Transcript

>>OK, it is just past the top of the hour, so I think it is about time for us to get started and let me start off by saying good afternoon or good morning depending on where you are. And thank you for joining us for the 2023 Mesh Highlights Webinar. My name is Mike Davidson. I'm a librarian for the Office of Engagement and Training at the National Library of Medicine. My pronouns are he, him, his and after we take care of a little bit of housekeeping, we're going to dedicate a good portion of today's time to a presentation from my colleague Louise To, who will take us through some of the highlights of this year's updates to the Medical Subject Headings vocabulary. After Louise finishes up, we're going to spend the rest of the time answering yo ur questions and you should feel free to submit your questions as you think of them now or throughout the session using the Zoom Q&A feature, which you should be able to find near the bottom of your Zoom window. We'll also be able to be using that Q&A feature to post some links to key resources that Louise mentions throughout her presentation. After Louise is finished, when we get to the Q&A portion of the session, I'll read some of your questions aloud and to help answer your questions we have with us today a fantastic panel of experts from all across NLM who each have their own particular specialty when it comes to MeSH and MeSH indexing. During the Q&A segment, our experts may also answer some of your questions right in the Q&A panel itself, so we can try to answer as many questions as possible in the time we have one last note before we get started properly. This webinar is being recorded so those of who are unable to join us today can watch later and so that you can refresh your memory after we're done without any further ado, I will turn things over to Louise to get us started.

>>Thanks, Mike. Welcome everybody to the 2023 MeSH Highlights webinar. If you've been to this webinar in the previous years, you know that I've been hosting the presentation, but if you aren't familiar with me, my name is Louise To. I also work in the Office of Engagement and Training at NLM and I'm excited to be here with you all today. Every year updates are made to the Medical Subject Headings, also known as MeSH. The NLM controlled vocabulary, the source used for indexing articles for PubMed. This annual webinar aims to introduce those changes and provide examples of how the changes may affect you as PubMed searchers. The intended audience includes librarians, catalogers, really any PubMed searchers that are somewhat familiar with MeSH's structure. If you're not familiar with MeSH's structure or PubMed, we do have classes that can help you learn and we will drop the links to those classes in the Q&A box. Now I'm actually going to ask Michael to do that for me. Thank you. And I usually like to start off with a poll to get a feel for who's with us here in the audience today. Michael, will you pull up the poll for us? The poll is going to ask, are you a researcher? Are you a librarian? Are you a health professional? Or maybe you're just a general PubMed fan. I'm going to give you 30 seconds to fill out this poll, and then we'll see the results. Think so far it looks like we have about 166 attendees with us today. OK, I'm going to ask Michael now to close out the poll and show the results.

OK, no surprise, the majority of the people joining us today are librarians. We have a few cataloguers and information professionals, a couple of researchers, a couple of others interesting. OK. And then we always have at least one general PubMed fan every year. We'll welcome them. So glad you could join us. OK, moving on. So in addition to being familiar with PubMed, this webinar will also be referring to the MeSH database which displays MeSH records and can be used to help you construct the search strings in PubMed. If you're not familiar with it, we are also dropping links in the Q&A box for you to explore, and hopefully this presentation will give you a brief introduction to the database.

Our agenda for today begins with an overview of the number of changes that have been implemented for MeSH 2023 and we will share a bunch of links to various resources that you can reference. Then I'm going to move into the bulk of the webinar, which will illustrate examples of changes from different branches of MeSH, and we'll discuss how these changes may apply to you all as sergers. Thirdly, we'll briefly describe how automated indexing handles new mesh terms, and lastly, we'll conclude with our Q&A panel with MeSH and indexing experts. Now, before I get into the numbers, I want to point you to the NLM Technical Bulletin, which provides updates on NLM's various offerings and relevant news about the product. This year, the article describes the new ability to retrieve reports detailing the changes to the MeSH vocabulary, and we'll also be dropping the link to this year's article in the Q&A. And if you are already subscribed to the Technical Bulletin, we're going to be sharing a link on instructions on how to get notifications.

All right on to our overview, for MeSH 2023, we have a total of 30,454 main headings, 260 of them are newly added. As far as supplementary concept records, also known as SCR's, the count is at 321,528 with 1,788 being new. This slide breaks down the new MeSH terms by branch with the most new MeSH headings falling under the diseases branch. Now, while this presentation will focus on how the new updates to mesh will affect PubMed searching, I'll also note that MeSH 2023 has also been adopted in the NLM catalog. If you'd like more details on the use of MeSH 2023 and cataloging, please refer to the Technical Bulletin article published in this past December, and we're dropping that link as well. All right, now that I've given you all the links to explore, let's dive into the examples of changes beginning with a COVID-19 related example. The term Post-Acute COVID-19 Syndrome was initially established as an SCR in November of 2021. The term first started appearing in literature. The number of times it appeared in PubMed titles was under 100, but now that we're almost three years in the literature on Post-Acute COVID-19 Syndrome has grown exponentially and therefore the term has been promoted to a main heading.

OK, cool. But what does that mean for you? If you have this term as one of your or within one of your search strings? You may have had the term of Post-Acute COVID-19 Syndrome saved in your search string as an SCR, either by using the field of supplementary concept or NM, and on this slide it is highlighted for your convenience and both of these tags were referred to the same field. Before 2023 you would have retrieved about 1300 results searching this term as an

SER, but with the term being promoted to a main heading you will have to change the tag to MeSH Now, even if it's not something you are proactive about, you'll likely notice a change in the number of results with the new update for 2023. The same search of Post-Acute COVID-19 Syndrome as an SCR is now yielding no results, which should prompt you to reexamine the terms you are using in your search string. One of the ways you could check your terms is through the MeSH database. The MeSH database can help to identify the most updated appropriate terms to use for your search string. Now let's navigate to the actual web page and look at the record for Post-Acute COVID-19 Syndrome. So this is the main landing page of the MeSH database. From here you can type in your term. Now it's nice if you know the exact term, but if not the mesh database will retrieve the mesh records that contain your keywords of interest. To demonstrate I'm going to type in long COVID. And hit enter. Actually, let me make this a little bit bigger for you so you can see it. So you'll see that the term long COVID is will be listed on in the middle of the terms for entry terms for the record for Post-Acute COVID-19 Syndrome. Now that this term has been promoted to the status of a main heading, the MeSH record has grown, most notably near the middle of the record. Further down, you'll see that it has been added to the mesh hierarchy. The MeSH database will display where it is located in the hierarchy to help you the searcher to find broader or narrower concepts. Back at the top of the record on the right hand side. You'll see the very handy PubMed searcher search builder, where you can check to see which tags should be used with this term. If you click on add to search builder, it'll populate the box with your design term as well as the appropriate tag to use with the term, which in this case is MeSH. Then you'll click on search PubMed. And it'll take you to the results list, and lo and behold, you'll see that the results numbers have gone back up. OK, returning to presentation.

Now let's move on to examples beyond COVID-19. This example pertaining to eubacteria illustrates the renaming and structural rearrangement of a MeSH charm. The term Lactobacillus salivarius, which is a species of bacteria that resides in the gastrointestinal tract, was renamed Ligilactobacillus salivarius. This change was made because the science tells us that this species of bacteria is classified under the genus Ligilactobacillus. These two terms refer to the same bacteria. Ligilactobacillus salivarius is now the main heading, and Lactobacillus salivarius is an entry term to that heading. Well, how does this affect you as searchers? Well, since the previous term was added as an entry term, a PubMed search for Lactobacillus salivarius without quotations will automatically translate your search to include the new mesh term Ligilactobacillus salivarius. In other words, PubMed will likely recognize what you are looking for. It's also always good practice to view how PubMed translate your search string and the advanced search details and adjust as needed. Now you're likely familiar with the various nuances of searching PubMed, but when in doubt, consult the MeSH database. In the case of our example, if I have a search string with the term Lactobacillus salivarius, I could check on whether the term may have updates. A search in the MeSH database returns a list of two results, with diverse results indicating that Ligilactobacillus salivarius may be the more appropriate term to use.

This next example illustrates a larger restructuring. Before March 2023, aneurysm sub branched into aneurysm, dissecting followed by three child terms of carotid artery, internal, dissection Loeys-Dietz syndrome and vertebral artery dissection. For 2023, the term Aneurysm, dissecting was renamed Aortic Dissection. And then it was moved down a level. And then Loeys-Dietz syndrome, which is a disorder that affects connective tissue, was moved out. But don't worry, this term still exists and can be found in other parts of the mesh tree. And then finally, the new term of dissection, blood vessel was brought in as a parent term. Here's a comparison of the two MeSH years. Let's use this example to talk about automatic explosion, which is where searching a mesh term in PubMed will include all articles index with narrower terms in the hierarchical list. Automatic explosion utilizes the tree structure to help searchers simplify their search strings. This screenshot illustrates the search for the three child terms from the previous slide, yielding 23,123 results. With MeSH 2023 you can use the term dissection, blood vessel to encompass all the articles that have been indexed with the terms aortic dissection, carotid artery, internal, dissection and vertebral artery dissection yielding the same number of results. We encourage searchers to explore how automatic explosion can help you in developing your search strings.

Now, speaking of the nuances of searching, I'm going to take a moment now to mention the MeSH changes and PubMed searching class, which will occur later this month on January 27th. This course will take a deeper dive into how the MeSH changes can affect you, including more in-depth examples of using the MeSH database to support your searching. If you miss the registration, the class will be recorded and you can do it later.

Now let's move on to population groups. In the MeSH updates for 2022 the US Office of Management and Budgets standards and directives instigated changes to various population groups. NLM received valuable community and user feedback, and in response made changes to the population groups for MeSH 2023. This slide displays what the population group's branch looked like last year. And this next slide illustrates the changes for 2023. We're almost all the terms expands to include narrower terms. It is worth noting that the MeSH branch of population groups is rather complex and there are considerations about identity and nation politics mixed in with directives that may come from entities like that of the Office of Management and Budget, making the updates process all the more nuanced. In line with population groups, a project that the MeSH team has been working on this past year is a collaboration with the National Institute on Minority Health and Health Disparities, also known as NIMHD. Mesh 2023 added federally recognized tribal nations and ethnic community terms. These terms, which span more than 1700 terms, were mapped and reviewed by subject matter experts and scientists from within NIH and outside, including contributions from members of the network of the National Library of Medicine. Some of the new terms include: Hmong People, Swahili People, Piscataway Indian Nation, Oneida Nation of Wisconsin and much, much more.

Some of the feedback that NLM heard from the community and users was about wanting to know more about the overall MeSH process, which brings me to an upcoming engagement opportunity. Back in June of 2022, one of the NLM office hours was a special listening session on MeSH to continue the conversation on how NLM and our users can work together to update the MeSH vocabulary. There will be another listening session next Wednesday. If you're interested in participating, you can find the link to this upcoming event as well as the link to the recording of the previous event in the Q&A box.

Now we're going to close out with some information about how new MeSH terms are handled by automated indexing. As you're aware, MEDLINE indexing was transitioned to automation last year. The current indexing algorithm, called the Medical Text Indexer Auto, also known as MTIA, maps entities and the citation title and abstract to MeSH and then applies ranking, filtering and boosting rules to produce automated MeSH indexing. During this mapping process, the MTIA utilizes lookup lists, which the algorithm references to decide which MeSH terms to recommend. When the annual MeSH updates are implemented through year end processing, the algorithms lookup lists are also updated to conform to the new version of MeSH. New MeSH headings, SCRs, and entry terms are added to the lookup lists that are used for the generation of automated indexing. When added to the lookup lists, new terms are specifically boosted, meaning that no matter what, if the MTI finds a trigger for the new term in the title or abstract, the new term will be applied. Normally triggers go through several filters and weights to try to determine how important a term might be in the given article. New terms bypass the filtering and weighing process and go directly to being indexed. This slide illustrates what a human curator would see during the quality assurance process. In other words, what is happening behind the scenes. On the left is a list of terms that were recommended by the MTIA. In this example, we are looking at the article titled Petechial skin rash associated with CoronaVac vaccination: first cutaneous side effect report before phase 3 results. With the new terms added to the MTIA's lookup list, MTIA recognizes CoronaVac as synonymous to the new term sinovac COVID-19 vaccine and therefore immediately as it's the list of recommended terms.

In the coming months, NLM will be transitioning from MTIA to MTIX, a machine learning based algorithm. In order for MTIX to properly index articles with new mesh terms, MTIX needs to be trained with accurate data. Developers are working on training sets full of articles for new MeSH headings while the new training sets are being developed, and MTIX may use the various lookup lists like the current MTIA does. Now, if you'd like to learn more about automated indexing for MEDLINE, we are dropping links in the Q&A box to a couple of resources. One link is a recording of an NLM Office Hours event that was held this past September that describes more details, and there's also going to be a link of. There's also currently a list of frequently asked questions. We have two subject matter experts available for any questions that may come up relating to automated indexing during our Q&A panel. And now I'm going to hand it back over to Mike to help us moderate our Q&A panel.

>>There we go. Needed to find my video and mute button again. Thank you so much, Louise, for that fantastic presentation. And as Louise says, it is now time for us to get into some of your questions. We've already had a number of great questions coming into the Q&A panel. So we're off to a good start. I will also mention because this was a question that came up a couple of times. If you're looking for any of the links that Louise mentioned there in the Q&A panel, but you have to click see all-- or sorry show all under the question in order to see the answers to the questions which include the links that we put in there. As we said, please keep submitting any questions you have right into the Q&A box. I'll start reading them out and have our panel answer your questions verbally.

Speaking of our wonderful panel, I will give them a brief introduction right now before I start sending your questions to them. In addition to Louise, obviously we have a great roster of folks from NLM's Bibliographic Services division, including Susan Schmidt, Alex Sticco, and Melanie Huston from our Index Section. We also have Dan Cho, who is the MeSH project coordinator in the MEDLARS Management Section and also-- Sarah Fujisaki, excuse me, from the MEDLARS Management section as well. In addition, we have Amanda Sawyer representing the NCBI PubMed team, Jim Mork from the Lister Hill Center, and my colleague Kate Majewski from the OET training team. So between all of us, we can hopefully answer anything that you can throw at us, so I'm going to start with some of the questions that came up earlier on during the session and let me get back to that one.

I think this is going to be for Dan probably, since this is about MeSH. Somebody was meant pointing out that Louise mentioned 260 new main headings this year. Is this typical of the number of new headings added in a year?

>>I think it's within the typical number of per year. We typically make 250 to 350 depending on how large of projects that we take on a year.

>>Excellent. Thank you for that, Dan. I think this next one is probably going to go to Amanda, I think we have a couple of questions. PubMed related questions for Amanda. So I'll start with this one. Are there any plans-- or actually let me go this one this order makes more sense. Kate was asking what is the name of the way of accessing MeSH that you can get to from www.ncbi.nlm.nih.gov/mesh? So this is the version of MeSH that Louise was showing and demonstrating during her presentation. Sort of what-- how is that usually referred to? It's not the MeSH browser.

>>Right. So we do call it the MeSH database and the main thing that we point out here is that this was developed by NCBI for the purpose of building PubMed queries with MeSH. So that's the main thing. And then we do call it the MeSH database.

>>Excellent. And while we're at it, while we're talking about the MeSH database, we had another question that was coming in about-- Ooh, there it is. Are there any plans to add a link to the MeSH database from the advanced search of PubMed?

>>Yeah, this is a great point. There actually is a link to the MeSH database on the advanced search page and all of the pages on PubMed. So if you scroll down to the bottom of the pages and PubMed in the footer, there's links to all of NCBI's literature resources and the one that says MeSH will take you to the MeSH database.

>>Ah, thank you very much for that. There's another question here that's a little a little on the longer side. So I might summarize this. This is also from Kate. It's basically asking a question asking about how to stay on top of how terms have changed from one year to the next in MeSH. Specifically, supplementary concept records are becoming MeSH descriptors, and she was asking about a lookup tool to find out if any of the of the supplementary concept terms are no longer supplementary concepts. And obviously this is sort of a specific use case and we don't have a specific tool for that. However, we do have actually a couple of new ways that might help you if you are looking for doing sort of systematic searches of what has changed, whether things, whether specific terms have changed and how they've changed from one year to the next in MeSH. And Sarah, I think you might be able to answer a little bit about that hopefully.

>>So this year the year end processing tasks that were done produced a bunch of reports that we have made publicly accessible in NLM Data Discovery tool, and that link has all of the different reports that it will show descriptors and SCR editions preferred term updates, so that should hopefully kind of help guide you to see some of the changes that you might need to make to your searches.

>>Yeah, that's a great new thing this year, providing sort of access both sort of human readable but also machine readable and machine searchable ways of interacting with the changes, with the MeSH changes, I'll point out another one that's sort of a favorite of mine. I don't know that we have a specific expert on hand to talk about this, but it's something that I like playing around with. So I'm going to mention it as well, which is MeSH RDF, which is a representation of mesh available in linked data format and what's great about this, this linked data format for MeSH, MeSH RDF, is there's an API available so it can be sort of integrated into other tools, so even if there's a tool that you would you would want or you would have interest in using that, we are unable to provide or we we don't provide yet on community development of the tools that you need that are missing is really easy by integrating that MeSH RDF API into it.

So that's the more in the weeds technical answer but I have to get in my plug for MeSH RDF where I can. Alright give me just a moment to take a look at what questions came in while I was chittering about that. And well-- Let's see. We have one here. This is actually a question from Julia that's a question that we get, not too infrequently about automated indexing. What do you do if you see a really bad automatic indexing record? Susan, you want to take a crack at bat?

>>Hi, Mike. Yeah, thank you for the question. Yeah, we very much encourage users. If you run across an error and automated indexing to contact the Help Desk and submit a customer query about that, identifying the specific problem, the PubMed ID is quite helpful. Those will then be

directed to the Index Section to make any necessary correction. And of course in the course of considering a question like that, we'll look to see if there's any other systematic error that within other citations will correct anything that needs correct. Correcting that will also proactively make changes to the algorithm to prevent this with the various from happening prospectively going forward. So again highly encourage you to submit feedback anytime you see a problem. Thanks.

>>And I'll second that and sort of expand on that, which is anytime you have a question and there and there isn't a MeSH Highlight Session or an Office Hours or a Webinar, submitting questions through customer service is the best way to get your questions to us that way. First of all, the question goes to the right place and also we can get you an answer quickly and I know you know people often say, well just submit it to customer service, and it seems like a black hole. But I will tell you that our-- the questions that come into our customer service go to these subject-- many of the same subject matter experts that are on this call. And that's just a way of answering questions in between the various opportunities like this that we have to speak with you verbally and visually.

While we're talking about automated indexing, I think that there's two questions that I think we're going to direct to Jim. Somebody was-- wanted a little bit of more clarification or a refresher on the difference between MTIA and MTIX. So we'll start with that.

>>Thanks Mike. The the main difference between MTIA and MTIX is that MTIA was developed over roughly 25 years and it uses a lot of the older technology, so it's lookup list. It's a dictionary look up. There's a small amount of machine learning, but the MTIX was developed from the Ground Zero as a machine learning algorithm, so it has the latest and greatest technologies and is getting results that are much better than what MTIA currently has. So we're actually looking very much forward to getting MTIX into production.

>>And sort of as a connected question to this, we had a question about how MTIX will change the use of PubMed for systematic reviews. I don't know if you have any thoughts on that.

>>I don't, I'm not sure the right answer for that. It's not going to change it much more than what MTIA is, where it's got automatic indexing. MTIA is only using the title and abstract. So when MTIX goes into production, it's results. The machine learning is based off of what human indexers did for full text. So in theory the MTIX results should give you better results for systematic reviews I think.

>>Alright. Excellent. That's great news. I'm going to just take another brief pause to look through the questions and make sure that we can get as many of these answered as possible. So stand by just a moment. Alright, while I'm reviewing through these questions, I'll throw this one to Amanda because it's another PubMed related question. I am familiar with the four displays for PubMed searches: summary display, abstract display, PubMed display, and PMID display. Does the PubMed display show the components of all the database that are being searched by our searches?

>>So the PubMed display is a tagged format for all the data that's included in the PubMed XML, and you can find a list of the specific fields that are included in PubMed format in the user guide and I'll go ahead and add a link to that specific section of the user guide to the answer to this question.

>>Thank you very much for that and actually now swinging back to right back to the world of automated indexing. We have a couple of questions about how long it takes for an article in the PubMed database to get assigned MeSH headings provided the journal is indexed by MEDLINE, we have a couple of questions about that. Susan and Jim, I think both are are capable of taking that. So whoever wants to go first can go for that.

>>Hi, I'll go first. Generally within a day or two. It depends on the timing of when the citation loads and our transfer files and when the weekend falls, so that can add a day or two. As we transition over actually to the machine learning MTIX, there there will actually be no lag time in the future once we have put that into production and and have that in our pipeline in PubMed. Actually when a new citation is published, when it appears in PubMed. It will have its MeSH indexing. We're a couple months away from that, but that's on the horizon.

>>Excellent. I think this was another question for-- Hang on, lost it scrolling too fast. I think Jim had this, had an answer on this, maybe. Will PubMed users ever be able to use the medical text indexer auto or the newer version as they have been able to and MeSH On Demand in the past? And if you want to talk a little bit about what MeSH On Demand is and what that what that what what that how that might impact somebody who's not as familiar with this question.

>>I think for MeSH on Demand I would have you asked Dan to explain a little bit. The MTIA algorithm or MTI in general, is the engine behind MeSH On Demand. So in general terms, a user can put in some text in the MeSH On Demand website, run the query and behind the scenes MTI will identify what articles within PubMed are related to whatever you put in the text box and also generate an indexing for the text that you put in and it will return both of those results for you. Users can use MTIA and-- or Mesh on Demand right now, so I'm not sure are they looking to have a button in PubMed that would allow them to easily use it from within PubMed? I'm not sure. That would have to be a PubMed question, I think.

>>Yeah, I think that there's obviously-- as we sort of start rolling forward with this stuff and you know the first priority is always to get things, you know, get things up to speed within our indexing process and then you know as as we feel more confident with that and we as we have you know are able to devote some of the resources of development that we're being used on other things to new features into things that we have not gotten to yet, then there's certainly new areas that we can explore. I think we have a couple of PubMed questions here. So I'm going to hit Amanda with a couple of these. Somebody was sort of following up on the previous thing. Glad for the PubMed to MeSH link at the bottom of PubMed pages. How about a link from the MeSH database home page and multi result pages back to PubMed?

>>Sure. So the ability to select PubMed from the drop down in the MeSH database is still there. So at the top of the page in your --next to your search box you click the drop down and PubMed is an option and that will allow you to directly search PubMed.

>>And while we have you, there's a question here about somebody saying that certain things, especially responses by authors to comment on original articles, may not be showing up in the PubMed database. And why are these not assigned a PMID or why are they not-- why are these responses by the original authors not available?

>>In that case, my best assumption is that the publisher didn't supply it to us, so the publishers are responsible for supplying and correcting all of the data that we have in PubMed. So if you see an author response that is missing, we encourage you to reach out to the publisher directly. They have access to our data management system and the ability to to submit that information. You can write to the help desk, but then we will just have to turn to the publisher and ask them to supply that information.

>>Awesome. Thank you so much for that. We're going to go jump back to automated indexing for a second this this might be something that needs a little bit of clarification or or correction here. Maybe Susan, how does MTIX get the full text for automated indexing are all full text freely accessible?

>>Hi. Yeah, just a little bit of clarification there. What Jim meant by MTIX and the full text is that MTIX is trained on title and abstracts of public citations where the indexing was done by a human indexer who had access to the full text. So what they the indexing represents in effect content of the full text beyond the abstract, MTIX is not processing full text neither is MTIA, so I want to make that clarification. We in in terms of in the future processing the full text, there are two issues with that. We do not have computational access to the current licensing agreements to every journal to computationally work the full text. RTSD section is working on gaining access on changing those licensing agreements and getting computational access. I don't know whether we will ever have computational access to the full text of every journal that's indexed for MEDLINE. The other issue with that is that there's a lot of noise in the full text, so this will be sort of a research issue to be able to extract from the full text information for supporting indexing, particularly in terms of study populations, which are also not just in terms of the noise of the full text, computationally difficult to parse because they're often in the form of a chart which is really difficult for for an algorithm to parse. I hope that answered the question if there's any other follow up on that, I'll be glad to address it.

>>Yeah, definitely. Thank you. It is a little bit tricky because obviously we have a lot of bibliographic products that access different levels of data. Obviously, PubMed does not contain full text and then PubMed Central is our full text repository. So sometimes it can be a little bit confusing what has access to what. So it's helpful to get that get that clarification. Let me just scroll back. I think I missed a couple here. Ohh, I'm sorry Susan. I shouldn't let you go. We have

had another one here for you. WIll automatic indexing differentiate major focus MeSH terms from MeSH terms. So I think that's sort of the MeSH major versus the regular descriptor.

>>Yeah, that is a component of the algorithm's calculation. So IM designation is included in both MTIA and will be with MTIX for best descriptors.

>>Thank you for that. Let me see what else we have. We have somebody here who says I have seen that some articles that were published almost three years ago have not been indexed yet. Will those eventually be? That seems like a very long lag. Well, I would say it's important to remember also that not everything in PubMed gets indexed right, only citations from MEDLINE journals are going to be indexed with MeSH. So provided that those are not-- those are MEDLINE journal articles I would expect that those-- that that backlog to be completely cleared, and yes, I'm actually seeing a a message from Jim also that the backlog of things to be indexed are-- it has been cleared. So probably unless there's some sort of error or mistake these are things that are not MEDLINE journal-- that are not from MEDLINE journals so won't actually be indexed. And if you're interested more about sort of that process there's actually some PubMed training that we offer about selection, how things get into PubMed. That might be helpful in understanding a little bit more about that. And maybe Kate can put a link to that. I see she's typing an answer so I won't interfere with her and ask her to say verbally, but Kate might be able to provide a link to some more information about that as well.

All right, let me see what else we have here. Yeah, there's a couple of questions that are coming in that are maybe a little bit outside the scope of what we're focusing on today. So maybe we'll get to them if we have a chance. But let me-- There's a number of questions here about providing suggestions and that's going to be suggestions about a variety of different-- of our different products and services about suggestions about PubMed, suggestions about different ways to improve automatic term mapping or even you know, as we've mentioned already a number of different suggestions. If you see an issue with it with automated indexing or if you're not understanding something or you need more clarification, the best way is always to write to the help desk. And if you bear with me just a moment, I'm going to pull up the NLM website and I'm going to share my screen if I can remember how to do that. Bear with me. Just a moment. Share this. So I think that should be visible now. There it is.

So this is the NLM main homepage and I'll show you from PubMed again in a moment. All the way down at the bottom here is an NLM support center link, and this is at the bottom of every PubMed web page. This NLM support center link. So if you click on that link, once it loads in a moment, it will take you to the NLM support center which has lots of different help topics on how a bunch of our products work, how to get help with things. And then there's also this right to the help desk button up here and if you click on the right to the help desk button, you can submit your request to the help desk. That can be a suggestion that can be a question that can be a problem that you've identified. The only thing that I would point out is please make sure you provide contact information, specifically an e-mail address when you write to the help desk. There's been a number of times that we've had either suggestions or problems, and we've

wanted to reach out to people to get more information, but there's no, you know, there's no contact information and no way to get to get back and get and help people out there. So make sure you put your contact information there. I'm going to just switch over to PubMed real quick to show you that that link is also there. So I'm just going to go to the PubMed page here and then again if you scroll down, it looks a little bit different here. It looks it says help instead of NLM support center, but if you click on that help link it takes you right back to the same place. Alright, let me stop sharing and look at the questions again. Yeah. And actually, there was some questions specifically about ATM suggestions. Amanda, it looked like you had a comment that you might want to add to my rambling there.

>>I just wanted to note that when you write to the help desk with suggestions about ATM and they make their way to NCBI or to the PubMed team, that we forward those to the relevant teams that manage mapping files. So we're not just considering it in the PubMed level. We do forward those to be considered by the teams that are actually doing the mapping for you. So your concerns are reaching the people maintaining those mappings.

>>Thanks. Thanks for that clarification. Yeah, it's-- I mean, it's sometimes hard to remember that. You know we think about it because we work here, right? But when you -- NLM sometimes seems like this monolithic entity, this like government agency, which we are a government agency. But you know, we're all the people who work here, right? We just -- We're just people trying to make these things happen and trying to help people as best we can. So we're getting all of these suggestions in and looking at them we can't always act on every suggestion obviously but everything is being reviewed and everything is being investigated.

And I will point out, it looks like there's a couple of questions coming in here that are more suggestions or comments and those are fine. I would actually direct you to next week's MeSH Listening Session, which is going to be a great opportunity. There'll be, you know, a brief presentation to begin, but it will also provide most of the time to take suggestions and take feedback and comments from people who are who are, you know, who have thoughts about MeSH and Dianne Babski and Amanda Wilson and Dan Cho will all be there to sort of to listen, and to engage with the comments and suggestions. So I would encourage anything that is sort of in that range and not in the question range to sort of either make your make your suggestions via the help desk as we just pointed out or if you're available to come to the to the listening session, I would encourage you to do that as well.

Alright, let me take a look and see what else we got that we are have not addressed yet. This might be a question I don't know whether this might be for Jim. Is the algorithm MTIX specifically also trained to allocate subheadings? Do you see differences in the sense that the algorithm might allocate more subheadings than human beings?

>>Both MTIA and MTIX do index subheadings. We've spent a great deal of time, but in both algorithms trying to emulate what a human does, so we don't expect you to see more

subheadings. You may see less because the human is going to be more complete. I think at this point. But the algorithms both should be very close to what you would have seen before.

>>Excellent. Alright, thank you that for that, Jim. I'm going to bounce back to a PubMed question here for Amanda. Are there plans to update the MeSH database UX to match the new PubMed design?

>>So it is planned that someday we will update this. It's not a plan for the immediate future. So we don't have any updates on it yet. But someday, yes, it will be updated.

>>I know that that's one of the things that's on our list of things that we like to get to. But there's a couple of other things that are a little bit higher priority right now. So we're with--- that will be that is on the list, I know. All right, let's see what else we've missed here. Ohh I missed one from way earlier. This is a kind of a complicated question. Let me make sure that I get back and get the right-- And read it correctly. So just stand by just a moment. So this is a question we may have a couple of people that that need to weigh in on this and it might be a little bit difficult to answer without showing the new versus the old hierarchy. But Louise, could you actually share your slides again and show that aortic dissection search example? I don't remember which slide it was specifically, so I'll read the question and I-- it might be a little bit tricky to answer, but we'll do our best. In the aortic dissection search example, why doesn't the new search retrieve more results because it now includes the concept previously higher above any of the previous term-- any of the child terms? Wouldn't some articles have been indexed without any of the child terms, but now we captured at the lower level. So. This is something that-- Hmm. I'm trying to figure out the best person to answer this. It's a little bit complicated. I think it partially has to do with how the new term is actually narrower in scope than the older term. Dan, is that something that you can take a crack at?

>>Yeah. I mean, I think the medical community actually knew pretty well of the issue with these particular descriptors. You know, the old term dissecting aneurysm is sort of an oxymoron, right? And because you can't have both, you can't have aneurysm and dissection. So the American-- the Association that works on these kinds of things actually wanted to change the preferred term. So notice that this was actually preferred term to aortic dissection and because it was a simple preferred term, the search result should will be about the same and not more, not less. The change in the hierarchy is actually based on the newly created, I believe, parent terms. So I think the term itself result-- search result itself should probably remain about the same.

>>Excellent. Thank you for clarifying that. There's one question that I just saw come in that, I think is actually a really good opportunity to direct you to some previous work or future training. There's a question, how does PubMed go about choosing new MeSH headings? And that's again a great opportunity to promote both the upcoming MeSH Listening Session and the MeSH Listening Session and MeSH Office Hours we head back in June as both of those -- all of those things are discussed in greater or lesser detail, the process that goes into how MeSH is

developed, how MeSH-- how changes to MeSH happen and sort of what that process is. So rather than sort of rehashing it all here, I'm going to refer you to that. Another question here from Kate. When NLM distributes to other information providers like AVID or Web of Science, do the recipients have any responsibility to update their tool to use the most up-to-date MeSH? Amanda, I think that that might be something you can take a crack at.

>>Yes, the recipients have the responsibility to download the most up-to-date and available mesh as well as PUB Med data. So we make that available and let vendors know when updates occur, and then as far as PubMed data goes, we push daily update files out and then vendors need to come and get that information from us. We are not delivering information, they are coming and acquiring that from us.

>>And I think that that's part of the impetus also behind those new update MeSH update reports that Sarah was talking about earlier is to make things easier for folks who, you know, we talk about MeSH and PubMed a lot, but obviously we are not the only people who use MeSH. Libraries use MeSH for cataloging, for descriptive cataloging or other vendors use MeSH. So those are all those-- are all people who need to stay up to date on these things, which is one of the reasons why we were trying to sort of get those reports out as well.

All right. We are really rapidly running out of time. So I want to-- I think this is an easy one to handle. Dan a few years ago according to this question asker, they believe that MeSH related to animals was being updated. Is that project ongoing or has it been completed?

>>I think the user is probably asking about the research primate. So there was a project where we actually wanted to make sure that we are using all the same terminology and we defer to NCBI taxonomy to update all the primates that are used for research purposes. And that had been done probably about two years ago. There is an ongoing sort of related project where we're trying to update any citations that we see on model animals and then we try to actually harmonize it with the NCBI taxonomy. So yes, it's done and it's sort of ongoing in related projects.

>>All right. Thank you, Dan. We have just a very few more minutes left. I'm just going to look through. Ohh, somebody says. I'm referring to a systematic effort to clean up the MeSH related to animals, not primates. Dan, is this you know?

>>Ah, yes, you know, I think it's a-- We are deferring to NCBI taxonomy as the authoritative source and we've sort of declared that three years ago, two years ago, and what we didn't realize is that the taxonomists changed their name quite often. So, you know, Lactobacillus is one example that we sort of worked on it. But there are so many changes that they're actually making it's hard for us to keep up that we sort of had to pick a you know, tech priority and work on the most impactful ones first and then hopefully we'll have a lot more time on hand and then we'll catch up with others. But eventually we will make all the changes.

>>That's right, it's an ongoing process. All right, I think we're going to have one last question here before we do some wrap up stuff. Susan, we had a couple of questions about about will there be any more human manual indexing?

>> Hi yeah, in response to that question, will there be a return to full human manual indexing? No, because that did not scale with the volume of PubMed literature. But humans are most definitely a part of automation. We are involved in the curation and QA of automated results. We contribute to the development of the of the algorithm and the refinement of the algorithm. And in fact, we're all we are doing a limited amount of manual indexing to support the MTIX algorithm because it depends on human indexed data for maintaining the performance of that algorithm.

>>Thank you for that clarification. And with that, I think we are just about out of time. So I'm going to hand things back over to Louise, which will actually answer Brenda's question about CE credit and with that, Louise, why don't you bring us home?

>>Thank you. So we thank you all for joining us today for the 2023 MeSH Highlights. Please complete the evaluation survey and let us know how we can improve our training in the future. You can either complete it upon the close of this webinar or you'll receive an e-mail that contains the link to the survey. At the end of the survey, you'll see a screen like the one that's displayed on the slide that includes the enrollment code that you'll need and instructions on how to obtain your MLA CE credit. And with that, I am happy to close this out and we hope to see you again at future NLM and Network webinars. Have a good rest of your day.