

## Reaching New Audiences: Using Technical Reports for Research in the Humanities and Social Sciences – Audio transcript

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Please stand by for realtime captions.

Hi everyone, and welcome back to day two of our conference. You joined us for our session on technical reports, and our speakers are Larayne Dallas from the University of Texas. If you have questions, please put it in the chat box and the speakers will address it at the end. Now I will pass it over to Larayne to get it started.

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I am so pleased to be with you, and also to be here with Tom. We are two people who are especially interested in technical reports, and will give you a little bit of information about that. Tom, for Texas Tech, and I for the University of Texas at Austin, our representatives to trail, and I hope a number of you yesterday the presentation about the 15th anniversary of trail. We do know that they were going to present. It's a happy coincidence that they get that information, and that will be additionally perceived about technical reports using those and using TRAIL in this presentation. We are going to give some basics about technical reports, probably for most of you that will be -- And then we want to talk about extending the use of technical reports beyond what most of us think of as their basic -- Just their meanings for STEM research. And then we want to talk about the harder topic, knowing how to identify and find reports to use for other areas of research. As far as background information, what our technical reports? The information presented here is actually from the department of energy. In the first part of their definition is sources of scientific and technical information. So we are saying beyond that, it is usually a given -- People think of scientific and technical information. Technical reports come from someone's research project, a group's research project. They go into depth describing the whole thing, processes that they use, what resulted from their work, and the conclusions of that result. Technical reports are valued by most for the depth of the description of the work. They go into more detail than is usually possible in a journal article, or a conference presentation. Why a technical report? As I mentioned, technical reports describe what is going on in a research project. The idea is to inform the person or group that has commissioned the work, usually the person with the money is paid for, the in-depth discussion is there. Usually these are not peer review. We don't think of that as a problem. There is oversight on the project. It allows the work usually to be issued more quickly. And investigating what to include here, I valued the work of Neal Brearley, who wrote an interesting article on technical reports in scientific and technical communication. He mentioned something I hadn't thought of before, but technical reports are user directed. They are not put out in the world for someone just to find. They are for a very specific audience. We might argue if that differs, but it's an interesting point to consider. And just some points about history technical reports, including why they might be important for history of science topics. He notes that perhaps the earliest technical reports in Western research were the informal scholarly communications that Copernicus and others prepared writing to other researchers. Most of us would think of government agency reports, and again, thinking of early work, I think of NACA. I think of it a lot because of my work as an engineering librarian. That's the national advisory committee for Aeronautics, national Bureau standards, many other government groups produce technical reports going way back. We research labs both with universities and companies, many groups produce these. It is generally considered that there was a boon of reports after World War II. One of the pluses for technical reports is that they are considered at least usually to be primary source material. Just in defining the type of material, most would put these in the gray literature category. They kind of debated

this with my team at work, and everybody else that oh, yes. The definition here would put them there. From agencies or organizations whose activity is not publishing. And as especially the older ones among us know, historically, technical reports had quite a reputation for being hard to discover because the indexing was mutually not rate and then hard to find. We would often be annoyed in those years ago. Folks would be citing things that were very hard to find. Another part of access problems with technical reports, of course, is that organizations come and go, both in government and in the research community. By research communities, I should pause on that and say companies, universities, as opposed to government organizations. And then, with the Internet, many things changed, of course. And that gave us new access in all sorts of ways and expectations with new indexing product. Lots of new text. Recently, I had an example in my own work where I realized I had forgotten some of the things I was sure I would never forget about. Some of the old ways in which we looked up and verified technical reports. So in this new way of doing things, as I think most of you know, some of the old tools like NTIS, which had just been indexing product, added text and pull documents for many of the indexed items. In holding products developed. So from the department of energy, suddenly we had not only indexing, but fulltext product. NASA reports, technical reports. In the so-called think tank database is from Rand for technical supports, and groups such as TRAIL, providing indexing and fulltext documents. It's so much more positive as to be able to find indexing and text. So we are maintaining that now, technical reports are much more irregular sort of information with this form of indexing. I'm going to pass the ball to Tom. What's. I'm not so slick. I have to say yes, I am passing the privileges to him.

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Okay. Thank you, Larayne. So, we were talking about a electronic tool, but I find that we want to think now technical reports as a regular source of information that can be useful to a wider range. We are seeing improved indexing. It is easier to verify the information and easier to find all the different databases that are out there. And so, we were looking at expanding the usefulness beyond STEM. You see the history of science. We also feel that it adds research depth, background information, and data to historical topics. And I think you will see examples of this in some of the later information I talk about. We also have found in our research that there are technical reports and subject areas that have been around for a while, including architecture, education, and through psychology, and sociology. So along with Larayne, I did want to complement Laura for their excellent TRAIL presentation. I did want to mention that I am the current TRAIL membership, and I think the topic we are talking about has come up previously in some the committee discussions. I also come from a nonscientific background and fell into technical warts with a Texas Tech TRAIL rep stepped down and I was asked if I was interested, probably because of my government documents connection. And I consider one of the best things that has happened to me. As a documents librarian, I was already aware of the const the challenge of collect and preserving the information. With depositories dropping out an indoor downsizing, efforts for TRAIL to provide permanent access are more and more important. Larayne and I began our literature review in scientific areas. Myself, I look at numerous slides for scientific and engineering and did find a few references to technical report usage in nontraditional science areas. It was our interest to see if the idea of usefulness of technical reports among the traditional STEM usage was possible. And so, part of the answer was found in my own back yard, related to the Lubbock tornado of May 11th, 19 70, an event which I was previously ignorant of coming from Colorado straight out of library school. I soon found out that it was a defining date in recent Lovick history. I also found out later that I had a personal link to it. So, we use among our examples, the Hyatt walkway collapse, which was very familiar to members of TRAIL, and brainstormed other examples. So the examples that we are going to touch on, you can see the Hyatt Regency, the Lubbock Texas tornadoes. That should be tornado. Some early aircraft, and historic fishing methods in American Samoa. So this example, which is on the UMT digital library showed a definite uptick after a podcast a few years covering this incident. And so, when I show you the

next screen, you will see some upticks in usage. One of the ideas that Larayne and I had was that technical work warts, as I mentioned, and bring more depth to research on topics outside of the heart science. Often times, the detailed information in these were words can supplement information for non-science sources and perhaps let people's appetite for more detail. I think of the true crime aficionados who often delve deep into the intricacies of forensic science. But you see now, some of the -- An uptick, I believe, you can see in 2018 and 2019. So this report provided details descriptions of the incident and subsequent investigation. It has been used as source material and a lot of news stories. And as you can imagine, for Kansas City, this was a defining moment in their history. We feel that the information in this technical report can be used in areas such as engineering ethics, legal, city government, at that or a discussions. So for the Lubbock tornado, this happened May 11, 1970, and as you can see, there is a number of the reports were published on one of our webpages that is linked, I believe, to the city government webpage. And it has a number of links to different technical reports and other things. We do have the Lubbock tornado website, which created -- And in fact, last year, we had the unveiling of the memorial to the Lubbock tornado. And so, this is still a seminal event in our time. One of the outputs of this was the creation of the research center at Texas Tech, which follow this tornado. I also had mentioned a personal connection. I found out that my godmother, Mary Pat Terrace, had been pregnant with her oldest child at the time and was in an area that was very close to the tornado. And unfortunately, she was not able to move out of the area. And so had to shelter as best she could under a bed. So that was something that was something I hope we never have to experience again. And so far, we have not seen any tornadoes, but a few smaller ones have touched down near in the intervening. So I'm going to pass this over to Larayne .

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Some of you may recognize this picture and this NACA technical note from a little article I did for documents to the people. Just an astonishing airplane. It didn't fly. One thing leading to another, as Tom indicated, there is actually, on YouTube, a video -- Newsreel video -- With this plane in the water not flying. Interesting. And then once I -- This was just a personal interest. Once I discovered this technical note, I noticed the author, Max Monk, and found out that he was German-American hired by NACA. Actually brought from Germany to America to help research programs with NACA get off the ground. And so he was an important early researcher. But of course, for someone researching history of Aeronautics for the U.S., for the world, the obvious thing is to go to the technical reports. So another example, this one from NASA, a NASA special publication, quest for performance: the evolution of modern aircraft, so here you see another try plane. This one actually flew. And a third item, a NASA technical memorandum covering from 1903 to 1974. From within that document, I thought that was -- This was not my work, typing in the Royal aircraft factory notes. I circled it in red, but this was already there. The real aircraft factory, it was a good idea that turned out poorly. They kept building them. It wasn't a great aircraft. History of science is one of the most obvious examples when we look at the technical reports for historical literature. Let's see. Now back to Tom.

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Thank you, Larayne. This is one that I found, and I found it particularly interesting because it's a great example of a resource not only for historians, but for anthropologists, for those interested in travel, et cetera. These are some other examples that we found through NTIS, and the national technical resources library. And as you can see, it's a wide variety of resources that can have a number of uses and different fields have this. One on arts education, home went dirty, at Cetera. These are also a few others we have found. Again, psychology, physical fitness. Tragic bazooka accidents, et cetera. So I'm going to move it back to Larayne .

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And again, this was just a show and tell to help you think about what materials might be available in the technical reports. And here, you see the TRAIL search interface . The psychological reaction of people to

windows, a literature survey. This is the national Bureau of standards report. Ethical guidelines and practices for U.S. medical professionals. And credit to Tom for this one. We know that sometimes these reports are hiding out. Here's a university developmental report. It's a technical report series. So you see, for example, estimating causal effects with graphic markup models, and highlighted the honesty through repeated interactions. So now is the time to talk about the organized approach. Suggestions on how to find these materials when you decide, yes, I want to include technical reports in my usual checklist of recommending to students, suggesting to researchers, include technical reports. There are certain basics that we all know at least have ingrained somewhere in our brains. When there's an obvious connection to government agency, we know to go to that agency's report. And there are some very good places to go. And of course, the multi agency rep warts. I'm sorry. The multi agency indexing and full text databases can be great. I will say that science.gov can be overwhelming, but, still very helpful. So in multi agency, I always Inc. of NTIS TRAIL and science.gov. It can be much more of a challenge after that to separately look for technical reports. I would say they still are often separated out so that we have to look for them separately. In world cat, they would not immediately be separated, but they can be searched for with a genre label. Also, thinking creatively, you might go or direct others to go to appropriate think tanks. RAND is one of those obvious kind of organizations to consider. And as you saw with the Carnegie Mellon velocity department, university research centers, these researchers are hired to work on a particular area of investigation. See if you can identify a special expertise area. That's good. Some of these will come up in the standard indexes. That's still a limit. Often, they are not in our standard databases. But I will stay we sought to think creatively, and Tom, did you want to add anything here? I will pass the slight control to you.

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Okay. Thank you, Larayne. Let me go to the next one. But before I do, I think that we have found that finding technical reports means thinking creatively, searching in a lot of different locations , looking at the different think tanks like RAND and Mitre, and university research centers, which have a lot of local resources like the one I mentioned at Texas Tech. We also find that there is great value in having technical reports included in our federated searches systems. And then we can make local decisions on what is included in the indexing. We have found that some categories of reports do remain elusive, such as university research Center reports. I've noticed that Texas Tech there have been a few attempts at locating and getting permission to digitize some of these reports from different organizations across campus. So these are a number of the conclusions that we had come to. As a documents librarian, I see the challenge of access technical reports paralleling the general challenges of accessing government information. Technical reports are not as readily accessible in every academic large public library, as our government publications. So providing access to them becomes , I think, the push of digitization, which is being done on a number of fronts. We also feel that more access to the riches of these technical reports and government information will result in richer research results. So we do encourage all librarians to think out how they can expand their students research knowledge by suggesting that there may be a technical report that might enrich their research effort. Thank you. Larayne, did you have anything else you wanted to mention?

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I am muted myself, so I need to go back up there. I apologize if my voice was not strong enough. I know that's not a good way to try to listen to a talk. I was just checking the chat, and I have to go way down to the bottom to get the exact material there, but someone commented on talking with experts in the area to get recommendations, and certainly that is a good idea. This is an area where it's just good to stop and think. I especially -- I needed to be reminded of this area of work. Tom had the idea for this presentation. He mentioned those two big areas of research as part of his work, the Lubbock tornado and the Kansas City walkway collapse . So it's really interesting topics, and again, very good investigative work on the part of government agencies.

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Jessica, thank you for that suggestion about the CGP and the lab that you had learned a lot. Mary, thanks about that idea. That's something that I'm not aware of us doing at tech. But I think it's a great idea. This could be going in tandem with our push on getting faculty to put material into our digital repositories, which, as always, you will have some areas that participate very strongly, and others that are a lot more reluctant.

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We have one research group at the University of Texas at Austin, where they have a library separate from the main library, the University libraries. And they give us copies of the print technical reports so that they will be catalogued and have records to be found through world cat. There's probably another way to do that, but even though their reports are listed, or available electronically, giving those has been a good way to make them, the records more widely available. Most of the groups don't give us any kind of a copy anymore, so that they will get -- So the reports will get cataloging and wide exposure.

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While I agree that even with all the work that has been done, there is still a lot that is not been digitized. And certainly, working with TRAIL, we are always finding new avenues, and every so often will have a private concern drop a bunch into our laps. Offers, at least, for us to consider. Mary, thank you for that comment. I am also the patent and trademark person at tech, and I mentioned to my students a lot that if you are meeting up-to-date, cutting-edge information on some topics, that can be the place to go. But also, for historical information. John, you are right. Hobby trust is an excellent source of historical tech reports. It's nice that there are so many resources, and I think I remember in yesterday's meeting, some but he has suggested the Internet archive.

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If anyone knows ways finding out about that is indexing sources for these reports, and we've overlooked, we are so glad to have you share that information. Sometimes, I just go to Google books and materials appear. I really have found Google books to be a great help.

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James Vega had mentioned copyright, and that is a very good point. Also, with the technical reports, it includes not only these ones done on contract, but they will recredit foreign publications and then have to look at what is her copyright rule for those countries.

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Also, I understand that NTR L no longer accepts donations. I think that is been for so time. They no longer accept donations of technical reports, whereas they use to accept if you could -- The researcher would give several copies. It could be archived there. It was really good.

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James, that's a great point. To get them catalogued and get them into world cat. Because I know when I can't find a title, I will go first to WorldCat and then I will go to some of these other resources to see if I can find it. If it's on WorldCat, it's much easier for them to Rick rested through document delivery. These have all been some excellent suggestions and such. And I think this continued crowdsourcing, digitizing, identifying, locating -- I hope will continue around the country and internationally, as this is information that is so valuable to so many researchers.

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I will add one more thing. Every once in a while, this comes up. We were able to buy a copy of that technical report that didn't seem to be -- It was not easily available. We could buy a copy, and then added to our collection so that there was a copy in WorldCat, and others could borrow it from us. They put a link in chat for us to follow. Seems as though we might be at the end. Anything else?

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I don't have anything. Very much appreciated.

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Thanks everyone for the kind comments and for your additional information.

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Thank you those who were here for a wonderful talk. We will join everyone back here for day three of our depository library conference beginning at 12:00 Eastern. Thank you.