

Online Search Techniques – Transitioning from “Help from Librarians” to Online Courses

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Introduction:

Librarians think of “searching” with an angle that is completely different from the average information user. Trained in the art and science of helping library users find the most useful information, librarians or information managers think of searching as a several layered process. (Gulten Wagner, 1996). This includes interviewing the information seeker for every angle from which the user seeks information, thinking through which resources may be most suitable to answer the question, identifying the concepts to search, finding the best terms for each concept, running the search, evaluating the results and modifying the processes at various steps as needed. This also includes thinking of limitations like money available to spend on resources beyond what the library has. However today the world of information seekers thinks mostly of Google when thinking of “searching for information”. While there is no doubt that Google (and some generic search engines) do wonders when one performs a search, online searching obviously takes much more than only “googling”, which is a great starting point and also a great supplement to other online resources.

Important points to remember while searching online:

1. Know your resources well. Every resource you visit online – whether you visit it by someone recommending it to you or if you land on the site after a generic search, you must know some things about the resource. This includes - what the resource covers, importantly what it does not cover, who is behind the source, how often it is updated and what are its special features? Without knowing all these details, you can never exploit a resource properly.
2. When you search for a word or a phrase, the results contain your search term. There is no guarantee that the results are *about* what you searched for.
3. You can “tag” your search terms to say where your terms should appear. You can specify that your terms should appear in the title, or in the url or in the body of the results and more
4. Some databases have a feature where they “index” every record of the database with standard terms or controlled vocabulary. For example in the ERIC database (<https://eric.ed.gov/>) which is a database of articles related to education, there are articles on eLearning, mLearning, Mobile learning and Online learning. All such articles are “indexed” with one standard term – “Electronic Learning”. There is a thesaurus of such standardized terms. If you visit the website,

you need to click the tab – “Thesaurus” just above the search box. Enter any search term and remember to choose “include synonyms”. So if you type the term mlearning and do this, you will be told “Instead of this term use “Electronic Learning” (which is the standard thesaurus term). You will then need to click the term electronic learning and in the next page click the link – “Search collection using this descriptor”.

While searching databases that have a thesaurus, it is important to find the best thesaurus term for a concept (in this case for the concept of eLearning, the best thesaurus term is Electronic Learning). Many thesaurus terms have broader terms (in this case “Learning”, and “Technology Uses in Education”. Some have narrower terms too. And then there are related terms. When one wants to do a comprehensive search, one needs to choose some of these too.

Once we find the best term, we must search the database with this term, to identify all articles *about* this concept.

Different authors may have used different terms (mlearning, mobile learning etc), but we need to search only the term Electronic Learning and get all the literature on it.

5. Combining terms correctly while searching for a topic. Most people tend to type an English language query – example – “Students interest in classroom teaching”. A good search in databases is not done this way. We need to find out the standard terms and combine them with “Boolean operators”. The most common operators are AND, OR and NOT

a. AND operator: When you combine two terms with AND – example UG students AND PG students, you are not searching for ***all articles covering both***, but for specific articles where information about both these groups of students appear ***together***

b. OR operator: Combine the same terms with OR and you get articles either about UG students or about PG or about both groups together

c. NOT Operator – UG students NOT PG students will retrieve all article about UG students and *from these*, it will remove any article where PG students are mentioned

d. Some databases have NEAR and NEXT operators. These specify how close search terms must be to each other

6. Truncation – this is the step by which one can search for word variations. For example Diab* will retrieve diabetes, diabetic, diabetics, diabetology and any more variations. Some databases have a starting truncation option – where we can search for *operative – and retrieve preoperative and postoperative. Some have truncation options in the middle of the word – eg – wom?n – retrieves woman and women. It is important to remember that some databases offer only one truncation search option while some offer several.

7. Sometimes the same database may be available through different front end websites, each having its own advantages and features. Eg – PubMed – a database for medical literature has several different front ends. The original database Medline – has only all records where the thesaurus terms have been added. It also has records only from selected journals. However

PubMed – a newer front end for Medline has lots more journals, but only the Medline journals have the thesaurus terms. In PubMed there is only the last character truncation available, whereas some of the Medline front ends have more truncation choices.

8. Exporting results – again different databases / front ends offer different export options. Depending on the reason for your doing a search, it may be important to make the choice of the front end that gives the best export options

There is a lot to learn about the right methods of online searching. One needs to learn how to narrow down search results to get the most relevant results. But, one also needs to learn how not to miss any study, especially if one is doing a systematic literature review on a topic. Both types of searching require specialized skill sets.

Case study:

QMed Knowledge Foundation – a Mumbai based not for profit organization [www.qmed.ngo] was founded by the author of this article, herself a qualified librarian. The Foundation has taught these skills since 2008, to a large number of students and professionals in various health sciences streams. We have a small team of librarians and trained information professionals, who taught and mentored its target audience in these skills. Over the years, there were requests for having such courses online.

Transitioning from “help from librarians to online courses”:

The Foundation launched a couple of online courses in the years 2018 – 2019. Interestingly when they announced these, while many took up the online courses, many others suddenly expressed that direct learning was a better method and requested for workshops. We not only did not give up, but during the pandemic of 2020, revamped the courses and launched a brand new site – [www.qmedcourses.in]. We made several improvements from what was done earlier in 2018-19.

The videos in the new site are short – ranging from 3 – 12 minutes duration, so that people can learn in bytes. The number of videos is obviously more, but the advantage is that later, a participant can go to any specific topic, to revise the same, instead of wondering in which video the topic may have appeared.

Soon after the launch of the new site two institutions took up a subscription to the courses. One was a large medical college and the other a well-known research institution. Both had gone through the Foundation’s live workshops in 2019, and were sure of the quality of the online course. The pandemic has made it more conducive for them to accept online learning as the preferred method. More importantly the costs are so much lower for an institution (compared to the cost of organizing a live workshop), because they do not have to pay for a trainer’s travel,

stay and more, and participants do not need to spend a full day away from work. They learn at their pace and they can revisit any lesson any time. And the best part is that they can contact the trainers via the system at any time, and get doubts cleared.

Putting up full-fledged online courses requires either a readymade Learning Management System (LMS) or the use of an open source LMS like Moodle (which is what QMed used). An open source option requires someone to learn the technology of installing, updating and more.

The other investment is the server facility. QMed started by using a Virtual Private Server (VPS). But very soon we realized that our numbers are increasing and the sooner we move to cloud hosting the better. We are currently exploring cloud hosting options.

Then there is the job of ensuring easy methods of registration and then monitoring the performance of all participants, and helping them with their specific needs. We figured out bulk importing of participants and self-registration methods. We have worked on monitoring the progress of participants. We have already mentored one student with a higher level learning need, over an online meeting call. We know there will be many more. And that we have to strive at continuous improvement processes. It is an exciting journey ahead.

Conclusion:

This journey by a small group of librarians is definitely worth emulating in every scenario. Any institution can plan for their library to put up a series of small lessons for their users – on how to use their library collection and also online resources they subscribe to. The librarians can offer online mentoring in varied forms including online meetings. We believe this is a good time for all institutions to explore the options of integrating excellent online research practices into the curriculum, with the joint involvement of faculty and library professionals. A start can be made with just presentations, videos and google form quizzes! And then the migration to Moodle or alternate learning management systems can be planned. It is all about the best integration of real time classes with online teaching.

References:

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