# AI and Accessible Publishing, T-31 Days – webinar transcript

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<https://daisy.org/news-events/articles/ai-and-accessible-publishing-t-31-w>

Welcome, everyone. My name is Richard Orme, and I'm delighted to have you join us today for another webinar hosted by the DAISY Consortium.

The DAISY Consortium is a not for profit global authority on publishing and reading for people with blindness, low vision and other print disabilities. For nearly three decades, experts from our staff and member organizations have developed standards, tools, and best practices that are relied upon by publishers, library services, vendors, and technology companies. As more and more publishers are implementing inclusive practices, not least due to the forthcoming EAA for the European market and Title Two regulations for the US, we're bringing you webinars and website resources to help you prepare as we count down the days until the European Accessibility Act comes into force. We've covered a wide range of topics today with just 31 days to go. We're diving into one of the hottest topics right now. I am publishing accessibility. The news is awash with articles on artificial intelligence, with regular promises or warnings about how AI will revolutionize our world, and, quite frequently, comedic stories of where the technology hasn't quite gone to plan. But in terms of accessible publishing, AI offers the potential to dramatically improve the accessibility of publications and transform the reading experiences for people with disabilities, assisting us with time consuming tasks and offering new ways to publish complex content. To do justice to this topic, we've gathered some incredible presenters to talk about some of the current services available using AI, how publishers are already using these tools, and to discuss the potential of how the technology may develop in the near future. This webinar, we're delighted to be joined by Barry Bealer from Impelsys, Øystein Moseng from Highcharts and Saqib Shaikh from Microsoft for the presentations. And then in the Q&A. Saqib will be joined by Stacy Scott from Taylor and Francis, and publishing and accessibility consultant Simon Mellins, all of whom will try to address as many of your questions as possible. You can hit the Q&A button in zoom at any time during the webinar. Okay, let's get started. First up, we have Barry Bealer from Impelsys.

Well. Good morning everyone. My name is Barry Bealer. I am the vice president of publishing, education and media at Impelsys. And I'm here to talk to you today about our digital accessibility, platform, as well as our digital accessibility services and how we're approaching digital accessibility overall for our publishing clients. Just to give you a little bit of context, for those of you who don't know, Impelsys has been around for 24 plus years. We work mainly with publishers, education, institutions as well as media and some health care as well. We have 1100 employees worldwide, and we have, engineering centers of excellence in Bangalore, India, Porto, Portugal and Bogota, Colombia. What I wanted to talk to you about today is our platform called Monk. Monk stands for Monetizing Knowledge. The previous brand name was under IPC or IPC scholar. But monk again stands for Monetizing Knowledge and it is a platform that is, serving over 100 global publishers. which serves 40, excuse me, 20,000 institutions and approximately 40 million users on a daily basis. fairly sizable platform, that serves our global publishing client base. The platform itself is comprised of three sections, and I'm giving you some context getting to the digital accessibility. But, we have publishing modules. We have delivery modules and then we have an AI hub. And today I want to talk about the AI hub in particular. I want to talk about the, alt text generator. When you start looking at, I in particular for publishers, it is looking for or we are looking for discrete tasks. So that you can leverage that AI to complete things in a more efficient fashion. We're finding that when publishers leverage the AI, it's essentially creating a 50 to 80% efficiency gain or automation that is not taking human in the loop out of the picture by any stretch of the imagination. As a matter of fact, in the alt text creation, which we're going to talk about, we feel very strongly that there should be a human in the loop along the way. Our library of accelerators and agents, really fall into a couple of different categories creating content, reviewing and editing, transforming, and then publishing and distributing. today we're going to focus on the transformation or the alt text generation piece of that. With our monk platform. You can load up your images into the AI hub so that we can create the alt text, or you can point the AI hub to your digital asset management system. It really doesn't matter in this case. What what I'm showing you here is more so creating some alt text for individual images. If you're doing this in bulk, you're obviously not loading up thousands upon thousands of images. Probably you're just pointing to your digital asset management system. But once you get your your image loaded here, into the into the hub, what we do is we have the ability to create what are called, we call guidelines or prompts, if you will. And that's what's shown on the right hand side here where it says short all text. You create these prompts based on internal best practices editorial and, and, and, style guides and things of that nature. So we allow you to create these using, plain English to create the, the guidelines for both short and long term. Excuse me, short and long, alt text. Interestingly enough, what we also do is we have the file that you want to create the alt text, but we also allow you to upload a piece of content, say it's a chapter. because what our AI is going to do is it's not only going to look at the image itself, but it's also going to look at the content and then create alt text in context. And we think that's an important way to to create alt text. Once you get the actual alt text back, the short and the long version of that, you're able to edit this and you're able to review it and we do feel very strongly that there should be a human in the loop. One thing I do want to, emphasize is AI is not perfect. So when we've been working with our clients around implementing this, this, alt text, AI agent, we noticed small little things that we had to tweak in the AI. when it came to prompt generation and prompt engineering, which was especially for, by the way, medical and engineering content. And just give you an example. the alt text that was created said sofa. but the reality is in the book and the context or the text around that image, it said couch. And so when you start talking medical and engineering content, it's really important to understand you can't change words. Yes, they have similar meetings, but you can't change words. So we have to be very mindful of that with the AI and creating that alt text. And again, that's why there's human in the loop. And we think that's that's a good idea regardless of what AI you use. And certainly with the alt text as well, there's some best practices that we have implemented in our monk platform, that our clients can leverage as well. So there's, there's governance as policies and procedures around it, and we let them know, hey, this is what we're doing with our AI. So it's explainable AI. but we also create the guardrails around that AI, which we think is extremely important so that we can monitor bias, drift, hallucinations. And we do that by by the way, we use open source content, but is it authoritative content like the National Institute of Health that's in our LLMs. If if you want to, have it just on your corpus of documents, publications, we'll create a small language model and slam. So those guardrails are a discussion point with our clients every time we implement AI. And then finally, we feel as a best practice, there should be a human in the loop. just to review the information and be sure that it's creating the content that you need. One last point around this, though, there are some publishers who are creating alt text, and they're not putting a human in the loop. We don't believe that's a best practice, but that's up to them. They feel that the AI is generating good enough, alt text and they don't need any any human in the loop for them. So we understand the expense associated with creating alt text. But again, we believe that a human in the loop is the right thing. If you should have any questions or follow up comments, certainly he can get hold of me at barry.bealer@impelsys.com. And I thank you for your time today.

Thank you, Barry, for that wonderful presentation. A reminder that if you have questions for our panel, please use the Q&A button and we'll get to those shortly. Okay. Next up, we're delighted to be joined by Øystein Moseng from Highcharts.

Hi everyone, my name is Øystein Moseng I am Chief Product Officer with hi charts and I was lucky enough to be invited here to talk a little bit about. I talk about data visualization and hopefully how we can use some of this technology for good in the context of accessibility. Now, if you are not familiar with my charts, we are the leading, providers of data visualization software for developers. So we've got products out there for developers who are building charts, graphs, maps, other types of visualizations so that they don't have to start from scratch. And one of the main focus areas for us is accessibility and how we can help people create visualizations that are more accessible to everyone. I won't make this a product demo, but maybe, hopefully some of the things that we've learned and working with these topics will we'll prove useful in somewhat. Now there are two main user needs I think we should talk about when it comes to AI and data visualization. And those are authoring and analysis. So firstly, people who are creating charts of visualizations, the authors, how can I help their process, to make more accessible charts. And then secondly, people who are consuming the visualization is the readers. How can I help them in analyzing the data and gaining insights from it? So if we're creating charts, there are many ways that I can assist us in that process. And here we can see one of our tools. This is our free online coding assistant for for Pie charts, which is here helping a developer create a line chart. So we'll type in what we're looking for and the assistant will help us generate the code. in this case. And as we can see, it's just using some random data for demonstration purposes. because if you're a developer, most likely you have your own data that you want to put in here. And then we get a chart out, we want to tweak it a little bit. So let's darken the color. remove that legend since that's not really adding anything here. And then here we go. and now we actually have an interactive chart. And if I'm tabbing through here as a user, it's also keyboard navigable. So, we could go in here as well with Screen Reader and get a pretty good experience out of the box actually. So, this is highlighting a little bit of the difference between generating something that is a static image and something that is a modern, interactive chart. And we can of course, picture this going much further and working within many types of tools where AI assistance, guides you along to build something that is accessible not just for developers, but also for any other type of users. So this is a direction where we are taking our tools. another really interesting use case is using AI to automatically digitize existing materials. So turning, currently inaccessible materials, for example, images into modern accessible representations of the same data. and one institution who we have worked with a bit on this topic is Georgia Institute of Technology. They're quite far along in this. So they have multiple tools that basically work in this direction. We don't have time to go into detail here, but in general, this type of work is happening and it's extremely promising when it comes to modernizing existing materials. automating away a large part of of the work, taking something that is just a static image, turning it into an accessible interactive chart where you can leverage the technologies of, the modern web, for example. what is perhaps just as interesting from an accessibility perspective is the consumer side of the equation. So presumably it should be possible to use AI to analyze a chart or a visualization and use that to aid me if I'm a user with a disability. And indeed it is. so screen readers, for example, have this kind of functionality somewhat built in. but there is one, relatively major challenge with it. So if you're working with, visualizations for anything except decorative or artistic use, what you're really looking for is insights. You want to learn something. You want to come away with, something that lets you make a decision based on the data. And that means we can't really tolerate mistakes. So if you're using AI to analyze the chart and it's feeding you hallucinations or misleading information, that's potentially then, quite harmful. And the problem is large language models or large multimodal models are notoriously wrong about data. So whether it's Gemini or Claude or GPT, they're not really built for data analysis. But what's perhaps more scary than that is, and we've seen this in user testing, is that users tend to trust the results from the models, even if they're faced with a massive warning that the results may be wrong. and that's simply because the results sound convincing. But then there may be, these, these subtle errors that end up spreading misinformation. So, perhaps at some point the models will improve to the point where they're as accurate as humans. But for now, we think there is a better way to handle this issue than just piping everything through. And, and if we look at it, what large language models are really good at is transforming what the user is talking about, in their language into structured data. And then we can take that data that's structured data, and we can perform old fashioned math statistics. on, on the, on the data. And the end result here is that we end up delivering an analysis that is correct. And we know what is correct. So this is, well, I'm not sure it fits the way, but it's at least one of the ways that we think analysis tasks should be handled, when it comes to data visualizations and AI, because we cannot afford hallucinations, we cannot afford being wrong when it comes to accessibility. In this case. So we we recommend using the AI for what it's good at and then using, traditional math where that is good. And I think that's as deep as we have time to go today. please reach out to me on LinkedIn or elsewhere if you would like to continue the conversation. I'm always delighted to talk about Dataverse and, the opportunities now with AI makes everything even more exciting. So thank you so much.

Thank you very much, Øystein, for joining us today and sharing your innovative work. Remember, you can post a question at any time and our panel will be answering as many as possible. But before that, we're joined by our final presenter for this session, Saqib Shaikh from Microsoft. It's a pleasure to have you with us. Saqib, over to you.

Hi and thank you for inviting me to speak here today. I am Saqib Shaikh. I am a product Lead and founder of the seeing AI project here at Microsoft. Now, seeing AI is a project we've been going for a number of years, like nine years since I was it much less advanced than it is today. And we're looking at how can we bring the latest emerging technologies to bear on empowering people who are blind or have low vision to even more so? Senior AI is a free mobile app for iOS and Android. And you can think of it like a visual assistant. You hold up your phone and it sees what's around you and can help you complete daily tasks. And that technology in the 7 or 8 years since it first came out, has just been coming forward leaps and bounds because I has, as I'm sure you're aware, just advanced so much, especially in these past couple of years. The key thing that people really wanted when we started and launched in 2017 was the ability to read things, and that can be reading books, of course, and other documents, but also text that in the world around you you realize that the ability to read and that literacy for someone who's blind is just key to so many aspects of your life, but then also reliving memories with loved ones or completing tasks like choosing an outfit all the way through to, whatever you need education, employment. So I often think of our work as a conversation between the blind community and scientists and researchers working on the cutting edge of AI and other technologies, so that how do we close the gap between what the community needs and what the latest technology enables? And there's no more exciting time than right now because AI is making so much, possible today. That wasn't possible even a year or two ago. And I must say that as someone who's blind myself, accessible publishing is something very close to my heart. I lost my sight when I was a kid. So all my education was initially done in braille, but then when I was at university was when I first came across the DAISY Consortium, and we had the very first set of DAISY digital book players. They were just coming. And I remember getting players that I got to review in a big giant cardboard box. Those were fun times. But going from those days when you still need to employ human readers to go through scientific material today. On the one hand, we've come so far and the digital publishing capabilities have enabled so much, especially in education, where you need to read textbooks. And as I mentioned, as a computer science AI person, the ability to read scientific material and mathematics was very key. So it's come a long way, but there's still a lot of challenges, which is exciting for people like me who are, figuring out how to solve these problems. But I have this sort of first hand experience of the importance of making these books available to everyone, because it really is the thing that unlocks doors, that lets people live their full lives, realize their full potential, go from education to employment. And that's something I've certainly experienced in my own life myself. As we look at this latest wave of AI generative AI, as it's called. What's very exciting is it's becoming much more capable at doing generalized tasks. You don't need to train it, to teach it, to do every specific task. So we've been able to understand the text that's in a book for quite some time. But now, for example, AI is much better at understanding the layout, whether that is these are tables and these are lists. These are headers and footers and page numbers. And that really lets you reconstruct not just a document but a semantic document where the AI is understanding the meaning of the content so that you can much more easily do things like, you know, focus on the main material. Another side of this is not so much in the publishing side, but in the reading side. You can have the the reader have the text presented in a way they want. They can ask questions about it. They can have it explained. And I think as we think about education, that is going to be so key to unlocking this for people with different learning styles, different abilities. And that's just the text. But as I mentioned earlier, we've always had this challenge with more advanced scientific material and even their eyes ability to understand and, advanced graphs and charts, but also other diagrams is really, really improving as the AI is trained on basically all the different types of information on the internet. It's able to generate much richer descriptions, more accurate descriptions, and that will really speed up the ability of publishers to generate accessible content. But again, it's really important to know that AI is not magic. Sometimes it feels like you're talking to a human and it's giving you all this advice, and sometimes it's completely wrong. And that's just the state of where we are that's going to get better. But an important part is always going to be human in the loop. This is a partnership. It's a partnership between humans and machines. So if we generate all text, if we analyze, what a chart means, it's important that we can use that as a really helpful starting point. But you need that human in the loop, that partnership, to make sure that your getting the accurate information. But ultimately, I think publishers are key because what publishers do is, you know, publish high quality content. And that doesn't change for accessibility. AI is just making the job much easier, giving us a giant leg up to, to do that, especially for those complex back catalogs. But yeah, quality control with the humans. But where do you get started? Just start experimenting, whether it's Copilot or ChatGPT or these other tools. These are things that we are using in our everyday life, but they're actually fundamentally the same AI that you could use for these business purposes too. So as you give the unstructured information, what questions can you ask? What prompts can you give the AI to start extracting the information from these documents and just start small? these things will be automated and be done at big scale ultimately. But anyone, absolutely anyone, now has the tools to be able to just start poking around, seeing what's possible, see what the AI is capable of. And okay, and also what is it not capable of. And, you know, be aware of those hallucinations as they seem to recall these days. So no doubt AI is going to become an important part of the publishing workflow, as I said, especially for the back catalogs where you have this unstructured information and you want to effectively convert it to digital formats which are accessible, which have all the semantic information about, the text and the layout, as well as the images and mathematics and all that stuff. I think the AI is going to keep getting better at understanding the world around us, understanding us as humans. And when you're at a PC, understanding your computer, what do you want to do? I think the way you are going to interact with PC is and is going to change significantly in the upcoming years, and then bringing it back home to reading, especially those text books in education. I really look forward to making these leaps forward in not only the quantity of accessible information, but the the way we're able to interact with them today. You can change the size, the font size, you can change the color and so forth. But I can understand what we individually need and present things to us in the best way for us. So it could be the display, the display style, it could be something to do with audio or braille or tactile, but it could also be maybe you want to have things, explained to you differently if you, are dyslexic or have another cognitive disability. And so I think that will unlock new reading experiences, which we haven't seen or maybe even imagined. So you can learn, you can read the way that suits you personally the best, and that will be an absolute game changer as well. To learn more about, my work at Microsoft and my team. Please do check out SeeingAI.com, and I look forward to carrying on the conversation in the Q&A shortly.

Well, thank you, Saqib, for talking about your very innovative work at Microsoft and starting us. Think about the future of this technology. Well, we'll now move into the Q&A section of the webinar. And Saqib is joined by Stacy Scott from Taylor and Francis and publishing consultant Simon Mellins. So if you have questions for Saqib, Stacy or Simon, you can use the Q&A button in zoom to submit these and we'll cover as many as possible. And Stacy, we're coming to you first. So just help us understand from Taylor and Francis', perspective or indeed from other publishers too, what would you say were the key benefits, when considering integrating AI into the publishing workflows? Thank you. Richard. I think we can all agree that there are a lot of exciting things on the horizon. when we think about AI, you know, where was it five years ago? Where is it now? Where is it going to be in five years time? It's it's incredibly exciting and it's exciting to think about how publishers are going to harness the powers of AI. For me, obviously one of the biggest ones is image descriptions, especially when looking at fulfilling blacklists, making sure that those image descriptions are contextually appropriate. They match the language matches with surrounding paragraphs. It's meeting the audience need and language level. I think these are things that at the moment AI is starting to achieve. But as we go forward, I think it's going to get even better and we're going to see those things linking up a lot more and making image descriptions a lot easier and, less heavy on resources, to actually produce, one of the exciting ones for me, if we look at video content. So a lot of publishers have a lot of video content, as do we. and I'm particularly excited about AI about this one. So if we consider audio description, the idea to me that even a few years ago, you could run a video and have I tell you what was happening in that video was just out of this world. And I have to say, Saqib, we've already heard from him. But using seeingAI for the first time ever, a few days ago, I ran a video clip through it and it described it to me and it was just it was amazing. And let's fast forward, let's let's think about all of that video content that we have for education purposes, for entertainment, that so much of it doesn't have audio description. So if we could contain new building on that work and have instant AI solutions for audio content, it would be incredible and it would fill such a huge gap. and particularly for publishers and their readers. Also, of course, talking about videos, we're also looking at captions. So automated AI generated captions, again, making sure that a video never again has a lack of captions and that they're all present and correct and then not quite giving out what some transcripts give out, which is I can kind of understand it. Maybe if I if I think about it. So perfect trans perfect captions would also be a fantastic accessibility feature provided by AI. And then if we looked at, for example, multiple languages being able to translate, one language into the other using lip sync technology. So I have seen this talked about where not only can you switch, say, someone speaking from English into French, you can actually change the way their mouth is moving so that people who can lip read can follow that as well. And for from a publishing point of view, other than the videos, when we're thinking about language publishing publishers changing the language of their content as well is a huge one. So if I again can switch up from, let's say an English book, but perhaps we can make it available in a language that isn't used by so many people, you know, and then you can share your content across the globe, perhaps in the global South where the reading needs are not yet being met. So there's huge potential there. AI also being able to identify any breaks on, say, a web page or a platform. So that's a big thing for publishers as well. We have our content on web pages on platforms, and they need to be just as accessible as the it's not just about the out the outgoing content. If you if the journeys not accessible, then there's no point to making the end product accessible, frankly. And so having AI being more able to like when your online content, your online journey doesn't meet with web content accessibility guidelines, but also tells telling you how and what you need to do in order to make it meet those standards. that would reduce the need for quite so much manual testing and developer intervention. so we talked about the backlist. so identifying issues such as a break in tagging or a break in the structure or missing image descriptions, that would also be incredibly useful. So nobody has to sort of sit and read through every single book to, to figure out if it's if it's going to do what it needs to do. and I think for me, the Holy Grail is, is, it's, it's an AI that you can use, say, to read a book, but that you can interact with. So when I think about how I use AI at the moment, it's very much about a conversation. It's about me. So taking a photograph, say just on my phone and being able to interrogate it so I can see you. Tell me more about that car. Tell me about the color of her dress or whatever it may be. You know, I've got a formula. Can you tell me more about the coefficients again? There's so much that can be done through being able to interrogate, the AI and particularly in publishing, when you have, you may have a lot of Stem content, a lot of math content, then that's going to be, you know, hugely beneficial. giving AI credit is is a big one as well. So if you're using AI, put it in your metadata and your accessibility statements. Let people know this is fully AI or partially partially designed made by AI. so I'll just end with my usual word of caution. So I think very excited about AI and all the things that it can do for publishers, but but also their readers. And I say this as a blind reader as well. So I'm excited about it in so many different ways. but my my word of caution is always, not to leave that engine. unattended. That's my much my perspective. I don't think that AI is quite there yet where we would want to leave AI running on a book and have that book go out without any, human in the loop. Thank you. Wow. Well, Stacy, you certainly got a lot going on there at Taylor and Francis and I covered a lot of ground. image descriptions, data visualizations with what we heard from in the presentations. But also, you just talked about video description, video captions translating to different languages, lip sync, upgrading the battle list, identifying website and platform accessibility issues, and AI making that whole experience, kind of interactive and dare I say, enjoyable, even if you were studying your maths content. So, Simon, what did Stacy miss? What other applications of AI do you see? with the many, clients that you're working with when they're consulting, you for your expertise in this space? Thanks, Richard. And hi, everybody. I think at the moment, image description is the main place where this is beginning. I say beginning, this is this is really the first place where publishers are able to play with AI, at least on a production level, with some degree of confidence. Of course, a lot of AI image descriptions are not good. Not yet. there's a lot going on to try and improve this output. and human in the loop remains essential. but there was, a constant ongoing conversation about what else we can do with AI on the kind of production side of things. so I'll talk about a few users, but I should note that products for this are still in development. This is all something to keep an eye on. but one of them is the actual underlying code. particularly with epub. so this is checking everything is structured correctly and actually fixing it and then adding in semantic enrichment. So adding new EPUB type for Aria. this is something that is historically difficult to automate because there's a lot of decision making involved. so it is potentially something I could help with. It can take a kind of broader view of the structure of a file and figure out what should be where. The other thing is metadata. accessibility metadata. I know a lot of my clients are struggling with at the moment. I'm sure that's true of many people in the audience here. for publishers filling out the correct values in accessibility metadata, especially in Onyx 1.6, is a lot of, decision making, a lot of, sort of it's not quite, it's not subjective, but there certainly is some judgment in how you represent the accessibility of, of a publication using those values. And that's something that simple automation can't do. But I might well be able to help with that. and I know some products are being developed to try to do that so that it could have a look at your application and express the correct, Onix values. of course, PDF remediation is another thing that AI is being, I figured out. trying to find ways that I can improve a PDF and improve the accessibility to, as far as you can go with PDF. not to kick that hornet's nest. I'd say overall keep keep an eye out, because whatever you think about AI right now, might not be an accurate view tomorrow. this is a rapidly evolving space, and there are tools popping up all the time. Quality is variable, so it's a really important time to. We'll be sharing our findings with each other and figuring out what actually works and what is safe to use. but I think the back end, technical tasks, the production tasks that are typically, very, resource intensive that prevent a lot of accessible content being made or at least a lot of content being made accessible. I think that challenge is going to be eased increasingly by these AI assisted tools. All right. Good. I have a question from Christine. Maybe it can come to you, Simon. the question, actually, you raised it, so maybe it comes to you. Stacy. You can fight between yourselves. Stacy, you talked about kind of declaring what you've used AI or being transparent about it. is there a place where this could be expressed in the metadata? Maybe, Simon or Stacy would speak to that, or perhaps it would be somewhere else. Stacy, what did you mean by kind of being transparent about that? So. So we would put it, the places we would like to put it is in the metadata, in any notes that we have with the book. So we always list out, you know, it's, it's, it does it have full image descriptions or partial. So that kind of place but also in your accessibility statements as well, we like to say, well, we use both, you know, human intervention and AI on a blacklist for example, in the accessibility statement. So it's just clear to people what we're doing. And if that changes and it becomes you know, entirely AI based, that it's in a place where we can easily change that as well. Great. Thank you. So Saqib in his presentation. And I'm going to come to Saqib with a question in a moment. talked about encouraging people to, to start playing around with these tools and just checking them out and seeing what they can do and what they can do. Barry talked about, interestingly, a 50 to 80% efficiency gain for image descriptions with humans in the loop. And I wonder, Stacy, is that a kind of number you recognize? Does that sound right to you? It does. Yeah. The figure I have is, is, roughly 75. So yeah, I absolutely I think if it wasn't at least 50, perhaps higher, it wouldn't be worth the amount of time that you have to spend to get it to work with your content, that that is a key factor. So when we started working with an external AI vendor to help us with the backlist, we spent about 9 or 10 months working with them to make sure that everything that they produced would, would fit with, with, with our language, with our content and that it was going to work, hopefully continue to work flawlessly. But it does have to be you got to have a good return on investment to put that amount of time in. And thankfully, we have. So yeah. Very good. so, the Simon coming to you about the trust, issue. This comes up a bit. what can people in publishing companies say to maybe their authors or to their senior management, to kind of quell concerns or address concerns about the use of AI? to, you know, that kind of trust and, rights issue. Minefield. Well, sure. And those concerns are well-founded, right? We're all well aware of the dangers of of indiscriminate use of AI and LLMs for, even for the best of causes. so I think it's important to recognize those concerns when you come across them. and to tell people that, the these are reasonable concerns and that you have looked into it. And so this is the really big thing. Be as specific as you can. You know, if you're talking about using AI for a specific purpose and you have a particular provider in mind, because normally it will be through a third party, then talk to that provider. you will not be the first customer to ask them those types of questions. if, if, if you are, then, probably don't use it. You know, they should already have something to say to publishers who are concerned about particularly intellectual property protection. and, you know, drill down a bit with the supplier. So you want to find out about their hosting arrangements and who owns the outputs. because it's it's not useful if the output of that model gives them any kind of ownership over that. And what you subsequently do with that. does the model learn? ideally you want it to learn from your material and apply what it learns to future material of yours. That's often very useful, but you don't necessarily want it to learn from your material and feed that back into a wider model. or indeed into helping, other publishers work that they might be doing. so find out exactly how that how that works. you will also want to make sure that they are willing to sign contracts that give really robust protection. And again, this is something that publishing lawyers are, familiar with at this point. This is happening plenty. so there's plenty of discussion about exactly how a contract would work within our provider. And all of that should give you the ammo to, considerately respond to somebody who's concerned about this by saying, I recognize your concerns, I share them. Here's what I found out that can help us to make sure we get the best out of this tool, because not using them as a cost in and of itself. AI is proving to be one of the tools available to publishers to meet the challenge of accessibility at scale. Ideally, we would do everything manually and with perfect care and attention. I think there is also an argument for a for a realism when we're trying to achieve scale because of the sheer size of, of publishing's backlist as a whole. I won't get into the details of where we should and shouldn't use AI for that. Just to say that it is a valuable tool in your armory, however you use it and not using it might mean you're trying to fall back on disproportionate burden, which could well be challenged because AI's lowering the barrier to entry for some of this stuff, particularly for image description. also emphasizing to stakeholders that human QA will be, to some extent a part of this, right, talking about human in the loop or getting familiar with the terminology now. So talk about that. You can talk about sampling rates. and talk about not getting left behind. I think that's the important thing. These are worth exploring. Great. So those are conversations that someone might be having within a publishing, company as such. But now let's kind of shift to the kind of user side. Øystein, in his presentation on, data visualization and kind of said, when people use a large language model when querying a graph or something, they tend to trust what comes to them. Saqib, you've got nine years of experience of having kind of AI that you're putting in hands of end users. You must have addressed this question time and time again. How what this question of what user awareness should be there around the fact that I can sometimes get it wrong or give misleading information, that trust issue. Well, what thoughts do you have on this? Yeah, that's so important both in terms of people using a technology to develop solutions, but then also the people who are those humans in the loop all the way through to users, because at the end of the day, this is just technology, and AI is just it's incredibly powerful and really, really convincing. But at the end of the day, it is just patterns and mathematics and it's and it can sound like a human, but it's just a machine. So definitely at every step we do need, human verification of any results that we end up putting in front of the audience. And then also that level of education you mentioned where to say we can now provide so much more than was possible before, but just double check if something looks wrong, then double check it. And that's especially important at the end user level, because, you know, a publisher is probably going to do those checks and make sure that the quality is there, that, you know, what they've been doing for centuries. But then the end user, if it's, a, a description or a passage which is generated on the fly just for them, just to remember that it could be wrong. If it sounds off, maybe ask a different way or get human validation from someone else, whether that's a teacher or sighted helper or anyone like that. So at every stage, but especially at the last stage, if it's a one off custom generated answer. Use the power. Embrace the power. But yeah, validate. Very good. And you spoke in, in your words beforehand about the possibilities for end users and the different kind of experiences that could be lit up by AI. Often when folk are thinking about accessibility, they think about a screen reader. We've talked about image descriptions and so on. but some say the kind of, the future looks brightest or the biggest, biggest advances will come for folk, maybe with neurodiversity and, kind of, a reading difficulties that, previously had not been so well attended to beforehand. What kind of possibilities do you see there? So keep. Oh, that's so true. And at the, at the root of that is just this acknowledgment that all of us are individuals and different and, you know, mere physics has meant that, you know, if you have a printed book, you can only have so many versions of it. But with AI, especially this new wave, which is called generative AI, you can have those answers or the content reformatted in the moment for you. So neurodiversity. Different people might want things described in different ways. There might be different writing styles that teach someone a particular reading level, a particular language and display for like, people with and for example, the, the foreground and background size of the font and so forth. But that writing style and then the ability to be more interactive. So if you don't understand something you could say, can you explain it to me, rewrite this in a slightly different way, or if it's overwhelming because there's just too much material, we can say, okay, let's take this one step at a time and have like a conversation to, go through the material one step at a time, focusing on one aspect. You can also now the AI is able to generate, images and generate video. You could even conceive down the road that we might be saying, oh, right. Can you make this more colorful? Could you make this more spaced out or ultimately, how to turn a book into a video? Where are you saying, I'm going to have this information presented bit by bit in this, richer format? And these are just throwing out some ideas. I'm not an expert in that space, but it's really acknowledging that we're all different. We all have different learning styles and by making this interactive and personalized, I think it's going to open up so many opportunities to so many more people. Well, you are an expert in the AI space. So I have a question here. It's a terminology question from Rosanna and Rosanna. Ask what's the difference between them LLM and an SLM maybe with an example. So Saqib can you help us. All right. So LLM is the sort of word that's entered the consciousness. It's called a large language model. And, you know, model that's, you know, like, mathematical modeling, a language model is like AI that can understand language. And generally they're really, really, really large. So LLM is like your, you might have a ChatGPT or any of these type of solutions. It requires a lot of computer power to run, but then it also means that it's trying to be general. It's trained on all the knowledge that it can find in the world. and be very general. And you can make it a bit more specific by, giving examples of your use cases. Okay. Write it like this. Or here's some input. But SLM that is a small language model. Here's the idea that maybe this is going to run on your own computers, or maybe even on a user's device. And perhaps the reason for wanting this is because you want to customize the way it works, or the output specifically for your company or your material. And so small models are, much less powerful. But you can teach them to be much more specific and therefore better at a much narrower, set of problems. So it's about general knowledge versus specific knowledge. And then whether it's huge and over there in someone else's machines or maybe even just running on a laptop. Brilliant. Thank you. I'm really glad when we get a question like that, we've got an AI expert from Microsoft. in the panel. I'm also delighted that Stacy, we have you. Because I'm want you to draw on your personal experience now. So as a blind mathematics graduate, can you imagine what how would your experience studying, be if you had access to all these kind of tools of, AI getting into that whole world of, Stem? What would that be like if you were doing your degree? Now, AI is such an interesting one to think about, isn't it? I think I would use my powers of AI to, to read what drinks were available at the student bar, because I certainly didn't get to go to the student bar when I was at university because, I'd make everything accessible for myself. So straight to the important stuff then? Yeah, exactly. Exactly. Now you've got it going to drive people forward. so that's the first thing I do, I think accessing lectures, that would be a really interesting one. So I would love to see, for example, taking slides, slide materials and being able to convert them into whatever, whatever format works. So for me, I can't just sit through a lecture. It doesn't work for me. I can't just listen. But actually, if it could produce it as a video or a script that I can read in my own time, I can pause, I can come back to it. That would be fantastic. That would that would change my my learning experience. Graphs and charts, having different ways of describing. Let's say, for example, you know, a bell curve. So, you know, some I might say, okay, I, give me that bell curve in, give me, give me a note. So it might go in and just, you know, you can get those audio notes where it'll just tries to paint you a picture of a line movement through audio. And I might think that doesn't work for me. So I might ask it to do it in a different way. Tell me where it's cutting the x axis or the y axis, the gradient of the slope. And I'll imagine it myself. So there's there's various different ways, that you could ask I to tell you in a way that's going to work for you. And a lot of that would involve quite a lot of fun and playing around with it, to be honest, to see what would work. But again, that would be that would be miles better for me then. you know, we've put it on a bit of string around some some beads, try and feel this and not that. That wasn't so helpful at the time. It was. And I'm very grateful. But, you know, if we can make it, I do that, you know, rather than pipe cleaners and beads and goodness knows what I also had to use, I think it would be a lot more, efficient. And then the final thing is just confidence in moving into employment. If you have a maths degree, that means that you know, you you've got that qualification. Great. But actually when I graduated, employers didn't take that as anything. They didn't think, well, okay, that means this blind person can can do things or they can do maths. It was still very much, you know, oh well yeah. But you can't see. And so actually if you, if that I can help you help anyone feel more empowered. And it's a tool that comes with us through education and into employment, then I also think that would have made a huge difference to me. And I think it's going to make a huge difference to people going forward. Great, Stacy, thank you for that. I'm coming to you next. Simon, just a word of caution. We're running out of time. So let's, shorten the answers a little bit more in. So the question I have for you, so Uriel asks the question, can we get some examples of some of these great AI tools? And I wonder if you maybe might mention a couple, when you address the question of, approaches that can be used to get the best image descriptions. So, Barry showed that platform, which obviously is kind of developed, but for someone who's kind of maybe breaking out some of those tools that exist, that, that is, are in reach. And so keep mentioned, maybe using some of those and trying them out. What kind of techniques could be used to get a better image description than, than simply asking ChatGPT. And yeah, so I'm not going to drop names of specific products at this point because I think a lot of them are early in development for this particular purpose. and that is the most important thing to make image descriptions useful and relevant is context images described without any context awareness described in isolation. in those situations you'll tend to get not very useful descriptions, or at least, descriptions that may well not be useful in in the context of the publication that they're in. So any AI product that wants to do image descriptions for you, query the vendor because you want to know, can they take in context, you want to be able to modify the prompt in AI speak as to what it's using. Ideally, it would actually look at the surrounding page context. you want to know what section you're in and what the audience might know at that point. More broadly, who is the audience? What? You know, what age all day. what are the knowledge assumptions? You'll probably write very differently for academic literature than for, you know, children's book. all of these things are important to making image descriptions that are actually relevant and useful, rather than sort of very basic physical descriptions that may not be of any use. There are products now beginning to hit the market that do this. but this is new. so I have say investigate that. And if anyone is offering AI image description and it's not context aware, then it's very unlikely to be, of the quality that you would want, especially if you don't want to be spending your whole time doing manual checks for whatever. Great. I have a rights question, and then I think we need to move into the closing. So this needs to be really quick. So, Stacy, I'm going to come to you. So it sounds like many of these amazing AI options may present rights issues or copyright issues. Could you. I'm sorry, you've only got a few seconds to speak to this. Before we do our final question around, the it's not an area I know well, to be honest. If anyone else wants to take it. Simon, what is it that the that the, the fact that you consult with, how do they address this issue? Well, I mean, you talked about the content not going out and training for the benefit of your competitors. Maybe you didn't put it that way, but, what about these copyright issues? And I. Yeah. And I think I think I spoke a little bit to the copyright issues before, that is really just about very thorough conversations before you deploy one. and making sure that all the rights are left with the publishers. is there a different angle to this that you were going for there, Richard? I think to be honest, we're kind of pretty short on time, so, I think to be respectful, of your time. Thank you very much. our panelists and for our audience. I don't want to run over time.

So many thanks again. Not only to, Saqib, Stacy and Simon, but also to Barry and Øystein for being wonderful guests in this webinar and helping us do distinguish the helpful AI information from the hallucinations as we heard. that's us for today. But before we go, I've got time to remind you that in the treasure trove that is the DAISY Webinar Archive, you will find more than 30 hours of video articles and links to resources related to accessible publishing. Well, this webinar is part of our EAA Countdown Series 12 month program facilitating knowledge sharing and helping everyone involved to understand. To prepare for the European Accessibility Act. We have just one webinar remaining in this series. We'll be returning on June the 25th, just three days before the European Accessibility Act comes into force. When we have a celebration, reflection and prognostication, we'll be taking a look back at the journey, celebrating the positive changes and clarity that we found along the way. We will also be looking beyond EAA to the remaining challenges and topics requiring clarification. We'll take a look at other legislation that's emerging around the world, identifying lessons from our EAA experiences that we can share with people just beginning their path towards accessible publishing. You can find out more information at DAISY.org/webinars where you can also sign up to the webinar announcement mailing list to learn about new topics as we add them. Thank you very much for coming today. I'll hope you join us again next time. Goodbye.