# Accessibility Testing, T-304 Days – webinar transcript

Full details about this webinar including links to related resources can be found on our website:

<https://daisy.org/news-events/articles/accessibility-testing-eaa-t-304-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. As we count down the days until the European Accessibility Act comes into force. We're bringing you this series of webinars to help you prepare. Today we explore the topic of accessibility testing to ensure an accessible user experience to meet contract requirements and comply with legislation. A range of accessibility tests needs to be applied throughout the e-book journey, from the publisher to the reader. In today's webinar, we'll navigate that journey with the help of our invited experts. Learning about the accessibility testing that they're conducting, from content creation to discovery and acquisition, all the way through to where the rubber meets the road and reading systems. As our presenters will describe, accessibility testing will give you greater confidence that your products and services are usable by people with print disabilities. And first up, we're looking at content accessibility. To guide us through this part of the process. We're delighted to be joined by Magnus.

Hi everyone. My name is Magnus Neiland and I'm a development manager at the society for Swedish Literature in Finland. We produce about 15 titles per year, mainly six scientific books with images, footnotes and indexes. Almost all of them are made into both EPUB and PDFs. I started working with e-books and accessibility last year, so I'm still somewhat new in these circles, but I've been asked to share our experience to others in a similar situation. Our work with making accessible e-books started with my predecessor, so we have been at it for a few years already. The whole publishing department is aware of what they can do, starting with using the proper formatting in word manuscripts before they reach InDesign. Using the accessibility checker in word can help highlight any issues, including with the structure or image accessibility. Writing alt texts has also become a central part of the editors work. Instead of just an afterthought. It's often repeated, but it's important that all those in the workflow are aware of what they can do for accessibility. It makes the later testing and remediation a lot easier. A few smaller publications I make into e-books on my own, but it's a lot of manual work, so we do send most of our InDesign files to an external producer who does the bulk of the conversion. He also tests the files with at least the basic checkers, like a book check and Ace by DAISY before they reach us. EPUB check lets you know if the EPUB structure is valid and follows EPUB specifications well, at least by DAISY tests the publication against the accessibility specification. Identifying any issues that can be automatically checked and linking to useful resources to help resolve those issues. This often means links today's knowledge base, which is a great repository of best practices and samples covering all aspects of EPUB public issues. Ace by DAISY can only perform automated checks, after which manual testing is required. The reports generated by Ace can be loaded into Smart, which then guides you through the manual testing process. I've also built up a checklist that's specific to our publications that I go through. A big part of it comes from the feedback we received from Benetech in 2023. We qualified for Global Certified Accessible certificates. It's renewed yearly by submitting an EPUB for evaluation. They then basically list what you are required to remediate, what they recommend you to correct, and also suggested best practices. I like to open the above in a text or code editor like Oxygen XML and work my way through the separate files. Manually editing in missing metadata and correcting the code, ARIA labels and so on. A good editor can also alert you if the code isn't well-formed. After everything looks good, I'd run at least ace by DAISY just to make sure everything is still in order. Parsing the basic checkers is a good start, but the e-book or EPUB might still have a lot of accessibility issues, or at least things you can improve on. So some form of manual testing is still needed. I highly recommend doing some manual scrolling and testing in different areas like Calibre, Thorium, or Colibrio preferably also in a few different devices and screens to make sure there are no big issues with scaling or footnotes or anything like that. It is also important to test how the text to speech plays out. Either those with built into the readers or with screen readers like NVDA is going to reveal problems in the structure coding, which you can then fix using assistive technology like screen readers. It's a good first step, but it's also a good idea to have an expert to have expert users provide feedback. This is an area where we are keen to develop, and one which would take our testing to the next level. In short, start small and take one step at a time. Testing is very important and there are great free tools that can do the basic testing. After you've reached a certain point, I'd recommend you have an external expert. Take a look at your files and provide easy to follow feedback so you can improve your workflow and the accessibility of your ebooks. That's all from me.

Thank you Magnus. You've done a great job conveying lots of information in the limited time we gave you. I'm sure people will have lots of questions, so reminder that you can use the Q&A button in zoom to submit the questions, and we'll cover as many as possible towards the end of the webinar. Well, after you've created your accessible publication, we'll need to examine where people discover and acquire a title. So to help us look at web accessibility, we're delighted to be joined by Ted from Elsevier.

Hi everyone. My name is Ted Gies, accessibility manager at Elsevier. Today I'm going to be providing a brief overview of techniques and tools used to test web pages for accessibility, which should be part of your strategy for meeting the European Accessibility Act and other regulations. Our approach to accessibility at Elsevier is underpinned by three guiding principles we collaborate and educate around accessibility. We utilize industry standard tools, and we embed accessibility in our business operations. Actively practicing these three key principles requires conducting frequent accessibility testing throughout the product development lifecycle to learn more about our approach. Visit our Elsevier Accessibility Statement and just launched European Accessibility Statement. Links to all the resources mentioned today will be placed on the webinar summary page. Why does accessibility testing matter? The EAA requires that e-books need to be accessible in a way that is perceivable, operable, understandable, and robust. These are the same four principles which comprise the W3C Web Content Accessibility Guidelines, which are very well accepted as the International defacto accessibility standards for digital content, especially websites. While e-books are often thought of in common file formats such as PDF, Mobi, Kindle, EPUB, VST, e-books are also commonly provided as HTML web pages. On a publisher website and Elsevier, we provide several websites where users can access ebooks in HTML. This includes Science Direct, one of our key Elsevier platforms with over 46,000 scientific, technical, and health books. In 2023, Science Direct the number one most accessible home page out of the top million home pages. As part of the web a million study. So how do you test your website's for accessibility? Which methods and tools do you need to be compliant accessible? What about going beyond compliance? The good news is that when it comes to web page accessibility testing, there are an unlimited number of tools, many of which are free and many of which require zero installation of apps on your computer. The bad news is that there are an unlimited number of tools. So which ones should you use? How often and in what order? Today, I'm here to only provide an overview of the types of accessibility testing tools and methods, especially aimed at people who are new to this topic. So here are six categories of testing methods, which I will briefly discuss. Note that while I call out some tools by name, this is not meant to be a comprehensive list. And I'm not. I'm not here to advocate for one tool or another. Let's start with automated scanner tools. These tools are typically free browser plugins, which can be used to test single or multiple web pages. Tools such as Wave, aXe, ANDI, Microsoft Accessibility Insights, and Bookmarklets can be activated in 1 or 2 clicks. Automated scanners will use a rule set to judge the accessibility features present, missing or well messed up in the source code. They are great for sniffing out common problems, such as missing alt text on images, poorly or unlabeled form controls, and poor text color contrast. One drawback to using automated scanners is that they will only find 20 to 30% of the total possible accessibility issues. Well, that's why we have so many different categories to complement that automated tools. And additionally, there are false positives with some scanners. And thankfully tools are overall getting better at avoiding false positives. Manual testing typically requires no installation of any apps. Start with making sure your website's interactive controls like buttons, links, and menus, are fully operable with keyboard alone. Make sure when you tab through your interface that every interactive element shows a visible focus indicator, like a rectangular border. Other tests you can perform manually include zooming in on your web page and windows. It's as easy as Ctrl Plus or in Mac Command Plus when zoomed in to 200%. Is the site still usable without any content or functionality loss? If so, you are well on your way to meeting the relevant accessibility standards. As you gain more technical knowledge, some manual code inspection will really help clue you in to whether or not accessibility techniques have been followed. Code inspection is a precision tool which requires good knowledge or advanced knowledge of accessible markup techniques. An example task would be to look for your IMG, your image elements, and determine whether or not they have appropriate attributes such as alt or aria label, which describe the image. User testing is what I would call the source of truth of accessibility. We have all the standards, techniques, and automated tools to help design and develop accessible web pages. But in the wild, can a person with a disability actually use your web pages with their assistive technology? And moreover, can they accomplish the key tasks without difficulty? No automated tool will tell you that. And keep in mind, you can have a website that passes all of the WCAG guidelines, gets a clean automated scan, but if it has a poorly designed user user experience, then it's a fail. Imagine if you had to only use a website with a keyboard, and you had to tab through 300 clicks or more before finding the one you really want to go to. So assistive technology testing I highly recommend what we call at testing to test websites, because it simulates how a person with a disability will experience your e-book or other content. We want to make sure our designs work when experienced through the different lenses of assistive technology. Therefore, we use screen readers such as Jaws, Nvda, VoiceOver, We use speech input such as dragon screen magnification such as zoom text and high contrast and color settings, which you can adjust using your operating system settings. Going towards a more formal approach, you may want to adopt a guided based test. There's the USDA Trusted Tester methodology and DCS conformance testing methodology. If you are new to accessibility testing, I wouldn't start with these guide. So and I would suggest to first gain some confidence and experience using simpler, more bite sized testing tools. Finally, there is what I would call advanced tooling. This includes many paid enterprise software which will not only detect accessibility issues like the free automated tools, but the advanced tooling like AMP events, user way, Poke tech and many others will help you identify, fix, manage and track accessibility issues as you go on the journey. For developers, using an accessibility linter will highlight some key issues in front end code right in the IDE for your convenience and for devs and QAS, you can employ tools like AKS with Cypress to integrate accessibility testing into your automated test bench. Final note all of these tools will help improve the overall usability and accessibility of your websites, and this includes book chapters in HTML. However, it's really including the voice of the user, including people with disabilities in your journey, which will open up paradigm shifting innovations for your users. As an example of a recent user centered innovation is Google Pixel's Guided Frame feature for helping people who are visually impaired take better photos. So this was just a whistlestop overview of the topic of web accessibility testing. If people have specific questions, I'd be happy to answer them in the Q&A here in a little while. Also, you can contact Elsevier Accessibility Team by emailing us at accessibility@elsevier.com. Thank you and have a wonderful day.

Thank you, Ted, for doing a wonderful job summarizing the broad topic of web accessibility so concisely. And as Ted mentioned, will be collecting links for all the resources that we've mentioned, and we'll be publishing them on the webinar summary pages in a few days. Next up, we're joined by Prashant, a member of the DAISY team. Prashant will be talking about the next stage of accessibility testing, considering the final stage of content consumption as he looks at reading system accessibility testing. Over to you, Prashant.

Hello, I am Prashant Ranjan Verma, accessibility specialist for DAISY Consortium. I will be talking about accessibility testing of reading systems. Reading systems can be made accessible for all users by ensuring that the reading app interface is accessible, and that the reading apps support EPUB accessibility features. The Reading System UI, which could be a native app for one of the operating systems like Windows or Android or iOS or similar, or which could be a web app that works within the browser. That UI is accessible when it works with different input methods like keyboard, mouse and touch, and when the UI supports common assistive technology like screen readers, magnifiers, and braille displays. The accessible UI should also support color contrast and text resizing requirement. As an example, a person with visual impairment may want to use the computer with keyboard and screen reader. In such a case, if some of the features of the UI cannot be accessed without the keyboard, if they work only with the mouse, then that part of the UI will be inaccessible. Reading systems should support basic reading and navigation features for all users. It should support navigation from the table of contents to different chapters and subsections. The app should support print page navigation. It should support image or text or image descriptions. It should also support visual adjustments. Many users with disabilities want to change the visual presentation according to their liking. They want to change the text size, the text color, the background color, the margins, or the spacing between words, and so on. So to be accessible, the reading system should support these features. The reading system should also have a built in read aloud facility to have the text read in text to speech, voice. For an accessible reading experience, both the content that is the input file and the reading system need to conform to standards and best practices. Tools are available to test the validity and accessibility of content, and this has been discussed in a separate presentation. The reading system accessibility can be ensured by supporting accessibility tests, which are based on user requirements and best practices. EPUB test.org EPUB test.org has test for evaluating reading system support for accessibility requirements. The evaluations are conducted by accessibility experts and users of assistive technology from all over the world. Tests are conducted with different assistive technology, OS, browser and device combinations. For example, that apps are tested with Nvda screen reader on the windows OS, and if the app is a web app, then inside Google Chrome. Browser apps are also tested with other screen readers, for example VoiceOver on iOS and with the refreshable Braille devices. Test results help developers to improve their products. Test results help institutional purchasers to select more accessible solutions. The tests are contained in EPUB files. On the type of test.org website. These EPUB files are specially designed for testing the various accessibility features. There are 40 profiles files for testing the fundamental accessibility of reading systems, such as support for basic functionality, support for non-visual reading, support for visual adjustments, and the read aloud feature. It also has test files for evaluating support for media overlays, extended descriptions, and mathematics. The tests are marked as pass or fail by the testers. Each reading system accordingly gets a score in each category. Testers provide notes with each test to help users and app developers. As an example, we can see that the Easy Reader app for windows has very good, very high scores in different categories and easy to read. Summary of the detailed, accessible evaluations has been published as an article on the Inclusive Publishing website. The article is called Reading System Accessibility support. Round up the pros and cons of popular EPUB reading app have been mentioned in this article, which is updated regularly. Thanks for watching.

Thank you Prashant. You've helped clarify the work taking place on reading system testing. At DAISY, we regularly hear from developers and consumers about how valuable this testing is. Now, as part of this countdown to the European Accessibility Act series, we've been hearing from people across the EU about the impact of the legislation on some of the challenges in implementation and their recommendations for action. This time we hear from Alejandro from Belgium and Elisa from Lithuania.

My name is Alejandro Moledo and I'm the deputy director and head of policy at the European Disability Forum, the organization representing persons with disabilities at European level. We are based in Brussels, Belgium, but I'm originally from Spain. Hi, I'm Alisa Zarkov, the head of publishing department at the Lithuanian Audiosensory Library. We offer services for individuals with print disabilities. Produces this information, resources and accessible environments. Manages the digital library advice and functions as a center of expertise. The European disability movement, campaigned for many years to get the European Accessibility Act a reality for all persons with disabilities, and we campaigned to get an ambitious law that could have an impact on the everyday lives of persons with disabilities. One of the key aspects of the act is to ensure that accessibility will be considered from the outset. So from the beginning and within the publishing industry, we really hope that this will boost, inclusive reading, inclusive education and more accessible materials that are accessible to all persons with disabilities. A unified agreement on quality standards for accessible publications is needed to ensure consistency across European Union countries. The hope that EAA will enhance access to publications for individuals with disabilities by including of availability of accessible publications. Establishing a uniform guidelines, funding projects to expand accessibility of books, and encouraging collaboration between publishers, libraries and technological companies. Providing training for publishers. Ensuring a strong legal framework for promoting inclusive publishing and improving the access to educational resources for students with disabilities are also crucial. These measures will empower individuals with disabilities and foster a more inclusive society. We believe that the the focus of public authorities and companies is to start working on accessibility right now. Accessibility cannot be achieved overnight, and we believe that to do so, they need first of all, to invest in accessibility expertise, the infrastructure, the tools that they need to in order to produce accessible products and services, and equally important, to reach out to the disability community to understand what are the barriers, what are the best solutions to really fulfill the legal requirements of the legislation, and as well to employ persons with disabilities, because having a diverse workforce will ensure that actually accessibility is considered throughout the value chain and the internal processes of any company or any organization. Our key priorities include continuing to certify books published by Lithuanian publishers and increasing the number of born accessible publications. This year, we have trained 150 participants from over 30 publishing houses, as well as more than 10 advertising design firms, libraries and museums involved in publishing. We are grateful for the high level of engagement and motivation. Shown by the participants, some of whom dedicated their entire work week up to 44 hours for this inclusive publishing of trainings. We feel a strong interest in inclusive publishing and are confident that education on the cause will make able to open up literature to a much larger audience. We plan to continue providing ongoing consultations to publishers and undertaking a pilot project to the publisher house as to how do them understand the nuances of the EPUB format. Furthermore, we will make efforts to promote the EPUB3 format to both those with print disabilities and all readers by educating them on how to read EPUB3.

Well, thank you to Alejandro and Alisa for those perspectives. Well, our presenters have covered a lot of ground. Magnus told us about the accessibility testing of the publications coming from SLS Ted gave us an overview of techniques and tools used to test web pages, and Prashant described the testing protocol used to evaluate accessibility support and features in reading systems. We have a bunch of questions already queued up, but if you have questions for any or all of our speakers, then you can use the Q&A button in zoom to submit them, and we'll cover as many as possible, in the remaining time.

So first of all, I've actually got a question that will come to each of you in turn. So the question is, can you give some examples of issues that your accessibility testing has thrown up, maybe some typical things that you've tracked through the accessibility testing? Turning to you first, Magnus. I feel like I've gotten the hang of most EPUB issues, but I still have some way to go when it comes to PDF remediation. So the tagging and structure there, is something I need to look into. Great. Thank you. And to you, Ted, what do you usually discover? Yeah, that's a great question, Richard. Few the the key things that pop up a lot when we're testing web pages, images that are missing descriptions, whether it's alt or some other technique used to label the image is missing. Form controls, which are unlabeled or labeled incorrectly. Links which are empty or missing an accessible name, happens a lot with icons and and other kind of graphical links. And then text color contrast pops up quite a bit. So, you know, the W3C's WCAG requirements, require us all to, to make sure our text is, four and a half to one contrast ratio against background. So pops up a lot. Yeah. Those are four. Yeah. Good examples. And I think I would say they're not technical faults. Those all have a high impact on the end user experience don't they. So thank you for those. And Prashant, so what are the kind of, typical issues that you discover when testing the, e-book reading apps? Yeah, so we test, the reading systems for, an accessible EPUB reading experience. And, we mostly test, with assistive technology. We want to make sure that all functionalities available to users, all users, including those who use some assistive technology like a screen reader or magnifier. So some of the common issues that we find are like sometimes the navigation from the table of content to a chapter or subsection is broken or is not, does not work, as desired with assistive technology. At times the, the note taking feature, the annotation feature also, not does not always work with some of those, technologies. And similarly, we have also found issues in support for mathematics, support for reading a footnote or or like, a feature that, persons with disabilities often want is, the where am I feature. That is, they want to be aware as to where they are in the book, which chapter, which page they are reading, and, they want this information and then they want to continue reading. So, not all EPUB reading apps are supporting this. People often lose their reading position when they try to get this kind of information right. And again, these are these are examples you've given that have a high impact on the end user experience. Just to clarify, when you are saying that the table of contents navigation is not supported, is that a problem with the EPUB itself or with the app? Is that with a well produced EPUB that you find this. So, yes. So, so we, we test with a proper EPUB. Like an EPUB has been design properly. It's accessible. It has a, working TOC. So if that EPUB doesn't work in one of the, the EPUB reading apps, then, then we can we are able to easily conclude that the, the the problem is it is in the app and not in the EPUB. So with the EPUB validity. We are ensuring and therefore so we are sure that, that the, problem is under functionality and in particular, the, the functionality may be working, without any assistive technology. It may be working in a particular combination, but, when we test with different, combinations of assistive technology, on different platforms, then, then it sometimes doesn't work on some of them, I understand. Thank you. Yeah. Coming back to you, Magnus, you mentioned that you're relatively new to this world of accessibility. And with so many people preparing for the European Accessibility Act and other accessibility legislation, I imagine many are in your position. Maybe quite a few. Watching this webinar. So do you have any advice for those people on how to get started with the accessibility testing? Where did you turn to? Well, I inherited a decent process, so I, I familiarize myself with that. And it was a lot of learning by doing, but it didn't meant I didn't start from scratch. So a lot of it depends on what programs and formats you use, of course. And, there are a lot of learning materials and, webinars and so on out there. So you could start with that. Doing one thing at a time, like starting with Alt texts or, or things like that, and looking at other people's EPUBs and how they resolved issue and so on. Right. Well, one thing at a time. Here's the next one thing coming in your direction. This is a question from, it was posted anonymously. Do you have any tips for ensuring your figures and graphs are accessible? What are the kind of challenges you might have there, or where would you point someone to for the answers to that? Yeah, we haven't had a lot of graphs since I started, at least complex ones, but testing them manually, to see if you can navigate them and seeing how screen readers cope with them. Text to speech usually reveals a lot. And real user feedback would of course be better, but it's not always possible. Yeah, great. And, Magnus, you hinted that you had a custom list of accessibility checks that you use. Could you give us some examples of the kind of things that are on it, and how is it different from the other accessibility testing that you were already doing? Sure. Nothing exciting really, but it's mostly an ordered list specific to our publication process, steps that are easily taken and fixed in InDesign before the conversion, and like making sure the bookmarks and content list is correct and headings, links and so on. And then there's a list of things I fix after we get the EPUB again. Mostly, relating to to the state of the EPUB we get, like fixing page numbers and Aria labels and some search and replace and code and something like that. I made the list partly in case someone else would need to step in, that sometimes I would, I would be step by step for them to follow. Very thoughtful of you, Magnus. Okay, so, Ted, we're turning to you next. And firstly, congratulations for your award winning work on accessibility. It's clear that Elsevier are really focused on delivering an accessible user experience. We have a variety of people attending these webinars, and it might be that the smaller publishers are thinking that accessibility testing is fine for an organization with a team of people dedicated to it, but do you have advice for smaller publishers or those with smaller teams? Yeah, yeah, I can relate to this in that, our, our program started with, dare I say, a half time person, half time accessibility specialist. And we've really grown since then. So for the smaller publishers, you know, I would advocate for providing a wide variety of formats. And this maybe goes beyond kind of the question, but if if smaller publishers haven't started offering EPUB or HTML formats, that is that is a crucial thing because, some of the, some of the more rigid formats, like PDFs do not reflow very well, if at all. And, and there is value in it. And you really want to make sure that, readers have, the ability to, to open their book in, in the device and app they want. So that's a, that's a good thing. But yeah, I would say don't underestimate how important your front end code, your HTML behind what you can visually see. Don't underestimate how important that is to ensure an accessible experience. So, front end engineers who are using modern technologies are going to, are going to have a lot easier job in terms of making the overall web experience or mobile app experience more accessible. A lot of a lot of these things that we're talking about, a lot of these features mentioned, visually they're not apparent. And you really have to use proper stylesheet. device independent JavaScript, coding. And, you know, just just a basic thing, just making sure everyone can use your app, your website in a, in a way that's, device independent. You don't have to rely on a mouse, you know, not not not all users, especially assistive technology users, control their computer screens with mouse. So, you know, device independence is key. So there's just, you know, there's some basic principles, I think for the smaller publishers to recognize, to help them on their journey. And this next question to you, Ted, maybe in the same vein, but I don't think exclusively smaller publishers. So you mentioned the many Elsevier websites display the content of publications. But what about websites that maybe don't have that feature? They're more about the catalog and, yeah, discovery and so on. The publishers need to make those accessible. too or do they only need to pay attention to those that are displaying the content to the end user? That's an excellent question. Yeah. I mean, without without trying to recite any of the guidance from the European Accessibility Act there, there are supporting, materials that are important for users to fully understand how accessible your ebooks or other products e-commerce, for instance, is, are. So a lot of times the the main corporate website, the marketing supporting pages will provide, some of those details about, okay, does this e-book format support screen readers, can text be enlarged, etc.. So I think those supporting materials are crucial to make accessible in addition to the main content site. And then you get into, you know, your support center, how to contact customer support about that product. Those sites are very important to make accessible as well. Right. Thank you. I've got more questions for, both Magnus and Ted, but, spreading them around a little bit. Prashant. Some questions coming your way. One from Casey. Is there a good e-book reader that you can use on your computer to verify the accessibility features of the EPUB so that you're producing? Okay. So so we have been testing, all different, e-book readers, and we have been publishing the results on epubtest. And, and based on that, their results. So, we can of course, say that, that, some of them are, very good. And they are giving a very good experience. So if I have to name, one some of them then, then on the windows platform, for example, Thorium Reader, I think it is a very good EPUB reading app. It's very much accessible with, different assistive technologies as well, like a screen readers. And it has very good, visual adjustment features also. So some people can, can, change the colors that the have. It has different themes. It allows users to kind of even change the font and the margins. So, so Thorium is definitely, one of one of the, the readers. And then I also mentioned in my presentation Easy Reader, and it's available for all, operating systems like, Android and iOS as well. So it is also one of the very popular, EPUB reading apps. Right. Thank you Prashant. I'm going to come back to you. But, Magnus, I think you mentioned in your talk that you test the e-books that you're producing in reading systems. Did you have any suggestions for Casey that, maybe Prashant didn't mention yet? I like to use Calibre or Thorium as well. So at least those two usually goes a long way. Nice. Okay, so, Prashant, back to you. Wow. There are so many different reading systems out there. How do you select the ones that you actually do the testing on? So yeah. So, one is like, DAISY Consortium is a membership based organization. And so we sometimes get a request, from our members or from various user groups. And at the same time, we are also on the lookout to we also try to assess, which EPUB reading app is kind of used widely, in the among persons with disabilities and sometimes the, the company, the developers themselves also, join our, EPUB test. Group. And they often request us to test, their apps. So, so, so, and actually when we come to know of any, any, any type of reading app, on our own, we just try to, test it quickly. If it is promising, if it has some accessibility support, then we try to kind of, list it in our priority, and then we will continue to test it. Yeah. Super. If the developer of a reading system is watching and would like their app to be tested, how should they start? And can developers actually do well, in fact, anyone can. They do their own testing using the EPUB test protocols. Yeah. So so I would suggest that developers visit epubtest and the results page. Maybe someone has already tested their app. And in that case they can check the results. And their comments, based on that, maybe they can maybe some make some improvements or if they have questions, on the testing, on the on the results, they can they can contact us through the through EPUB test if their, app is not already tested, they can themselves choose to test it. So epubtest has, a test suite, the all the test books are there, it's like, free to download so they can, download those, those, but those test books, they can open it in their app. And, those test books contain all the, all the tests and the interactive instructions to perform those tests. So, so they can they can based on that, they can maybe, make some improvements. Changes, in their, apps. They can also request us, for an account on EPUB test. And, and, upload their testing results or they could also request us to kind of do the testing. And we could also, upload results for them. So, if, if the app then under development, we could actually kind of test and, and before publishing also, we can let them know, what how, how it's performing and so that, by the time the app is finalized, they can they can ensure more accessibility. Thank you Prashant. I've got one more question from you before we come back to Magnus. I know that publishers are always interested to know that the work they put into making accessible e-books, are going to work well in the apps that people are then going to use. Having conducted many years of testing e-book apps, and devices, do you have a sense of whether or not the apps are getting better with their accessibility features and support, or putting it another way? Are the apps going to be ready for all this accessible content that's coming their way? Yeah, the accessibility, in the apps has been improving consistently. I think when we started, many apps, even did not support the reading of the image alt text. So but this but that is, I think almost, taken for granted, almost all apps, are supporting image alt text or reading with some read aloud feature or maybe a screen reader. Similarly. Some in many apps, the the text part was not accessible with the screen reader, with using a screen reader, one could not, navigate within the text. So those things have been mostly taken care of. Navigation by headings, navigation. From the table of contents to a different part of the book. So, many, many features are like being supported fairly well very, fairly widely. One, one pleasant development is support for, mathematics, MathML. So, there is support in many apps for that now. So much so that, we have this test used to be in our advanced book. It used to be kind of an you can say, an optional test. So, so we have moved it to our fundamental, test book. So because we had no test, a lot of support for this and, similarly, like, support for, internal hyperlinks, reading of footnotes. So, so, so these days, of course, I will say that, most apps have become more accessible. Still, some of the apps need to catch up, but but overall, the trend is change is very Satisfactory I will say. Very good That's reassuring to know Prashant. Okay. So coming back to you, Magnus. The first question is from Jim, and his question is, Benetech global certification is only available for publishers. Do you know of anything comparable available for individuals? I guess that's, self-publishing authors or, those that publish that way is my interpretation of the question. Do you know of anything along those lines? So certification for individuals? I know there are, at least for professionals, but I don't remember the name of the certificates. But they might be expensive as well. But there's something I can't give any answer now. Okay. Maybe that's something that we can, include on the webinar summary page. The next one, one of the topics that's most often raised in these webinars, Magnus, as you probably know, is on image descriptions, as part of your accessibility testing, how do you test that? The image descriptions that have been that are there have been applied correctly? And work well in practice. So not simply that they're present, that they're kind of appropriate and are working for the end user. Well, again, it's manual scrolling and screen readers and and do you mean the alt text as well or. Yeah, yeah. Yeah. We in in our editors write them and they check in the context and with the image description that everything works together. And then I insert them. And at that point I also take a look at it. So we have a sort of double check there. And then it's the manual check or text to speech. Thank you. Magnus. This next question I think is to Magnus, and or Ted. It's from Sarah. Do you know of any specific training on checking for accessibility? Something that shows things step by step? Sarah says that she has been trying to do it all based on various instructions that she finds online. But it would be much easier if she could kind of see how to do things, following through these things. So training on accessibility testing. Magnus, anything from you? Nothing consistent. I've picked up one thing here and one thing there. So? So I don't have any. Any good series or anything? No. Okay, so, Ted. Well, the world of web accessibility surely is much more mature and established. What's your suggestions for Sarah in terms of accessibility testing, training? Yeah. Well, hey, I could say I don't have the perfect solution. I know of a couple of couple of ideas. There is someone is really, like, going towards, like, a formal sense, and they really kind of want to follow a step by step procedure. The, the guided testing I had mentioned earlier in the, webinar is the US, Department of Homeland Security trusted tester methodology. And you can you can even get to that methodology for free. It's not behind a paywall or anything and kind of see if that resonates. And if so, you can even sign up for the DHS' trusted tester program, which kind of takes you through, almost like a course. But it is a time commitment. And it is it is the more formal route. Not not for complete beginners in my, in my opinion, I haven't seen any great video products or, or things out there that just show step by step how to test. They may be out there, but I'm unaware of them. And I know, I know like, you know, just just in terms of WCAG conformance testing, if you want to read it and kind of digest it that way. Deque offers, some, some really good, training in that respect for how to test things. For WCAG conformance. Thank you Ted. And that's the company D E Q U E yeah. Deque yeah. I think I got that right. Thank you. And it's a related question, maybe to any of our, presenters today. Jim says, that he's looking for a place where he can get feedback on the, ebooks that he's producing in terms of their accessibility. So, thoughts from any of you on. So you make your e-book, you look to follow the standards, you do the testing yourself. What about some kind of third party reassurance, some feedback on that. Thoughts from any of you on this? Help Jim out. Well, I can say that, like, so they they should be using Ace for sure. To, to check accessibility of the EPUB they are creating and, and so, on our, information and help section, we have some guidance on how to use, ace. And, if they have questions, they can definitely contact us, the DAISY Consortium through our website, if they have any technical question. Great. So technical support I think Jim is kind of reaching for someone else, taking a look at the EPUB and kind of maybe spotting things that he hadn't spotted and stuff. Magnus, any wise words on this one? I think you mentioned that you do have some experts feeding in. Yeah. In some countries there are accessibility departments or offices or something that usually can take a look at it. In Finland we have Celia, for example, and that would perhaps be the first, first step. Right. Thank you. And on this kind of, guided process, not a question, but Lee very helpfully has said that Accessibility Insights offers a free browser extension that includes a fully guided overview process. I don't know if that's, helpful. I'm not actually familiar with that one. We're running a bit tight on time. I'm trying to include as many questions we got. There is one here that maybe shaped more for you, Ted, because it probably relates to some of the journal content. It's from Carrie, I think. Yeah. Can you speak about how magazines and journals can be made accessible? The magazine publishes that Carrie works with publish in PDF. Due to the image heavy nature of their publications and their desire to maintain the formatting. So this is kind of fixed layout type stuff. We'll have to be brief for this. I've got a couple more questions I'd love to squeeze in. Any quick thoughts on that kind of complex. Yeah yeah. Designing the content. Yeah yeah. Fixed layout is tricky because you're you're basically saying that, you don't want your content to reflow your text to reflow nicely in the, in the container that you're viewing it in, in your, in your screen or your browser. So, but that's not the only consideration for accessibility of course. So those, those magazines, those image heavy, publications. I would want to know how they are created if they're created in InDesign. There are some things that you can do early on in the InDesign, phase, if you will, to to make sure that the the text equivalents are there for the image, to make sure that your, semantic structure is in place, your heading structure, etc.. And if you get those in place in the beginning in InDesign, it's usually just a couple of clicks to, to result in an accessible tag PDF. So if you're if you're not doing that, look into that. Okay. Thank you for that quick tip on what could be a whole webinar in itself. I'm going to squeeze one more in. I'm going to get told off for this. But there are two questions, one from Anna and one from Bill that relate to vendors. So how can you, any thoughts on testing the reliability of the content that's coming from vendors? Anything different, from what has been discussed? Magnus, I think you said that you use vendors, for a lot of your content, already. Any any, advice for Anna and Bill, who are asking about the role of vendors and suppliers on this? Do you get them to do testing themselves to coach them on that? We we use one. Yes. And this is very knowledgeable already. So you have to build up your own knowledge so you can check it, check it for yourself. Okay. So knowledge in the place of the vendor. But also make sure you have the knowledge in-house. It takes two to tango.

Thank you so much. We're coming right to the end of our time today. Thank you again to Magnus, Ted, Prahsant, Alejandro and Alisa for your excellent contributions to this webinar.

And 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.

This webinar is the third event in our Countdown Series, a 12 month program exploring all aspects of accessible publishing and reading, facilitating knowledge sharing and helping everyone involved to understand and prepare for the European Accessibility Act. I'm happy to share the next three scheduled topics with you now.

On September the 25th. With 269 days to go until the EAA comes into force, it's the term for image descriptions. This webinar will discuss the practical workflow approaches taken by a number of publishers to ensure that high quality image descriptions are efficiently authored for both front and back list titles.

On October the 23rd, with 241 days to go, the webinar will focus on reading solutions, ensuring that people can read accessible ebooks across a variety of different platforms, customizing the presentation of that content, and supplying and supporting the use of a diverse range of assistive technology is far from a simple task. So in this webinar, we'll hear from, leading reading systems developers, including representatives from Amazon and Kobo, to learn about the innovations that they're making to support accessible reading and their ongoing work to improve the reading experience for everyone.

And on November the 27th, join us for Accessibility in practice. This webinar is designed to coincide with the European Day for people with disabilities, and will share messages from people across Europe. We'll learn how people read with assistive technology. We'll hear how what a difference the often small considerations in e-book creation can make to them, and the impact that is already being experienced, by recent accessibility innovations in digital publishing. We'll be answering the questions what does accessibility mean in practice? How do people with print disabilities read ebooks with assistive technology? And how will the European Accessibility Act impact on the lives of individuals?

Find out more 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. If you'd like to suggest a subject, or if you'd like to share your perspective on the forthcoming European Accessibility Act, then please email us at webinars@daisy.org. Thank you for coming today. I'll hope you'll join us again next time. Goodbye.