[Please stand by for realtime captions]
>> [Access code 48 244 060# is invalid. If there has been a change, please contact VITAC at 800-590-4197 or cc@captionedtext.com]   is invalid. If there has been a change, please contact VITAC at 800-590-4197 or cc@captionedtext.com]
>> [Captioner on stand by awaiting valid access code.]
>> We are a little bit behind but we'll start as fast as we can. Thank you.
>>   [Captioner Standing By]
>> Good afternoon, everyone, and welcome to the Academy webinar, using DOE Data explore to find EO today. Library product magic -- manager office of type --
>> Before getting started I will walk you through housekeeping reminders. If you have any questions you would like to ask or have to the Academy webinar, using DOE Data explore to find EO today. Library product magic -- manager office of type --
>> Before getting started I will walk you through housekeeping reminders. If you have any questions you would like to ask or have technical issues, feel free to use the chat box located in the bottom right-hand corner the bottom right-hand corner of your screen. We'll keep track of all of the questions that come in, and at the end of the presentation the presenter will respond to each of them. We are recording today's session and will e-mail a link to the slides for of the questions that come in, and at the end of the presentation the presenter will respond to each of them. We are recording today's session and will e-mail a link to the slides for everyone who registered for the webinar. Will also send you certificate of participation to register for today's webinar. If anyone needs additional certificate of participation to register for today's webinar. If anyone needs additional certificates if multiple people are watching the webinar with you, please e-mail -- , conclude today's title of the webinar webinar along with the names and addresses of those attending. If you need to zoom in, click to zoom in, click on full-screen button in the bottom left side side of your screen. Too add a full-screen mode the blue bar on the bottom of the screen, click on blue return button to get back to get back to default view. At the end of the session we will share a webinar will share a webinar satisfaction survey with you. A URL will appear in the chat box. We appreciate your feedback, including comments on the webinar and the value of the webinar.
>> comments on the webinar and the value of the webinar.
>>   -- library department manager office of scientific and technical information. She has been in this role four years and -- web-based search t ools, providing access to publicly available scientific data, for DOE for the research. She manages the only pages, search tool and -- publications for DOE funding publicly accessible in the publicly accessible in the Department searchable database, pot and -- patent -- funded research and development. We'll have the microphone over to Sara, today, to take it from here.
>> Thank you, very much. I also want to thank -- for inviting me me to talk today. As she said, I am Sara --, product library a at Department Department of Energy, office of scientific and technical information. I will will be speaking today about experienced designed research tool DE for daily research more discoverable and useful. Let's go ahead and start with a few slides slides giving background and context. They DOE invested about $12 billion per year. This slide shows the funding goes to all of the national -- the national -- and grantees. All funding leads to scientific and and technical information research results such as journal articles, technical reports and course data. We anticipate today thousand FTI products annually, and work to make all of this of this available to you. -- mission is to ensure long-term preservation and access to the results of DOE research ensure long-term preservation and access to the results of DOE research investment, essentially boiling down to we want to advance science and technological creativity by making them available to the to advance science and technological creativity by making them available to the public. This slide shows you how we make we make these accessible. We Partner with DOE program offices and it's called -- scientific and technical information program in a national lab. We -- FTI through electronic pool E link, and we offer services ensuring long-term services ensuring long-term access by assigning DOI. We have search tools that make make these products

accessible. We have OSGi .gov, our primary search tool, and specific tools like DOE Data explore that offer unique features and features and different functionalities that will aid in data search and discovery. As mentioned, we had the DOA responsibility for ensuring access to DOE RD results. The DOE Data explore or DE was launched DOE RD results. The DOE Data explore or DE was launched in 2008. It's a search tool enabling you to you to locate and access research data resulting from DOE funding. DOE scientific research data sets are those resulting from R&D activities of the Department. That can be large or small, and they can consist of several types of information that is not traditionally text-based. It is worth noting we do have -- handled differently than other forms of STI. We will present the metadata but not the data it cell. We provide the metadata in a link to where the data resides. Through our data ID service, we assign the data with a DOI to link to the are those resulting from R&D activities of the Department. That can be large or small, and they can consist of several types of information that is not traditionally text-based. It is worth noting we do have -- handled differently than other forms of STI. We will present the metadata but not the data it cell. We provide the metadata in a link to where the data resides. Through our data ID service, we assign the data with a DOI to link to the data hosted elsewhere, either at a national lab, data repository, lab, data repository, University, et cetera. Through this DOE Data ID service, we are able to help what are able to help what we call data clients or DOE funded dated researchers to register their register their data would DOI. Why we organize the Discovery Channel? Scientific research today produces fast quantity of highly complex data. A lot of Channel? Scientific research today produces fast quantity of highly complex data. A lot of these data craters faced challenges to store data and data and making it accessible. And then organizing it in a a way that is meaningful, or making it useful for current and and future research, so we need more and better linkages across our data objects so we across our data objects so we can provide contact to the data and render it reusable for the end-user. We wanted to find a way to easily create linkages between associated data to make contextually informative and way to easily create linkages between associated data to make contextually informative and reusable, and as product manager for DE, my goal is too DE, my goal is too it or reflects the ways in which researchers organize their data so researchers organize their data so that users can find and discover the data that is of interest too them. We held a number of meetings with researchers and stakeholders and listened to what they had to say about their needs in terms of a data search and discovery tool, and we went for their develop a plan to reorganize a redesign DE to better reflect inherent relationships between data objects. This is meetings with researchers and stakeholders and listened to what they had to say about their needs in terms of a data search and discovery tool, and we went for their develop a plan to reorganize a redesign DE to better reflect inherent relationships between data objects. This is a multiphase restructuring project. We are trying to create meaningful contextual relationships between data objects to make the data more accessible. Phase I was completed last year. Phase II is ongoing as we work with our researchers and other stakeholders to make further improvement. That is kind of what this session meaningful contextual relationships between data objects to make the data more accessible. Phase I was completed last year. Phase II is ongoing as we work with our researchers and other stakeholders to make further improvement. That is kind of what this session is all about. During the sessions we have heard from researchers and stakeholders having multiple types of records to represent relationships would be useful. We created these three datatypes. In restructuring DE we created a top-tier or broad type we are calling the data project, and heard from researchers and stakeholders having multiple types of records to represent relationships would be useful. We created these three datatypes. In restructuring DE we created a top-tier or broad type we are calling the data project, and this is a scientific, or represents a scientific research group, a data center, a user facility, or other DOE Data funded research data and turn a DOI. The data collection is a package of related data sets that does have a DOI for the entire collection. is a package of related data sets that does have a DOI for the entire collection. Finally, a dataset, as we define it is a single instance of data whose boundaries have been defined by the data submitter with an

single instance of data whose boundaries have been defined by the data submitter with an associated DOI. Here this graph shows the hierarchical nature of our structure. The data is not as mentioned hosted at OSGi but resides at the national laboratory, laboratory, data center, user facility, college or other website. With the addition of the project the project record type top data clients, creators, owners, can more logically logically organize their data within DDE, allowing them to present their data data in a contextually relevant manner. Initially this started out and you can see it started as a thought experiment. We made a presentation by data con, had data published, and then we were on the hook to make it then we were on the hook to make it happen. These three types of records represent the various levels that occur during DA to creation and u se, and allows you to search and discover data through the natural hierarchy will go relationships that exist creation and u se, and allows you to search and discover data through the natural hierarchy will go relationships that exist between data projects. I was show you how this works now with a couple of screenshots. With a new record structure of DDE top it presented for complete redesign of the search interface to encourage users to search and navigate through the records based on these three new product types, we needed a new filtering mechanism allowing people and navigate through the records based on these three new product types, we needed a new filtering mechanism allowing people to easily store between project collection and data sets. The highest level of record usually will default to a project, will default to the top will default to the top of the search results with the project. This mimics most of landing landing page designs navigation and users with more general information before drilling down to down to specific data. It provides a little more context context for the data. The user will be able to toggle between project, elections at data sets using the the tabs I highlighted. At the top of the result list you can see here. We are also including additional information and navigation options for result to result list you can see here. We are also including additional information and navigation options for result to browse among the records. LISTSERV each product record metadata might be hard to see. It's a number of associated data collection and data It's a number of associated data collection and data sets. Selecting any of these will take user to result list for that record take user to result list for that record type. The reinvention of DDE also presented the opportunity to improve research, experience, data discoverability through filtering mechanisms. You are now able to filter by research organization or project on the results page, which on the results page, which allows the user to refine their search to a specific organization that is producing the producing the data, along with the existing create a filter, so you can drill-down in your results and five more relevant record. Offering additional filter options on the citation page allows the user to discover additional projects or collections the citation page allows the user to discover additional projects or collections or data sets that they may not otherwise have found a. Like the results page you have the option to toggle among projects and associated collections and data sets have the option to toggle among projects and associated collections and data sets either using the tabs at the top of the page.You can see this is a screenshot of one of our projects in the data page was also can Dutch includes the -- where the project project would primarily be. This slide is another illustration of ability to navigate through the three types while staying within the overarching of ability to navigate through the three types while staying within the overarching project here you can see we're moving from overarching material, project record, into one of their collections, and then you then you can see the data sets that are within that collection. We also recognize the value of being able to view information about related data sets within the context of the overarching within that collection. We also recognize the value of being able to view information about related data sets within the context of the overarching project. The option to see additional metadata for metadata for related dataset is available via an expandable details tab right there. You do not even have to go to the detailed citation page for the dataset. You can stay within the project record, see the data call see if it's relevant and then go there if you would like if it's relevant and then go there if you would like too. As mentioned got our data ID service previously, OSTI became member of data site in 2011 in 2011 which allows OSTI to assign DOI

two data sets, as a became process became process and identifiers with further data availability for citations, discovery, retrieval reviews. Through data ID service, researchers can submit metadata and receive a DOI for the researchers can submit metadata and receive a DOI for the metadata. In this slide it gives you an overview of the process. It highlights the improve data discoverability. As mentioned we mentioned it doesn't matter data sets different than other forms of OSTI. We do not get the actual data. We collect and preserve metadata and disseminate metadata with links to save it doesn't matter data sets different than other forms of OSTI. We do not get the actual data. We collect and preserve metadata and disseminate metadata with links to save it elsewhere. The Principal Investigator, the researcher, data for research still owns the data and still is responsible for providing access too it pick the metadata for individual dataset is submitted data for research still owns the data and still is responsible for providing access too it pick the metadata for individual dataset is submitted via the DOE Data ID service to OSTI repository a link by the data Owner. The data client that anticipate a high-volume or high frequency of submission can develop internal processes that will pull metadata from the client anticipate a high-volume or high frequency of submission can develop internal processes that will pull metadata from the client source, format into correct SML, and they can send it to OSTI via our API. Once the metadata has been validated and assigned a DOI, it is into data site and then published as a record in both DOE Data explore Once the metadata has been validated and assigned a DOI, it is into data site and then published as a record in both DOE Data explore and OSTI .gov. It makes data sets discoverable to a wider audience of people. Now with the addition of specific referential metadata, we can establish relationships among records and these linkages can be a wider audience of people. Now with the addition of specific referential metadata, we can establish relationships among records and these linkages can be added. Collection of dataset records can be created, aside DLA -- the 0% dataset and the related to one another using this functionality, and the the hierarchical relationship can be manifested in related to one another using this functionality, and the the hierarchical relationship can be manifested in DDE. Many of us know the benefits of assigning DOI to research objects, but here are a few important high especially for benefits of assigning DOI to research objects, but here are a few important high especially for data. The are EA working group on digital data citation recommends process and identifiers to data to answer ensure the data is preserved and accessible in the future, allowing for citation and reuse. digital data citation recommends process and identifiers to data to answer ensure the data is preserved and accessible in the future, allowing for citation and reuse. Data updates, dataset with its own DOI can be updated and reversed and forgets not so easy when the data in question is part in question is part of a journal package for the data here can can be uniquely identified in the face of the data being added got deleted added got deleted or otherwise modify database for longer periods of time. Permit and Scott -- number of table numbers provided to the publisher to the publisher supplement to the article, and part of a larger collection collection of data. Having DOI's minted and referred to where the data data resides in perpetuity, including very large data sets in many very small data sets supports referencing and reuse. Dynamic data, a huge issue these days, being able to reliably and efficiently site entire or small subset of referencing and reuse. Dynamic data, a huge issue these days, being able to reliably and efficiently site entire or small subset of dynamic data in large and dynamically growing collections collections is very important. Five.if the data assigned it's own unique DOI can be indexed by large search engines as well as being discoverable in a publication. This doubles the potential large search engines as well as being discoverable in a publication. This doubles the potential of D eva -- data discoverability. Visibility, more visibility, especially visibility independent of a journal article makes the dataset with its own DOI own DOI more portable and useful for -- searching application. A dataset that can be retrieved via its own, and in quotation marks, identity, increases likelihood a future researcher will see something in it and experiment with that component in a way that may not have occurred had the data been reviewed within the combining context of an article that was researcher will see something in it and experiment

with that component in a way that may not have occurred had the data been reviewed within the combining context of an article that was originally supplemented. Research DOI services because we realize we need too meet too meet the researchers where they are. We want to serve our community, and within that community there are a number of use cases that will illustrate the usefulness of our to serve our community, and within that community there are a number of use cases that will illustrate the usefulness of our service. Granularity called the first bullet, we we have on atmosphere, -- measurement program. They are getting a DOI for their individual instrument, and using specialized citations to slice the dynamic data into DOI. Here the researchers needed guidance on what level to get that DOI. Two they want to get it for the instrument itself? Two they want to get it for a day worth of measurements, that sort of thing? Is included, do you want to get a DOI for a beam, or it for the instrument itself? Two they want to get it for a day worth of measurements, that sort of thing? Is included, do you want to get a DOI for a beam, or for an individual -- ? Or even smaller than that. We work with our customers to define the granularity at which they want to find their DOI. to define the granularity at which they want to find their DOI. Thesecond bullet got here our examples of the materials project. Each material within the materials project gets it's own DOI, and there are tens of the materials project gets it's own DOI, and there are tens of thousands of materials. Another recharger may use several super materials for their research, so they now have the ability to package of multiple super materials for their research, so they now have the ability to package of multiple DOI's to create a collection, and assigned the collection the collection with a DOI to then be referenced to paper, or see how the research community is finding it see how the research community is finding it useful. The two of redesigned allows data producer to present day -- data in a conjectural manner to to the specialized interface. Sharing Call some of our researchers want to be able to share data outside of the publishing world. It and I DOI is an easy and stable way too point to researchers want to be able to share data outside of the publishing world. It and I DOI is an easy and stable way too point to a data location. Is also goes to the next bullet, a lot of researchers produce data that will never be tied to a publication, but that can be useful to others of researchers produce data that will never be tied to a publication, but that can be useful to others conducting similar research. The example here of being comment data. Or researcher may only want to submit a small slice of the data to a publisher cost perhaps to fill in a public access mandate. This requires only the data in the publication. It can simply be a table or a graph but there's usually much to submit a small slice of the data to a publisher cost perhaps to fill in a public access mandate. This requires only the data in the publication. It can simply be a table or a graph but there's usually much more data that went into creating that graph, which is useful for you. In the last two. Whenever researchers want DOI for data not yet, once again hammer ready or not yet complete, but they but they want to get DOI they can share within the research group or small community. We offer the ability to reserve the DOI, which small community. We offer the ability to reserve the DOI, which assigns the data with the identifier but does not make but does not make the data public. This allows for sharing within a group are being able to submit the paper for review with the citation already a group are being able to submit the paper for review with the citation already in it. I will bring up quickly another opportunity to talk about interlinking researcher objects. It can It can be sing with our new software services platform known as DOE code. One of these services being assigning DOI to software. This allows for stronger connections between code, publications, and connections between code, publications, and data through citation. I encourage you to check that out as well. Where are we going next? What we like to call the modern toolkit for the modern environment. Researchers have focused on tying a digital not between dataset, publication, software, publication, software, related research objects. How can we start to better interlink this data, software, and publications to provide a more comprehensive research environment? We may read a publication which may mention some data, but it's not only one place. Maybe mentioned in the body of the paper or environment? We may read a publication which may mention some data, but it's not only one place. Maybe mentioned in the body of

the paper or reference. Often in unique situations we have the mandate to collect all kind of STI, and allows us opportunity to interlink also to research objects because we have access to all of that information. One way we can do that is the mandate to collect all kind of STI, and allows us opportunity to interlink also to research objects because we have access to all of that information. One way we can do that is by assigning DOI's for the other research objects, the goal or idea of connecting the research results. We work with Google to index goal or idea of connecting the research results. We work with Google to index are records. For those who may not use are use are search tool, you may search Google and Landau one one of our records. When you come to a journal article, you can then see the associated data or software right there within there within the context of the publication. Finally, these are areas were exploring providing better services to our community. Of the biggest is how to better communicate with our data producers or anyone producing to better communicate with our data producers or anyone producing information to the value of assigning a percentage identify. It not only helps with discoverability and reuse, but we'll help to tie the digital not between data, publications, and other research objects like soccer. It provides that comprehensive research environment. Another question we do have is, how do we create additional hierarchical associations discoverability and reuse, but we'll help to tie the digital not between data, publications, and other research objects like soccer. It provides that comprehensive research environment. Another question we do have is, how do we create additional hierarchical associations like a lab world, associating use of facilities like the Argonne national Lab anti- avenue to the overarching lab so that a user can find data related to an instrument, instead of do just a project? Many is a facilities so that a user can find data related to an instrument, instead of do just a project? Many is a facilities have large experiments so how can we better help to organize the data being produced to show it in the larger context of the experiment, the instrument, the to organize the data being produced to show it in the larger context of the experiment, the instrument, the lab? Lastly, some data can be logically related logically related to more than one project because do we address the linkages and explores them in 206 President to buy. As we move forward we will work with data clients and interested stakeholders to provide the best services we can. Are goal is to make data more move forward we will work with data clients and interested stakeholders to provide the best services we can. Are goal is to make data more accessible, works those understandable and -- research objects earlier in the search experience. That is all I have. This is an ongoing endeavor. I would love would love to hear from anyone in the community, ideas that might help improve our search tool and better serve search tool and better serve information discovery. If you have any questions, that would also be great. Thank you. you.
>> Thank you zero. Joe -- from GPO. Great presentation.
>> Thank you.
>> Any questions for Sara?
>> [Captioner Standing By]
>> Now is your opportunity. I got a nice shout out, nice thank you from Susanne. More shout out.
>> Sometimes I think when there is few few or no questions it's because the presentation was so great, and you cover and you cover the base. That can be the case today, let's see if we have some questions. questions.
>> Katherine loved it. Thank you so much.
>> Thank you.
>> Somebody asked a question about certificates. You will get that -- perhaps you will get that this afternoon or tomorrow.
>> Sean is going to put the Satisfaction Survey put the Satisfaction Survey into the chat box.
>> Please, for that out there.
>> Did you put it in there?
>> Yes.

>> [Captioner Standing By]

>> Sean had the Satisfaction Survey earlier in the earlier in the chat box. He will be posted there below some some of the comments.

>> Somebody asked about slide presentations. They will also be available on our site. They should be available tomorrow.

>> Any more questions for Sara? We've got quite a bit of bit of time if needed. Sara is happy to entertain any questions.

>> What I think I am going to do is go into my wrap-up comments. But we still have time for going to do is go into my wrap-up comments. But we still have time for questions for sever. Please, keep those coming in. The first thing I see is that Sean just put in the chat see is that Sean just put in the chat box, a link to a great article article by my colleague, Scott Pollie, that talks about at the OPO Academy, and all of the things of the things we do webinars, offices, et cetera. Please give that a look when you get a chance. First off, I would like to thank Sara for to thank Sara for a terrific webinar.

>> -- thank you for the opportunity.

>> Fantastic. We welcome her back anytime she wants to come back. We would like We would like to have more webinars when her organization is doing new things. We would be happy to have updates and information when they are doing new things. Also I would like to thank my LSM colleague, Sean -- for his great work today, tech support. In my colleague. I misjudged the time I got into the webinar a got into the webinar a little a. I apologize for that, but it was great work. Thank you, audience. I know you audience. I know you enjoyed the webinar is much as we did at GPO. Do not forget our upcoming webinars. That they were scheduled for September. The first one is next week week off Tuesday, September 18, and out of enhancing your intelligence Agency information resources IQ, Part 3. Defense Intelligence Agency a National Security Agency. Plus in October, we have our new depository librarians Institute on October October 10 and October 11. And of course, our big federal depository library big federal depository library conference on October 22 through 24, 2018. A lot of those major programs, if you cannot make it to Washington, some of the major Washington, some of the major programs will be streamed and recorded, so please think about that, attending in person, or attending some of the major programs virtually. You will receive receive notice of all upcoming webinars when announced if you sign up for our our news events e-mail list service at FDLP .gov. From the FDLP Web page listed in the section at the bottom of appealed .gov homepage, .gov homepage, you can view a calendar of upcoming webinars and other events, access past webinars, and link to a Web form to volunteer to present FDLP company webinar. I am sure there are people in this group the present to volunteer to present FDLP company webinar. I am sure there are people in this group the present a great webinar it doesn't have to be about Agency resources. A lot Agency resources. A lot of our good webinars are about how you run your depository, and if you do a presentation locally, statewide, nationally, presentation locally, statewide, nationally, in another venue, we can present -- . -- has done many webinars and she has another one coming up in September. Be on the lookout for those. Let's see if we have any final comments for those. Let's see if we have any final comments for Sara Rick we had plenty of time time to get questions in if you have them.

>> [Captioner Standing By]

>> Thank you for all of the shout the shout outs and thank use. You did a fantastic job, Sara. It was lovely.

>> Thank you Thank you very much. Thank you, everyone, for listening in.

>> Okay.

>> It looks like the audience is being quiet today. I think I will reluctantly sign off, but I would would like to thank you once again, Sara. Terrific webinar. Please come back many, many times to present more webinars. We would love to have you. Thank you, audience. Please come back back for FDLP Academy. Come on back to our next webinar and future webinars. Have a great rest of the day. Thank you.

>> Thank you, job.
>> Goodbye.
>> [Event Concluded]