Discovery Tools & the Information Literacy Frameworks – Spring 2017

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Discovery Tools (two explored as examples of the process)

ProQuest's Summon
EBSCO's Discovery (EDS)

Rambling observations of a sometimes librarian (who spends way too much time on administrative tasks ☺) on the topic that may help you clarify your own thoughts and the understanding of your students about the relationship between discovery and Information Literacy. We all know that students learn in different ways and showing how to engage a tool or tools sometimes help them understand rather abstract concepts at a deeper and more operable level. MMD

ACRL's Information Literacy Frameworks

Authority Is Constructed and Contextual

For Readers of Scholarly Materials:

1) Tools: searching on author; hyperlinks on Author's name to other works by author in the databases; alt-metrics (*Altmetric* on Summon; *PlumX metrics* on EDS); Affiliations (EDS); References listed; hyperlinks from References to other works in database; discipline and subject term limiters; date and language restrictors.
2) Ways to interpret in terms of Framework:
   a) Discovery is putting the work of the individual author in context of his/her other publications, work history and affiliation, and the social reaction(s) to his/her article (alt-metrics). Some of this is superficial, but all of it begins to help the reader build a case on whether or not this author is an "expert."
   b) The author's use of references, particularly the way s/he cites them in the text of the work – much of this done in the first fourth to third of the paper as an historical analysis of the topic – also shows that the author is aware of and engaged in the same research as those s/he cites.
   c) Discipline and Subject Term limiters in both discovery searches make explicit the context in which the author has authority and help clarify that John Smith in diabetics research is unlikely the John Smith of legal malfeasance research.
   d) Date and language restrictors further narrow the context of the author's expertise.

For Writers (creators) of Scholarly Materials:

1) Tools: References; discipline and subject term vocabulary; language choices; awareness of current thinking about your topic or issues.
2) Ways to interpret in terms of Framework:
   a) As you begin to write (or more likely when you go back and revise your work), you need to think about the authority you need to make your argument. You cannot use your degrees or titles to establish authority, but you can use your affiliations and other publications, and references to the works of others. The former gives you limited authority, but the latter (as noted above) shows that you are aware of and engaged in the same research as those authors of the work(s) you cite. Good writing makes those connections both subtle and explicit. This vocabulary can be found in articles in your results list found by discovery.
   b) Using terminology specific to your discipline or subject area and using it accurately reinforces those perceptions of contextual expertise.
   c) At least for the duration of your paper or argument, the writer and the writer alone, is the sole expert on what is being expressed in this work. If not, the writer is committing plagiarism – taking someone else's ideas or argument and presenting it as his/her own.

Information Creation is a Process

For Readers of Scholarly Materials:

1) Tools: scholarly/peer-reviewed restrictors; searching on author; hyperlinks on Author's name to other works by author in the databases; alt-metrics (*Altmetric* on Summon; *PlumX metrics* on EDS); References listed; hyperlinks from References to other works in database; discipline and subject term limiters; date restrictors.
2) Ways to interpret in terms of Framework:
   a) As a librarian or teacher, talking about the process of "peer review" and what that means is a lovely teaching moment on the concept of information creation as a process and an opportunity to point out that not all articles in a peer-reviewed publication are peer-reviewed (and the corollary, just because it wasn't peer reviewed doesn't mean it is valueless – e.g., in-depth newspaper articles). I like to walk them through the process and then quiz the students on the concepts of "value" and "currency" in relation to peer-reviewed articles.
   b) The author's use of references, particularly the way s/he cites the work of other or his/her own prior work in the text of the new work – much of this done in the first fourth to third of the paper – also shows that the author is aware of how his/her current work relates to the work of others and his/her own work over time.
   c) Exploring an author's publications by date (and the alt-metrics to those publications over time) can provide a clear sense of how ideas are developing and changing based on contextual challenges and new developments.

For Writers (creators) of Scholarly Materials:

1) Tools: References; awareness of other publications and your own research; discipline and subject specific vocabulary; date.
2) Ways to interpret in terms of Framework:

a) Seeing how other writers have evolved in their thinking over time, gives you as the author of new work permission to state what you know at this time and in this context. If our understanding of information is evolving, then none of us have the final say (God's view) on an issue, nor is it expected. This frees us to be authoritative and effective here and now, without undue worries about what the future may reveal.
b) This process paradigm also allows you to build on both past successes and past failures in your current creation if you want, or in some cases, the luxury of ignoring them.
c) The concept of process reminds us that in scholarship, few ever have the last say and all writing in one sense is never "done." However, as one professor once told me, "Don't try to get it right; try to get it written." Looking at writing and information and your own part in it as part of a larger process, frees you to be authoritative now and humble about the future of your ideas.
d) Lastly, when you search for something that isn't available on discovery, it may open the door for you to jump into the process of creation yourself.

Information Has Value

For Readers of Scholarly Materials:

1) Tools: authentication systems; citations vs. full text; alt-metrics (*Altmetric* on Summon; *PlumX metrics* on EDS); the use of citation searches and how often a reference is cited by others in the field in tenure and promotion decisions; budgets; the lack of "advertising" on discovery tools; what citations mean and how they are largely unrelated to copyright; copyright; OER on discovery. ***Educators (librarians and teachers) need to be creative here. Often isn't so much what patrons see as what patrons don't see on discovery.***

2) Ways to interpret in terms of Framework:
   a) Librarians can have students look up an item on Google and then on the college's discovery search. We can compare the process and the results.
   b) Someone hopefully points out that there were advertisements in Google and not in discovery. This can further lead to a discussion about online tracking and how if you don't pay for the product (information) then information about you becomes the price you pay for "free" information on the internet. Librarians and instructors can also talk about the amount the college pays for subscriptions to the databases it makes available and how consortia and state and federal initiatives help keep some of those costs lower. This is a great civics lesson. If you teach at a private university, this might help students better understand their tuition costs (and economies of scale).
   c) Sci-Hub is a great example to use to discuss the issue of value – both what it allows and how circumventing the systems in place to ensure the value of certain information can cause one to have to function outside the law (and how that might limit other choices). Sci-Hub is pushing the publishing world to change how it does things in ways that may make things better, but being "outside the law" at best, and clearly criminal in other ways, gives us strong reasons to encourage caution.

d) The librarian/instructor can create a "word cloud" with a class of all the types of value information has – monetary, motivational, instrumental, societal, conceptual, espionage, etc.
e) Finally, this is a great place to discuss copyright – both its social and societal values, including "Fair Use," and its legal standing.

For Writers (creators) of Scholarly Materials:

1) Tools: References; awareness of other publications and your own research; copyright and plagiarism.
2) Ways to interpret in terms of Framework:
   a) Knowing that any work has value helps students begin to understand why their work has value and should be protected – this could potentially help decrease plagiarism and cheating as well as encourage more thoughtful copyright engagement (both "Fair Use" and understanding of what copyright infringement is and how not to do it).
   b) Some professors have students turn their writing into posters or post the paper on the internet. Doing so can show how valuable their writing is and encourage them to do more "professional" work since it will be seen more broadly – than simply in your office late at night. Placing works in a portfolio or having students put them online allows students to link to these items on their resumes. And getting a job based in part on your written work really gets the point across that information has value.
   c) Another value is the cite function -- the preset list of citations in different formats: while they aren't flawless, they are a beginning that can save the new user a lot of time (and some of us old guys too!)
   d) Lastly, reminding students that when they leave college, they lose access to online works and databases can encourage them to see the value in information by its potential loss. And this is a place to push their allegiance with and support of public libraries or maybe encouraging additional degrees.

Research is Inquiry

For Readers of Scholarly Materials:

1) Tools: the search box, the limiters, the discipline search (EDS), Boolean searching (and the danger of "not"); advanced search (Summon & EDS) – strongly encouraged. And I might add Gale's Virtual Reference Library or even Wikipedia as tools that help students use discovery more effectively.
2) Ways to interpret in terms of Framework:
   a) Whether an issue is unresolved in the student's own mind or in the field more largely conceived, research is not a web search that finds "the answer," but an iterative process that returns again and again to a core question and keeps refining it further. The more you learn, the less you come to understand that you know. And it is within these limits that scholarship thrives.
   b) Students need to be encouraged to try several search terms and see what results pop up. A few years back a student reported that we had "nothing" in resources to help her write a comparison of Elinor of Aquitaine and Cleopatra. Turns out she thought she would find papers that did the comparison for her.

When she realized she would have to inquire about both individually and then do the comparison herself, she found that we had lots of resources.

c) Discipline searching: I've also had students writing about human trafficking. If they start with sexual trafficking or prostitution first, they often miss the larger issues. However they quickly realize that discipline matters a lot: human trafficking under the discipline of law will bring up entirely different results than human trafficking under the discipline restriction of sociology or psychology.

For Writers (creators) of Scholarly Materials:

1) Tools: using real questions to create and craft a good thesis statement; using pre-searching in reference resources – or even research starters on discovery -- to craft your search terms; using search terms in your thesis statement. Going back to discovery several times during the process of researching and even the writing of a paper to clarify the question or part of the question further.
2) Ways to interpret in terms of Framework:
    a) I often start by reminding students that a good thesis statement (and even in works that have an "implied" thesis statement this holds true) is the answer to a question. The question shouldn't be in your paper, but the question is the core of the thesis statement. In science this core question underpins the hypothesis you are testing; in other writing the thesis statement tells the writer and the reader what will and what will not be included.
    b) Inquiry is also a collaborative effort. Reflection might be an essential and vital reclusive process, but true inquiry requires sharing with others: the refining of others' thoughts by you and of your own thoughts by others. This communal exchange that demands refining is what publication is all about.

Scholarship is Conversation

For Readers of Scholarly Materials:

1) Tools: author links; subject links; scholarly/peer reviewed limiters; the search box, the limiters, the discipline search (EDS), advanced search (Summon & EDS) – strongly encouraged; citations, scholarly formats.
2) Ways to interpret in terms of Framework:
    a) After a basic overview of our discovery, I often ask students what they think using the "scholarly/peer reviewed journals" limiter means. At some point we discuss the whole "journal vs. article" issue. But I also tend to set up a hypothetical scenario where a student in the class wants to publish his/her article and we walk through the process using other classmates being called on to play roles of editor, copy editor, peer reviewer, etc. When we are done, I ask how long they think this process would take. They often come up with six months to two years – about right. This leads to a natural discussion of "value vs. currency" and that's useful too.

b) This also allows us to discuss how scholarly conversations are different from other conversations and how we can tell that. It allows us to point out that scholarly scientific writing often has charts, graphs, and data. It allows us to point out that scholarly literature and history writing often has several citations and is usually longer than four-five pages (sometimes 60-80 pages or more!). Longer doesn't mean better, but too short – one to two pages – often means a book review, even if it is from a "scholarly, peer-reviewed journal."
c) Lastly I really like showing how titles, degrees, and affiliations are down played (see Authority is constructed above), but the tone and approach show the "level" of the conversation. And that anyone with something valid to say or a relevant question to ask is welcome to join, regardless of their degrees or accomplishments, as long as they use the right format. I often talk about dressing for events and what is appropriate to wear and use that to explain why different scholarly conversations require different styles and citation formats. When students gripe about not being able to use MLA for everything, I love to pull up the full list of citations on discovery and point out that we only really require them to learn 3-4!

For Writers (creators) of Scholarly Materials:

1) Tools: doing the research before you write and returning to it as you revise and edit; using tools like reference works or even Wikipedia to get the lingo and vocabulary and general sense of the context before writing (EDS' "Research Starters" can help too). Finding ways to sound like you know what you are discussing – vocabulary, coherence, citations, quotations, summary, and paraphrase used adequately.
2) Ways to interpret in terms of the Framework:
    a) Why background and historical overview of the discussion is often a requirement for history and literature and social science writing. Good research (using discovery) and a good discussion of that research, lets the reader know the author has something meaningful to say and is not just going over "old stuff."
    b) I also use this frame to help students understand that while doing the research, they should write down new questions they have. Because you don't have to be the "smartest person in the room" to be part of the conversation. If you know enough to see something that wasn't addressed, that is a great place to start.
    c) Writing with a sense of conversation – that started before you and will continue after you – helps with authority and humility. You really see that when something you wrote gets picked up in the scholarly mix by discovery (often more experienced by graduate students working on theses and dissertations; but undergraduate research is more common these days and anything is possible). Instructors can pull up their publications too.
    d) Again, a discussion on the citations can be more productive by pulling up the list on discovery. These different styles are all about participating in the conversation.

Searching is Strategic Exploration

For Readers of Scholarly Materials:

1) Tools: especially the detailed record for each result: subject terms and keywords; abstracts; limiters; the search box; the discipline search (EDS), advanced search (Summon & EDS) – strongly encouraged; Boolean searching; links from author, title, and other fields to similar research; the use of the .
2) Ways to interpret in terms of Framework:
    a) I love to show students how the advanced search in particular can help them whittle down a large topic into a more manageable one. The ways you do this is with the advanced search, the limiters (using good Boolean combinations); also when you get a good result article, the "**Find Similar Results** using SmartText Searching on EDS" or Summon's "Don't see what you are looking for? Try one of these searches:" can be very useful if the student is struggling to find the right vocabulary.
    b) The "detailed records" on EDS are very useful in many ways – abstract, vocabulary, date, author, subject terms, keywords, etc. Summon uses detailed records less, and like Google Scholar, relies more on key word match.

For Writers (creators) of Scholarly Materials:

1) Tools: using your writing as a tool to help you research more effectively; using tools like reference works or even Wikipedia to get the lingo and vocabulary and general sense of the context before (and during) writing. Never assuming that the research is "done." While the paper needs to get to the place where "it isn't right but written," the conversation and the research process is just at a stopping place. Research is almost always open ended. The discovery process reinforces that perception.
2) Ways to interpret in terms of Framework:
    a) Ask about a paper they did as a freshman or as a high school student. Ask them to create a search as if they were exploring that topic again. Do they find anything new? Are there new ways of seeing that research? Is there something different they'd like to explore on that topic? This is a great place to bring up self-plagiarizing and why it isn't just un-ethical (if prohibited by your academic code of ethics) but also limiting: That was what you thought then, how about now?
    b) Lots of research on users shows that no matter how "strategic" your research begins, there are lots of "information encountering" moments that occur that make help you make leaps and shifts in your thinking and approach. However, with rare exception, those moments come within a strategic context – i.e., while you were looking for this, you found that. But you wouldn't have found that without being in the process of looking for this.

***Note**: In the titles of the frames, I changed "as" to "is" for parallel congruity. In the original only the first frame uses "is" and all the others I changed use "as." Annoying.

References

[Lots of research coming out this year specifically on the IL frameworks and Discovery. These are older articles.]

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Note: The idea for this presentation came from comments I made at the EBSCO EDS User Conference in Boston last May. In particular I was responding to comments by a speaker from the UK about discovery as a "disruptive" technology.

Appendix

Alt-metrics [Here's how EDS and Summon define them]

Plum Metrics (EDS) and Altmetric (Summon)

Plum Metrics from EDS

Learn So Much More about the Research in Your Institution:

Do you like the altmetrics you just saw?

Unlock the world of data around your research usage and interest. Plum Analytics delivers altmetrics for more than 40 million research artifacts. Sign up today and let's track what YOU want to track.

Make better decisions with valuable analysis with altmetrics. PlumX Dashboards is licensed by institution and helps answer questions such as:

- Which research got the most social media attention?
- Which researchers have the most captures? *(A leading indicator or citations*)
- What is the societal impact of my institution?

- Which grants have the most impact?

PlumX Dashboards

Understand performance on multiple levels through in-depth analysis. Gather and analyze the altmetrics data *the way you want to,* by:

- Researcher
- Lab
- Department
- Grant
- Institution
- …and more

Here are some ways to investigate how PlumX altmetrics can help you leverage your EBSCO investment and unlock interest and usage data about your research:

Read about Facebook, RSS feeds, Clinical Citations and the rolling news of how we capture the altmetrics data you need to view interest in your research.

Learn about the five types of altmetrics we track and how you can embed them in your institutional repository.

Altmetic from Summon

What is this page?

This is an Altmetric details page, which shows the online attention and activity that we've found for this research output.

On this details page, you can see all the conversations surrounding the research output in one place. Altmetric collects relevant mentions from social media sites, newspapers, policy documents, blogs, Wikipedia, and many other sources. (Click the help icon located on every tab to find out more about each source of attention.)

To help you put the data in context, we've given the research output an **Altmetric Attention Score**, which is our high-level measure of the quality and quantity of online attention that it has received. The scoring algorithm takes various factors into account, such as the relative reach of the different sources of attention.

Please note that the Altmetric Attention Score can't tell you anything about the quality of the research output. We always recommend that you read through the actual mentions listed in each tab, in addition to the output itself.

Can I be alerted if anybody mentions this research output?

Yes! If you'd like to be alerted whenever someone shares or discusses this output, then you can sign up for e-mail alerts. Just click on "Alert me about new mentions" on the Summary Tab of this details page.

You can receive alerts for more than one research output tracked by Altmetric. Alerts are sent out as a digest once a day, provided that there has been some activity around at least one watched output.