

## Retro Media: Accessibility of Removable Digital Media Formats in the University of Michigan FDLP Collection – Transcript of audio

Hi, everyone, and welcome back. This is our retro media session, and before four we get started, I want to remind you to place your comments and questions in the chat box in the lower right-hand corner of your screen, and the presenters will address your questions at the end of the presentation. And now, I would like to hand it over to GPO's David Walls to get us started.

---

All right. Good afternoon, everyone. Thank you for joining us for this session on retro media. I will talk a little bit about how this project began. I am trying 23, the preservation librarian for GPO. As we know, collaboration is essential to the work that we do to preserve the national collection. I am just going to advance the slide here. There we go. Collaboration is essential to the work that we do to preserve the national collection. About six months ago, we learned of an opportunity to participate at the University school of Michigan's information client-based courses. At the time, the GPO task force was just beginning to investigate the problem of accessing and preserving the content on computer -- and CD-ROMs in federal depository libraries. This became the focus of our new project proposal. At the beginning of this semester, we found ourselves working not only with an FDLP coordinator, but also with students and the high schools digital creation mastery course. The GPO team consisted of me, Cindy Atkin, --, Jessica came in, and --. We were fortunate enough to collaborate with Catherine Morse, the FDLP coordinator, the library, and students from the University's school of information. Margaret Grumeretz, and Marlaine Magewick, on a project we have called the retro media preservation project. Today, Margaret and Marlaine will talk about their work, but first, a word from Catherine Morse.

---

Hello. I am Catherine Morse , and I am very happy to be a part of this project. Within the Clark library and within the greater U of M library system, we have thousands of CD-ROMs. As the years go by, and after being closed for COVID and then reopening, I started to wonder how many of these CDs are accessible. So we know about the wonderful virtual CD-ROM floppy disk library project that is hosted at the University. We have so many CDs in our collection that we were wondering how many of the ones that we hold can we make usable. So we gathered a sample from our distributive libraries and we developed a process to look at each one. I am going to throw the ball over to Marlaine, who can tell you more about our process.

---

Okay. Here we go. All right. Hi, everyone. My name is Marlaine Magewick. First of all, thank you to Catherine and David for your kind comments. We absolutely loved working with the GPO and with Catherine the semester. My name is Trent 26. I am here today with my project partner, Margaret Grumeretz. We are both at the school of information, and we are going to talk to you about our project today. So during this presentation, we are going to go through some background information about our project. We are going to look at the approach and the scope we took with this task, details about our assessment methods, we will highlight some of our findings and conclusions, and then there will be time for Q&A at the end. So, first, a bit about the project back on. Starting with the overarching context of the project, which is the retro media and FDLP collections . So our primary concern was looking at what is usable and what is accessible. If they are, at all. This is an important area of inquiry because according to the preliminary results for the 2021 FDLP biannual survey, there were 993 FDLP libraries that had some sort of tangible program material in any format within their collection. There were 700 FDLP libraries that reported having some sort of material in their collection, and we are defining this material as something that stores some sort of information and can be put into a computer to be read or put into a VCR. So these are your DVDs, CD-ROMs, VHS is, floppies, diskettes. As removable media decay more

popular and reliable for transmitting information, the GPO began to utilize them for their publications . Our project mostly focused around CD-ROMs, which the GPO first started using in 1988. As we all know, due to the rapid regression technology, it is becoming harder and higher to access these materials. According to the same lemony results from the survey, about 200 results reported having removable media and the collection that they could no longer use, and an additional 177 libraries were unsure if there removable materials could be used. So far, 72 libraries have reported attempting to develop local solutions for access, so that is kind of what we wanted to look more at and kind of determine about the retro materials in these clerks collection. So this is a picture from our weekly meetings with the GPO staff as well as Catherine Morris, the librarian at this library. The GPO staff and Catherine were extremely generous with their time. They met with us each week, and made themselves available the week for questions and helping us with a project. It was really great to be able to talk through what we found each week and come to them with questions, things we didn't understand, and get some feedback. It was a really lovely experience, as you can see from our smiling faces. We had a lot of fun. I speak for Margaret and I when I say it was an absolute joy to work with everyone on this project. I went too far. So, a little bit more about our local context. Since we are at the University of Michigan, we have worked with materials from the FDLP collections. The University as a whole has been an effective depository library since 1884. Their collection is dispersed around the University, and this is mainly aced on subject matter, so we are a science related library with NASA's data. We work merrily with the clerk, who is pictured here. The clerk called the universities map collections, so there is a law of geographic data, census data, and a wide array of other FDLP publications and their collections. Also, regarding our university system, since it is so large, I.T. has centralized control over the hardware and the public computers in each library. So this can have a major impact on accessibility for retro media because the librarians always have control over what happens when it happens, what they're going to take away, what they're going to give you. So we opted to work with the machines and resources that were available at the Clark library, because we felt that a lot of institutions throughout the country are operating in the same way. We wanted to sort of access these materials in the way that patrons would. We will talk more about the technical constraints in a minute. Just a final use of framework for the project. We are completing this as a capstone course for the Masters and science information program at U of MSI. The since last semester, we have teamed up with this organization and GPO. The program lasts 12 weeks, so just one semester. There are 1 to 2 people per project, generally, for our capstone trade since it is such a finite amount of time, and there are only two of us, we have to scope the project appropriately. I am going to throw it to Margaret to discuss more about that. Let's see.

---

Great. Thanks, Marlaine. I will talk a little bit about how we approach the project, and narrowed it down to our final semester. As Marlaine mentioned, we did use the computers. They were also the only four computers that we found on campus where they had CD drives that we could use, and that worked out very well. We also decided to use these instead of bringing in our personal laptops, or chart and find older machines first and foremost about patron access, and how to use the materials that are on hold other libraries across campus. This way, we also made sure to use this system, as far as software and hardware. This also meant that we kind of limited what we could use when we weren't bringing in specialized hardware to have discs or floppies on, and we weren't bringing in any specific sort of investment for software. We use what was on the public computers. That being said, at our institution, we had access to the office applications. Adobe products, and some older data analysis software is like SAS and SES. --. Another part of our approach, with this project, I think it is obvious that we had preservation, but we really had to focus on axis, first and foremost, before those bigger parts of preservation. Part of this access that we thought was going to be a larger issue when we started was the physical conditions of the desk. In our literature review, it was sort of a wide range of shelf life for a lot of these materials, but we were pleasantly surprised to find that all of the CDs we looked at, physically,

were still usable if the software and hardware had been correct for those CDs. So that was sort of something we thought would add more urgency to the preservation part of the project, especially for the more unique items that we couldn't find elsewhere. But it was kind of a nice surprise. That being said, we were able to visit the digital preservation lab at -- to talk a little bit more about how they approached these sorts of projects. How they were approaching, and emulating the contents on oldies. So here are some pictures of us at the digital preservation lab on campus. This is also the only place we are able to test out what they discussed, which I previously had heard called lobby discs. They are the little hardshell discs that many of us remember. We were able to look at about five of those while we were there, and we didn't have a ton of success accessing the content, which I will talk a little bit more about later. That being said, in the conversation, we were able to talk a bit more generally about how the approach similar projects were discussed, and how they kind of approach to preserving these objects. One of the answers I found really interesting we did talk about how they have a big wall of older Apple computers, which is sort of exciting. The rainbow of Apple computers. Nonetheless, older machines. I did ask, why do you use those when you are going through things? They have found that it kind of presents more problems than it solves to look at older objects and older machines, because they have more problems when it comes to migrating the content, and it doesn't solve the problem problem to emulate the content on a modern machine. That being said, it was fun to see all of the tech. We also found that our approach to access the content, which we will talk about next, was sort of on the right track. This was the fastest way to assess --. We found it was really just clicking around and exploring each one, because they are all pretty unique. Trying to find files that looked recognizable, googling to find out what kind of content it was, and to try to find more appropriate programs. That being said, we did find the word and office Microsoft applications, which were are most important tools, and, yeah. I think this was a really enjoyable part of our project, but overall, I think the biggest -- was individual. So I am going to pass the ball back to Marlaine.

---

Okay. Thank you, Margaret. So I am going to advance the slide. Did I go too far? Yeah. Next, we are going to talk a bit more about how we assessed and approached each segment in our sample. So we used this data gathering tool. It is a Google form survey, and GPO and Catherine Morris created this to help us keep track of our data. As I said, it is a Google form survey, so we filled out every field and once it is submitted, it is then added onto a Google sheet, so you can view all of our data in spreadsheet form. So the first part of our survey asks us for basic information about the items, so the catalog information to identify things, media types, label information, system requirements that the CD has. The second part of the survey dealt more with those questions of accessibility. So the first thing we would look at is whether or not a CD-ROM would run. So the idea of what it meant for something to run shifted throughout the project. At first, we interpreted this as when we pop a CD into the computer and something pops up automatically. It runs, right? Well, as we got into more CDs, we started noticing that this wasn't happening. Nothing would ever pop up automatically. It only did once. It happened the final week of our data gathering. So we had to really pivot in our conceptualization of what to do to access these CDs, and what it meant for them to run. So we started thinking about this in terms of how to access the content on each CD. We would start distinguishing between the files that would install the programs or software that was on the CD-ROM, forces more informational files with the publications or data on the CD-ROM. This would help us determine how accessible the CD was. When we were sort of figuring out which avenue we wanted to go down with in terms of what it meant for something to run, the Google form was actually a very helpful tool because we were able to modify the questions and add questions, and everything we did was reflected in the Google sheet where we collected our data. So I thought it was a really useful thing for us. We would also look for an index of the content that was on the CD. Sometimes, these were edited in a read me file. There would be tables of contents sometimes. We would poke around for those. If not, we would take the directory from the command line and put it

into a text file, just so there is some sort of record of what is on these CDs, should anybody need to check. Using the Google form, we were able to drop in these documents into a Google folder and the link to each document was pasted into the spreadsheet. So everything was altogether. It was a really great way of tracking that. We also tracked how much time we spent assessing each item. This was helpful for us to get a sense of how long we would build a collection wide assessment might take. Finally, we had notes that we could add within any distinguishing features or issues. Next, I am going to talk about how we would approach each CD-ROM, or diskette. Most of the CD-ROMs. We have this handy flowchart here. So, that seems right. We very quickly fell into this repeated process. Our professor once referred to our project as digital archaeology, and that they never knew what we were going to find. That is true. We can sort of approach the CDs pretty much the same way every time. So, going off of the flowchart, after putting the CD or diskette into the drive, we see, again, if it would run automatically. As I said, it only happened once. When it did, we would try to access any of the content or data through that program as the original creators of the CD-ROM intended. But usually, when this didn't happen, we would start by looking at the file structure and windows file explorer, which is Mac finder. We would look, first, for the executable files again, and we would try to run those programs since they weren't popping up automatically. We would try to install them on our computers, but again, because of the administrative constraints on the public machines, we often couldn't and up doing that. So then we would go on and look for more informational content on the CD. So it was the index, and we did try to open all of these different files to see what they looked like now. We would be using anything that was available on the computers, with the clerk. We typically found that notepad was a really good place to open things up. Microsoft suite was very useful for making spreadsheets available, and looking at database files. And then, if there were any unfamiliar file formats, we would go ahead and Google them to see, Willie open? Can we open them? And how? That is kind of the main idea behind our process with approaching the CDs. So, since our main concern in the project surrounded accessibility of the materials, the core component of the assessment was dedicated to determining if the information or the removal of the media was accessible elsewhere. Particularly, we focused on publicly available government websites, like agency sites and repositories. You can see our results in the bar graph on the top right, there. So we found that less than a quarter of CDs that we look through had been migrated to publicly available government sites. Over half of the CDs contained content that had not been migrated, or we couldn't determine whether or not that was, in fact, what had been migrated. We also found that 10% of the content had been partially migrated, suggest pieces of it, but not the whole. We found that a quarter of agencies had related content, with references or other resources on their sites. They did not necessarily provide access to the content that was on the CD-ROM. 10% of agencies posted or updated editions of content. The remaining bars there are kind of the outliers that we found as we were going through. So we limited our search, primarily to the government, publicly accessible government websites, because those resources are freely and widely available to anybody with Internet access. So with that being said, a lot of the publications had been migrated to other platforms. We found a law on icy PSR, for example, but we didn't want to rely on items being located to those types of platforms, because oftentimes they are subscription-based, and not a library public institution, as those types of subscriptions are available for their patron. So we wanted to focus on things that would be freely and widely accessed first. We also looks to see if the content from the item was available in the print publication. We looked at the University system, and our results are there on that pie chart in the lower right. We found that 20% of the items we assessed did have a print equivalent in the system. 16% had a print equivalent, but it was not a complete digital item, so these were data sets where the entirety of the data wasn't published. Maybe it was just the highlights, or something like that. But the majority of items we assessed did not have a print equivalent. Still, our core question was, has the agency migrated the content to their public facing websites. This was actually the most time-consuming part of the assessment. I do believe it was the most challenging. This was for a lot of reasons. Items had a lot of

unfamiliar datatypes. When we were working with a lot of scientific data sometimes, and we are not scientists. It was hard to be able to match up the data based on looking at the raw data on these files. Sometimes, we would encounter CDs where we couldn't access the data without the built-in software that was on the CD, because we couldn't download it. We couldn't really get into the software, so we would be trying to match what was online to the catalog contact to see if, maybe this is it, maybe it's not. That was pretty challenging. We also found that a lot of the items we assessed were actually collections of different things, so they might have been datasets or publications with other digital items, like videos. Sometimes there were lesson plans, maps, quizzes, in addition to that main publication. So we spent a lot of time ferreting around government websites. I'm sorry. I had to make the joke. Hence, the inclusion of our glorious friend here, the data ferret, Hooley is used to assist you in finding information on the census website. Now I am going to pass the ball back to Margaret to talk about --.

---

Great. Thanks, Trent 26. I am going to talk a little bit about what we found in our sample of things. I do want to look inside before we get into it, but there was a lot of variety. This was a small sample from University of Michigan's collection, and I'm sure many other collections. We still found some sort of things and had some conclusions to share with you. Great. So, first, what I think surprised us most was that most of the items were accessible in some way. Any of the CDs would try if we found in -- file. I did have a CD which played, which my audio was on, and it was a very quiet library, so it was a very alarming moment, but exciting. Several of the CDs that I tested showed us that the CD itself was in good condition. The software on it had deteriorated in any way. They were just too retro to run on the computers we were working. Across all of the CDs, we did see four major themes for access. In organizing them from what we sought to be the least usable CDs to the most usable. First, I will talk about these first on the following sides. We did have some items that were just completely inaccessible or incomprehensible to us. Next, we had items that can have outdated software or software specific to the CD, that prevented us from accessing the content. Then, we had retro software with usable data or content files. So the CD itself wouldn't run, so we could still look at whatever the main informational content of that was, because it was in a format that was still usable. Finally, we did encounter the number of CDs that we thought of as being basically rent publications, even though they didn't all necessarily have -- and the University of Michigan collection. They were either PDFs or docs. Sometimes they would be strung together in HTML, and they were able to be used in the same way as when a CD is first distributed. So they were basically the same way as they had been the whole time. It was exciting. First, I want to talk about the items that we really couldn't access at all. I think all of our discussions ended up in this category. The CDs and diskettes were sort of incomprehensible, both because they had out of date software, but the contents themselves were written in a machine-readable way that wasn't really understandable to a human being. So they used file directories to contain content that was a string of letters and numbers. Next week they could be read by the software, but not read by --. So since that software was out of date, we really couldn't make head or tail of what was going on. This also might have been the only place that we covered any sort of deterioration, especially when it came to the view of the diskettes. So our example here is from the Peace Corps. It is a training document. So some of it should have been basic -- and we were really unable to open anything that looked like a text file. Another example comes from the economic Census that we looked at. We were able to open things. It seemed like it was tables, but without spending upwards of a day or a week, and looking through file by file, we couldn't really find a clue of what was contained on this disc. So next, we did have a good number of CPUs. They had comprehensible file directories, but the software and often the file types on those were still inaccessible to us. These, we did want to separate out, because they often included a table of contents in the file or another index. There might be a better idea of what the contents were. We also, especially with the proprietary software, could recognize what kind of context was on there. From this example being the TigerLine CDs, which many of you may recognize. The Tiger logo, a lot of

the early Census mapping data was distributed as these files and were TigerLine software. Also notable about this is when we are matching them up, there was data that wasn't on the census website. And some of the other places that we looked at. So I do think it is important to note, as you will note at the end, that some of these do contain unique information that our patrons can't access anywhere else. Also, a fun note is that the census website does have something called Tiger web, so if you do this Tiger software, you can still experience it on their website. Next, I think this was the biggest grouping of CDs. These were CDs for the software itself wouldn't run, but the data files and the main contents were still accessible. Often, these could be opened using basic text editor, Microsoft office, or another application, often they were PDFs. Images, tabular data, and other sort of classical digital files that were easy to be opened. An example here I did make it into a gift, so it should be moving, but it is a flash video journey from the Department of transportation. That is presented on their website, but it was interesting to find flash video. It is something that we recognize as a video with Adobe software, and getting the nice variables on there. Finally, our last materials of access were items that were basically print publications that were distributed on CDs or diskettes. Often, we found that these were collections of items and the software may have been there for enhanced discovery. A lot of them still retained their basic navigation, so they might have had simple contents that were linked through PDFs, sort of hyperlinked together, or they used HTML to link documents together. Still, even though some of them have software, we could basically use them as they were intended to be used. An example of this would be the conferences, and all of these conferences that we have in different places that were aligned, but we never found the full collection --. All right. So I do want to give a couple of highlights. We are still wrapping up our report and finishing up this semester. I think, overall, we found that most of the items were usable, which was very exciting. Only 16% of our sample was completely inaccessible, but these items were distributed between SPD and 1999, so they were some of the earlier items we had looked at. Another interesting thing where the basically print items were distributed between 1996 and 2005, which interested us just to see when these sort of items would be distributed on a CD before, even though they were sort of digital born items. And then, we also had a lot of the simpler navigation tools, and things that were held together using the HTML or series of PDFs. They stood the test of time better than some of the other software is specific to the desks that we found, to the earlier items. Overall, an average for each items was about 30 minutes. We definitely had some that took 15 minutes, especially if it was print or sort of tabular data which is easy to identify in the catalog and on the website, up to over an hour trying to dig in to something that was harder for us to understand. We do have a bar graph here that shows a breakdown of the access types, and the majority were CDs that had updated software, still had usable data files that we were able to access. So I am going to give a quick conclusion, and we will have some time for questions. Overall, I think what we were happy with, and that the GPO and Catherine were also excited about, is that this is a replicable process. So we were able to refine our survey, surf practice, talked the reservation librarians, and find out that this was kind of the fastest way to look at these kind of items and assess what's there, and what could be preserved. Each item is unique, but accessing the contents of these items is really the first step in any kind of preservation. These items also, while many of them are copies of print publications are things that are currently hosted by a website, many of them did contain content you couldn't find anywhere else. For our patrons, a lot of them are very interesting contents that we couldn't find anywhere else. They are important items to make sure that we preserve and make more available to our friends. I think, overall, when we are thinking about preserving these, it is going to look something like migrating the content to a usable format and a more accessible storage location, or emulating the whole CD. We do know that there are projects probably in many of your libraries, where this is going on. The Indiana project, and we saw a few more projects at different libraries where they were trying to create emulation as a service where you could look at the seas, and bring others to look at content -- computer anymore. Here is a pile of assessed CD-ROMs. I think overall, we really enjoyed this as sort of a physical collection, in a much different way than we might have

thought initially. We really enjoyed, again, working with the GPO and Catherine, and want to thank them for all of the time they spent with us. And now, we are going to open up to any questions and just thank everyone for listening to our visitation.

---

Thanks so much. We do have a couple of questions. There was a lot of chat about reminiscing about retro media, so you want to check that out after the session is through. Barbara asks, how do you assess whether the content was fully migrated, particularly with statistical data?

---

Marlaine, feel free to jump in. I think that was definitely the hardest. I think that even if we were able to look at the statistical data, I was looking more for an inbound, so it was matching the catalog information. For a lot of those, especially early senses, I was looking more at the detailed index of what was there. So I guess those are probably the hardest. If there was a section on a survey that was sort of undeterminable Palma, and if I didn't find a more detailed index of what was there, that was what I chose. That's sort of not a very satisfying answer, but that is how we approached it. Also for the sake of time. I think any of these CDs could spend a very long time trying to explore.

---

Chris asked, is there an estimate of the number of retro format government docs that exist? Cindy put in the chat, we know there are more than 3400 CDs that were distributed to depository libraries. Holly said, I see you listed ICP SR as a list of publicly available materials. Were those items only the publicly available, as opposed to subscription parts of the website?

---

If I recall correctly for that, they were probably under the subscription part of the website, and I think I might have misspoke on that slide, because we wouldn't have -- if it was on ICPSR, we would make note of it, but we wouldn't necessarily call that a migrated item under our criteria. It was just easy to find those, by chance, because we are in U of M and are using the library system to find resources, things from those databases would pop up for us. So yeah. I am not really familiar with how publicly available ICPSR is, or how their subscriptions work.

---

Trent 26, can I jump in? This is Catherine. You are exactly right. So when you are looking at this project, we decided to scope it to looking for this content on government agency websites. So.gov domain. We know we have a lot of Census CDs. As we were talking about this, we were talking about all of the other different places where you can find 1990 census data. Like Givens, like ICPSR, social Explorer, things like that. We would talk about how some of these things are freely available, and some of them are only available by subscription. ICPSR is an interesting case, because sometimes there are agencies, Bureau of Justice statistics that has an agreement to make their data available openly through ICPSR. So there are a lot of different categories, but we still have this project and we focus on government agency work.

---

Aimee asked, did you happen to create a spreadsheet board database of content when you tried to match up data sets? Cindy put in the chat, the agency we recorded, but not specific contact information. Suzanne asked, giving what you found, how would you prioritize items from preservation? Do you think it is worth the effort?

---

I think this might be a better question for Catherine. Then I think for us.

---

Sure. I think that is a great question. One of the things that this project clarified for me is that this work takes a lot of time. So 30 minutes for a title. Also, Margaret and Trent 26 are very skilled creative problem solving information professionals, and so it really clicked for me why previous attempts of my trying to do this work with other students that didn't have those skills didn't work as well. So another

thing is, what should we prioritize. That is one of the things that would be in my mind, is that prioritization piece is going to be incredibly important. It's going to take a lot of effort and a lot of labor. I think, for me, thinking about our collection, we might broaden that scope. Like I said earlier, we were scoped to thinking about how much of this content is on the agency website, thinking about what our users need. We could maybe not worry so much about the content that we could access through some of the other things that we have access to, like ICPSR or Gibbons or social Explorer. We might focus, and said, on data that hasn't been migrated to one of those nongovernment sites. I don't know. It's a great question, and I think we could probably have some really great conversations about what we, [ Captioners transitioning ] as a community, wants to prioritize.

---

Okay. Sean asks, what was the average amount of time you spent on assessment of a title?

---

Yeah. So we spent about 30 minutes, average, per title. The majority of this time would have been that content matching, so going to the agency website, looking for something, if there was an agency repository, looking for something in there, as well as time spent seeing which avenues we could go down to access the content in order for us to match that up. I want to say, the low end would have been 15 minutes, about. As Margaret said, that was kind of a more print like publications that were mostly PDF based, and you could do things that way. So, yeah. Those would have been the least time-consuming ones. The high end, I think it was my favorite. It was, what was it? A broadcast something service. Because fitness is no longer functioning. There wasn't anywhere to find it. I really wanted to find something accessible for some of the early census, we actually found some of the agency CDs online, so that was kind of a break on some of those.

---

Indiana., I think James, was it you that put the link in the chat earlier? The floppy CD? Will you re-paste that so it's up at the top. I will. Thank you, Jennifer. Caroline asks, how are depository libraries providing access to seedy raw materials for example? I can say what we are doing here. They are near computers and somebody can grab a CD and pop it into our computer and hope for the best. We have a reference is that is close by because my guess is they would not, your average patron would not know what to do and come over for help. So, I guess we just have kind of a self-service buffet of retro media that people can use.

---

Every once in a while, I've also had people come in with CDs. Have a CD drive, but I the Clark library has CD drives available. I also do know that our main library holds U.S. these four CD drives at some of the desks. So we are able to give patrons those.

---

Suzanne would like to know if there will be a paper.

---

For our course we are completing, kind of like a final report, covers the project in more detail. For about methodology so, we are going to be passing that off to the GPO over the next two weeks or so. I believe anybody would like to read that you can probably contact the GPO about that.

---

Jane said I may have missed it but how many of the 3400 CDs were listed in the Indiana CD-ROM library.

---

That is a great question. We did not look up each title in the virtual CD-ROM/floppy disk library. We just found the CDP information and then looked to see if the data was on the government agency website. We did not do a comparison with the IU project. And our CD-ROM collection. That would be an interesting one.

---

I think looking at, the items that is just a quick and we tried to note in the notes when it was in that university project [ Indiscernible - muffled ] but it wasn't one of our main were hosting the publications.

---

Did you document your URL all in bullet form.

---

Typically as we would put in URLs, I think it was pretty much every time we did. It was only when it was maybe a subscription-based thing through like U of M library that maybe we would not. We would just note that this is on XYZ database. But, usually if it is on the agency website we would post the URL.

---

Margaret, Marlene, Catherine, Davis, there is a suggestion in the chat that writing this up in getting back to Suzanne about the question Will there be a paper. There was a suggestion that this be written up for American Library Association publication documents to the people with a consideration for you.

---

That's an excellent consideration.

---

That is a great idea.

---

I would enjoy doing that.

---

Absolutely. That sounds cool.

---

Rich asks is there an online replacement for the 1990 since that census. Our current use of it is gathering demographic just beyond the basic count of moving to Kaiser overseas. Same for the 19 Same for the 1990 subject CD-ROM.

---

I don't think

---

I don't think --

---

I don't think that was one of the ones from our sample. So I don't know that one. This is the kind of thing that I bet somebody out there in the audience knows and so I bet if we just wait a second someone will say I know exactly where it is. That was one of the things that, I cannot remember, if Margaret or Marlene said after our meeting, was how one of them would bring up a title like fitness and then somebody on GPO, or me or somebody would say oh, that one, and then start into this long story. So, we all know that, these CDs and documents, they have long stories that go with it. There was a lot, there is a lot of that with me, at least, that's how we got on DataFerrett.

---

So much what Richard is mentioning in the chat, uploaded to an agency website. The same file direct to re-and I am trying, again, starting with the 1990 CD, I think that was the era where we were finding exact matches for things. But, yeah. It is in incomplete access when you have these outdated files, especially when modern senses data can be explored in so many easy ways. [ Indiscernible - muffled ]

---

Unfortunately we are out of time for the session but I want to thank all of our presenters for sharing their fabulous work in this very interesting project. As always, we will capture all of the chat, comments and questions and pass them along to the presenters after the session is through so they can continue to look through what everyone had to say. We will be back in a 15 minutes at 2:30 Eastern time. Thank you, everyone. [ The event is on a recess. The session will reconvene at 2:30 Eastern Time. Captioner on standby. ]