

>> [captioners transitioning]

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[Captioner standing by]

>> You can raise your hand. We have a few people raising hands. I think this illustrates a challenge that we have in the space of a deeply, something that the central and huge important to the future of our work but often feels unacceptable that we wouldn't self identified with in some ways. My objective is not to give a deeply technical talk but to challenge and work through some of the assumptions and principles that come into play when we talk about preservation. I will start off by mentioning comments that were given at one of the first event that was involved around digital preservation and hourly meeting of the digital preservation, infrastructure and preservation program at the Library of Congress. And attending from a tech startups is something like why don't we just who were it all up and shoot it into space. There is a literal comment that someone gave about what we might do to solve digital preservation. It illustrates the tendency for tech startup or digital [Indiscernible] kinds of thinking that comes into play when we talk about digital things. We end up talking about literal shots in this case. But when we look at the sort of narratives that we have around digital information is two primary ones that tend to come up. One of them is that we try just fixed their kids by telling them what you put online will be there forever. So watch out. We also say but it might alter score way. At any moment. We're constantly pivoting back and forth between washout it will be there forever and look out, it might all go away somebody. It seems the tendency is if you don't want it around forever it will probably be there. If you do maybe it is scary and you have to worry about it. This is sort of the advice that we operate in. The challenging thing is, often the story fails to grapple with the fact that people have been awarding on this issue for half a century at this point. Literally. The records work goes back a very long time. We have been doing it, it works, we're making things happen, it may not be perfect but we built a lot of expertise and value in the work that we do. And so I tried to sympathize some of that into my book which is called caps theory and crafts of digital preservation. Which I will also mention you can go and download for free if you want. The prevent print version of his is a scholarship archive in the open science initiatives platform. If you want you can read this there. It has the typos so if you want the non-typos you can read it also. You can feel better about the work that goes, the value that comes from editing, it is out there for free in this form. This is the actual, the content of the book, the core concept of my approach in the book is that we need to get over that digital-digital anxiety, the two contrasting images that I was talking about in the beginning. We need to situate digital preservation in the concept of lineage [Indiscernible]. Then work through and approaches thinking about the craft of digital preservation. And where that goes. For our roadmap for the talk today I am going to need a little bit of background on me and my orientation on digital preservation. I will go back through my position and approaches think about this. And then to offer a very short definition or take on digital preservation that we can work with as we move into what I call 16 axioms for digital preservation which is the focal point and the start of my work book. But I have found very useful and bring up your conversation with folks around the country about how we work on ensuring digital access to information and during axis. That means breaking down some assumptions that come from some of the technical jargon. The last thing I want to offer is get through some very practical for stuff things for anyone who's organization needs to get started and start trying to get the boxes off the floor and you have been doing this for a while, some things to think about in improving your approach of practice. >> For starters I began my career at the center history working on [Indiscernible] a little ways from Northern Virginia. I went over to the Library of Congress for the first time. I was working in the digital preservation Library of Congress. I helped find the national stewardship digital alliance. In this area I worked a locka with colleagues from around the country to try to define standards and practices for ensuring, during axis to digital information. I went over to the Institute resume and library services where I worked with a variety of program staff to help establish a national

digital platform initiative as mentioned in my bio and introduction. That was \$30 million in federal funds investing over 110 projects. A couple of them very much related to go docs. Peggy products who haven't followed us is a great initiative around preserving electronic government information. The core concept is something that I think carries with us and all of our work is is not necessarily novel but is a very relevant thing for libraries. Apparently I don't have a lot of suits but pointing out a difference like that what is a national digital platform is and the core concept in that focus that I am allowed to continue under several different names under every library in the country is to benefit from the work of other libraries and share digital services and infrastructures. This point it is something that rings true and this community has done a very good job Jen demonstrate and the possibility for libraries to pull together and work together is very strong. The opportunities for us to function as a distributed network system that assures access is hugely important and significantly in a digital world this is an increasingly challenging things as we shift from reservation and access being intimately tied together by each of us having copies of these materials. It is something a lot of organizations are doing because anyone can remotely access resources in many cases. Figure out how to build in that community infrastructure that shared pool set of resources to assure access becomes increasingly important. An opportunity came up to [Indiscernible] and I could out pass it up so I have been background to the Library of Congress for two years. The first set of digital compact management which is a new section focus specifically on managing general collections, general digital collections and developing and supporting workflows to allowable library materials and different digital formats. That is that. I have been teaching the whole time that I've been doing this on the side. I teach a course for American University and University of Maryland. I continue to work with students which is rewarding and I am trying to bring back to work I have been doing on digital preservation and as reflected systems to make sure it makes sense with new professionals. That is where the beginning of the book comes from so my own frustrations with the way that digital preservation is discussed and talked about. That brings us to do a really short definition of what is and isn't digital preservation. How many people know what it is? This is the bigger version of this. More hands maybe? This is a OIS which is been with us for a while now. The open archives framework for digital preservation. It is one of the core scanners and the basis for the trusted digital repository standard which was mentioned earlier as something that GPO has been one of the leading institutions to get the seal of approval for the work. One of the thing that is challenging if you want to scare somebody about digital preservation this is the best way to do it. You show that and say do this. This is a little better but is still kind of scary. The other thing that comes through, is a very smart thing and mildly misleading in a way the product is a. The functions that are happening here are really important but at the same time they are also, they can get in the way of many cases is much as they can help. A lot of the work that I've been trying to do with students and became the basis for the book is trying to make the get away from thinking about the overly technical set of concepts to get to a set of principles and values that make this feel more the kind of work that libraries, archives and museums have been doing for a long time. The base concept is that digital preservation to ensure digital content. Court points in this is access as a part of it. It doesn't make a lot of sense to think about preservation outside of access because we need to have this material. Were talking about access in the future when we're talking about preservation. That will bill a focal point in several of the axioms that I get into talking through as we go. That brings me to what are the 16, axioms of digital preservation. The foundation in the book. They stand on their own as an interesting -- I've gotten great responses about the provocation to think about what the work is of doing digital preservation so I will work through them and the hope is that we should have a good, some time for questions and their 16 of them so just get ready for it. We might take a breather and stand or something. The first one is that a repository is not a piece of software. This is something that I think constantly becomes challenging to work through. For people, how they don't like their repository, their digital repository today and it will get a new one it will will make life better and we will wait until we get the next one but the important concept is software is a

tool you're using to do some part of the work. It is not the work this out. There's all kinds of work involved in using the software system to do the work and will constantly need to be replacing those systems going forward. You are in the process of a migration to the new one now. Your planning for the next one. You're planning on getting out of the old one and this is the reality of working in digital library systems now and into the future. The second point in this is it is not the software systems that make preservation possible. It is the institutions that we participate in and we work for. In that case preservation is always bigger than any individual or group. We need to, the institution are the things that commit resources to the future for enabling that long-term access and that was true for analog materials and it is all the more to true for digital materials for their continued care and management of those materials is essential. That brings me to number three. The tools can get in the way it is just as much as they can help. In the framing of digital preservation is a technical set of issues. Is easy to think that some super system will solve a bunch of our problems together. In many cases the more complicated the systems get the more we have built up dependencies that make it harder to work with those materials. It is often the case that working with very small, sets of tools and working with very simple tools can be helpful and can be a great way to get started with the work. These guys are all posted online. I'd also treated them out earlier so with the conference # so you can get them off of the conference website and check in with him later. Don't be like you need to read all of the text on the screen. It is a resource after the fact. >> The fourth is a sort of is then note but I think this is an important one. Nothing has been preserved. There only things being preserved. This is one of the challenges that comes from the OIS diagram that looks like a linear process that you ingest, you process and you make available. That last part always involves enduring commitments thereafter. It is also the case that we may do to do work with materials in the future to make them functional or usable just as we have in the analog world with any number of formats and migrations between different tools. This is that the work that is required to provide access and to make things reserved we are always in the process of reserving and that involves further and continued commitment of resources. This was mostly for when we talk to IT people about digital preservation. This is for the less who've it up and shoot it into space. One of the things that become very quickly we start working with digital information it is easy to Hoover up a lot of information and keep it in some state. Making copies of information is valuable. It is also deferring some decisions and work is skilled. But I think we're seeing this in a lot of different organizations were resourcing that went into records management or went into your staffing archives is often being handed off to IT or something that could be done systematically. Keep the emails or something like that and also as of other people you see are people in the back pulling her out. In any event the premise here is with analog material is not preservation and it doesn't work when you think about the work that is going into collection development, arrangement description and required for access in the future. It is not access to blobs of untold information. It is meaningful access that were working towards which is dependent on collection management and development and description.

>> Another one that is useful for talking with colleagues in IT is backing up data is not digital preservation. We're talking about lib guides digital preservation we need to worry about digital preservation and they say we back everything up every night. The core comment is that is going to work on the timescale of weeks and months and it will save you from systematic losses that happen. That might come up from Hill system migration or something like that. We talk about the scale that we need to talk about for libraries, archives and museums any sort of institution interested in long-term access we need to be thinking about format, the very rare incidents that could do damage to our collection and that means a longer timeframe and not that backup is not sufficient for doing the work we're talking about. >> Seven. The idea is digital objects are strangely hard to pin down in ways that you might think they would be easy. The comment about the fuzziness of the boundaries of a digital object a good example is you might have a PDF but insight is embedded links to all sorts of other resources and it look

like they are a part of the document but in fact they are alive pulling from some other resources or set of resources, web content is a good example where you can have all kinds of embedded material and it might seem straightforward but that is inside of the object that it is not. Or another good example is software tools where my call a web service. A recent find that I was looking for a copy of a spreadsheet in a web archive it that was a government produced spreadsheet. When you pulled it up the first thing he did was try to call a database online so immediately it was unusable but it store some records of how it functioned. It just wouldn't work in any of the ways that it was intended to because it was the front end to a database system. This makes it a lot harder for us to work with some of these materials. There is a baselevel what we can do with any number of files but at the same time it takes a lot of work to iron out where the boundaries are around an object and how they connect with each other. >> Eight is the idea that digital collections and objects and data sets are all terms that mean different things to different people and they are all things that enable new and exciting ways of approaching materials but for someone a document by be a single resource our data set and a lot of those vocabularies can get in the way. It also offers opportunities for us to be thinking about new and exciting ways for us to provide bulk access for using materials more probably. Take away from this one is to the think about new forms of access, increasing in the world were ready things one at a time is less and less the court use case for a lot of the material because they can be consulted or used or used in bulk to do new kinds of research and enable new source of use. Where halfway. Maybe we can take a breather. We're doing good on time too. >> This is a second-half. Number nine, digital preservation is fundamentally about making use of resources to mitigate. One of the things that is the most challenging about some of those diagrams and models for digital preservation is it makes it seems like if you do everything on the checklist that you have solved it. The important challenge in this case is that those checklist are based off assumptions and we're trying to think about how to put our resources together to get our information further along into the future but we cannot predict the future. We don't know what software tools will win out. We don't know which formats are going to be the ones that will come into play. We have not predicted for example how big of a deal mobile interfaces and tools to computers will be and when you think about long-term access to some of the resources we have, putting a mobile becomes hard and the fact that increasingly people are using voice as a way of interfacing with computers. The very paradigms that future how computing works and access information can change a shift in the future. But that think that is illuminating about this when we start working on digital preservation questions or issues is a what is the most pressing risk are and make sure that we address those first and building a way out from there. Given the case is one of the poor iterations I had early on around digital preservation working on the book is I was talking to someone who was going in a house resume about their collections. They had two staff, part-time and one of them said I am concerned about digital preservation and trying to get in on it and I said okay what you working on and they were going on a premise workshop next week. I said this is exciting, it was understanding and metadata understanding of events. What are the biggest things that you have right now? What are you worried about? We have the one-of-a-kind oral histories and on one computer, workstation computer this summer works on. I didn't want to go to the workshop. By a second hard drive and put that stuff on it and take the hard drive home and check it. I think this is one of the challenges that we start to take the risk blaming the most pressing thing is get the boxes off the floor sorts of things. Everything should be very empowered to dive in and start doing that work. Because it is invaluable information that many of us or organizations or appears that other organizations have is in that kind of situation. One spilled coffee at away from lost history. That is very easy. It is relatively unexpected. You can buy a second hard drive, make the copy and you have double the redundancy of your whole system. That was nine. >> Number 10 which is a fun one. That prescriptive notion of what digital preservation is involved laying out the thing everyone should do and how they should do it but if you are at a small organization and the materials you are working with our things that can be made

openly available you can upload copies of all of them into the archives and make them available or Wikipedia as primary source with no cost or time. You could extra copies and the network is a great example where some of the things that really matter to us are things that are managed through collaboration and partnerships and those things we can quickly check a lot of boxes on how that content is being stewarded and protected by joining and participating in the network. That is to say that the way you approach this problem does need to be anchored in her work and that is part of the concept of craft in the title. This isn't a science of digital preservation but the craft of preservation in the digital world much like the analog call about finding the best fit for the resources we have and making the cases for more resources when we need them but finding out where it that it depends on answers and finding them. In the same sense as a spilled coffee on the oral history collection the idea is that it is not well past time to start taking action. We don't need to go to a bunch of different works have to figure out which is have multiple copies of these materials, that they matter to us and get the boxes off the floor activities that are spelled out in things like national digital preservation. The most essential steps are there and we need to work within our organization to set prioritize doing that work. That released to a theme that is already come through in some other remarks which is highly technical definition of digital preservation work and of being complicit in the silencing activity in the past and records when the diagram comes out and everyone feels overwhelmed about the idea of it it passes off on doing something you can look at that is diagrams I think this is something for the most elite organizations in the country to deal with and do but it must not be. The reason is as evident in networks like this and networks in other fields the value of our biggest strength in ensuring access to the collection comes from the broad-based networks and communities of small groups and organizations that take on the response of being responsibilities of distributing global collections. 13 is somewhat complex and I will work through it a little bit. The digital media offers, provides us this need to think through collection development. The digital content is not simply a continuity of the existing ways that we have had materials available to us but it presents new opportunities and those need to be inks that would bring back into her conversations about collection development. A good example is organizations in our communities, web archiving or social media work there are the developments in digital access to information and digital publishing present fundamentally new kinds of content and how you think they fit in when organizations collect them. Web archiving, at the Library of Congress delving into some of the government websites through web archiving over time. If you look at how much video content is in their. It is massive and transformational and represents a very different way that people engage with and the government engages with people but it only is possible to capture that and bring that into continuity by thinking systematically about the areas that we build our collections and the new kinds of tools and systems that are in play. Forgetting that material. It is worth underscoring the new media are often parts of systems that are set up and enable massive surveillance of all kinds of people in communities. There materials that might not have ever been recorded that is recorded by the nature of engaging with us through online communities and we also have to be thinking about our, just because it is possible to collect and preserve access it doesn't mean that it is something that we should do or we need to think about privacy and how data gets used and made available. The 14th one is we should accept and embrace the archival sliver. One of the things that happens with digital information is digital hype is even that all or nothing set of ideas upfront. How do we just do it all. How do we get all of the digital information and keep it. We're not going to. It is complicated and hard and it involves our commitment to resources and time and it is best for us to start and continue to operate from the premise that we're not going to keep everything and the decisions we make about what matters and what matters to our organizations is going to be important and critical to the working out of analog material. But at the same time it is worth underscoring that the unlike analog information digital information comes with massive amounts of metadata for free. It has to because computer based on the idea, there's often a lot of files that are updated the metadata embedded in the file is larger than

the file. There are things like timestamps and materials that present opportunities to take the original order and structure of digital information and use it as waste to enable description and access and fault and also to enable us to get that shovel out instead of the tweezers which is borrowing from the more product, less process framework in archives. We had the chance to work as skill but think about when and how we should work with the shovel or the tweezers. >> The last one that I have, we have made it, congratulations. This harkens back to a couple of points that I hit on earlier which is the framework of thinking about with metadata how we impress the most impressing risk. It requires us to think futuristic leap. We don't know

, try to think about 100 years from now what the computing environment will be. Will be called computer. What future ways will be will be engaging with their accessing this information and the way that our materials will get to them is similar to the way that materials have gone to us if you think about what has gone what would we have without preservation micro filming. The way that materials were reformatted and made available in new spaces and the same thing will happen just at an accelerated pace with continual shifts in digital tools and technologies. In this case the field needs to keep thinking like a futurist to track those trends and do with things around that risk mitigation approach. Those are the 16 principles and I will briefly end before we have a good time for questions. With what can you start with today is our beginnings or get work that you are involved in. Six things to be working through is you really need to be intentional about what the materials are that matter. I have students go and work with small cultural heritage organization in my digital preservation course and the first thing that happens almost universally when they talk to an organization is someone needs to do an inventory. Someone needs to pick apart what things are aware and what things matter. The next up is getting the boxes off the floor which the India say is a very short paper that you can read an outline and getting multiple copies and making that you have processes in place that you can check that the contents are all the same. And the third part of that becomes establishing a regular schedule in which those materials are checked and improved so use start establishing a problem season practices and that MDSA is working. Connect with four people to learn more about and if this sounded interesting to you the book is available for free in the preprint form. There's a good chance that your library has a chance of it so you should check it out and read up some more on my approach to this. I will put this up here to which is a digital preservation resource. We are at time I think. I will stop there and no time for questions. We need to go into the next thing or do you want a question or two. Does anyone want to ask a question or two? Do you want to come to the microphone or say it out and I will repeat it. >> The question on digital preservation quality. I think the development of digital management policy, the key thing is it is what we have agreed that we should should do and what we're actually doing. There are discrepancies between the two things but the development and formulation of policy for digital preservation is essential for setting the rules and expectations between the different groups. Your IT organization, library staff, cataloging and all these different groups can pull that material together and have a shared understanding of what everyone's expectations are and some others, that can check to confirm that is the case.

>> Anthony Smith. We think I'll go futurist are the things that jump out? >> I mentioned a couple of things that are technology trends. Mobile computing, voice, different interfaces. I think that we really need to be concerned about is climate change and the effect that that will have on resources. Within that what affects that will have on things like energy and power. There are some really important work that is going on around taking green approaches and insisted that the sustainability in digital collections and carbon footprints for all of this work are really important for us to be thinking about. When we look out 50 to 100 years from now and play out some of the project trees that are going on around climate change and have become pretty scary and important for us to be thinking about where that redundancy will be between organizations to ensure access. Great questions. Thank you everybody. [Applause]. >>

Next up is awards. >> This is our presentation on library of the year awards. We always have exceptional libraries. All of you do a wonderful job out there every day. 1124 of you do your best to get the government information out so selecting only one of you every year is complicated. We see all of the work that you do when we go out and visit you, talk to you and as Mr. Crawford asked me to say we are so impressed by the dedication to keep American America informed in so many different ways. Denominations that we saw this year were all really deserving of recognition. And of course that made my job even harder to pick the librarian of the year. The tradition of picking the librarian of the year starting in 2003 assistant 21 libraries receive that honor. This year I am pleased to announce, thank you Ashley. This year I am pleased to announce the 2019 honorary library 0675. Who want to look it up quick? In the directory. William D McIntyre at the University of Wisconsin Eau Claire. [Applause]. This library has been in the program since 1951. They are large academic library. Within the library they have over 1 million volumes. And this library was chosen for quite a few were variety of reasons and I will tell you a little bit about them. One of the key things is a prominence of the depository material in the collection. They have done some incredible and interesting outreach activities to support engagement and to bring the community into the library. They do an excellent job of promoting the collection and promoting the FDLP. I know most of you would like to have this but their document government documents are in the basement and not in the closet. I worked in on what we had a closet. Are interested in getting those people who come right to the door to see the government information resources. The collection is fully catalogued , that is a feat in itself. Many of you have done and continue to work on cataloging and they have 126 items, one in 26,000 items and 86,000 titles. They have full-time staff members, Gloria roach who catalog it's since 1996 and student assistance to work help out in the processing. They have also taken advantage of some of the new opportunities to select. They are more moving more digital and they really have come in exceptionally. That outreach to the community, they do informational literacy instruction in all of the sciences. They have the future of social workers complete a policy research assignment using& An important part of their application is bringing middle school students each year to participate in the national history Day. They do use government information for those products. When I was thinking about that, I was thinking high school students, these are middle schools students so many of the kids are probably not even thinking about college careers. I know what they're thinking about but it is not college probably. Many of them have probably never, first time college students so they bring them on that campus and they bring them to that library. It really is a unique experience within the campus using what the academic village is all about. In that one little event that they do on a regular basis I thought that was a really good way to bring those kids and maybe future students to the campus. The depository coordinator, Robin Miller teaches professional development workshops to the area of public libraries as well. So they can learn more about how to answer questions using government documents. That is a really good outreach effort too. You never know when you're going to get that question. A lot of times people will go to the public library and if it is not a depository they need help. Robin has provided a lot of help to though staff. State teaches library sciences at UW Madison and information courses as well. They had done a citizenship Constitution Day, voter registration, lift guys to highlight government information and have a really active social media presence. They also do this goofy gov docs. We know where they are and what they are so they had have Facebook users when they posted that content. I also received, which I don't usually as part of the package, I received a letter of support from their representative, ride kind, a Wisconsin third Congressional District and he said thanks to the staff and program at the Megan Terri McIntyre library and have access to a broad range of government information and professional experience in translating that information into civic engagement. I am very happy that he knows what they do because many of your congressmen and senators don't know what the FDLP is but he obviously does. Good work Robin. Please help me in congratulating the McIntyre library at the UW Eau Claire on this well-deserved honor and please

welcome Robin Miller to the stage to accept the award. >> Will get a few photo shops. We will do it after because she has some remarks that she would like to make.

>> Thank you Gloria for the wonderful introduction. Thank you to GPO for organizing the work of 0675 McIntyre library at the UW Wisconsin Eau Claire. The library of the year award is a testament to my colleagues and their commitment to civic and community engagement. Every person who works at McIntyre library contributes to creating a library where anyone can discover access and freely use government information. Thank you to Jill , are library director and advocate for library users and civic participation. My husband likes to joke that federal depository coordinators are really just secret agents. I hope he is right and that since I am a first time attendee of the conference that this award means I will finally learn the secret handshake. Officially I am that depository coordinator but I hope we all know that this is a team effort. I don't even fill out the biannual survey all by myself. My colleague, Gloria roach has been Legging our collections is 1996. If you Google the phrase institutional memory I really hope her photo would come up. My colleagues in public service facilitate information, access for government information and all kinds of government information every day. Thank you for them for their availability every day. We stand on the shoulders of many information professionals including Leslie, Mary and Karen Pope whose retirement lot a great void in our library. That you also to test who appeared in the audience, our regional library and and to Nancy Nemec at the Wisconsin historical Society and Abby Nemec at the Wisconsin Department of Public instruction. Our state depository community is so small and I truly valued the expertise of all of my colleagues throughout Wisconsin. In comparison to other recipients of the library of the year award McIntyre library is relatively small in terms of ours death and the collection. But without minimizing the importance of our collection I want to say that I think that we are more than a sum of our parts. Back in 2012 my colleagues and I became deputized to register voters in our community. We decided to do this because in Wisconsin registering to vote isn't easy. So we thought we already help people to find information that will help them to become informed voters so we can also help them to navigate the relatively difficult process of becoming voters in the first place. As the election approach I was delivering stacks of voter registration forms to the city clerk every day. On the last day before the deadline to turn in all the forms I reached over to the city on my bicycle. I made it within five minutes to spare. Registering voters is an active civic optimism. Last week I saw someone wearing an [Indiscernible] sweatshirt. I thought about walking up to them and saying hi, I am a library, how can I help you? I suspect my offer would have been rebuffed but that sweatshirt was such a stark reminder to meet of the deeply cynical moment we find ourselves in. I am an instruction librarian at heart and in practice and I know that our jobs probably would not be any easier if government information were synonymous with objective [Indiscernible]. However I do have faith in teachable moments. And particularly and the opportunity to help library users synthesize information, government information and all of the information. In order to arrive at a truth. Like that bike right to the city clerks office I often think of library work as bobbing and weaving. We take it on ourselves to help people to navigate information. To make decisions and even to take action. Where our physical and virtual places of learning and of doing. Thank you to GPO for recognizing how we do this critical work at McIntyre library. [Applause]. >> Thank you.

>> Now it is time to break for lunch while we take arrest. We will see you back here at 2:00.

>> [Lunch Break. Will return at 2:00 PM EST]