

EVERGREEN 2020 ONLINE CONFERENCE  
WEDNESDAY TRACK 2: HERDING (BIBLIOGRAPHIC) CATS: A MASS CLEANUP OF  
FIXED FIELD DATA

JUNE 10, 2020

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>> Hello. Welcome everybody. Welcome to Herding Bibliographical Cats: Mass Cleanup of Fixed Field Data. My name is Amy Terlaga. I am hosting this session. I am with Bibliomation. Bibliomation is sponsoring this session. Closed captioning is being sponsored by Equinox Open Library Initiative. We'd like to thank our captioner. This session is in meeting mode, not webinar mode. So please leave your video off and your mic off and use chat when asking a question or commenting.

I'm pleased to introduce Rogan Hamby from Equinox Open Library Initiative. Sylvia Warner from Scranton Public Library, and Katie Greenleaf Martin from the Blair County Libraries. And I will turn it over to them.

>> Good afternoon, everybody. I hope everybody is enjoying the Zoom conference so far. The first of the Evergreen conferences. We are going to do some quick introductions for ourselves. My name is Rogan Hamby. I spent a couple of decades in public libraries filling various roles, including just enough cataloging to claim I did it.

But not a whole lot. These days I work in migration and data work for Equinox, which if your unfamiliar with us, we are a nonprofit that supports open sourcing libraries. Katie?

>> I am Katie Greenleaf Martin. And I work with the 8 libraries in Blair County Pennsylvania as well as the other five libraries in the Altoona library districts. So I also have a background in cataloging, but primarily work now as an administrator. So I try to unite the worlds of public access and library -- with cataloging. Sylvia?

>> I'm Sylvia Orner. I'm the head of technical services here at the Scranton Public Library. I'm like you're stereotypical grumpy cataloger. And Katie and I are both part of the spark consortium for labor is as well.

>> I have to say I don't think Sylvia has been that grumpy in my experience. But we will leave that maybe she's grumpy when surrounded by books on her own or something like that.

So the first up is a trigger warning. If you've been traumatized by MARC, this presentation is not going to help. We are going to be talking about

MARC a lot. So fair warning, if the herding bibliographic stuff wasn't enough of a warning, you're getting it right now. This is going to be talking about MARC. But we are going to be abstracting a fair bit. So if you're coming at this from more of a SysAdmin or library of ministry to standpoint, I think there will be a lot of content for you. But we are going to get some MARC concept out of the way before we get to that.

And because it is called Herding Bibliographic Cats, we have a lot of cat pictures. They are all public domain and none of them happen to be mine, because my cat refused to stay still for pictures.

Fixed fields. If you attended presentation yesterday, on getting the most out of MARC, some of this will sound familiar picked because we are going to talk about a lot of the same underlying concepts. Fixed fields are simple things in certain MARC tags where the data is based on where the characters are in that tag rather than what the tag is appeared and these are going to be things like the leader, 007, 008. Those are going to be the big ones. And the importance is that these are used by Evergreen to calculate things like what your search formats in your display icons are. So pretty important.

So I kind of mentioned this already. What are fixed fields? They are where the information is based on the field. I just wanted to give you an example here. If you pull up a random book in the Evergreen catalog and you go to the display MARC, you'll see one of the MARC fields is the leader. If you start counting at 0, you'll probably see under the seventh position or eighth position if you're counting from 1, and M, stands for-- if it was a serial, it would be an S. And if it wasn't broken authority record it would be a Z. And so on and so forth.

This is the only think that determines an item. There also bit levels and video recording levels, if it's a moving picture format at all kinds of stuff. But we are not going to get into that in super nitty-gritty detail. Just be aware that much document manipulation of the steps what the terms it. And if you want more information about how Evergreen analyzes and

makes use of that, you can configure that, go see Galen's presentation on getting the most out of MARC when we get them up on YouTube.

I was going to say, take it over.

>> We rehearsed, I promise. I want to talk a little bit about the consortium we call spark. We mentioned several library systems are part of that in Pennsylvania, along with over 100, I think 140 some of our best library friends. So we have about 1.75 million bibs or we did at this point which was almost a year ago. I don't know what it is now. But when we started this to location process, we had this 1.75 million records.

We have grown by 50% in 5 years, just to give really round numbers. So when you look at the impact of those migrations and other ILS clerk, in Evergreen we do get the item, the little item format icons, the book or the CD, audio book, or DVD, those come from the fixed fields. As Rogan mentioned. That's not the case in all the ILSs, and it means that the data that was coming in was of varying quality. But there were also varying things that mattered in the other ILSs except some things didn't get checked as well when they were being imported in the first place.

So that really impacted our users in terms of being able to see what types of items they were looking for, searching for, and requesting.

And we were concerned about this. At the cataloging committee had many e-mails about it and trying to fix records one at a time just seems like it was not working for us. And then also, as we implement it later resource says, so my liver and the -- Sylvia's library are positive from each other and you have a relationship except when we choose to share items with each other.

So if I'm trying to request an audio book and is on the same bed with other types of items or is not on a bib for an audio book at all, that mix a very difficult for patrons to make requests or staff to make requests and receive what they actually want to have coming to them. Because we had also done some bibliographic deduplications and ongoing projects not only from our migrations, but on a larger scale, that bad data was causing

items to be clumped together into records that were then mixing item types. And it became a problem definitely in terms of searching.

So we were looking for some help. And the reason for this have to do often with catalogers that are trained to attach their holdings to whatever has the greatest number of existing holdings and especially if the format icon matches what they have in hand, they may not necessarily look at the rest of the data in the MARC Record and quality varies in terms of catalogers.

Because we deal with a lot of migrations, we didn't always use the same MARC attribute in terms of searching or in terms of identifying the types of records. So the data that was coming in was very mixed as well.

So we were looking for some help. And Equinox, who handled our last deduplication project, which Rob and Sylvia and I were on as well, was to look at what could be done to really do a systematic cleanup of these incorrect fixed fields and to look at it from a holistic perspective instead of trying to fix them one at a time.

And certainly to do some things and training of catalogers and things like that. But to be able to get the database to a place where people could be confident in the information that they were receiving.

Sylvia, I think is going to talk about the plan we came up with.

>> This is part 1. There will be a sequel later. So the general plan part one started with the analysis. We created the map of the circ mods, and defined what we expect of their formats to equate to in Evergreen. This was a little complicated because sometimes people were using sort of modifiers just to fulfill their needs. They knew that the book circ modifier would check out for two weeks. So they would say I want this thing to check out for two weeks, so I'm just going to call it a book and that's okay. I know at one point we had one library, they were bringing in other on order items as books, so it didn't matter if the record was for a talking book or a DVD they were calling it a book and that was creating some confusion. So we had to find a way to kind of narrow it down from there.

The got you with that is that we kind of had to reverse the normal process. Normally you look to the MARC data, but because as we mentioned before, some of the MARC data was a tall what I like to call creative. It was not as the be-all and end-all that it could be. So along with the Circulation Modifier, we used other item level data like Shelving Location to get a better picture of the bibliographic items that we were holding. And so part of the general plan, I told you there would be a sequel, and the sequel is even better than the original. That's not true.

Support 2, we just generated multiple iterations for review. There were lots of lists, lots of picking through things with a fine toothed comb. We really got to know our database. We learned some things. And there were a lot of good things. So I don't want to say that it was all bad, but it's very interesting to see what comes from such a large shared catalog. We had a good chance to review that, and fortunately, were able to dodge summer reading and make it happen.

So this of the initial map of the circ mods that we used in the search formats that we tied them to. We excluded some that were very obviously linked to maybe more than one item type. Like we excluded ILL, government documents, I think we excluded we are your because a lot of times it was very uncertain what that happens to go with.

And then from there we did our initial list supplement and by the shelving locations that I mentioned before. And as I mentioned, we did assume that certain keywords we're going to be indicative of the item types like a book on CD or the DVD shelf. Unfortunately, we found out that was not always the case. So we had to kind of go back to the drawing board little there.

>> Rogan is going to get us into some of the math in terms of what we figured out.

>> Sorry, I was taking a minute to find my unmute button. So as Sylvia said, we dug and dug through stuff and we found a lot of surprises. Some very good ones, some very head-scratching ones. Some that frustrated us. (laughing) I don't think it's unfair to say.

But by the time but said and done, out of 1.75 million records, 1.5 that matched and were good. They did not look like they would have any problems either because they were already correct or had complete the consistent item level data to say here is what the MARC should be. But we still had about 250,000 that we needed to look at. Which is too much for humans to dig through. I don't want to speak for the catalogers, but I don't take it's unfair to say that they would be unhappy if they got an Excel sheet on their mailing list of 250,000 items and were told to start trimming through it. Am I correct in that?

>> I think that is probably accurate.

>> So out of that, it was actually 228,000. I rounded a little bit. We dug deeper. We did all the comparisons, and of those, about 100,000 we had a high degree of confidence we met a single expected format. I would say that means that we took that 100,000 and we did samples. We did spreadsheets that were shared around, people look at them. And with started digging through those, we found a bunch of records that were identified with a URI volume. That's an 856 subfield 9, where usually it's either a supplement through the existing record or it may indicate something like an overdrive record or axis 360 or something like that. Those are interesting in their own like, because some had copies attached. So what were those records?

As we did all this, we had to make decisions. How far down the rabbit hole were we going to go with some questions? And sometimes we just decided, there are only 50 of these, it's not worth the time. We are going to put them aside and focus on the higher number of targets where we can make a greater impact on the catalog.

And we found lots of discrepancies. For example, differences in the descriptive MARC data verse of the URI. Solicit we found an 856 subfield 9 or it said this library should have restricted access to this link for overdrive, and by the way, the 300 fields say it's a book on CD. Not an

electronic book, nothing to it hit otherwise, this is a book on CD with an overdrive link.

So value decisions had to be made about all of this. And that's why we started owing and at this stage, information from the 300s, as was 500s, 650s, and 655s. Because we found it useful to highlight its currencies where there were specific library systems that included information in places like notes or 650s that were useful for identifying what the record was intending to represent versus what was actually said specified in the record.

This was not a solution that came through a simple mathematical formula. I'm forgetting the quote right Now, but some mathematician once said the most complex problems are solved with the simplest formula. This was not expression of that principle.

There were some things that were very generalizable, but we had to code for a lot of exceptions that were specific to those various legacy ILSs that Katie talked about. If they had a certain legacy ILS, they did a certain thing with information in the 500s but ignored the fixed fields. And we need to I don't buy those libraries and what that ILS had been and what they did and use that information. So there was a lot of per migration and per practices at member libraries that we had to account for. Specific to those.

>> An example of that kind of digging in from Sylvia.

>> The multiple record formats. So we found a number of records that were kind of like those combo records like a DVD and a book a CD and a book a DVD and a Blu-ray. They were relatively few in number, so we did decide to exclude these from the automatic fix, but we did report on them. And one of the nice things I found was items that came in like that, nine times out of 10 it was purposefully done. Saw the more reason to exclude them.

>> That was reassuring.

>> When I alluded to this before, the granular to challenge, not all shoving locations and circ mods were granular such as audio books or videos. My



library in particular, was guilty of this. That's why I had to talk about this slide. We used very general shelving locations. So everything is in stacks. So it was -- it was very difficult. As a supposedly a book? Is it supposed to be a talking book? We are not sure at this point. We don't have enough information. Fortunately, we were able to solicit a good them mount of community feedback and find out how people are using their solving locations and modifiers and find some specific exceptions that we were either able to exclude or plan around. Unfortunately, I did get my wish of changing our shelving locations.

One day, Sylvia.

>> Someday. (laughing).

>> And I'm not -- I'm not went to check the log and see losses on your pick Another thing we had talked about early on was splitting records. So Katie had mentioned before we have these records that because of some fixed fields had gotten multiple items of jumbled together and without with the be great if based on the circle to modifiers and shelving information we could separate the items are the audio books, these items are the regular books. But we decided that would just take too much time and that was tabled for a later date when we could devote more time and attention to that.

>> Let me just say on that, from a technical standpoint, that is definitely doable. That's one of the reasons we urgently talk about it as an objective of this. From my perspective anyway, the reason that we ended up not doing it wasn't because it wasn't feasible, but because -- and this is for the audience, not for Sylvia and Katie, they lived with me through this. And as we look at the specifics of the records that we would want to potentially split the heart, and when I say split apart I say take this record that has DVD player and books on it and split it into two bibs, one for the DVD and what were the book, which would have a lot of inaccurate data in it, say 300s on at least one of them, but at least it would have the correct item type for holds and things like that.

But then as we dug into it, there were so many circumstances where it wasn't clear because of things like circ mods being used for the suggestion. Rather than item discussion, that that would have even been the right thing to do.

So we might have been creating a bigger mess. So we had to put that aside to focus on things that we knew would be improvements. Which were turning out to have a lot at their own things to address individually. Anyway.

>> I think one of the things, and I think we talk about this later, was to distribute those lists of numbers that were still problematic. So when catalogers have 5 or 10 minutes, you can go check on a couple of them and see what you can figure out and fix.

>> Just before moving on, I see Meg had a question. Do you have any type of standardized naming in the shelving locations? We do not for our consortium. It's kind of left to each library and library system. As you can see, that creates some difficulty in this particular project.

>> And it's something that we do tend to suggest as part of migrations. For libraries that I have worked with, I certainly suggest that they come up with an internally consistent structure. Because one of the fun things about Pennsylvania libraries is that we -- and maybe this is everybody -- is you have to report your children's circulation, on children's items.

So in the case of my library system, because we revamped and migrated, those age categories are alphabetical in the shelving location. So if you're in Chris' session it's very easy to select that chunk. But that was because it was intentional decision that was made as part of the migration because the people doing the migration understood the reporting requirements.

And that's requires a lot of conditions to be met. So we don't have a consortium wide structure but with new migrations, we do try to encourage. Was there anything else in the chat? I don't think I can see it.

>> Meg was sharing that they have some consistency in terminology that the names themselves are not identical, and she wonders if it would help

in the keyword I dedication process. Not really. I think consistency is good and it can make your life easier in a lot of ways, especially in reports. And I think the IRS example for the audience is probably the single best example possible there. Which Katie brought up. Because audience leads really are so encoded. If you get 20 people together and asked them how they use different designators for audience and the MARC, after an hour of the debate, you have at least 15 different opinions.

Just my opinion.

>> One of the things that we did that has been helpful, and I think this is probably something that Equinox has started doing intentionally, on its consulting projects, is to add some notes so we can literacy what records were modified in this project. And you will be looking at something say this was, I think modified in 2019 by the fixed fields project. And so you cannot only, if you wanted to, get a dump of all the records that were modified, and in his individual level, when you're either trying to what sort of a mystery, you can see whether or not it was modified on that project or if you're going forward, when we do a deed of location, they are never over, then we will be able to do some targeting those records that we get a score of the value-added of that record. That's been that is an addition to the database to have that information on the individual record.

>> Another nice thing about the audit trail is that we were able to do things like DVD player that had a 007 field in the event that it was changed. The old 007 field was inserted in a 900 field below it. So if you ever wanted to revert that information was there.

>> Many modified 008s restored as well. The 7s went to a 918 and the eighth went to a 919.

There were some things that we just didn't even try. We talked a little bit about this earlier. The Braille item type had more to do with just the sheer number. There is not a ton of volumes there. It's kind of a specialized type. So we eliminated that from our searches. We just let them continue to be Braille.

Also looking in our circulation modifiers, we did not look at GovDocs, we don't have a ton of them, and again very specialized item type. ILL, items are typical for brief records. We have a couple of library systems that do use a brief record for interlibrary loans. They come, they go. Not really important, I guess you could say whether or not it has the right fixed field information.

Media, we didn't look at. And do you remember why we didn't look at media?

>> We actually did initially. Some of these we ruled out early on in the process. ILL, GovDocs, and unknown because of the very natures. Media originally was one we looked at, and it's not used by all the library systems and it became a tar pit.

>> Yes. I think people were using it for many and varied things.

>> Many different things, yes. So to try to sort that out in terms of fixed fields was not going to be a productive use of our time. And again, not a time of looking at overall record base of 1.75 million records, not a ton of them in that particular category.

My library system has everything from ukuleles to paintings to things we have some saddles somewhere. That are catalogued. And so being able to assess that outcome what we also have some libraries that use intermixed Realia and equipment. And if not anybody is not a cataloger, Realia just means stuff. It's the everything else category, and it just sounds better than saying stuff. And so that's what catalogers say. So there are saddles in the Blair County library system.

>> I'm going to look up your saddle records and see how detailed they are.

>> I would have to fact check myself on that one.

But there is a lot of variation there. I know we use the Realia circ module that could fit under equipment. So there is a lot of intermixing of categories there. Obviously, if an item doesn't have a circ mod, that a separate

problem that we decided not to address. I know other labor systems also have ukuleles. That's a Central Pennsylvania thing.

So those were some of the things that we just kind of banned from our process, deeming it not worth it to spend the time.

One of the things that we did that was cool and we didn't do it first, Bibliomation and GAPINES had developed a new type that was called preloaded audio. In the brand name for these things, I think is --

>> They are not the only one, but they seem to be the most popular.

>> Yes. And these are the audio books typically, although they can be other types of audio recordings and performances, and they are loaded on a digital format and you actually check out the player. Sometimes the check out with headphones.

Lots of people were doing them as CD audio book, which is not accurate. But to use the equipment circulation modifier doesn't really help especially in terms of holds and in terms of searching. And so this was a wish list bug that people worked on.

And has a cool little icon and everything. So we were able to, using some various scripting, by Rogan, identify these play away type of items in the consortium and give them that new format. Which we like very much.

And Rogan, I'm going to throw it back to you.

>> So in the end, out of the roughly 1.75 million records, we ended up modifying 186,772, which is approximately 10.2% of the collection. And that doesn't sound overwhelming. 10%. Seems like a lot of work for 10%. 10% of 1.75 records, that's a pretty big impact on holds and searching. When you are changing 10% of your collection, that's a huge public service impact. And I think it's been pretty successful. I'm not going to claim perfect. When you are dealing with hundreds of thousands of records being modified, perfect isn't your goal. Perfect is the enemy of progress.

But I think it was overall very successful. Sylvia, Katie, your opinions.

>> Absolutely. I think one of the big things that was my goal for the project were things that did not have fixed field data. To me, it was a win.

>> We had some very brief records in the system. And this is common of large consortia that didn't have any identifiable search format. That was very nice to do.

>> And I think, especially for those of us that are resource sharing with other library systems, I know how they used their mod, and I can kind of look at something and tell you what it is. But we have these relationships with counties that we don't have any other relationship with. So I don't know how they use shelving locations in Northern Cambria or in North Pocono.

And having greater confidence in the data that I'm seeing and also very rarely not seeing a search for the icon at all helped me feel more confident. And I think more holds get placed and filled when people are actually getting what they want to get.

>> And then the follow-up question that people sometimes ask, is this something I can use? And such as it is, absolutely. The caveat is that there is a -- such a thing as a public license. Equinoxes next the code that we brought up for this through our migration tools. Is it available if you search the web where I have it here on the slide. You can clone it. You can use the tools. No warranty, express or implied. Tools are under a subdirectory force SQL-based 21-.SQL. And it includes all the tools we used to do this. Not the actual scripts, but the functions I wrote, the data definition tables and all that.

And if you use them and you want to do any enhancements, feel free to send me batches.

>> I would absolute say that it was a success. I think much like deduplications it will be something that we want to do again at some point. And do either slightly differently or just on new stuff that has come in. Because it as though it is an iterative process. We think that everybody that worked on felt that it was time well spent.

>> To let people know, we had a timeline involved. There was an end of project timeline that was a very flexible due to funding cycles and other things. And I think that if we do another round at this, it would allow us to pick up on some of those things like, say, the media circ mod, that we simply couldn't prioritize the first time around.

>> And I think we were also dealing with just a lot of what Sylvia was saying, missing data. And in additional iterations, we would be starting from zero.

>> Yes.

>> How long did -- I feel like we had a hole in this project for summer reading. It might've taken close to six months.

>> It wasn't six months. It might have been more like six weeks.

(Multiple speakers)

>> Maybe was second in before the end of the federal fiscal year.

>> I don't think it was the -- because of the end of the federal fiscal year, I think there was some sort of reporting that didn't align with the fiscal year.

>> Okay.

>> We had some. A discussion before it started. Once it started, we kind of hit the ground running. There was a functional limit because there were only so many hours we could allocate to it, man hours, so there were things that we had to prioritize. So we went for the low hanging fruit and the things we could get the most bang for our buck on.

I can go back and look if you're interested. My memory is somewhat like 6-8 weeks. What do you think, Sylvia?

>> That about what I was thinking. I want to think that we were done by the beginning of October.

>> Yeah.

>> I may be remembering the inception of the project idea, to peer expect we had discussion -- our second wave of deduplication finished the previous year, really. And we started talking about this immediately in the follow-up to that deduplication. There were issues found with the

deduplication where the deduplication worked correctly, but records merged because of bad fixed fields. So in the analysis of the deduplication, we started talking about what can be done to handle this mod quick so we kind of had discussions about it for quite a while before we formally started the project itself. And discussions are kind of vague and all that, but they did make sure we are all on the same page, able to hit the ground running once it actually started.

>> Renee is asking about how much time did we work on it. I'm sure drug and had days where he worked on it several hours a day, and those of us were testing, definitely -- definitely put some decent chance of timing. But I don't remember putting in several hours a day into it. A couple of hours, couple of times a week in the heavy testing phases, I think.

>> For me, my time came in spurts. Because the kind of work I was doing involved a lot of scripting, which is high focused stuff that if you put on backup, it takes time to reorient yourself. So I would tend to work on it 6 hours in the day, but that I might not look at it again until next week.

>> Other questions? Let me scroll up and see if I missed anything.

>> Meg is saying so much weirdness in fixed fields. Yes. Consortia that have grown through migrations, I think it was Katie that mentioned earlier in the presentation that not all ILSs care about the fixed field data. That can create very interesting situations and migrations. And those can stick around for many years. I won't name names, but I have been an administrator for an ILS the government looked at, and when we migrated to Evergreen, we had work ahead of us.

>> And I have to say that I was surprised because the big library in my system had had a number of things that had no 007. And the only holding was in that library. So the assumption there is they brought that in from working it.

>> Yes.



>> And it matter because right now, somebody would get it. But the previous ILS that may not share the name of the character, it wasn't used for anything and so it didn't rise to the top of the pile.

>> I was going to say what you're going to say. There are a couple more questions.

>> Several question on the theme of migrations and is there anything you can do to make migrations better with this in mind. Here at Equinox, one of the things we do on our migrations is use this toolset that we built for this project. And we do map incoming items conservatively and move their fixed fields where we can to make them work during the migration. So if items are incoming anti-consortia they are migrating into say book to represent a print monograph, and all the items are attached to a record anti-record does not have any fixed fields, that translate to anything in Evergreen, when we are migrating that record will make it a print monograph.

We do attempt to mitigate against that in migrations. And so can others. As for the broader question of do I have suggestions of how to make migrations easier, yes, but we don't have enough time for that the whole rest of this day.

>> We could do a whole thing on that next year. We could do a preconference on Rogan pontificates on -- and you know what, I would go to that.

(Laughter)

>> And to the point, some of us the this had to do with original cataloging and by original, I mean catalog with originality. And not necessarily with adherence to standards. So there is definitely some of that. A mixed multitude of things going on in a database like ours.

There are a lot of culprits, but especially in the case of missing 008 or 007 data, the fix is all the same. It's a figure out what it is and stick the right characters in there.

We didn't deal too much, such as we complain about the migrations, in the process, we didn't really talk about why things were the way they were. Because it didn't really impact what we were going to do about it.

>> And to be fair, the fixed fields issue is sometimes in a group difficult to discuss because it is a very cataloger centric thing. And if you have other staff involved in the migration who don't have any cataloging background, you really have to prepare yourselves to discuss it in a way that is not cataloger friendly. Or it just ends up being sort of a source of noise that the reference wrecked librarians, the children's librarians, whoever, just doesn't want to deal with amongst everything else that has to be dealt with in a migration.

And for those attending who don't know me, I spend a lot of my time doing migrations. That's why I can pontificate.

>> You have definitely earned that right.

>> This is something Sylvia and I talk about a lot. Cataloging is access. Not that we don't get kind of uptight about certain things, but the reason that we do it is it impacts the Patron experience and impact discoverability. So it is a nitpicky detail, but it doesn't mean it doesn't matter.

>> It's nitpicky for a reason.

>> A question from Jeremiah about tools, I am assuming you mean the SQL code. This isn't the right audience for that, but I'm doing a presentation tomorrow on PERL PL, which is using PERL code inside -- functions. So I will be glad to demonstrate it tomorrow during that session. That definitely will be the right audience.

If you're used to an ILS that doesn't make use of the fixed fields, you may not be used to worrying about them or paying much attention to them. Absolutely. Anybody that has ever catalogued for any significant amount of time knows that sometimes you've just got to get the materials moved through your office. That's just a reality. So I'm not blaming the catalogers for it. It's just a reality that when you moved to a system that does use fixed fields, and Evergreen is not alone in this by any stretch of the

imagination, it's just that -- there is an old joke in the computer world. The thing about standards is that there are so many to pick from. That's certainly true about how fixed fields are used by ILSs. And yes, you have to catalog for the system you have. I absolutely agree with that.

>> That's the cats that we are herding. Thanks to our transmission services. The close captioning will be a wonderful resource for a long time. And so I appreciate Equinox sponsoring that as well as divination sponsoring our session today.

>> Mary says on a smaller level, we have our libraries report when it record doesn't have an icon or up here in a format based on search when it should. We can do centralized cataloging and stuff can slip past us. If you ever figure out how to have perfection from human effort, Mary, let me know. I don't think that will happen in my lifetime. But you are lucky to have centralized cataloging. That's a luxury that many don't have. I know it's something that a lot of consortia which they could do and just for a variety of reasons aren't able to. And even list of reasons why not is very long.

Vendor records. I don't think I should discuss vendor records in a public forum. (laughing) let's just say the quality varies dramatically, vendor to vendor. I'll just leave it there.

>> Thank you very much pick this was very informative. And I want to thank our three presenters. You worked well together, I'd have to say. Nice job. For those of you moving on to another session, not saying for this session here, please we never to close out because we want to free up that space for people who are trying to enter into the room. We have a limited number of seats for meeting.

And thanks to Rogan, Sylvia, and Katie.

>> It was fun. Thanks, everybody.

>> Enjoy the rest of your conference.