# Transcript - Metadata in Publishing-The Hidden Information Essential for Accessibility

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

<https://daisy.org/news-events/articles/metadata-in-publishing-w/>

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>> Richard: Hello everyone, and a very warm welcome to you. My name is Richard Orme from the DAISY Consortium and I am your host for today’s webinar.   
Metadata is an important ingredient in all digital publications. Metadata about accessibility can play an essential role to help identify whether a publication has features that are important to   
consumers with accessibility related requirements. Or indeed, if there are accessibility hazards or barriers.   
So metadata is important, but it can be a difficult subject to get to grips with. In this webinar we have brought together three wonderful individuals with deep knowledge across different   
domains.   
I will be back after the presentations to moderate the questions, but at this point I’ll hand over to our panelists, who will introduce themselves and tell us about   
“Metadata in Publishing”: The hidden information essential for accessibility”

>> Madeleine: Hello, this is Madeleine Rothberg from the National Center for Accessible Media at WGBH. WGBH has over 45 years of history in making media accessible to people with disabilities and most recently I have spent about 15 years now working on accessibility media ‑‑ accessibility metadata and I'm happy to share that with you today.

>> Chris: I'm from EDItEUR that's a standards organization based in London. We create and maintain and built resources for the use of these standards and for use in the global book supply chain.

>> Luc: Hello, everybody. This is Luc Maumet. I'm working for the accessible books consortium at World Intellectual Property Organization. I'm a librarian. I've been working on this for nearly 20 years now. I will be presenting specifically about metadata in the library world.

>> Madeleine: As an overview I will begin speaking about accessibility metadata in EPUB and Chris will speak about accessibility metadata in ONIX and Luc about library metadata and specialist formats and then we will all be available for Q&A. If you are providing books but you haven't reached all your accessibility goals yet, you can use the metadata to tell us what you do know about your publications. If you have made a publications that is fully accessible, you can shout about it with your metadata. If it's accessible for some readers and not for others, the metadata is important too. So it will help readers find books that suit them.

EPUB metadata is carried inside the publications. It's sometimes called package metadata. It's trickier to arrange. You can also provide metadata about your EPUB with linked metadata, a record outside the publications. The way precedence is handled whether there's metadata inside or outside is different. So do look carefully at the documentation when you make those decisions. Also it's important to know that using accessibility metadata is required if you are aiming to meet the EPUB accessibility 1.0 conformance requirements. EPUB accessibility documents lay out 3 kinds of EPUBs. A document might be discoverable, meaning it has metadata to help users find it even if it doesn't meet all accessibility requirements. It might be what's termed accessible which means it meets the discovery metadata but also meads the web content accessibility guidelines 2.0 at any level and additional EPUB accessibility requirements. Or it might be an optimized documents. These are the ones for specialize audiences and they have their own requirements in the EPUB accessibility requirements for metadata.

So discovery metadata describes the publications content. This is useful for no matter what kind of publications you share. This metadata is written up at the Schema.org website. There's required elements, recommended and optional. Required is that you describe the types of media included in your publications. That's using a term access mode. Visual, auditory, and what kinds of things are in there. Second you are required to name accessibility features and hazards. The most common hazard is flashing which can cause seizures in light sensitive people with epilepsy. Those are not common in most bookie books. The accessibility features describes things you might be doing to make your book or publications more accessible like image descriptions, captions on audio or video and so on. Finally you are required to produce a human readable summary. This might summarize all of the other features or nuances that are tricky, but a user needs to know.

It's recommended you use a term called access mode sufficient. This describes how a publication can be used like with the eyes, read with the ears. It's a little more complicated and that's why it's not required. If you have interactive features, there's areas to describe those interactive features.

For conformance reporting, you want to state the web content accessibility guidelines. You will use the term conforms to metadata to do that. There's a specific syntax for writing up those conformance statements.

Additionally, for EPUB conformance reporting there's metadata terms to report about your conformance claim. The required one is "certified by." This is naming the organization that certifies the WCAG level you certified by. Whoever is providing the testing and certification. Optionally you can give more information about the certifier and report by saying who has credentialed this certifier if you passed a training or credentialing service and a link to the report if you can make the full conformance report available to the readers.

Finally the optimize publications. Those are important to certain groups for instance if you are sharing braille ready files. Those files are not accessible to people who can't use them. IE the audio file is not accessible for someone who can't hear. These are important features, but we want to report them accurately. So we use the conforms to field to report what optimization standard have you followed. We recommend you use a human readable description with an optimize publication. This allows you to say this is an audio book. It offers text for navigation only or whatever the specifics of the circumstance is.

Tools that will help you create accessible EPUB, the Schema.org website which has the full terms and these slides and resources will be available after the webinar. The W3C website is where the Schema.org terms have their full vocabulary defined. I have a link to the W3C vocabulary page where all of the terms you can use are defined. You might be interested in these by DAISY accessibility checker. It checks the accessibility of your publication and has a module that will show you what metadata is already in your package and give you an editor to edit or insert metadata into the EPUB yet, but you know what you need to say about your publication.

This is a brief snippet of Jason LD metadata. I don't expect people to learn how to create metadata looking at this slide. We have 6 written fully examples in the Schema.org but you have to click on the Jason LD to get to them. You can go to the Schema.org website and pick any of our accessibility terms such as access mode and go to the Jason LD examples to see fully written examples.

Finally some resources for EPUB. I've got links to the EPUB accessibility 1.0 document itself which is currently a submission to the W3C to become part of the W3C publications group. In addition, there's an accessibility techniques document that lives at the IDPF website. That will give you examples. Finally, there's a crosswalk between EPUB metadata and ONIX metadata. Chris will speak next about ONIX metadata. We have collaboratively compiles some of the commonalities between the EPUB metadata and ONIX metadata. Now I will hand it over to Chris.

>> Chris: Thank you Madeleine. So Madeleine has been showing you and talking about the kind of metadata that should be included in the EPUB. I'm going to be looking at the kind of metadata that should be accompanying that EPUB file either sent with the file or separately in a separate metadata supply chain to the book trade.

Most common method of supplying accessibility metadata in the book trade is via ONIX for books. For those who are not familiar with ONIX for books it's a standard message that's widely used around the globe. It's used for the communication of metadata about physical books, digital books, audio books and the global books supply chain. It's managed by EDItEUR. It's been around for over 20 years. There are two versions that you may be familiar with. Version 2.1 which was published in June 2003 and sunsetted in 2014 but is it still used by some actors in the U.S., Canada, Germany, and United Kingdom. The current version of ONIX is ONIX 3. This was published in April 2009 and is the current version.

The current iteration is 3.0.7 but when we talk about iterations that's because new elements are added. ONIX 3 has been stable and usable for over 10 years. ONIX is made up of simple XML syntax and code lists, controlled vocabularies. Those code lists are things that may be revised. By revision we may be requested to update the words or the meanings to make sure that they make sense to everybody. Or we may be asked to add new editions. If there's a new requirement in accessibility, we may get a request from DAISY to add a new value. What we would do is consult with other people who are experts in accessibility, make a proposal and those proposals go out to national user groups. These groups are made up of different representatives from the book trade. They discuss these proposals and then we meet and have an international steering committee that will discuss and validate or reject any proposed new codes. Nothing is added to the ONIX controlled vocabularies without full compliance.

ONIX 3 is the one that's mostly best suited for digital books. That's why ONIX 3 was created to meet the needs of digital publications. ONIX 3 has really good quality control material. We publish an XSD that checks the quality of the metadata. ONIX has always been able to describe things like braille, large print, DAISY products, different formats. ONIX is used to describe the features of the book when it comes to accessibility. You can give really granular descriptions or specify the books conformance to particular standards. ONIX doesn't describe the system functionalities of reading systems. So ONIX is there to describe the books. There was a working group met in 2010/11 that made suggestions for the metadata that we needed to add to ONIX to convey information about digital publications accessibility. That resulted in list 196. It was done in such a way that it could be used in ONIX 2.1 and ONIX 3. It was designed and added to be used in a simple composite that existed in product form feature. ONIX 3 can convey other information that may be of use to describe accessibility. It can describe for example if there are limitations set on text‑to‑speech. There's a list to describe the type of media it is. If it's primary text, primary audio, text plus audio. That kind of thing. You can include the Jason LD snippet at Schema.org in your ONIX file. That can be embedded into an HTML page.

So the ONIX code list 196 this is the important list. This came out of that working group. It's made up of different kinds of codes. There are codes that are granular that describe the features of the ‑‑ the accessibility features of the book. Things like it has a navigable table of contents, uses logical reading order.

You can also specify using this whether it's compliant, compliant to WCAG A, WCAG AA. You can also send information about conformance reporting. So everything Madeleine covered in EPUB section, you can also convey that information in ONIX.

You can also convey things like put in a complex name for accessibility information. There's a value to say nothing has been disabled. And an important code which this titles is inaccessible because we have relic digital books that were made a long time ago that publishers know don't meet accessibility requirements. They want to say we know this is inaccessible. The granularity allow a reader to pick out their requirements for a book. They allow the publishers to characterize the features of that product. Hopefully, we can match those two profiles together for the person that buys the book.

I want to show a bit of ONIX. This is called the product form feature. This is how accessibility metadata is sent in the ONIX. It's a very simple composite. There's a product form feature type 09. This indicates to the people that receive the data that I'm giving information about accessibility. The feature value will give you the particular feature. That repeats with all the information. It's important this was used in ONIX 2, 2.1 and 3. Same simple structure. Anybody producing ONIX or receiving ONIX should have no issue with this. It was done in the most simplest format possible.

So, why add accessibility metadata to ONIX which it's putting similar information into the EPUB itself? Well, as with the choice of any book, you do need to know things in advance. So print and pair purchaser needs to know information about the title prior to purchase and even prior to publication. If the data is distributed in the ONIX standard, then data aggregators, retailers, libraries can be made aware of the accessibility of a title and can let purchasers and readers know within their catalog. It's really important that we let perspective readers know how accessible a publication is via the metadata inside and outside the EPUB.

Not only should publishers make their publications as accessible and they should shout about that by making that information available in the metadata.

Just some basic resources that are available so these will be made available after the presentation. There's a link directly to the famous code list 196. We have done a short paper on giving advice on using accessibility metadata in ONIX and the link to that paper is there. There's the general link to more information about ONIX 3 and now I'm going to pass it on to Luc who will talk about library metadata.

>> Luc: Hello, everybody. I'm going to share with you the experience of the accessible books consortium when it comes to library metadata and specialist formats. The Accessible Books Consortium is led by the World Intellectual Property Organization. Among those services we have set up an online platform that is called ABC. This platform allows participating libraries for the blind or specialized in services to the categories of print [inaudible] to obtain the accessible content they need. Those libraries are 71 are participating in the ABC book service today. They are known as authorized entities or AEs. These are exchanging accessible titles and they are the main producers of the documents they are distributing.

The exchanging of accessible titles via the ABC global book service are within the framework of the Marrakesh treaty.

DAISY ABC catalog comprise more than 634,000 accessible titles. We have documents in several accessible formats. The main one is DAISY, BRF, MP3 and EPUB and many others. We have 17 different formats in the ABC.

The metadata is provided by participating AEs, the participating authorized entities.

We are working with a metadata for MARC 21 which is well known in the library world. MARC 21 has the ability to describe accessibility features.

In MARC 21, two fields are used to describe accessibility features. Field 341 which is accessibility content and field 532 accessibility note. It should be noted that the introduction of these are recent. It dates back to 2018.

So, we rely on metadata shared with us by participating libraries to build a centralized catalog. We have to face some limitations. First, the accessibility metadata is applied differently from AE to AE. We see MARC 21 is not used by the participating AEs, libraries in a standardized way to describe accessibility features.

So we see differences from metadata feed to metadata feed. It's also very common that accessibility information is implicit. I take an example to explain what I want to say here. For many libraries, they have been distributing accessible documents to a limited audience, their end users. For many years there was no need to include the metadata feed information which were for the end users. For a library producing only audio books with human narration, it was well known information for the end users accessing documents of this that the format was what I just described. Now in the global corporation the fact that the conversation is not expressed specifically, it's a limitation.

At ABC, we are using a solution we call mapping in order to go from the wide range of metadata feed we get from the AEs, the participating libraries, and build from that centralized data. So AEs show metadata in the format they are able to export. So MARC XML to excel sheets. We are happy when we get MARC XML, but we are able to enter a very large range of different formats in which they are able to share the metadata with us.

Then, at ABC maps the different fields in each catalog to its centralized catalog. It's a manual process. This mapping is a manual process and through exchanges with the libraries, we create a mapping. This mapping is provided in an autoed way to provide metadata but first we have to describe manually how we map from the AEs library to the centralize catalog field after field.

So what have we achieved? We have a centralized catalog of 634,000 titles. That's very significant in this field. This catalog includes metadata describing the different formats and this is very important information of course. And we also have metadata describing the main accessibility features.

The next steps are considering the knowledge we have now, we have a need for more collaboration when it comes from metadata about accessibility features in the library world. The next step for us will be active collaboration with the libraries for print disabled persons of the international federation of library associations working on the project for metadata on accessibility for libraries catalogs. We have [inaudible] when it comes to metadata [inaudible] for print [inaudible] persons and the need to move forward and agree on standards in order to be able to automate the exchanges of metadata in this field.

As said by the previous presenters, the resources will be made available on the slides you have three links. Two links about the field 341 and field 532 and a link to the ABC global book service which presents with how we work and where we are heading.

>> Richard: Thank you so much Madeleine, Chris, and Luc for those wonderful presentations. We have a bunch of questions lined up. Let me share the contact information for each of them. If we don't get to a question that you have or if you think of a question afterwards, you can reach out to each of these speakers. It's possible to reach Madeleine Rothberg at madeleine\_rothberg@wgbh.org. And to reach Chris from EDItEUR, he’s Chris@editeur.org and Luc Maumet can be reached at luc.maumet@wipo.int.

So those are the contact details for our presenters and thank you for making that offer for follow up questions.

If we can now move to the next slide we are in the discussion and Q&A. Our usual approach to this is to deal with general questions first before we move into the specific side of things.

So I think there were great descriptions of the specifics within each of those metadata domains. What wasn't entirely clear to me was what the experience was of an end user of a librarian, someone looking to buy. How do they get access to this metadata? In what way does this become surfaced for them. Maybe Madeleine you can handle that in terms of EPUB metadata?

>> Madeleine: The metadata that surfaced has to be surfaced by whatever organization is providing the books. That's why it's important to have all of these pieces together today. For many print impaired readers, it's the library that's providing them. So that's why it's important for the library groups to work on standardizing and sharing that metadata out. If you get your books through a reseller, there's a good chance you are getting it from the ONIX metadata. There's some places in between. There are academic publisher that provide their own accessible files through collaboration. So it's really up to whoever is creating the websites that are presenting the catalogs of books. Whoever is the aggregator.

>> Richard: Thank you. Turning to Chris, you talked about the opportunity for someone to check out the accessibility features and hazards of a title before they buy it, before they download it, maybe even before the book is published. Can you expand on that?

>> Chris: An ONIX message is designed for the book trade and all metadata about books it's best practice to send that metadata out in advance. In the U.S., a publisher may send out 6 months in advance. That metadata is made available to the book trade in advance. If that accessibility metadata is included, it allows people to make that visible and allow people to see that in advance and let people make advance decisions about purchases of accessible titles.

>> Richard: Now turning to you Luc, you mentioned MARC 21. My limited understanding of this is that's a metadata standard that's used extensively within many public library sectors. So this maybe is where a librarian is looking at the mainstream digital publications could hope to see accessibility information there? Did I get that right? MARC 21 is the public library metadata standard that's important and where are we at with the possibility for librarians in my public library to tell me about the accessibility features of ebooks that they have?

>> Luc: MARC 21 is very important metadata standard. [Inaudible]. This is widely used among public libraries, yes. Relying on such a standard is nice way to also get to the day where public libraries will more easily expose information about metadata about accessibility features in their catalog. When it comes to the specialized libraries I described, we have to keep in mind that we see two things evolving at the same time. On one hand we need more standardization about metadata sharing and production and also on the other end these institutions many of them are specialized institutions. At the same time they have started to collaborate with public libraries. So we are optimistic when it comes to sharing this kind of information coming from a specialized sectors of libraries producing accessible documents.

>> Richard: So you see MARC 21 evolving in the way we heard Schema.org and the ONIX has evolved. You see MARC 21 evolving in the same way to take more accessibility properties and crosswalks between these standards?

>> Luc: I see them evolving in a way that will allow them to express all the accessibility features at the same time I see a very specialized libraries working in these fields. I guess we are at this moment for the first time we have the knowledge of what is going on in many institutions now because they have started cooperating and at the same time we know what they do and on the other end we see the need for more collaboration and standardization of accessible documents production. It has been done for many years but now also for metadata production.

>> Richard: Thank you. I see one question from Amy which I think Luc is more for you and then I will turn to other questions for other panelists. Are you aware of any work to get accessibility statements in US mark as well? I guess US MARC is part of the MARC family?

>> Luc: No, I'm not aware of an effort but maybe I'm not technical enough to answer this question.

>> Richard: All right. Let's move to a question that came up early in the session. Madeleine, you talked about the accessibility hazard property. There's a link to a related field for ONIX. You gave the example of flashing. Are there other hazards that publisher should be aware of? Is flashing really the one that people are coming across right now?

>> Madeleine: The other most common hazard is one that may not apply as much to books that are mostly words, but many people are sensitive to motion on a screen. So we have a motion hazard. If you have a simulation of a roller coaster, there are users that watching that roller coaster simulation might cause physical harm or illness. So that's probably the second most common one. There's some research on hazards from certain kinds of audio. That certain audio signals can trigger seizures in people. But it's not as well defined.

>> Richard: Another one for you Madeleine I think. This is a chance to explain something again. The question is from Juliet. It's for EPUB, it is preferable to use JSON or ONIX?

>> Madeleine: I will give a little bit of combo answer here. Currently for an EPUB itself if you want to put the metadata inside the EPUB package, then you need to do that using the EPUB package MET metadata. That may be JSON or something else. If you want the metadata outside, you use ONIX. It depends on which version of EPUB you are using. The rules for whether the linked record would override or be discarded would change between versions. You have to think hard about which is more likely to be accurate. When the book was made, was all the right metadata put in it? Were new accessibility features added later but the metadata inside wasn't updated? Those are tricky questions. So speak to the people in your supply chain whether that's retail or through the libraries and figure out which records they will be using and how often they get updated so you know people use the most up to date version of your metadata so you can correct errors. So I don't think that's something we can answer as a one size fits all.

>> Chris: I agree with what you just said. It's why we have the three of us talking today. It's important that the different actors in the workflow when producing accessible books and the metadata talk to each other. As with other aspects of metadata, it's important that what's inside pack and what's in the ONIX are kept up to date. You don't assume that once the ONIX is done you can just leave it. It's important that system update each other. As soon as there's a clash in different information ‑‑ if the information in JSON, ONIX and MARC are different, that confuses the supply chain.

>> Richard: Chris, I think we have another question for you. Where would one put the JSONLD in which block?

>> Chris: Block 2, collateral detail, text content. It's a text type 24.

>> Richard: Madeleine to you, you talked about the certified by field. This was in your required list.

>> Madeleine: Certified by is who is certifying that this document is accessible. So that's required because if you are going to claim something is meeting the WCAG guidelines you need to stand behind that. In some cases that's the library themselves. They can put their own name and that informs the reader that this library has done that testing themselves.

>> Richard: If a publisher has done their own internal testing or maybe they have some mechanism set up for that, they are confident they mead WCAG AA, they need to put their own publisher details in the certified by field.

>> Madeleine: That's right. If they follow a specific guidance or if they are trained then they may want to wish to use the certified credential field.

>> Richard: In order to meet the EPUB accessibility specification having this internal accessibility metadata in the EPUB is a requirement in order to actually meet those EPUB accessibility specifications of course.

>> Madeleine: I believe the linked record counts toward meeting that requirement as long as you have made sure your linked records will travel appropriately with the book at the right time and that the updating is handled correctly.

>> Richard: We have a question who is saying if mainstream retailers like Amazon are using the accessibility metadata and accepting accessible EPUB files?

>> Chris: Should I start? I do know that for example record and [inaudible] are interested in accessibility metadata in an ONIX file. Their biggest issue is persuading publishers to put it in the ONIX file. Amazon is having a major push to get people who send them ONIX to stop using 2.1, start using ONIX 3. They have done the physical books. They are moving to digital next year. Companies like them are trying to impose best practices on good quality metadata and then they are ask for metadata about accessibility. Google, I do not know. There is a desire to see accessibility metadata in the trade, but this is a vicious catch 22. I'm not adding it because nobody wants it. We are not adding it because nobody is sending it. Going to Luc's point about MARC 21. MARC metadata is important. There are specialist that will take ONIX feeds from publishers can convert those to MARC records. I say to any publisher it's important to start adding that metadata to your ONIX feeds so big retailers will see that data is there.

>> Richard: Thank you. Part of that question was whether Amazon or Google are accepting accessible EPUB files. Thank you for addressing accessibility metadata. I hesitate to half answer a question as the host, but they are accepting accessible EPUB files. This answer was framed around what are they doing with the accessibility metadata when it comes to them. It seems to be that the accessibility summary would be particularly helpful for many people particularly to end users and the librarians and folks supporting them. What kind of guidance is there to complete the accessibility MET in terms of the summary, so folks don't have to get into the details of all of these fields and they get a sense of what is available through the summary? To what extent is the summary an important part? Who would like to answer that?

>> Madeleine: I would say the accessibility summary is very important piece because we are working on a document to help explain accessibility metadata for aggregators and how to present it on their websites to be user friendly. They can be complicated. We have tried to write a use case for a dictionary that has audio to pronounce each word but it's not an audio book. That's the kind of thing where while we can make the metadata as precise as we like, a human readable summary that explains this is a dictionary and mostly text. It has pronunciations. I did want to speak briefly to my previous answer. I gave an incorrect piece of information. Linked metadata records are not accepted for EPUB 1.0 conformance. To be fully EPUB 1.0 conformant you need to use the package data which is inside the package.

>> Richard: Thank you for that clarification. Now we have a question from Teresa who is working in a library. Teresa says we have been adding accessible metadata for physical collections that is done manually. Their ebooks and other records are created by the vendors who sell the books so they can do it for the physical assets but for the digital ebooks they use what comes from the vendors. These records don't include accessibility features and accessibility metadata. Any suggestions for how to get this accessibility metadata added by the vendors?

>> Chris: If the enders are supplying data in ONIX, it's very simple. I would go back to them and ask them to add this to their ONIX. If not, why not? It's done in such a simple way to be added to the ONIX. I think that's part of the things. Start feeding back down the supply chain we want this information. Are you using it? How are you using it? You can point them to our documentation. It's important that people in the supply chain know that people want that information because a lot of people who work in publishing are busy and don't always understand that maybe somebody would want that information further down the supply chain. So that's one thing to do. Communicate that back to your vendors.

>> Richard: Teresa adds we don't have the staff available to manually look at an ebooks and figure out if it's accessible or not and then add that data somehow. So there's a plea that that can be done once through the distribution chain. So that describes a really good value of doing this. A linked question from Sabrina is if that metadata doesn't exist for a title, how about being able to go to the publisher directly and asking for the appropriate metadata? Is that what you suggest, Chris? Going back to the supplier or whatever the publisher themselves?

>> Chris: That's an option. Publishers are the source of the ONIX data. They are the original source of truth about that. They are the ones that will make the decision. So go to the publisher themselves. Find out who the accessibility content is at that publisher and say we need this information in your ONIX file.

>> Richard: So you have described some great information about what's available now. I would like to hear if you could just describe how you see accessibility metadata in the domains in which you particularly have expertise changing over the next two years and what difference that would make for readers with print disabilities and the people working to support them. Maybe we can handle this in the same order as the panel. Madeleine, what comes next and how will things improve?

>> Madeleine: I would say I think we see good things on the horizon. We are working on a metadata user interface guide for aggregators. These include people who serve higher education. The need for better metadata has to come up from the end customers which is the library or the university or the book seller who needs to communicate to the publisher or provider that this is required for what they want to give to their readers. Without the pressure up from the bottom we will probably hear publishers say nobody asked for it. So we need to hear the end users asking for it. I think we have been. We have been getting commentary about our user interface guide from large aggregators. I hope we will see as we complete our transition to online everything that the metadata is available for more and more users.

>> Richard: Chris?

>> Chris: I hope to see that it becomes standard practice for publishers to produce accessible digital publications to add that automatically to their ONIX feed. I hope to see as soon as one retail platform starts exposing that metadata I think that will knock publishers. They will all start thinking about adding metadata to their ONIX feeds. As Amazon moves to only accepting one form of ONIX, we will get tighter metadata. Part of the process is to start requiring accessible metadata and I think others will start doing that I hope.

>> Richard: Luc your thoughts in terms of the public library world and special libraries?

>> Luc: In the special libraries field I'm convinced we are going to see in the near future more standardization regarding the way metadata is produced regarding accessibility. It will help public libraries to become the front [inaudible] they are providing services to general population and we need public libraries to be able to make loans with documents by the specialized sector more and more. It will allow also print impaired users who are relying on very special format and production within the specialized field of libraries for print impaired persons to start using more and more documents being produced as born accessible coming from the publishing fields as the rest of the population. I hope the standardization on the specialize world will help both sectors to communicate and work more together for print impaired persons to gain access to the documents they need.

>> Richard: Thank you so much. Bringing them together we will know this is working when users are able to see this accessibility information about the titles that they are choosing to borrow or buy. You mention the experience guide will include a link to that in the resources. This helps those building the distribution systems and how they can expose this in the way that's most useful for users. There's a guide being produced. So we will include that in resources. We will include a link to the DAISY knowledge base which includes information on ONIX and Schema.org metadata and has great examples in there.

OK, we’re coming to the end of this session. Madeleine, Chris and Luc, thank you for sharing great information and insights.   
Thank you to everyone who joined us for today’s session.   
Coming up in the next few weeks we have some more wonderful topics for you:   
On July 1 we have our “World Tour of Inclusive Publishing Initiatives”.   
Our stellar panel includes Hugo Setzer, Mexican publisher and President of the International   
Publishers Association; Deborah Nelson, Chief Executive of eBOUND Canada; Brad Turner, who leads the world’s largest collection of accessible eBooks at Bookshare; and Kirsi Ylanne, representing the Nordic Inclusive Publishing Initiative.   
We will learn about initiatives that are underway in many different regions of the world to bring accessible publishing to reality.   
We’ll contrast these different approaches and I anticipate a very interesting panel discussion.   
On July 8 pack your bags, we are going on a trip as we follow the journey from publisher to student and experience “The Accessible EPUB Ecosystem in Action” And on July 15, we will talk about “Scaling Inclusion in the Transition to Remote Teaching”.   
The rapid switch to online learning has in many cases amplified the barriers faced by some learners with disabilities.   
In this webinar our friends from Blackboard Ally will share analysis driven by users from   
1000s of educational institutions, and we’ll discuss pragmatic solutions for effective and efficient inclusion.   
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. If you would like to   
suggest a subject, or if you are considering presenting a webinar, then please email us at   
webinars@daisy.org I hope you will join us again next week. In the meantime, thank you for your time and have a wonderful rest of your day.   
Goodbye.