

WSU Libraries: Sources

OLIVIA: Hi, everyone. Thanks for joining us tonight. I'm Olivia, the Global Connections Event Moderator. And tonight we're welcoming back Lorena O'English, and she'd doing her third and final part of her library series,

Source for [INAUDIBLE] Scholar. If you have any questions, go ahead and put the chat box, and I'll catch Lorena [INAUDIBLE] she misses them. And stay tuned afterwards for the survey that we'll put in the chat box. Other than that, I will turn it over to Lorena. She'll get us started.

LORENA Thank you, Olivia. Let me set this. I kind of adjusted it and i have to start all over again.

O'ENGLISH:

All right. So what I'm going to be doing talking about today, is secondary sources. Or really, primary, secondary, and tertiary sources. And you can see a big part of the title of this webinar is, it depends. We're going to see that's really, really true. It's kind of tricky topic, it's one of those things that 's very situational.

So we'll kind of see some examples as we go along. So-- I always like to start off with-- I pressed the wrong button there. I always like to start off with a question. And so you can see a little bit of information about me over here.

This is me, and this is me. I'm really not a cartoon, you can actually me in the screen, but I like cartoons and comics so I like those images. And this is my beloved dog, Heidi, who is not doing so well, but still ticking on.

And the question that I wanted to ask you was, what is the last thing that you created? And for me, obviously, it's this PowerPoint, but what's the last thing everyone here created? Think about a work of art, or writing a paper, or saying something on social media, or whatever.

So I want to start off with this graphic. And really like this graphic a lot, because it's hugely complex. And one of the things that you can see, is when we talk about primary and secondary and tertiary information and those sorts of sources, what we see is that these are all part of a long continuum. And that part of what I, and many other people, call the information cycle.

And the reason I like this particular graph, is if you look at it you can see that the information cycle is not just one thing. It is a combination of things. It's a combination of four cycles.

The first is time. The second is-- time, of course, is time progresses. The second is the knowledge cycle, how knowledge is developed. The third cycle is the publication cycle, how that knowledge is transferred into information that we can read online or read an article, et cetera. And then finally have the access cycle. And the access cycle is all about, well, how can we actually get this information.

And some of this is going to go along with information from previous webinars that I've done. One of the things that I talked about I think two weeks ago, we were talking about journal literature or technical publication, is that a lot of time it takes a long time for scholarly work to actually make it to publication. So the access cycle for schoolwork might take much longer than the access cycle say, for, an article that is just created for a popular magazine or a status post or something else like that.

So we're going to come back to this image. We're going to look at pieces of it, but you can see it's really complex. And this particular iteration of the information cycle is really focused on scientific literature. But we're going to see that it works for our sorts of literature as well.

So don't get hung up on the fact that it is scientifically oriented. We're going to see that these cycles, time, knowledge, publication, and access, all come into play for primary, secondary, tertiary information in the humanities and social sciences.

So let's talk about some of the big dimensions that we have to think about. So first, of course, is our information type, right over here. And we've identified three particular information types. Primary information, secondary information, and tertiary information. So that one thing we want to keep in mind. One major dimension.

The second major dimension is the disciplinary dimension. Because we discover that things are just [INAUDIBLE] in the humanities and social sciences from the art and the sciences. Although they're also very similar. This whole thing is very shades of gray and very situational.

But I'm dividing these into broad categories. The humanities, the social sciences, and science, technology, engineering, and math, is commonly referred to as STEM, which will-- I should have written medical here as well, because that's very similar to the information cycle in the medical field.

So again, we have our multiple cycles in play, time, knowledge, publication, and access. So

here comes the constraints.

All of this information, information type, discipline, cycle that's in play, all of this is hugely-- it depends. It's contextual. We're going to see some information sources with parts that are primary and parts that are secondary. The situation that you're using it for, you might be looking at particular parts of information.

And here's the other thing. There is a lot of disagreement. If you went up and looked at library sites or other special sites and said, can you tell me about primary and secondary and tertiary sources and sciences? One site might say this, and another site might say that.

So we're going to look at some broad based definitions for you look at things situationally when you're doing your work to help you define this. But that's the thing. The answer to a primary, secondary, tertiary is it will always be it depends.

The answer for virtually everything, really. Ask me about library ebooks. The answer to a question library ebooks is always it depends.

And maybe we'll do a lesson around those little bit later. I think that's a real interesting topic. OK. Any questions right now? OK. Let's go on and start thinking about the humanities.

OK, so I've got some examples of humanistic fields. The visual arts, the performing arts, history. And here's an interesting thing, history. If you ask me what history is, I would say that history is a social science. But everybody else seems to think that history is a humanity. So I've put it over here in humanities, to go along with the general, accepted listing of that.

We have literature, of course, we also have philosophy. So these are the things that we think of as humanistic fields that are not scientific, that are a little more squishy, a little bit more interested in the humanistic aspects of creativity.

So the primary sources for these sorts of areas are often original work, and they're creative works, and they're original expressions. So let's take an example. I more or less have these applicable across the way. But we'll see that these kind of apply for others things as well.

So the visual arts, we have preliminary sketches. And for all of these, I want to emphasize the preliminary aspect of it. And we'll see this when we go back and look at our information cycle. Because over here at the start, we have coming up with a proposal, making a lab note of things that you're going to do.

So we have preliminary sketches, the things that you block out. a pre-painting of a painting. We have painting, we have sculpture, we have photography, we have cartoons, we have quotes. Selling clothing, all those sorts of things that are parts of the visual arts and the textile arts as well. This is not a comprehensive listing.

From performing arts, we have our preliminary choreography notes. You may have scripts or screenplays. We may have song lyrics. Performance art. We have movies, short videos, things like that.

For history, we have what we think a traditional sort of primary sources. And lots of times, when you start talking about primary sources, the immediate thing that people think about is historical subjects. And these are going to be our letters, our diaries, manuscripts, handwritten manuscripts. Eyewitness accounts of fact based newspaper articles. We're going to see newspapers, once of those things that you can fit in many different criteria.

Original reporting. Autobiographies, I write the story of my life, that is considered a primary source. For literature, we're talking about poems, short stories, novels, creative works.

For philosophy, we might have a series of proofs. We also move from theses sorts of conceptual things to dissertations and theses, which are publications that are made by people getting a master's degrees and PhD degrees, that signify that they are adding something to their discipline. They are original and creative works.

Like back in the day, if you were an apprentice, you had to make a masterwork. And a thesis and dissertation is a master work. And they are by definition original work, or at least mostly. Kind of see how that [INAUDIBLE]

So let's look over here at my picture. And this is actually-- [INAUDIBLE] I went with a *Star Wars* theme. Although I have to tell you it is a little bit problematic. Originally I thought steampunk, which might have been more interesting, but I had to go with *Star Wars*, because that's kind of been the theme of the show.

So here we have a picture of Princess Leia, from some art book, a work in charcoal. So if you look at it, you can see that it is a representation of the character in the movie. So we're going to call it a primary source, but we might come back to this a little bit later and see if there's an argument for this being a secondary source. We'll see.

So let's think about our cycles in play. These primary sources oftentimes are going to be as a creation of them, the time. We start to create them. Over time we finish the novel, we finish the quilt, we finish the collection of photography. Over time, our knowledge builds.

I start off with the preliminary art work, and it's really bad. And over time, I get better, and it gets better. So my knowledge is extending, the more I learn about this. Publications are going to come a little bit later, and the access is a little bit later after that.

All right. So this is going to be a primary sources in the humanities. So let's move over-- one of our participants says, leave history in the humanities.

And you know, I swear, everybody but you agrees with that. Although sometimes in my classes I ask, and I'm like, how many people think history is a humanity? The hands go up. And other people are like, no, no it's a social science. So I'm not the only one.

The funny thing is, you think this is a philosophical question, isn't it? Is history a humanity or a social science? We can see that when it comes to primary sources, it makes a difference. And it also makes a difference, actually, when you're looking for articles because database providers have very strong feelings in most cases that history is a humanity rather than a social science. So these little thoughtful questions have a wide [INAUDIBLE] everywhere. OK.

So let's talk about secondary sources. So a secondary source in the humanities is going to be something that provides analysis or interpretation of the primary source or primary event. So we can be talking about events as well as-- and I might particularly be thinking of that for historical types of things.

So we go back to our list here, of our visual arts, performing arts, et cetera. Now at this point I'm putting down a reminder that some of these, because these categories can really apply for all of those. So the first thing we're looking is going to be a critical work, which is going to be a scholarly work about something previously created. And you can look at my example over here.

This is a book, *Star Wars and Philosophy-- More Powerful Than You Could Possibly Imagine*. And it's published by Open Court. And this is probably a little bit [INAUDIBLE], a little bit pop, maybe a little bit scholarly. I didn't have the book in hand so I can't precisely tell you, but they're definitely a primary source.

They're taking *Star Wars* and they're looking at it through the lens of philosophy. So very

definitely looking at something previously created and making something new out of it. So these sorts of things can be books, like *Star Wars and Philosophy*.

But it can also be a scholarly article. So it might be an article that looks particularly at one aspect of *Star Wars*. Maybe like talking about the Force and connecting it to religion or something else like that. But remember, I don't want us to focus entirely on traditional sorts of scholarly publication.

It's a new world out there, and people are just as likely to be citing articles on web. So blog posts also can be a critical works, so they can be secondary sources. Just like they can be original sources, depending on what you're writing.

So literature reviews. Let's go back to-- while we were talking about theses and dissertations. I said they're primary sources, because you are showing your masters. You are creating something new. But there's a big part of an article or a thesis or dissertation that is not a primary source, and that's literature review part.

And the literature review is where you say, look what other people have written about this in the past. Well they didn't do what I'm doing, and maybe there were holes, but I have to acknowledge that I'm working off of work that people have done in the past.

So the literature review part of a publication is actually a secondary source, even though the work of publication itself might be a primary source, it depends. So biographies. Remember, an autobiography is generally going to be a primary source, it's kind of from me.

Although, it can be a little bit problematic there as well. When you think about the fact that if I can write something immediately after it happened. Where I was, the account, versus me waiting 40 years to write the grand story of Lorena O'English. It an autobiography, but it's kind of been separated a little bit from time.

But they tend to be more, I would say, in the primary source and secondary source. So you can see we've got graduations here as well. But biographies, very definitely primary sources.

They are usually written based upon an author's look at all primary resources. Letters, diaries, and law stuff, treaties, newspaper articles, all sorts of things that we use to create a biography. Newspaper articles, as well.

Let's say I have a review of the movie *Star Wars*. That is actually considered a secondary

source, because I'm talking about the movie that I saw.

What about a clip show? Think of *That's Entertainment*, or *It's the '90s*, or all the clip shows that we all love to watch. The clips themselves are primary sources. They are videos. They're bit snippets of movies, right? But we all know that a clip show, really, is not just movie. It's also the group of people, the person who's actually talking about it, providing context, remembering memories of the '90s. So that part of it is going to be secondary.

So you can see, it gets a little bit complex here, and we had to really start thinking about the purpose of how we're using this as we evaluate them. Any questions?

The main thing you want to remember is in humanities, it really is an analysis or interpretation of the primary source. It's an analysis of a poem. It is a critique of a novel, maybe arguing that a novel was not well written, or whatever.

OK. So let's look at our next thing. And now we're going to talk about tertiary sources. And the funny thing is, the whole it depends thing, not everybody recognizes that there are tertiary sources. Sometimes you'll see people lumping secondary sources and tertiary sources together.

But I'm a librarian, I believe tertiary sources. Because the way I define it and many library people with many other people, is that a tertiary source is going to be your background source. It is a reference source, a presearch source. And what makes it tertiary is that it is essentially accepted and synthesized knowledge.

So you just believe it is the way it is. So I thought a classic example of a tertiary source is an encyclopedia. By the time something makes it into an encyclopedia, it has become accepted as something that is legitimate.

That's not always right. I remember looking at a pop encyclopedia of politics many years ago. I'm from Arizona, and it was talking about a period of time in Arizona's political history that I was very familiar with. And I know from my personal information that I looked at it and it was wrong. So things happen.

The other thing is that what we know changes over time. You develop new theories, like continental drift, or all the other sorts of things that can happen. Things that we might have totally believed were true, become not so true. So if you were to go back and look at

encyclopedias of the past, you would see a lot of wrong information in them. So we have to recognize that's always going to be a factor in this.

So our encyclopedias, our reference works can be scholarly. Or they can be popular. They're going to be valuable for us, because they synthesize information. They're helpful in that scaffolding, presearch phase where you're just like, I gotta learn a little bit about this so that I can talk about it at the party, or so that I can actually start doing research and have some general information about what it is I should be looking for.

Another classic example is going to be a chronology, or a timeline. This one right here, this book. *Star Wars-- The New Essential Chronology*. And this would be a reference for the timeline of chronology, so it's generally considered to be tertiary because it is synthesized and extracted information.

It's not the primary source, *Star Wars*. It's not a narrative book about *Star Wars*. It is the most essential bits of all of those sorts of things extracted and put into a timeline. And the other example here is the *Reference Guide to Science Fiction, Fantasy, and Horror*. So, classic sort of encyclopedia.

Dictionaries, of course, also tertiary source. And textbooks. Textbooks are like encyclopedias in a way. They give you accepted knowledge. If something makes it into a textbook, it's pretty much considered to be the way things are.

The following may be a little [INAUDIBLE]. That's kind of how we fix that. Any questions about these?

OK. So we're going to move now from the humanities over to sciences. And we're going to see that things are really going to start to change here. But we'll start thinking about these things.

So here we have a piece of our diagram, and I'm going to come back to that in just a second, but here's some examples of our scientific, technical, engineering, math, and also health sciences sorts of things. Although I didn't include that. We have biology, chemistry, computer science, agriculture, biology, biomedical, beakers.

Chemistry, kind of a lab science. Computer science and [INAUDIBLE] technological sort of thing. Agriculture, sort of a practical science. So let's think about the kinds of information that are primary sources for them. And again, going back to this notion that the moment you think of something it becomes a primary source.

The moment you write something down on the back of an envelope, or lab notes. Then, right there, it's a primary source. So all my preliminary work. My experiment design. My lab notebooks, I did these experiments, and this is what happened.

Letters that I might write to other people. Hey, you are doing this, too. This happened to me, did it happen to you?

Diaries. I just find diaries are permanent sources. All sorts of documentation. So in the sciences, a lot of times you have a tradition of before you [INAUDIBLE] as you're working on ideas, part of the process of working in ideas is to actually go to conferences and talk about your ideas.

And they're not fully fleshed. You're still working on them, you're hoping to get feedback. You're hoping to have discussion. So my conference presentations are primary sources as well, as are technical reports, which are very cut, not really easy to read, highly technical explications of things that I might provide.

Let's say I got funded, and they'd say, give us your technical report so we can see what you're doing. So those sorts of things are primary sources. Now here's it gets kind of interesting, because in most cases and humanities, articles tend to be secondary resources. In most cases, not all.

But in some instances, in those cases articles tend to be primary sources. Because they are the written up, original research data and results that have been published in the scientific journal. Remember, not all of them, the literature review part, is not going to be a primary source. But if you remember when we were talking about journals, you remember that journals tend to follow a particular structure.

The introduction, the literature review, I, M, Methods, R, results, and D, discussion. So the literature review part, and probably the abstract, those are going to be secondary sources. But my methods, and my results, and my discussion are going to be the original data, the original information, so those are various primary sources.

Again, dissertations and theses, which are original ideas. And another classic example is going to be a patent. If you look over here at this piece in our diagram, you can see that here we are, we've got our cycles, our time, our knowledge, our publication, and our access cycle.

So you start off with an idea, and you might be kind of putting it in a lab notebook. So that's kind of the publication, you write it down, so it's publication. But these are generally not available to the general user.

Mind you, this is starting to change. We're starting to see a phenomenon called Open Lab Networks, Open Lab Notebooks, or we might find people blogging. So maybe this is starting to open up a little bit. But traditionally this whole part's been opaque to anybody but the actual researchers.

Then we can go and might present preliminary information at a conference presentation, so you can [INAUDIBLE] conference you saw it. [INAUDIBLE] for access. You might have been blogged or tweeted. You might access it that way. Or maybe the presentation was written up in a volume of proceedings and you read that, so you might be able to access that.

You can see that as we go along this way at the very beginning, it becomes-- as time goes by, and knowledge becomes more fleshed out, and publications become more available to other people, and actually become accessible to other people.

So there really is movement going the left around our circle. So that's a really important aspect of all this. Let's type questions at this.

So let's go back and let's talk about secondary sources. You might not be able to read this, but let's look at this. This is an article that appeared in WSU News today. And WSU researchers had found that a compound in green tea had been found to block rheumatoid arthritis.

So this is not actually the research. The research itself was published in *Arthritis and Rheumatology*, a journal of the American College of Rheumatology Today. So that's the primary source, the article in this journal. But this report of it is a secondary source. WSU's PR people are making sure that people are aware that this research is happening.

The other thing that's going to happen over time is, let's think about it. Oh my gosh, how does this translate? If I drink lots of green tea, I can prevent or make my rheumatoid arthritis a lot less likely to be significant.

So that's kind of a simplistic way of viewing it, but we're going to see that what happens in this research is going to be translated and published over time in newspapers, and popular magazines, and probably sometimes distorted. Drink 10 cups of [INAUDIBLE] green tea a day,

and won't get rheumatoid arthritis. So that happens.

Once you start moving into the secondary and tertiary sources, and especially the secondary, sometimes you run the risk of a game of academic telephone. We've all played telephone. If you start with something, you whisper it to someone, they whisper it to someone, and as it gets whispered across the way, it becomes more and more distorted. And that can sometimes happen with this as well.

Let's talk a little bit about some of the secondary sources. So here's one. Research article. You're like, Lorena, you said research articles in general is going to be a primary source for the sciences. But let's look at this a little bit more.

This is a research article that includes information about previously published research. Maybe they're actually checking the data, or maybe they're using it to explain what they're doing. Because remember, science builds off of it. So that would be a case of it being a secondary source. Again, the literature reviews are secondary sources.

Meta-analysis and systematic reviews. These are really interesting. These actually started off in the medical field, and they started to become more and more important in the scientific field and in the social sciences. In fact, there's a professor here at WSU in the education department who's really big on meta-analysis and systematic reviews.

So what a systematic review is, it says, all right. In the past 20 years there have been 15 article written about the physics of *Star Wars* and whether or not we can make a light saber. So let's look at those 10 articles, and let's write a systematic review all those 10 articles, teasing out the common themes, and the conclusions, and what actually happens. So that's a systematic review.

Meta-analysis, in the medical field it says, OK. We have 10 articles about the effects of green tea on rheumatoid arthritis. And they're all experiments. They used data in some way. We're going to take these articles and we're going to analyze the data through this mechanism that we've created. And then we're going to say after analyzing the data and doing the meta-analysis that we have a recommendation.

So it could be really interesting. Kind of look back and looking at previously done research in entirely different ways. So you really see from the descriptions, those are very definitely secondary sources that they're using in all of this.

The other issue is the land grant institution. So this is something that's kind of dear to my heart. The university extension publication. My husband is the university archivist. One of the things that manuscripts and special collections have been doing is really exciting.

And I almost put a picture in here, and I wish I had, is they've been digitizing old extension [INAUDIBLE] records.

Well what the extension [INAUDIBLE] was about, they were essentially taking research that was being done at WSU and other institutions, and they were pulling the information out of it that would actually help farmers, homemakers, and kids actually be better farm makers, better homemakers. Educated, et cetera.

So they are basically translating that, in a secondary way, that original research. So you kind of remember, if you were here two weeks ago, I was talking about trade and professional journals. And one of the things that trade and professional journals do is they oftentimes provide our secondary sources for the primary research that's done in journals about that particular trade.

There are also popular magazine articles that are restating research. News you can use. How tos. And then we have popular science books. *A Brief History of Time* by Stephen Hawkins. Which every one buys and no one actually reads. But that's kind of an example of something like this.

Or we have the magazines, like the distinction between *Scientific American*-- *Scientific American* is actually a really interesting one. *Scientific American* I think is the oldest published magazine in the country. It's been around since like, 1845, and it is a popular science journal.

However, this popular science journal with articles written by giants in the field. Albert Einstein wrote a number of articles for *Scientific American*.

So again, just because they're secondary, that doesn't mean that they're not legitimate. It just means that rather than original research, I'm giving you analysis and interpretation of previously completed work. Any questions about this?

OK. So let's look at tertiary sources. And for tertiary sources, again, remember some people will say that tertiary sources and secondary sources are the same thing.

So we have kind of the same thing. We have encyclopedias, we have dictionaries. But I want

to talk about two other kinds of tertiary sources. And as you can see, I kind ran out of steam with the images here, I'm not feeling very well today.

What happened is that, of course I was finishing this up at the last minute as always. So I don't have images here, but I do have an image of the annual review a little bit later. But what's a handbook? Handbooks are great.

Let's say you're a chemist. You're a chemist, you're doing bench science. There's certain formulas, there's certain things that you just need to put your hands on. You just need to know an old, old law, or something like that. A handbook essentially is one volume that gives you all the information that you need.

You can just go look at the index and say, I need to know the formula for a square, and they'll tell you. They're very discipline specific, handbooks are. And so they're very definitely tertiary sources. They are extracted reference, presearch information. Very much extracted from-- something in a handbook might have been discovered 300 years ago, but over time it's become really important accepted knowledge [INAUDIBLE] handbook.

And [INAUDIBLE] reviews, I'm going to talk about in a little bit more detail when we look at the social sciences. So let's look over here at our [INAUDIBLE] again.

Our time cycle, our knowledge cycle, and publication cycle. So you can see at this point, I started off over here with my art, kind of thinking about things. Then it made it into a conference presentation and an article. Over time it might make it to a popular science book. You know, like a *Brief History of Time*.

Then gradually, bits of those things become accepted knowledge and end up in encyclopedias, annual reviews, referenced books, et cetera. And textbooks, all those sorts of things.

OK, so now we're going to talk about the social sciences. And the social sciences are weird, because they really have elements of both the humanistic disciplines as well as our science, math, all of that STEM stuff as well. So let's look at some examples.

So I pulled out some examples of social science disciplines. Political science, psychology, which is generally considered to be a behavioral science, although oftentimes people talk about the social and behavioral sciences. Criminal justice, sociology, and business.

So look at the kind of things that they might have. And again, this emphasis on preliminary work. We cannot forget that preliminary work is always going to be a primary source. The primariest of primary sources.

And of great interest to historians, because when was-- how did this idea actually happen? What were the glimmers that made something develop over time? And that's the stuff that you get not from the articles or encyclopedias, but that's the stuff you get from the preliminary work.

They say that if a science is the thing that most indicates something exciting is going to be happening if someone says, oh blast! Or, that's funny. Those sorts of things. And that all happens right over here in our preliminary work.

So here are some examples of primary sources in social science. These are going to be original works or expressions. But we'll see that they're not all these entirely that way.

So the congressional testimony. If I go and testify before a congressional committee or before a Washington legislative committee, my testimony is a primary source. Although I may use secondary sources in laws and regulations, and international treaties are considered to be primary sources.

Survey data and opinion polls. Here we have a poll from 1999, this was actually just before the first movie in the second *Star Wars* series came out. We were still naive about what was going to happen to them.

And you can see, they're asking, how do you feel about the media coverage about the new *Star Wars* movie that you've seen or heard so far. Are you enjoying it, are you sick of it, are you not much effected by it, or haven't you seen media coverage at all.

So a lot of people forget that polls are actually primary sources. They are snapshots in time that can tell you a lot about a particular community at a particular time. *Star Wars* is a phenomenon. *Star Wars* is this big, huge thing. And then of course, the crash when the second series was-- I actually just watched it again last year and I like it, but a lot of people disagree with me.

So polls can be really interesting, they can really put in context. And one of the things you want to think about is, how do I evaluate my primary sources. Because we evaluate stuff. Just

because somebody wrote a poem, doesn't mean it's good.

A poem is evaluated on its merits. Artwork is evaluated on its merits. A poll can be badly written. So that's something also that can be evaluated. The results of a poll can tell me a lot about a particular population that's being polled in context of events that are happening at that time, et cetera.

So let's say I'm a psychologist. My patient, my notes that I take while I'm sitting there leaning back while my person is being analyzed. Those are primary sources. Clinical trials. If I'm doing a clinical trial in psychology or anything else, any information coming out of that is going to be my primary sources.

If I'm a police officer and I'm taking notes, that's a primary source. In the social sciences, there's less bench science, obviously. And science might be done through ethnography, or observation, or from different sorts of experiments.

So all that data is primary data as well. Theory generation. If I'm sitting there and thinking about the grand, unified theory of Star Wars in social sciences, that theory is a primary source.

Interviews, another classic social science methodology. Statistical modeling, focus group transcripts. And again, we're going to come back to it, original research data and results published in a scholarly journal. As well as all that other stuff that we found with the humanities. Diaries, letters, all those sorts of things.

And dissertations and theses. And we have the same caveat for our scholarly journal articles. That if you're looking at the abstract or the literary reviews, are probably not primary, but more secondary. But we kind of ignore that because, the vast majority of the work is going to be primary work, so we'll consider it that way. Any questions?

So, secondary sources. And here it starts getting interesting. Because, first of all-- actually, I think all of this is interesting.

First of all, we have books that synthesize information. And you know, I actually really like books. A lot of people don't want to look at a 200 page book. They're like, oh my gosh, it's 200 pages.

But think about what a book does. A book is an extended narrative. And we'll talk just a little bit more when we talk about using stuff. A book generally doesn't assume from page one you

know everything there is to know about that topic, or that you're an expert, the way journal articles sometimes do.

So books can be really valuable, because they're synthesizing all that primary research, and they have 200 pages or 300 pages to lay it all out. So they don't have to be really hugely condensed.

So here we have our example, *Living in Lone Space*, and this is talking about *Star Wars* role play. So this is kind of sociology, they're looking at *Star Wars* fans. So that would be kind of a classic example of sociological research.

Critical works. Again, when I say critical works, I don't mean critical as in criticizing, but rather you're critically evaluating what are the strengths, what are the weaknesses. Books, articles, blog posts, et cetera. Book reviews, literature reviews, again that analysis and systematic review. The other times [INAUDIBLE] the same sorts of sources.

There's only so many sources out there. Biographies, newspaper articles, popular magazine articles, restating research. Again, [INAUDIBLE] our popular social science books. Like here's *Blink* from Malcolm Gladwell. Malcolm Gladwell is not saying anything original in *Blink*. He is synthesizing work that has been done by other people and presenting it in a way that is much easier for people to see, than reading the original research.

And then, the other example over here, this is a article, *Star Wars of Myth-- A Fourth Hope*, which is sort of a psychological treatment of *Star Wars*, which would very definitely be a secondary source. So, I am, again, going back to the analyzing and interpreting primary sources, here.

So let's look at tertiary sources. It's the same sort of thing, but here I want to talk a little bit about annual reviews.

Annual reviews are one of my absolute favorite sources. And you can make an argument that annual reviews are kind of a weird combination of primary, secondary, and tertiary. Because they're kind of literature reviews on steroids. Basically, I say I'm the head of this, and I'm like, what should sociology know about complexity. You can see this slide over here.

And so I say, well, you know, I'm a giant in the field of sociology, I know everyone. And I know that he, and she, and she are people who are doing stuff on sociology complexity. So I ask them to write an annual review. And the this review article essentially looks back at maybe 20

or 30 years worth of literature in sociology about sociology and complexity. And it widens it all up. So it's kind of a literature review on steroids.

But it does some other things that are really, really interesting. Because not only do they bring out the important literature. Not only do they discuss it and put it in context, but they also identify gaps in the literature, which can be really, really valuable.

What they do not do, unlike a systematic review or meta-analysis is draw conclusions absolutely from all the work. They may draw themes, but they don't draw conclusions. So there's [INAUDIBLE] kind of a distinction there.

Any questions about this? Ah, let's see, I see there's a question. Is an annual review like an annotated bibliography. Very interesting question.

An annotated bibliography would be more like a classic literature review. So I would put that in as a secondary source. Because you are reading the original articles, and then you're annotating them. A review article is kind of doing that, but doing it through a different lens. Kind of separating-- remember, going further and further away from that original research, by looking at a whole pile of articles and drawing out new conclusions.

Sort of synthesizing that. So as you move from primary, secondary, into tertiary, you're synthesizing more and more. You're drawing out the important things and leaving the less important stuff behind.

OK. So we're back to our diagram, now. And this part of the diagram is where we say, hey, now we want to know about how do we use these sorts of sources. So here, remember when we were talking about the differences between primary, secondary, and tertiary, how that is created, we're moving on this diagram clockwise, over here to the right.

But the way I recommend actually using these sources is to move counterclockwise. Let's say I'm writing my paper on the physics of Star Wars. I don't know much about it. I'm not going to start with a scholarly article. I'm going to start with that synthesis, and then start with a reference work, which is going to give me the essential points in providing context.

Maybe all the other good things that they help you with. Terminology that may help you do that searching, et cetera. And then after I start getting a sense of the outline of my topic from encyclopedia or reference works, then I may go to that extended narrative in a book.

And then when I've digested that a little bit, then I'm probably going to go to my scholarly articles. Because one of the things we talked about two weeks ago in my former webinar is scholarly articles, they're usually very specific. They [INAUDIBLE] in on a particular research question. And oftentimes assume a certain body of knowledge on the part of the reader.

If you're reading a scholarly article cold, it can be really hard to figure out. But if you're reading it having moved counterclockwise along our information cycle, starting off with reference works, reading a book, then you're more likely to understand where they're coming from, and be able to make more sense out of it.

Annual reviews, wonderful. There's a database of annual reviews called Annual Reviews. It is one of my absolute favorite, favorite sources. It is so good. And the other thing about [INAUDIBLE] by the way-- I have to step out a little bit and tell you about this.

One of the things it does, is it also helps you learn how to do certain types of review articles. It helps you learn a little bit about how do I incorporate a literature review into my text. The best way to learn how to do that, and be how professionals do that. So you can move away from a block of text, and then how you thought about it, and learned how to integrate primary and secondary sources more gently into your work.

So you can see, here we are. And I wanted to kind of go back to that notion.

I have this great cartoon and I really wish I'd remembered to put this in this, because it's really funny. Because it kind of talks about how as you move along these cycles, that game of telephone, how information can become distorted. And where it tends to be distorted is along our publication cycle, right over here in popular magazines, and then on the internet.

Where people are-- the classic example of that is many years ago there was a study that supposedly-- *Time* magazine or *Newsweek* had a big cover article on it. That a woman over the age of 30 was more likely to be killed by a terrorist than she was to get married. Which was ridiculous. That was a very, very distorted gloss of the original research.

But a publication that is usually pretty legitimate like *Time* and *Newsweek* can really screw up sometimes. So it's really important if you ever have any questions, go back to the original source. Go back to primary source. Go and read that research article. Go read that poem, and see if you agree with how it was extracted in your secondary source. Something to think about.

OK. I've got some resources for more information here. I really liked that diagram, and this is from a PowerPoint from a Carol Green, who's a librarian here in the state of Washington. One of the things that people are really interested in primary sources for, of course, is here at WSU, if people are taking a Roots Contemporary Issues class. And we have a really nice tutorial on that.

When people are looking for stuff with Roots, a lot of time they forget about some of these powerful primary sources. If you like polling data, or congressional testimony, or congressional reports, et cetera. I wanted to finish with an example of how complex it can get.

Let's think about a painting. And this painting is a painting of something from history. Maybe it's George Washington crossing the Delaware of something. is that a primary source or a secondary source? Because it's a painting, right? It's a creative work. So here we have to go back to it depends.

Because as a painting, it's a primary source. It is a creative work. It tells us something about maybe the person who is actually doing the painting. It may tell us in what it emphasizes a little bit about the period in which it's painted.

But as a historical item, it is a secondary source. Because this painter was not there, watching George Washington cross the Delaware. It's not based on eyewitness experience or eye witness testimony. There's a certain amount of historical imagination going on there. So that's a secondary source. So that painting is once, a primary source and a secondary source.

And really through all of this, we discovered we really go back to it depends. So you really want to think about what part of it you're using, how are you using it, what discipline are you using it. It's all situational, rather than absolute.

Any questions? Have I confused the issue even more?

And if you want, feel free to give me some examples and we can talk about this. Because if you're asking people, this can always create a discussion. If we went back to the things that Josh and Carrie suggested, Josh's form, his responses to the form are obviously a primary source. And Carrie's discussion group post is maybe primary, but they also incorporate elements of secondary work. So it depends.

All right. Any questions? Anybody want to throw out an example? What's a Facebook post? Facebook post primary, secondary, or tertiary?

OK, Carrie says it's depends on the content. That's right. Because if I'm writing a Facebook post and I'm saying, oh I love my dog and he's so cute. That kind of primary, right? I'm just saying that.

But if I'm linking to something else, then that's secondary. If I am linking to something else that's secondary, but if I'm putting my own analysis of the link up in the status [INAUDIBLE] that's primary. Or secondary. Really, each particular situation has to be evaluated [INAUDIBLE].

Exactly, exactly.

Carrie suggests it depends on the context, and that is always going to be the case. We have to go back this little thing here, that I should put again at the end of my slide, but this notion of our dimensions. Our information type, our broad disciplines, and the context of use. What part of it, how are we using it, and if there are arguments to be made here.

And if you are interested in these primary sources and secondary sources, if you'd like another webinar perhaps in the future about finding primary sources and evaluating primary sources, talk to Olivia and Josh, and say, hey, this is something you would like, because that would be something, certainly, that we at the libraries would be happy to do.

There's some really great resources out there for primary sources that a lot of people don't know about. That could be really cool for finding some of these sorts of things. And of course, the evaluation can be a little bit tricky.

How do I evaluate a newspaper article that was written 100 years ago. How do I evaluate a cartoon. How do I evaluate a photograph?

If there aren't any more questions, I'm going to say thank you all for letting me come for three sessions here for this the *Star Wars* series, our scholar series. And I really enjoy doing these sessions. I've learned a lot myself, because, let's go back to primary, secondary, tertiary.

This exercise has been kind of a good tertiary exercise for me. It made me consolidate my own knowledge and think about thing in a broader way. So it's been a lot of fun. And I'm going to turn this off, and turn you back to Olivia.

OLIVIA:

Hi. Thank you so much, Lorena, for making this presentation. I definitely learned a lot more

than I expected. Don't forget to do the survey link in the chat box. We love your guys' input and thanks again for tuning in. Stay tuned for future events upcoming, and have a great rest of your night.