or a chat GDP search and give a breakdown of how to perform those etc. Really useful. Look at that. We will finish off before we hand over to Tamsin. Looking at Rabbit R1 the communications show a couple of months ago. This is Rabbit we will watch a flavour from this video. We won't watch it all again. I will give my comments afterwards.

[Video Playing]

>> What is rabbit's deal the startups put out this R1. Which is a little phone adjacent des vice that asks as a stand-alone assistants. With no subscription fee.

[Video ends]

Robin: If we leave it there. Thank you so much. It goes on to talk a bit more about how it's going to make money. It's obviously important. Important topic if we want it to stay around. It's a cool gadget. $199 they are completely sold-out; you will have to wait for the R2 or second manufacturing run ever the R1. The main thing we take away from that is the large action model we have heard of LLMs. This is a large action model. As we heard there, it will actually learn how you interact with website and apps it will literally do the clicking or the tapping for you to get through those UIs not just recording a macro, if something moves or the UI changes the smarts, the AI within it, will compensate for that. It will intuitively know what button to press to submit a form. What fields to fill out/in that form etc. Can you ask it to book flights for you. Book table at so-and-so restaurant for 7pm. You don't have to have the API. You don't have to have the official interaction implemented between in this case the Rabbit software, Rabbit OS or the given website or service. It will use the app or website for you. That is the promise of large action models. Maybe you heard it here first. Large action models are the next big hotness along with large language models. Tamsin from Headway will talk about amazing things they are doing over there.

Tamsin: Good afternoon, everyone. Thank you for that introduction. So, my name is Tamsin Keyes, Publications and Research Manager at Headway the Brain Injury Association. We are a UK-based charity that, we support people affected by acquired brain injury. I'm here today to give a brief overview on what brain injury is, how it can affect people and how digital advancements such as AI can be used to better understand and assist people living with the impact. It's often hidden and sometimes misunderstood disability. A I will begin with a brave overview what I mean by the term "acquired brain injury" an injury that has been sustained to the brain since birth. So, it's not something that somebody is born with, that is a congenital condition. It's not a gradual deterioration of brain matter and functions such as in degenerative conditions. They are unexpected if someone has been involved in an accident or an assault in which their brain has been injured. It's referred to as a traumatic brain injury. Nontraumatic forms such as medical conditions such as stroke, comply killings such as starvation of oxygen to the brain oar brain tumours. So, there's lots and lots of different types of brain injury. In all cases the brain has been injured. Often very unexpectedly. Very often the person has to be treated in hospital, either to attempt to repair the injury that has taken place already or to prevent any further damage from being sustained. Now, unfortunately for many people the hospital treatment stage is the first part of life with brain injury. Many people continue to have long-term often life-long consequences of the injury as well. Now, everything that we do and say and feel comes from the brain. So, injury to it, regardless of exactly where the injury took place, can cause lots of different affects and complications and issues. Some of which are more common than others. I don't have time to cover all the effects of brain injury today. I' put some of the more common ones on the screen there. For example, it's very common that people have problems with their memory. Both with remembering things on a daily basis and regular basis or even personal memories from a very long time ago. Fatigue is also incredibly common after brain injury. That is an overwhelming tiredness people can feel seemingly out of the blue. Executive dysfunction is an umbrella term to describe the skills we use when we are completing actions. Things like setting goals, multi-tasking, flexible thinking, and that sort of thing. As you can imagine, many of these effects of brain injury have a much wider impact on the person's life. For example, it affects relationships, a person's ability to return to work. To return to driving. Independence and very often mental health as well.

Often after brain injury people will go through a period of rehabilitation to help them with recovering these skills. For example, physiotherapy can be used for mobility issues and speech and language therapy can be used with communication issues. Sometimes it's not possible to completely recover a lost skill. The person needs to learn to use external aids it cope. These have been things like using a note pad or a calendar or an alarm clock to cope with things such as memory impairment or keeping a manual fatigue diary to keep track of when fatiguing happened and what factors and triggers involved in that. We are moving towards a digital age in all respects of life we are seeing how AI can be used to assist with these sorts of issues.

So, I've given a description of what ABI is, acquired brain injury. What about AI? We do have somebody with us from Microsoft on our panel today I've taken the Microsoft definition "the capability of a computer system to mimic human-like cognitive functions such as learning and problem-solving" another definition is that it's the capability of a computer to perform tasks commonly associated with intelligent beings. " So, with both of these definitions, many other definitions of AI, it's the ability of a computer or machinery to operate in a way it's able to complete tasks and processes that the human brain is typically capable of. This goes far back to 1930s, to Alan Turing who wanted to build a machine to imitate the brain. The brain is likened to a computer. Age old debate. Computers and brain rely on thrills travelling down pathways to complete processes. In the brain it's through nucleons. These parallels exist we have things like there is an element of input processing and output in both stems. This is where things such as brain implants, for instance, have been utilised as an he external device incorporated into the ways the brain sunshining it can be more powerful when AI is included in that process. AI is able to learn and recognise patterns of brain activity.

Now, this obviously has quite strong implications for when the brain has been injured. When it's unable to complete its normal degree of processing and function. But brain implants are invasive, other forms of AI can be used as aids, we are moving into this digital age. So, AI can offer a really dynamic way of compensating in some of these cases and maybe even exceeding the capabilities of more traditional aids because it can continue to learn and adapt and offer a really personalised experience for the individual. That's incredibly important within the context of brain injury because no two injuries are ever the same. As we saw earlier, there is many different types of injury. Many different possible consequences of that. People are all incredibly different. Being able to develop and learn individual patterns of activity and adapt to individual differences can be a real strength and advantage of AI.

So, I'd like to use some examples of AI technology how they are already being used or could be used by people affected by brain injury. The first of these is self-driving cars. Driving is a very complicated skill. It doesn't just include the manual handling of the car. There is a whale of cognitive processes that go behind driving as a skill. For instance, we need to use things like multi-tasking. We need to have sustained attention. We need to be able to very quickly respond to hazards on the road that we see. There is lots of different skills involved. Unfortunately, many of these skills can be impaired by a brain injury. Very often be people may lose their licence permanently or temp rather that can be really distressing and really difficult for people to adjust and adapt to. Self-driving cars have got the potential to compensate for some of these cognitive issues that people with brain injury may have. They may be able to compensate for them so that people after a brain injury may be able to continue driving and continue to have independence and continue having that quality of life that people often lose when they are no longer able to drive. There is smart home technologies. There is lots of different types of these. They can be useful for people with brain injury within the home environment. For example, people might forget, because of memory impairment, to lock their front door when they go out. Things such as smart locks that can be used. There is a whole range of smart kitchen appliances that can be really useful for people. There is things like smart plugs. If people forget to switch electrical devices off that can be quite a serious health and safety risk. So, all of these things can ensure that people are safe and secure within their home environments even if they do have things such as memory impairments or problems with processing information.

Bots and digital assistance. They can be useful for people with information processing difficulties. If they are struggling to process information that they are seeing online. Struggling to work through the sequence and the steps needed for something. Bots and digital assistance can be hand holding process through this. It can be really useful to facilitate activity. These can be very helpful for people as well. Health data analysis. We are increasingly seeing AI being applied to things like diagnosing and investigating and scanning for brain injuries. So, up until now scans interpretations have been quite subjective. They have relied on people to analyse the data. AI has the potential to be an objective measure. We are starting to see things like AI being used for brain tumour detections or screening for or identifying concussion which can be difficult to diagnosis it's a hot topic at the moment. For social media this is very much about giving people a very personalised and tailored experience. They might struggle to access information that they are looking for but AI can be used to generate some of the content this people have been looking for based upon previous searches that can make it a very tailored experience for many brain injury survivors that might otherwise struggle to access and find that information themselves.

So, we just also wanted to ask our online communities what kind of examples of AI have they already been using or what can they foresee they would be using in the future. These are some examples from our online communities. Chat GPT is the big one. We heard about that a little bit. It's a powerful tool. It has been suggested that it could be used for things like treatment plans or recommendations for adaptations. Very many people, after a brain injury, struggle with returning to work because of the various impairments that they may experience. They might struggle with identifying what kind of adaptations they can ask for. What they can do within the workplace context that would make the role easier and adjustable for them. Chat GPT has the power to input personal circumstances, whether that's for treatment, rehabilitation or adaptations and generate useful constructive guidance for people that they might struggle with otherwise accessing. Again, this comes back to it being powerful tool for individual circumstances.

Grammarly is another one that might be useful for people that might, have, for instance, communication difficulties or problems with word retrieval or word finding. These issues are common after brain injury. So Grammarly can assist people with constructing sentences or correcting sentences and has been used by people who previously writers and stained a brain injury and lost those powers. It's a powerful tool for people in those situations as well. Alexa has a lot of support potential within home environments for people to stay on top of medication reminders or if they have appointments. If people have difficulties with their memory, then Alexa can be a useful tool to prompt them to remember information that they might otherwise struggle with. So, these are some of the examples from our online communities. I'm sure there are many more. I'm sure we will continue to see many more of those as time goes on.

So, AI carries a lot of potential and possibilities. It is a very rapidly evolving field. Quite rightly, there are also some legitimate concerns about the ethics of these technologies. I don't have time to go through this list in detail right now. I think I might have already run over time slightly. These are some of the concerns and considerations reported within the wider field of neuro ethnics not by Headway from academic institutions and the Royal Society. They are obvious concerns around data protection and privacy there have been wider discussions around who is ultimately responsible for monitoring the safety of AI, is it the Government? Is the legislation in place to support people and protect them properly? Is it the public's responsibility, such as the user's responsibility? Or big corporations responsibility to make sure everything is done within an ethical framework in another point raised recently is about the media's ethical responsibility on reporting AI advancements in it way it doesn't trigger fear and doesn't exceed people's expectations about the very real capabilities and the actual limitations of these technologies. So that is one thing that people with brain injury need to be aware of that some of the media reports about the power of AI, they need to be managed appropriately it's not a miracle cure for the affects of brain injury. It's an evolving filed there is a responsibility to balance that message.

More specific to brain injury there have been concerns around AI possibly taking over opportunities within the workplace. So, similar with the Industrial Revolution we are entering somewhat of a digital revolution where AI can be used to do a variety of jobs and roles. Many people do struggle with returning to work after brain injury. It's around 40% of people that had a brain injury are able to return to the workplace. Even though there are legal requirements to offer accommodations with people with didn't within the workplace if AI has the power to complete a job, with no issues, where does that leave brain injury survivors who are looking for work opportunities? So, lots going on in the field of neuro ethnics as well. Sorry, I don't have time to go through this list. Feel free to contact me if you had want further information. Next slide, please.

Just to caveat that last point slightly. This is a new territory both for the world but also for us at Headway, while I'm happy to take questions I want to give a disclaimer I'm by no means an expert in this field and may have to do research myself before responding to enquires you have. We are aware of the changing landscape with AI and brain injury and how it carries potentials but also very real concerns for brain injury survivors. So, conversely, if you have any input that you would like to share with us at Headway about your experiences or knowledge in this area, feel free to get in touch with me. My details are on the screen. This is a field we will be continuing to monitor from Headway and making sure we continue to do what we can in this evolving world to support people affected by brain injury. Thank you so much for your time. Sorry for running over slight slightly.

Annie: That thank you for the insights. A quick reminder, you can access all of the slides at the moment from our webinar page at www.abilitynet.org.uk/AI webinar. We have Michael Vermeersch, Accessibility Go to Market Manager at Microsoft who will take about how AI is in use in workplaces. Lots of slides that are packed with information. Do download the slides and can you see more detail.

Over to you Michael.

Michael: We can go to the next slide.

Welcome to this part of the presentation, the talk. It's about bridging the disability be employment gap with AI and Copilot I asked Copilot to generate a striking title for this presentation. Without further ado, next slide.

I'd like to start with these things about the opportunity. What are we talking about? There's a lot of talent out there that are not necessarily included in our workforce. 9.5 million people of working-age in the UK, who have a disability, that's roughly 23% of the working-age population. That's a lot of talent that we're not including. If you then think about it, many of us are going to gain a disability during our working lives and the average age is apparently 46. So, there's 83% of us are going to get a disability during our working lives. Only 17% of people with disabilities are born with a disability. So, it also looks like we are going to age longer. Some governments would like us to work longer as well. So, you know, taking this into account is definitely really key to continue to harness that talent that is out there. What we have also seen is when employers, this is a high number, 72%, when employers introduce adjustments in the shape of assistive technology or features which go into that field, they see overall workforce productivity go up. Not just with the features are great for everybody. On the link, you will see more about this study and this data.

A little bit about AI. You heard a lot about AI. I will go maybe in a summary what you have seen so far. There is innovation here. We could look at new possibilities. You can know what meal to make out of the contents of your fridge. I know I might not get a great reaction at the moment, having a kitchen renovation being done. At the same time, there is huge other amount of opportunities that we have here. What we see is that AI and, thanks to Tamsin there as well, can amplify huge capability to improve the way people with disabilities can interact and leverage technology in their daily life. AI can perceive images and sounds and understand them and give us an idea of what is in front of us. It will learn are from these inputs and interactions and with the word "learn" here it will get better over time. We heard it's learning on how to be a better internet surfer. I would like to see how to be a better surgeon. How to be a better driver, all of that kind of stuff. It can reason because now, thanks to the digital world that we are living in, it can have access to more data. Be it language, be it pictures, amongst those, that data start recognising patterns and that could be behaviour, that could be response. All of that kind of stuff. Out of that, give you the next best action that typically happens. So, for example, when I actually ask, do I need to put a raincoat on today. You would ask, is it going to rain today. AI will say, what the person means is, is it going to rain today? So, I can then now answer, yeah. Go and wear a raincoat today. We can see that is the logical thing that is being asked here.

Here is the thing as well. This is all a bit, it feels new and strange to us, but a lot of this is already embedded in the stuff that we work with. We just don't see it. So, for example, in Windows 11, you already have offline capability to have captions. So, what happened there. That whole compute model the machine learning model, has been condensed and is running on your local chips without connectivity to the internet. Already this is just happening.

The stuff that we are seeing here, this is described auto in this paragraph. This paragraph has two parts. That first part is very much what we have seen and what is already there. I'm going to read it out to you. I just want to have it sink engage here. Artificial intelligence and the emerge earns of cognitive services, hearing, seeing, reading it out for you, listening, cognitive services, in the cloud led to a reimaging of assistive technology, or how we engage with our environment, and led to an increased focus on inclusive design. So, for example, you know, new car. If you are fortunate enough, is that what gives you joy, you could already start talking to parts of the car. You don't necessarily have to touch the screen. That could be a tricky can affair to do while you are driving, right? So, we have an increased focus on inclusive design. Here is the next line in this paragraph. Generative AI, Novembers, large language models, large action models, is likely to create a similar moment that this time the inclusion is likely to be via mainstream technology across industries. I find this very exciting. Basically, what it means is, that it will be pervasive in everything that we can and will have, it will be pervasive across the cases we are experiencing. That could be, I'm here to check your boiler. Whether your boiler is working. I need to have it repaired. That could be a perfect healthcare situation. All of that kind of stuff, across industries. That makes it very exciting as well. Extra level of inclusion.

Now, we had already quite can some experimentation, trailing with our product called Copilot part of our model work technology which has AI. Amongst those can commerce we have seen three things. Just checking on time. I will speed up a little bit. Making sure that you get everything here. On the one hand, guidelines and standards. That is really key from an accessibility perspective, right? The question and the observation that we have seen, we will get to the answer here how relevant are guidelines and standards in the world of AI?

The next is, we are seeing user accessibility experiences, we have seen them today already. How does it impact the experience of people with disabilities? We have seen moments of joy there etc. We will get back to that. What else can we do? Are there new or other experiences suddenly available thanks to AI? We already see you can make an omelette and stuff like that just by seeing pictures. Right. So, the spoilers are already there. That is what we have seen in our trials.

The next slideshow you a little bit of Copilot in action. Many user cases. Didn't want to do a demo on-the-spot. Always tricky. We wanted to be on time for you as well. Here you have a Word file, this Word file exists. It's about the UK disability confidence scheme. It's a document which is on the website which talks about didn't confidence scheme. Basically, it's an overview and case study, work file, title, sub headers and bullet points and text etc. Now, what has happened here is that we ask Copilot, can you make me a presentation about this? I want so many slides. I want some pictures. I want you to really focus on the points which are important.

Copilot produced here is a, based purely on text, a PowerPoint presentation which lists again part of that Word document but brings it out. Here you see the highlights of the bullet points and the benefits that was in the article and the bullet points that are the intricate benefits underneath that title point. The benefits of being a didn't confident employer. Put up a picture next to it. Even produces speaker text. At the same time, that picture will already have alt text against it as well. That scenario is real.

Now, why is this? Why is this important? How can this bridge, for example, the disability employment gap? We got this slide set against all our tech. So, do contact your account executive for example and ask to know more. This one is for PowerPoint. You see the disability segments, vision, hearing, neurodiversity and learning, mental health and mobility. And the use cases. Let me talk about inclusive design. The use case in PowerPoint are a couple addressed by that simple scenario. Word file to PowerPoint for people who have loss of vision, visual content has been created purely based on text, digital text, but also that could have been speech-to-text where I gave instructions to Copilot, make me a presentation, 12 slides maximum. I want pictures and get you the key points. BOOM! Action happens. The next category of this use case is neurodiversity and learning. Starting from a blank page could be really tricky. I know what I like not sure it's important. Can you summarise me this in a way that would speak to an audience. Those are instructions you can give specifically to Copilot as well I want words with no more than two syllables and in plain text. All of that stuff. Mental wellbeing. Cognitive load there. You might not be a great day to do creativity. Find pictures against this as well. BOOM Copilot solved this for you. No hands used it was speech-to-text. It can help with mobility load as well whether you have arthritis or dyspraxia, drawing these things and getting it precisely can take me more time. There is mobility use case there as well.

So, back to our buckets what have we seen here? Slides. What have we seen here? From a guidance and standards perspective, I haven’t mentioned WCAG and all of those standards. I could argue, do I care. As a person with a disability, do I care? No. AI and Copilot has created a great user experience for me and has helped me create content, which is accessible, and I had full control. I had a Copilot and I was the pilot. Do I care about the standards and all of that kind of stuff? 24/7 personal assistant. What are more could I want.

Getting user and accessibility experiences I might not where the picture library is. I might not know how to do search things with PowerPoint. It will either show me, if I ask, how do I do a page return, that kind of stuff. I can ask those questions. I can question, I have loss of vision, can you help me find what helps me with that. Basically, it just does the work for me. I do not need to know all intricacies of PowerPoint here.

The right bucket, augmenting existing technology. Simple use cases. I can do PowerPoint; recognise images I go back to this fridge. With those ingredients I can make an omelette, boom, something from a fridge I wouldn't necessarily have thought about. Not when I was a teenager! So, suddenly, we are having new user cases based on existing technology thanks to AI and I think that's me done.

Annie: Thank you so much, Michael. Just to mention we will come back to you in a moment for questions for the panel. just before that I'd like to do another quick poll with everybody to find out how confident you now feel trying out AI technology. I will launch the poll now. Are you very confident? Confident? Think you will be OK with some devices and sites in not confident, not at all confident? Or not applicable. You may need to respond in the Q&A panel if you can't see the poll. I will leave that a few more moments so we have time for questions for you before we end the webinar. I'm going to end the poll now. The results are that yeah, confidence has definitely been boosted. 42% of you are OK with some devices and sites. 38% are confident. 16% very confident. Then, there is 3% not confident. 1% not at all confident. Zero nonapplicable. That is great. So, please do fire away in the Q&A window with your questions. As I mentioned before, any unanswered questions we will capture on our website in the next couple of days and you will be sent a link to access those answers. Looking through the questions, there is a question about somebody who has asked. I can see the benefits of AI to disabled users. Do you have any comments about the bias that is built into AI systems that discriminates against disabled users. Is that something you have noticed? Maybe a question for Robin to start with.

Robin: I was just saying, like any tool, it can be used for gool or ill. There are loads of applications of AI at the moment that are causing huge problems in every area not least in disability. One example that jumps to mind is in recruitment, 73% of people with a vision impairment for example are out of work. We have a lot to offer. So, we have huge challenges already in being accepted into the workplace. Then, if you are faced in an application process by a robot assessor, who takes no account of the fact that you might need extra time, for whatever reason, due to an President Barack Obama or dyslexia or a stammer, whatever it might be, one that counts your keystrokes as part, as a metric of performance when are you using dictation that is your preferred input method. All of those things. Loads of areas where AI is actually causing significant problems. Obviously, capture. We know about capture. That's an arms race, the visual challenges will only get harder. The audio challenges will get more garbled as AI gets better at cracking them. Loads of areas where it's pushing against empowering us, that is for sure.

Annie: OK. Thank you. I will move on to a question for each of you. So, we have covered a few different basis. Like I say, we will cover all of the questions later on the webpage. The question, from Michael, with Copilot is it possible to specify a reading age for the content that is created?

Michael: Yes. That was an easy one. So, I sometimes, the short answer is, yes. I often go, saying right, reading age is, for me, Microsoft, we do a lot of presentations. We like our people to learn that kind of stuff. 120 slide deck sent to you. Here you are. This is the new stuff you want to learn. I don't, don't tell my managers this, I go, Copilot, can you summarise this to me and do give me a little bit of a speed reading, just pretend like I'm nine years old and I just want the gist of it. It will start. Quickly want to refer to the spoon theory. If anybody knows that, with regards to energy, people with disabilities face those barriers continuously, right, because they live in a world which is not necessarily inclusive. Apart from just talking about the spoons and the energy it take, Copilot can give you moments of joy back that - yes, I now have it like I want, it thank you very much. So that, I think, it's the first time I see energy being given back to you.

Annie: Good point. A question for Tamsin how common is IQ gain after a brain injury, somebody has given an example about IQ gain after a motorcycle accident.

Tamsin: Yeah, that is a really good question. We do often focus entirely on the negative consequences of brain injury and talk about impairments and loss of function, loss of skill. But people do report having quite positive outcomes of brain injury as well. This is often called post-traumatic growth. People develop resilience and people call superpowers after brain injury. So, there is that possibility and that often takes place a couple of years after the initial injury has happened. The brain is able to form new connections. So, when it's damaged, you can't repair what's already damaged, it can form new connections through a process called neuro plasticity whether it contributes to gaining be new skills or superpowers it's a possibilities. Can't say in terms of I of Q levels because it's not something I particularly know about in terms of improved IQ scores after brain injury. But these might be contributing factors to people feeling like they are developing new skills, new strengths. Some people might become more attuned to personal developmental skills after brain injury. So, again, things like resilience, being more empathetic, having a greater appreciation and a different perspective of life. So, all of these things, again, it's not quite IQ, but these are things might be contributing to having better emotional wellbeing, feeling more grounded. Which might help towards these things. So, I don't know if that quite answers the question. It's certainly something I can look into and provide more information on in terms of the links of improved IQ after brain injury. There certainly can be positive outcomes of brain injury as well.

Annie: Thank you all so much. I'm sorry we haven't had a lot of time to answer questions live. To thank you to all of you. We have a few more slides to go through. To say, just AbilityNet does offer free support, free IT support at home and online via our network of tech volunteers. We also have a range of factsheets and webinars on our website, including a new, what is AI and how do I use it factsheet developed by Scottish AI you can find that at: https://abilitynet.org.uk/factsheets/what-ai-and-how-do-i-use-it . We will share details of how to contact us within the webpage that you will be sent afterwards. We run training sessions on digital accessibility and inclusion. You can book in-house staff training and eLearning options for staff at www.abilitynet.org.uk/training. Do look out for follow-up emails from this webinar of details of our special offers that you might like to take up. You can save 10% on our training courses using the discount code, AbilityNetTraining10. Coming up, embedding accessibility in your organisation on 2 May. PDF accessibility on 9th May. You can sign up to our newsletter for the latest advice on disability and inclusion. Free webinars at abilitynet.org.uk/webinars. We have a session on Wednesday, 5th June, which is coming live from Google accessibility discovery centre in London. Then the volunteers week webinar on the 6th June. Following that, in July, dementia and simple tech tweaks that can help with guests from Alzheimer's Society. So, please do sign up for those. Thank you again everyone. Also, to Claire, MyClearText, my colleagues in the background. Please do complete the feedback for form that you will be directed to and we will be in touch with you very soon. Bye everyone. Hope to see you at the next session.