# **How will artificial intelligence change accessibility testing**

KELLY: So welcome to today's webinar on how will artificial intelligence change accessibility testing? We're joined by Dylan Barrell, Robin Christopherson and Alice Taylor. My name is Kelly Chan also from AbilityNet, so just on to the next slide, please. Thank you, Freya.

So welcome. Live captions are provided today by MyClearText. You can switch them on via the control panel in the CC option. Additional captions are also supplied on StreamText. You can access those on www.streamtext.net/player. Slides, notes and the transcript will be available on our web page www.AbilityNet.org.uc/AI-accessibility-webinar. Please leave feedback on this webinar as you will be directed to a form after this webinar ends.

So, just a little bit about AbilityNet. If you aren't aware of us, we're a charity that uses technology to help transform the lives of disabled people at home, at work and in education. We do this by providing accessibility testing and training, workplace consultancy and we also offer free services, IT and accessibility support at home and we do this through online resources, such as this webinar today, and we also have a group of volunteers to help us.

On to the next slide, please. Thank you.

 So just to set the scene for today, we would love to find out a bit more about you, so we have two polls. The first poll is who do we have here today and what's your job title? So we're just going to launch that poll now, think. So please feel free to feel out the poll and the options are accessibility tester, software developer, UX/UI designer, product manager or other. If you're filling out other, please feel free to pop in the Q&A what your job title is and I can shout out a few.

We have Michelle, accessibility lead. Dustin, director of security. David, learning and development. Another David, accessibility specialist. A resource manager here. Welcome. Senior innovator. Test engineers. Accessibility advisers or head of disabilities here today as well.

 I will just give it a couple more seconds.

We have our second poll as well. I just realised it's running at the same time. We do have a second poll on how do you feel about AI and the future of accessibility and the answers are just excited and not concerned, equally concerned and excited, and more concerned than excited. I think that's enough time and I can see the responses getting less and less so if we can end the poll, please. Thank you. And we're just sharing.

 So today we have 19% accessibility testers. Software developers 7%. UX/UI designers, .12, product manager, 5% and other is 58% and then how do you feel about AI and the future of accessibility? 18% of you feel excited and not concerns. 79% of you feel equally concerned and excited, which I think is understandable. And then 3% of you feel more concerned than excited. So thank you for filling out our poll. If you could just stop sharing. Thank you.

 If we could move onto today's webinar, I'm going to hand you over to my colleague, Robin Christopherson, who will be hosting the panel discussion today. I hope you enjoy the webinar.

ROBIN: Fantastic. Thank you so much. Brilliant to have so many people here and a really broad range of experience, roles, and hopefully will find this chat really, really informative. I know I will because we've got two amazing people here. We've got Alice from AbilityNet and Dylan from DQ. I will quickly say who I am, Head of Digital Inclusion. If I forget to look at the camera, it's because I'm blind myself. I have been in this area for 26 years with AbilityNet now. Very, very interested in A I and hopefully we're going to dig into what the future looks like not just for accessibility testing but also for a broader arena as well. Alice, do you want to introduce yourself briefly?

ALICE: Absolutely. I'm principal disability consultant at AbilityNet. I have been here four years now. Prior to this, I worked as a frontend developers. Like Robin, I'm excited to be part of this webinar and share a bit more about AI and the impact on the user.

ROBIN: Fantastic, thank you so much and over to Dylan with DQ. There will be some not aware, I'm sure, introduce yourself and what DQ do.

DYLAN: Okay. Well, haft the privilege of working with DQ for going on 15 years now and DQ really started out when accessibility was in infancy in 1999. Our mission is digital equality. I was privileged to start the X core project and I have worked on a lot of different customer projects as well as the internal software that DQ develops and I use a lot of that experience to write a book called the agile accessibility handbook which is designed to help different parts of an organisation understand how to really embed accessibility into agile development life cycle. That's a bit about me and a bit about DQ.

ROBIN: Fantastic, we'll hear more about what DQ does a little bit later on. This is about AI but actually, it's mostly about HC-AI, which stands for human-centered AI. That's a twist on the take on AI. Let's get a definition from Alice about what she sees HR-AI as being.

ALICE: Yeah, so AI is continuously learning from human input and it's evolving very rapidly at the moment, but as it evolves, we want to ensure human needs are always put first, making sure that the AI is secondary to human. The concept of human-centered AI wants AI to enhance human experiences and consider things like ethics and privacy, but ultimately a concept to make sure we're moving forward AI development more positively.

ROBIN: Fantastic, thanks, putting the humans into AI making sure we're not pushed out of the evolution, some say revolution. Dylan, DQ are experts on automated testing and you have a laser focus on where AI sits in that now and in the future. HC-AI, that particular angle where it's human-centered, what does that mean to DQ particularly before we broaden out? Is it a genuinely helpful concept? Is it marketing? What do DQ think?

DYLAN: There's always a little bit of marketing in everything, right? But at its core, if you're familiar with the X-Core project, it was our third generation of accessibility testing software. The big difference between that version of accessibility testing, other than the fact that we created an open-source piece of software that we shared with the world, was that we really embedded one of the biggest learnings we had over the previous ten years which was the understanding that generating a lot of noise and false positives are not helping the people using the software and not helping the industry and it's causing a lot of damage. We had developers and subject matter experts who couldn't trust the tools. You got a lot of different results from different tools so that's part of why we did that. That philosophy of zero false positives really is a human-centric philosophy because what we're saying is in order for the automation to be useful, it needs to really make the user of that automation more effective. It needs to not introduce errors or things which are going to cause them to do stuff that is essentially not necessary or is counterproductive. In that perspective, it's part of our automation DNA, this concept that whatever automation, whether it's AI or not AI, the key around automation is to make the human more effective and efficient. So we have really extended that and one of the things, one of the implications for the way that we look today, we have been doing AI now for going on five years and we started out with what we call visual AI, where we take the rendering of the application and we try to use that with object detection models, and I will take more about that later if it comes up, but we try to then do things that are very difficult to do purely semantically but things that people may not be able to do themselves but we can take that sense that we implemented on that AI model and combine that with the semantics. That's where we started but when we did that, we had a decision. Do we just try to generate a bunch of issues from that? Or do we take a different approach? And we found that even though we have really good data and really good training and really good models that underlie a lot of this, we still weren't getting close to 100% accuracy with our AI so our approach was to say, okay, let's put the human, once again, at the centre and we'll do a bunch of stuff as much as we can with this AI and then we'll ask the human to make the final decision. That's kind of a philosophical approach we took and where the model gets better, where we can get close to that 100% accuracy, then we're starting to include that in our full automation. That's the approach we're taken and that's because regardless of how we do the automation, we want to make sure it's helping the human.

ROBIN: It's an evermore sophisticated aid for a human for a website or a mobile app or whatever it may be. I love the idea of perhaps potentially broadening out the - or making allowances for someone like myself, for example, who can only test a limited amount of things when it comes to website accessibility, for example, because there's a lot of visual stuff. The promise that one day not only will I be able to know exactly what's in a paragraph, an image on a website, for example, in terms of having really useful accurate feedback about the different components in that image, but also the context, is it a group of people on some steps in front of a building? That's probably at the moment versus this is a group of protesters about to storm the white house or something. A bit political, sorry. Context is king, isn't it? AI is moving so fast that I'm sure people on this call are well aware of the fact that things are going at pace so we can talk about future facing strategies or kind of like what your plans are for that going forward. Alice, your day-to-day working with auditing testing for compliance were websites, apps, etc., do you see a role for human-centered AI or AI of any kind to aid the tester?

ALICE: Yeah, I think what you said, Dylan, that for automation to be useful it needs to be effect I have is a bigger point. These tools need to work, we need to be able to trust them to use them effectively and you can see AI having more of a part to play in that, but I guess at the moment, it may be the point where automation was a few years ago just around the trust level of where it's at. I don't know if you have any thoughts on that, Dylan.

DYLAN: Yeah, the trust is an important thing. There's been a lot of hype around ChatGPT and a lot of it is obviously justified because it can do amazing things, but one of the biggest problems I personally have with ChatGPT is it is like the mansplaining of search, right? It's equally confident when it tells you a complete fabrication as when it tells you the truth and it doesn't provide the context to help you determine whether the answer it's just given you is accurate, so that context is missing. How did it arrive at that answer? You're starting to see systems that contain AI expose some of the why did we arrive at the answer? So you can help the person who the answer is being given to determine for themselves the degree to which they can trust that, because that is often, that context is often trust, right? We have all become familiar over the last 25 years now that it is with Google to look at the Google results and see whether we think the results are trustworthy or not and we're going to have to relearn those same skills in the AI world and the AI systems are going to have to adapt to be able to engender that trust and give people enough information to understand whether they can trust what they're being presented with.

ROBIN: Yeah, confidently wrong. I love the mansplaining. That's fantastic. If you have ever asked ChatGPT to describe the landscape in another other than your own, with 100% regulator, the answer that he or she or it comes back with, and you can see this from the resources that are linked at the bottom of the message you receive, the first one is about the country that you made the query about and the last four are about the UK or whatever the region your browser is set to so it's telling you lots of things, four-fifths of which are about the wrong country altogether, so, yeah, a long way to go. Having said that, it can do code. We should talk about how successfully and it can analyse UIs. I don't know if you want to go back to that, Dylan but Alice, you were trying to get it to create accessible code, weren't you? Even something as simple as a carousel, how do you get on with that?

ALICE: Yea, in ChatGPT I was able to ask it to create accessibility components and that was creating interesting outcomes because some of it were what you'd expect and I would say they were pretty correct. They were giving the HTML output, so I guess that's kind of information that you can find with all those accessible code examples but then some things, it was coming back that wasn't quite right. Confidently not right with that. If you didn't know what that was, you could easily use it thinking it was correct because it was given that sense that that was right. With ChatGPT, the way it's working, it's learning from human input but the web is not accessible so if it's learning, the output isn't necessarily going to be fully accessible at the moment.

ROBIN: Yeah, garbage in/garbage out. What do you think, Dylan?

DYLAN: Absolutely. I was about to say garbage in/garbage out. The models are big statistical machines, right? They're statistically correct given the data that they were trained on, right? That's the way to look at them and as Alice correctly pointed out, we wouldn't have as many people as we have on this call today if accessibility had been solved and if all the code that was out there was already perfectly accessible, so clearly it's being trained on code which is wrong and so unlike - I like the difference between the tests that you can do for or the - not the test, the learning curve, if you're trying to learn a any framework like react, you can go out and find code on the Internet and you can copy it and paste it into your editor and you can run it. If it's correct code, it will run it, it will do what you want it to do, right? But the same accessibility doesn't exist because of the all the combination of disabilities so the code that you're going to get from ChatGPT and systems like that is going to run well. It's going to do the functionality-wise A good job. With accessibility it's just that little bit more difficult because the examples that are out there that it's being trained on aren't quite accurate.

ROBIN: Yeah, and as we know, there can sometimes be a gap, sometimes a significant gap between technical compliance against WCAG, the web accessibility guidelines and real life for people with diverse needs and that's where the human may always be needed, so you have the evermore sophisticated automated solutions and we can dig a bit more into what you're hoping the acts or other solutions might be able to achieve going forward and what we think they still won't be able to touch in two, three, five years' time but how much will AI be able to act or interpret or predict what someone with dyslexia or a motor difficulty or a visual impairment of various kinds would find challenging over and above the code being strictly compliant? So next month, with the update of Windows 11, Windows is going to get a co-pilot. VS code, GitHub is a coo pilot so it's going to be in the realm of code. How useful is it going to be? How is it aiding people to create better code southerly it just providing code that might compile and run? I don't know if either of you want to take either of those points.

DYLAN: I used co-pilot when it was in beta and it was a fantastic tool. It makes the human a lot quicker at writing code and it will definitely continue to fulfil that role and it will do really good at that. It will get better over time. We can sill here ten years from now and a lot of advances tend to be noncontinuous, you get these huge leaps, right? And so now we're kind of finetuning ChatGPT and it has limitations but who knows what the next advances are. I'm not going to say it will never get there because it very well could, especially if you take more context into account and include information from design systems and other things into the overall set of information that's available to these systems, so you'll start to see not single models but multiple models or agents talking to each other and who knows. The pour that will emerge as we really start to understand those and build those systems out there. Where it's going to be in five, ten years, I don't want to say it's not going to get there, by we're a very practical company. We have to help our customers right now. Right now it's clear. Use co-pilot. If your organisation allows you to use co-pilot, it will make you much more efficient. Even use it to try to write accessible code, but what you shouldn't do is just assume it's accessible. You will have to do testing for some time now. Even if the code is generated by AI, you need to test and validate it and it's certainly not going to get rid of usability testing, people with disabilities and other sorts of usability testing to make sure the systems are being developed are accessible and not just testable.

ROBIN: Thanks, Alice, do you see AI playing a more significant role in your testing process, which is a majority manual, driven by need, really? They might particularly at scale be hugely beneficial. Time saving but there's still a lot you need to do. Are you hopeful that AI will start to hack away at some of the grunt work?

ALICE: I'm very hopeful. That would be great. Like Dylan was a saying, it's got a long way to go but I don't want to say it's never going to happen. In terms of the testing, it feels like the way WCAG is at the moment, it's testable criteria so it feels like that could and AI could learn that to test those specific things, but then when you start, beyond that, you could have a compliant website, thank you about the user testing of it and having that crossover between accessibility and accessibility, could an AI find issues that someone with dementia might experience, for example, ethically, is that right? If we go back to human-centered and thinking the human is at the centre of it, should the AI be the thing telling us that? To me it seems like humans should always play that role in user testing and having that output. But in terms of the actual AI and testing for accessibility failures, it feels that it could go there but I don't know if it could in the future. With the code itself, with the output that we get at the moment it's HTML but the way a lot of companies work, you don't have that using HTML is rarely what companies would use. They would integrate out into their systems, use different JavaScript frameworks so even if you can get the output in HTML, you have to have a human integrator at the moment and maybe that's where AI could go around looking at that, but it's so hard to know at the moment.

ROBIN: Yeah and today no system can really touch JavaScript does it? That rules out 90% of sites with application. They're massively useful flagging a lot that would otherwise take a lot of time to return down. Dylan, the full suite of testing solutions that DQ have developed and provide, two years ago versus where you are now versus two years from now, will we see a big difference attributable to HC-AI? Your approach to applying HC-AI?

DYLAN: I think the short answer is yes. That's definitely what our intent is and we have some good advances that we've made that are not yet showing up in our tools. We first have to figure out how to use some of these new models and proof of concepts with that so I can see what's going to be coming over the next 6 to 9 to 12 months and there's some advances there. Our aim at DQ is to try to increase our coverage by 10% a year over the next three years.

ROBIN: Coverage of the criteria?

DYLAN: No, that's not quite how we measure it. We measure in risk and testing effort, right? Those are the two things we measure. Take colour contrast. It's a single success criteria, the original one is, but it's a really difficult thing to test because you need eye droppers and pixels so it's really time consuming to test. If you look at the amount of effort that it took to do that and today, it's instantaneous for the most part. That's really a huge value and that's the way we look at things from the effort perspective. Let's look at the things that take a long time to test and try to automate those. The second thing we look at is the errors made most often. Some of that has to do with success criteria like 412, numeral value, that applies to almost everything, right? But it's a large volume of things in any given user interface that the designer could make a mistake with that particular success criteria so we try to focus on the volume of things that can be done wrong. 131, all those success criteria with a large amount of scope and that's because at the end of the day, once again, from a human perspective, we're trying to make the human more effective. It takes a very little bit of time to text language and that's one success criteria so looking at it from a success criteria perspective doesn't really help you evaluate how useful tools are to a human so that's how we approach it and we use our data to tell us statistically went we do assessments, where do we find and report the most amount of issues? We use that data in a very targeted way to focus on the areas we cannot yet test, so that's the approach we're taking. Measured by those two metrics, we're trying to increase by 10% every year. In other words, decrease the amount of testing that has to be done by almost 20% a year over the next three years.

DYLAN: Fantastic. We have Q&A at the end, 15 or 20 minutes worth of that. Prior to that, Dylan is going to nicely summarise with a couple of slides the DQ position on the application of HC-AI but in the few minutes remaining, I want to go really crazy and talk about what the future of AI could be. Do you subscribe to the Skynet scenario? Do I think that it so sophisticated that this concept of UIs of web pages, mobile apps, mobile phones are just completely nonsensical because the interface is your voice, a neural link if Elon Musk gets his way. Do you think that AI will make the UI today completely redundant in 5, 50 years time?

ALICE: You haves hoping Dylan will start with that one.

ROBIN: You could say yes, Skynet will happen, we're all going to die so UI won't make a difference.

ALICE: It will be interesting to see what the future holds for AI and where it's going to go with it. It's at the point in the moment where it's assisting rather thorn doing, so it doesn't seem to be replacing but assisting users but it seems like that's from a human-centered AI approach. That's what we would want it to be doing, assisting and improving the user experience, again, from ethics and privacy perspective as well

DYLAN: My answer to this is no. It will not replace UIs. UIs will evolve and if speech is a UI and therefore audio is an UI, one is input, the other output, then accessibility principles still apply to that, so understanding, for example, as an accessibility principle still applies to the speech output and also the vocabulary that's required to get the agent to do what you want it to do, so the short answer for me is no, it will not replace accessibility and UIs will exist. I think a more interesting question is will screen IIs exist.

ROBIN: That's what I meant. I was thinking GUI, graphical, but you're right. It's so ironic because the spoken prompt, and I think a lot of careers in the future are going to be how well you can play these AIs, these large language models like a well-tuned violin, how good you are at creating the right prompts and we have come full circle back to the command line because that's basically what a spoken prompt is. I was talking about graphical user interfaces and, yeah, you think they might be?

DYLAN: I don't think they will be completely eliminated. People still use nine-track tapes or whatever and so I think there will be uses for them, but will we use them as extensively as we do today? The answer is probably not. We will probably learn to utilize the other forms of interaction and it will replace some of the times we would use the careen but the example I think which a lot of people in accessibility understand that for me indicates that these things won't die, they'll continue, is the difference between Braille and a screen reader, right? If you're sitting in a conference and you're listening to a presenter, a screen reader is much more difficult to use than a Braille keyboard input, right? So that's an example of where can I sit in an audience at a conference and if the only input I have is speech, that's not going to work. If everybody in the audience is talking to the computers all the time, even with a microphone, now, if we have the brain interface maybe, but at least for a while, until we have that, I think there will be some role to be played by keyboards and screen interfaces for quite some

ROBIN: Brilliant, thank you. If you can bring up is slides, Dylan will sum of what we have talked about and HC-AI.

DYLAN: Yeah, this is the axe suite. I talked about how we want to cover the full life cycle of digital experience delivery. Our products really start at the designer, the line designers to communicate the design intent to the dev teams. We have axe suite designers and the tools designed to help people within the development process develop accessible software and then we have tools to help auditors audit that and monitor a live scale monitoring on websites and report on that. If I can go to the next slide, please. One of the things we're doing, I talked about the data we use in prioritising our features, data that comes from the assessments we do for our customers, we also try to capture a lot of data as people use our other products so if customers opt in to allow us to capture the data, we capture that and use that to train our models. I think somebody asked a question about how does AI advances tie together with privacy? There's definitely an interaction that we think about a lot in terms of how this data we capture and how we use that but what we try to do is take the hundreds of thousands of people. If you could go to the next slide please. We use models to do things, like object detection, object character recognition, to look at visual text and rendering and then to combine that information that comes from these models with the semantics to look for mismatches and then present that information to the user so they can do a one-click decision-making process. We try to present them with the decision. We think this is a problem. Here's why we think it's a problem. Do you agree? Yes or no? And then that way we can make them a lot more efficient. We can allow people with this approach, for example, you talked about this, about as a blind person not being able to test certain things. With the tools that we have, blind people can now test things like colour contrast that they couldn't previously test so it allows people with disabilities to do a lot more of the testing job than without the tools. That's really our approach, to put the human at the centre.

ROBIN: Fantastic, thanks so much. Let's go to Q&A. Alice, I don't know if you have been - who is going to sifting and sorting and speaking the questions?

ALICE: One I just read is are there any new accessibility tools using AI or any you recommend we keep an eye on?

KELLY: I think that's for Dylan.

DYLAN: For Alice.

KELLY: The be my eyes app seems to be making great advances. That's one that I would keep an eye on.

ROBIN: On the be my eyes, it's a great app but you have to have a pair of eyes and you can say how many minutes there are left on the dishwasher cycle, which button on this touch screen appliance, where do I press to do a certain thing because it's more of a touch screen world for us, so that's really useful but they have this be my AI that rolled out yesterday I think that uses ChatGPT and you can take a photo and enter a conversation about what's in that photo and hopefully video will be coming later in the month and that's massively useful for me. Going back to that people on the steps in front of a white building or something, that's what you would get before and now get everything you can query that photograph until the Nth degree and it will tell you what's what and it will recognise well-known people and read placards and if they're looking angry or not but, yeah, really, really amazing free app that I use all the time when I need a pair of eyes or a virtual pair of eyes, so, yeah, amazing.

DYLAN: I'm excited about the tools that are starting to emerge which are really combining multiple different models together and using ChatGPT. ChatGPT itself is doing that already, and that will just start to expand. You will also be excited by some of the plug-in capability with things like ChatGPT where you can, for example, plug in another system that with the rules of when to use that system, so we're playing around with things like that where the capability can be plugged into ChatGPT as an agent so that the code that's generated by ChatGPT can be rendered before it's presented to the user. I think combinations of things like that are what I'm excited about as the technologist looking at how we can use those to help with accessibility and testing.

ROBIN: Brilliant. What's your approach to data, the client's data and to be able to take advantage of these big, large language models and their super brains? What happens to people's data when you point at their source code or accessibility policy document to say if it's appropriately worded, etc.

DYLAN: Yeah, our approach is to give the user the control as to whether they want to allow us to use the data or not and we also are very concerned in complying with GDPR so somebody asks us to delete their data, whether or not we're using it for our AI models, we'll delete the data so it's a big concern for us. We make sure people know and have opted in to allow us to use the data before we use it for any of our models and we acknowledge that that data belongs to them. So if we delete a screen shot that somebody has given us permission to use, the next model that comes out will no longer have that information learned from that particular screen shot. We don't just retrain. We continue on top of a particular model, we retrain our models from scratch with all the data at that given point in time that we have permission to do training with. So that's kind of our approach right now. We do also learning. It's a fast-developing area and so I'm interested to hear people's input on what they think we should be thinking about.

ROBIN: Thanks. Sorry I hijacked the Q&A.

ALICE: Right now common wisdom is that testing can detect 40%, will you see this improving with AI solutions?

DYLAN: I think I answered that and to me the answer is yes. The 40% number I'm not going to argue with. There are different ways of measuring and I think the way I mentioned earlier in terms of effort is really the way we like to measure it, so.

ALICE: I can see at question that came through which is do you think that AI has or will learn the capability to take on more of the user testing side of things, perhaps taking on different accessibility personas to test some of the less quantifiable tests that can't be automated? To me, at the moment things like ChatGPT can help to create these personas so that could be helpful but can it be used to test with those personas? I feel like even if it could get there ethically, could it get there? And just around, at the moment, I tried to see if it would give you issues based on from the perspective of someone with a certain disability and it was able to list back best practices but for example like this piece of text on this particular website is too close to this image and that's a problem because sort of thing but, yeah, I think for me if that were to happen in the future, I would see that as an ethical question of whether that's right.

DYLAN: I think for me the most important thing is the implication and end result of what the system does, right? Running a system like that and then coming up with a proclamation of this software is fine, it will work for all people with a certain disability, I think in the same way, that's kind of the same mansplaining thing I talked about with ChatGPT. In order for me to trust that, I would need to really know what the justification is for that, right? Just given that one answer without any justification, without any context or ability for me to really Gianelli whether it had done a good enough job, I think that's dangerous. For me, that's not ethical. Could it get to the point where it gives a grade or something and it talks about the things that test and gives you enough context to then make a decision, whether that's good enough, that might be useful, right? That might be useful to you, for example, as a professional to look at that and say, okay, what do I still need to test? Or what are the problems with this? If the system gets to that point, I think it could be useful but that's not any of the systems today doing that, that's not how they operate so they're problematic.

ALICE: Right now it's definitely not anywhere near that. There's another comment about how there's always going to be room for humans to sense check what AI says. I definitely agree with that, that humans, like about code, reviewing. It's important to not just assume the AI is correct. It Scholz always be checked.

ROBIN: At AbilityNet, we don't recommend we apply testers to a site or an app that hasn't had compliance done on it. They might not be able to access the user journeys at all. There will be so much noise, they may not get to the end of the journey, etc., it's so frustrating for them. Do the due diligence on the code compliance side of things first and then get the end users involved. The extension of that is, well, do we get some semi real end users involved in the form of AI personas or asking the AI to rile on code or UI elements with its knowledge of what people with a range of different impairments experience? And then get the end users to triple check. That might make it more feasible from a budget point of view. Imagine in the future if AI can say, well, of the 18 different types of vision impairment, here's the summary of the kind of issues that the page might present and this is after the code compliance work is beg done. So when the actual end users come along with a visual impairment, they can really fine tune and get all the kind of stuff so at the end of the day, it's a Rolls Royce experience. We live in the world, budget is an issue. There are so much variety in that area and multiply that by the others, so, yeah, we have to be pragmatic at the end of the day.

DYLAN: Yeah, you bring up a good point. It might be a good tool for finding areas that really are "problematic". So if the tools are used in that way saying we think this might be a problem, you can focus testing on that. That would be a potential way to use that technology.

ROBIN: And certainly critical user journeys should be triple checked.

DYLAN: Yep.

ROBIN: Okay. Next one? Got five or six minutes left before we wrap up. Are there anymore?

ALICE: There's lots more questions.

ROBIN: We can get around to them in a post-FAQ on a page that hosts this webinar. We'll answer everyone's question in due time.

ALICE: How do you see AI helping with image alt text? Do alt texts generated by AI pass audits or provide enough correct information?

DYLAN: I think it's useful. I think in particular if you combine the context that you provide to the large language model and object detection models, if you provide context on the view page screen that that image occurs and if you - it could probably get pretty close to some good descriptions but once again, I think it's best to present that to the user and say, hey, we think this is a good text description of this in the context of the page or application and let them fine tune that, edit that, and finalise that. I think that's a much better approach at this point than to do something that's completely automated but as Robin pointed out, it's usually helpful to him, right? I think if it takes a lot of information an presents it, instead of just trying to come up with a definitive alt attribute, Robin can probably figure out with the context what that image is supposed to be. I think that could be useful. I think it's a really good tool for end users when people have forgotten that, but I don't think it should be used as an alternative for a human deciding what they think a good alt attribute should be.

ROBIN: Yeah, anything that can reduce the friction to help people with the day job or the posting a social media post or whatever it may be. Like on Twitter or X as it's called now, to add alternative text to an image you added, you have to expose a UI, type it in there, it's extra steps but if it was in line, description is one of the fields you fill in, that would be great. If AI could suggest what the description is so that - because an empty box is more daunting than one that do I put image of? I can't remember if I have to pit that at the beginning. That would be really cool, to.

DYLAN: Yeah, I agree. 100%.

ALICE: There's a comment related to that that says the problem I see with AI descriptions with alt text is even if the alt text is descriptively correct maybe the image is covered in page and might be marked as decorative.

ROBIN: Yeah, that's always the case. It depends.

DYLAN: It's always controversial and it's always the case, right?

ROBIN: Yeah, yeah, if it's adding nothing and it's eye candy, but in line context, in line description is better than nothing, particularly if it refers to the image because if the image is unlabelled or cryptic, I don't know what I'm missing. I don't know that it's being described in the body of the surrounding text so what have I missed? You guys know because you can see it's there and you can see it's been explained to death in the text but I don't know. I suppose I could say - but that might not validate.

DYLAN: So what is decorative? If the text is there and it really describes everything that's in the image, why have the image, right? That's the question I always ask. Why is the image there in the first place? Why don't you delete the image? If you say, okay, well, it's helpful to people. Why is it helpful? What is missing from the textual description that makes that image helpful? So I think that's one way to think about it. And then really the only decorative images are images that you could replace with a different image and I would not change the page at all, the background banners of happy people using a predict but they could be different people, those are the only things that are decorative.

ROBIN: Good call. I will go back to Kelly to wrap up but, yes, we will provide feedback on all the outstanding questions on the web page in a few days.

KELLY: Thanks so much, Robin, Dylan, and Alice. Brilliant discussion and like Robin mentioned, any unanswered questions, we hope to answer online in the next few days and you will receive an e-mail with a link to access them. So if I could just get the slides back up. Thank you very much. Finally, just a bit more information that you might be interested in, TechShare pro joins us in November 2023. You can join us and get your early bird ticket to do at www.techsharepro.com. Also, we would love it if I could take our third annual attitudes to digital accessibility survey open now until the 30th of September. So we're looking to gauge what are the organisational approaches to digital accessibility so you can complete the survey at AbilityNet.org.uk/attitudes. Finally, we have ways to make your content accessible resource hub at accessible-content-resources. We also have accessibility and workplace training. Our attendees can use our 10% discount code, abilitywebinar10 and one course includes our training. We have an E-newsletter as well that you can sign up for at AbilityNet.org.uk/newsletter. Thank you so much, again, for joining us, everyone, and thank you, Robin, Alice, and Dylan. Please do complete the feedback form that you will be directed to after the webinar and we'll be in touch with you really soon. Thank you so much. Bye, everyone.