Searching as Information Literacy
Unpacking the ACRL Frame of Searching As Strategic Exploration
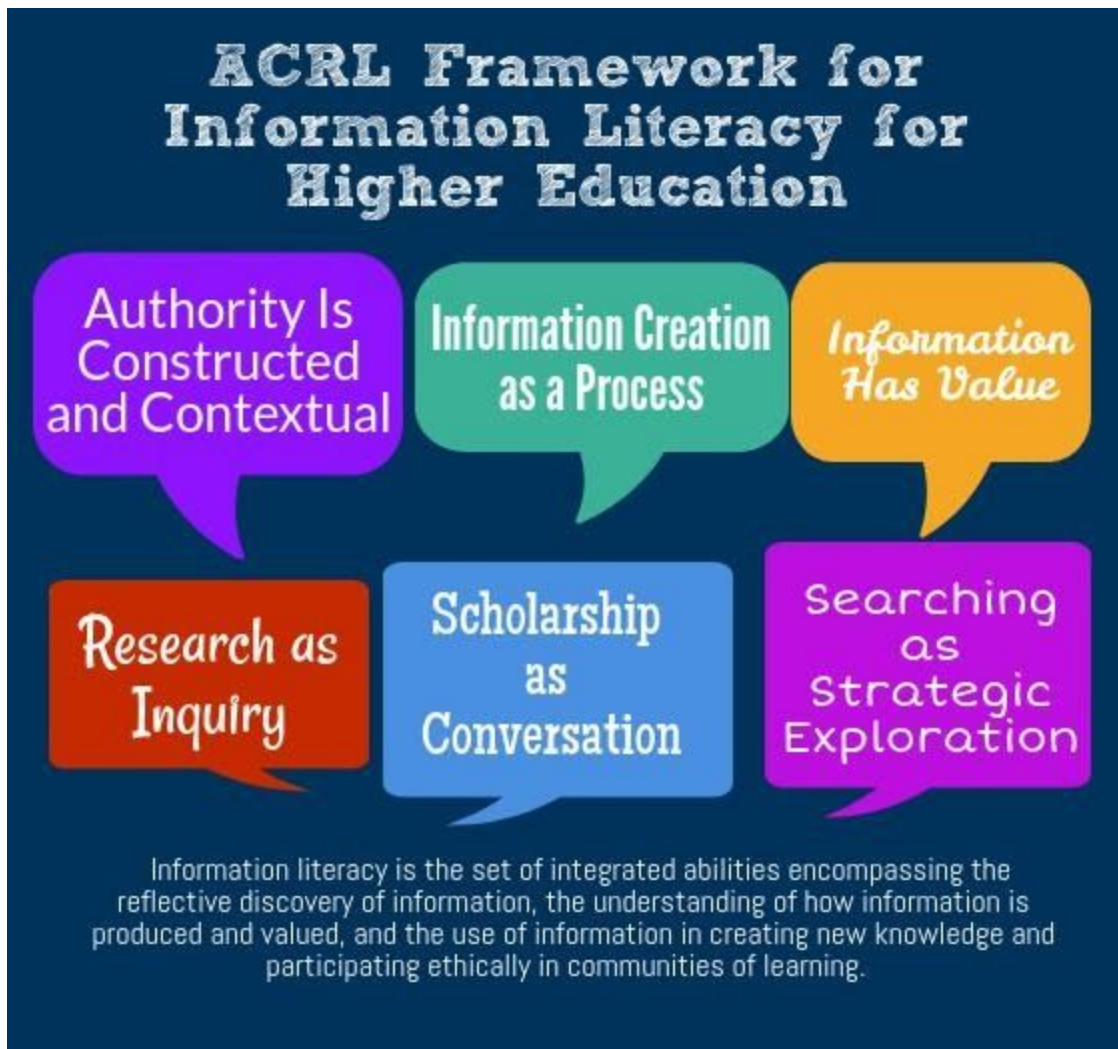
The frame

As one of six information literacy (IL) frames among six that comprise the Association of College and Research Libraries (ACRL) framework, that of Searching as Strategic Exploration (SASE) addresses core concepts related to the search process, and the aptitudes required to become expert searchers.

At a rudimentary level, information search tends to be inconsistent, not steeped in strategic planning, and more haphazard; however, at the expert level, it is understood that the process needs to begin with a search strategy. Moreover, the process is typically iterative and nonlinear, and calls for the searcher's ability to evaluate many different sources of information,

as well as the ability to seek new information sources based on initial results, beginning with the question that led to their search in the first place. Indeed, the process calls for numerous facets, from inquiry through serendipity.

As the [ACRL SASE frame](#) makes clear, searching for information is embedded in context, and this is influenced by the searcher's emotional, intellectual, and social conditions. Among many skills identified by the frame, the search process calls upon information seekers to develop knowledge practices, such as identifying their information needs, as well as resources— for example, librarians—who can help them learn how to access this information, and to use different types of thinking during the search process both divergent (or brainstorming) and convergent (choosing the best information source).

Information seekers then need to learn how to refine their search strategies to narrow down results. Search also calls upon seekers to acquire dispositions as they develop their IL abilities. These include creativity, cognitive flexibility, the understanding that multiple search attempts and fine-tuning are often needed, that browsing and serendipity can be valuable, and that it's extremely useful to seek out experts to assist in the search process.

Learning objectives

This OER, consisting of the podcast, this blog, and the exercises that will follow shortly, aims to help students achieve the following learning outcomes:

- Gain a better understanding of the librarians' perspective on thinking about, planning, and conducting online searches for information, keeping in mind the context of the ACRL frame of Searching as Strategic Exploration
- Arrive at a better understanding of the ways in which librarians interact with students when assisting them with reference questions in specific areas of expertise
- Develop convergent and critical thinking skills about search strategies
- Develop practical pedagogical approaches to teaching those skills to academic researchers in their work as professionals
- Build hands-on skills in searching in an academic setting, using tactics proposed by the librarians in the podcast, such as: constructing strategic search using controlled vocabularies (ie. MeSH terms), keywords, and concepts, as well as free-text searches and boolean operators
- Identify relevant search tools (databases, resources) and sources related to the field of health librarianship, science and engineering and digital literacy

The Medium We Chose: Why a podcast?

> **"The word *podcast* came about by combining the word *broadcast* with *iPod*"** (Hennig, 2017, p. 5)

Although it is possible to present an analysis of search strategies solely in writing or in traditional in-personal presentations, newer media such as podcasts allow for innovative delivery of the material in a more immediate and visceral way. That is, the audience is able to hear and receive the information directly from the experts themselves, in their own words. A podcast is also able to convey the aural nuance of a given speaker in a way that conventional scholarly approaches can't quite duplicate.

While going through several iterations of brainstorming for the format of our instructional design, we agreed that we wanted to directly engage with the academic librarianship community that we are fortunate to have at uOttawa. Indeed, the Ottawa LIS community is tightly-knit, and we wanted to tap into their expertise. We also wanted to continue and build upon the established tradition of collaborative relationships between the uOttawa Library and students in the School of Information Studies/École des sciences de l'information (ÉSIS) @uo_esis.

Interviewing librarians with expertise in developing search strategies was also a way for us to explore what types of work might await ÉSIS graduates. We believe that a podcast with real librarians' voices speaking to and guiding students about exploratory searching, using recent, real-life examples, represents a dynamic, useful, engaging and relevant educational tool for our target audience. In the end, as co-producers and hosts of this podcast, we are very proud of the work we've done.

Radio has been described as "a sonic form of pedagogy." (Lewis, 2017). And to this, we might add podcasting, which is very much heir to the radio tradition. This novel approach to instruction on the topic of the ACRL Searching as Strategic Exploration frame has, we believe, also allowed us to present a diversity of perspectives and breadth of experience. It also allowed us to highlight many valuable techniques for teaching key information literacy skills related to search.

However, we could not have achieved these goals without the generous assistance of our three experts, Lindsey Sikora, Mish Boutet, and Evan Sterling, who graciously offered their time and shared their knowledge with us in the studio as we worked to complete this project.

Together, they covered a great deal of search-related ground, helping us to unpack the ACRL frame in different ways for our audience. Each in their own way, their interviews spanned the ACRL frame's emphases upon the importance of being flexible and creative in search, the reality that first attempts at searching don't always achieve the required results, and the understanding that information sources vary in quality, value, and relevance, depending on the needs of information-seekers. Our interviewees' participation also allowed us to put the ACRL's disposition of seeking guidance from IL experts into action within the podcast itself. As such, we owe them our deepest gratitude.

Our guest experts

Lindsey Sikora is the Health Sciences Research Liaison Librarian at the University of Ottawa. While on her current sabbatical, she is working to complete her PhD in Medical Education.

Mish Boutet is the Digital Literacy Librarian at the University of Ottawa and a graduate of the uOttawa ÉSIS program in the School of Information Studies.

Evan Sterling is the Science and Engineering Librarian at the University of Ottawa.

Evan Sterling
@Ester__Island
I like reading. Science + Engineering/génie @ uOttawa biblioteca
Ottawa, Ontario Joined September 2013
216 Following   157 Followers
Followed by Yoo Young Lee, ÉSISInstruction, and 27 others you follow

Mish Boutet
- mboutet@uottawa.ca
- Bibliothèque Morisset Library (MRT 114)
- 613-562-5800 x3615

Guides
- How to Use Omni
- How to Use Zotero

Lindsey Sikora, PhD(c)
@LindyRexie
Research librarian | #PhD(c) in #MedEd and #HPE | Methodologist in #SysRevs & #ScopingReviews | Batman/BatGirl fan | Coffee addict | She/Her
Ottawa, Ontario, Canada Joined March 2009
804 Following   1,090 Followers
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Leigh-Ann Butler
@Lkbutler16

In the podcast studio talking all things search strategy w/ @TheNerderRebbe @LindyRexie. Shoutout to our co-producer @linaharperhello and our professor @stefhaustein #ISI6372 #UOttawa

> **"According to DiscoverPods.com, 78% of the adults who listen to podcasts do so for at least seven hours a week." ([Talarico, 2019, p. 1](#)).**

Podcasts in education: views from the literature

There seems to be a podcast for almost every topic or discipline. You can find many lists of recommended podcasts categorized by topic or for a given year, such like [this](#) one, or podcasts that are specific to fields such as [tech](#). There are also many for [library-aficionados](#) just like us.

With this proliferation of podcasts on the market, especially since the first podcast in 2003 (check out this [infographic](#)), it is no surprise that they are increasingly being used as a pedagogical tool. After all, podcasts bring research and content to the user, which is especially valuable for marginalized communities, such as low-income, blind and low-vision, and deaf and hard-of-hearing individuals ([Hennig, 2017](#), p. 32-34). In this way, podcasts can transform the pedagogical landscape, including content delivery in the classroom itself. It can also help to accommodate different learner preferences, such as auditory, visual or mixed ([Prakash et al](#)., 2017, p. 1).

Podcasts, then, can bridge educational divides. This is crucial in an era that is increasingly reliant on technology because segments of the population are unable to participate and benefit from technological innovations ([Young, 2018).](#)

Wait a minute, though, aren't podcasts a form of technology? Yes, of course! [Lewis](#) (2017) explains that there are debates to reinvent "educational modes of production to account for virtual realities" (p. 31). But he cautions that we need not reinvent the wheel but rather adopt forms of technology, like podcasts, to transform educational experiences ([Lewis, 2017](#), p. 31). So, how can we effectively use podcasts as a pedagogical tool to bridge divides and transform our educational experiences?

There are multiple studies on podcasting as a teaching tool ([Evans, 2008;](#) [Hurst, 2019](#); [Prakash et al., 2017](#); [Salloum & Smyth, 2013](#); [Williams et al., 2016](#)). For example, Prakash et al.'s (2017) findings point to an increase in performance and benefits, especially as a supplementary tool in more challenging classes, like biochemistry (p. 12). In this way, podcasts provide a way for learners to review content on their own time outside of the classroom to better reinforce concepts. [Evans](#) (2008) found that such flexibility innovates learning because the learner has the ability to review work once the lecture is over *and* on their own time (p. 491). This aspect of reviewing after class can be flipped around to, well, the flipped classroom. In this context, students can listen to a lecture at home, then devote class time to practicing those concepts ([Prakash et al., 2017](#), p. 2). Overall, these studies point to the benefits of podcasts in education due to its flexibility and portability, which is especially crucial for diverse and non-traditional learners in today's classroom ([Morrissey, 2012](#)).

Podcasts in librarianship are a well-used medium to share information about the history of and new developments in the field. In our view, this medium was an effective and relevant way to bring our guests' expertise to our audience in an immediate and (we hope) engaging way.

Please refer to our resources section for a list of podcasts in the field of library and information science. We have also compiled a list of our favorites, complete with twitter handles.

Target audience:

This Open Education Resource targets library and information science students and teachers, people interested in search strategies, working librarians, library technicians, archivists, and educators. We chose the OER podcast format because it allows us to share knowledge gleaned from "grilling" experts — our three librarian-specialists in a thoughtfully designed manner. Moreover, the information needs that these related audience groups have are all related to the search function and to the ACRL frame of Searching as Strategic Exploration. For example, as the frame describes, the search process begins with a question, and moves through iterative steps in which the information-seeker locates potentially relevant sources as well as ways of accessing them. This podcast provides listeners with three perspectives and several sets of techniques that aim to help them do just that.

We believe this format provides LIS students with the opportunity to engage with the content because it is a) portable and playable on the go, and b) free of visual distractions and can be listened to while multitasking (students are busy folks who already have a great deal of reading to do; this is a change of medium, while still providing access to an effective learning modality).

For example, an MIS student who finds herself with a nearly two hour commute to and from classes every weekday can use part of their travel time listening to an educational podcast such as this one, while also relaxing and immersing herself in the audio.

Putting pedagogy into practice:

The Strategy of Search: Exploring the ACRL framework
Student Exercise

Description: a short exercise designed to build upon the podcast

How this data will be used: We may opt to incorporate some of your responses into a future blog post. This blog is currently open to the public on the web. In each exercise, we have asked you to indicate whether or not you prefer to be identified by first and last initials, or kept anonymous.

Part A: Instructions

After listening to the podcast, please complete ONE of the episode exercises and send us your responses via the "Submit" form on the exercise sheet itself.

A.	*Listen to the Podcast*	*Resource: Podcast* https://soundcloud.com/somesoundsbylina/searching-as-information
		
		Listen to the podcast where we interview three University of Ottawa librarians:
		
		Episode 1: Selecting appropriate and relevant search terms
		
		      Librarian: Lindsey Sikora (Health Science Research Liaison Librarian)
		
		Episode 2: Thinking outside the box
		
		      Librarian: Mish Boutet (Digital Literacy Librarian)
		
		Episode 3: Rethinking the value of Google
		
		      Librarian: Evan Sterling (Science and Engineering Librarian).
		
		💡 *Listen closely to the search challenge and strategies each librarian discusses. E.g., relevant databases, search engines, concepts and keywords.*

B.	***Reflect and Respond to the Questions*** *Responses may be incorporated into our final blog post published on **April 14th.***	*Material: Google Form (link in chart, Part B: Search Challenge)* Respond to the questions corresponding to ***one*** of the three episodes in **Part B** using the Google form in the chart below.

Part B: Search challenge

Once you have listened to the full podcast, which consists of three interviews (episodes), please respond to **ONE** episode's related exercises (refer to the chart below for an overview of the exercise and link to a Google form).

The objective is to provide an opportunity to further develop your information literacy skills as they relate to the ACRL frame "Searching as Strategic Exploration."

Podcast Episode	Search Challenge	Discipline
Selecting appropriate and relevant search terms *with Lindsey Sikora*	Imagine that you are a Health Sciences research librarian or a medical student asking for help finding credible sources and information on a topic. In this exercise, you have the opportunity to practice creating search strings using a controlled vocabulary: MeSH. Don't let this task scare you; Lindsey walks you through each and every step! Click on the form found **here** to respond to this exercise	Health Sciences
Thinking outside the box *with Mish Boutet*	Mish discusses the non-linear nature of searching, as well as the value of linguistics to help us create keywords and concepts. He also describes the sometimes "out of the box" thinking you need to use to find the most relevant sources. In this exercise, you are tasked with the challenge of locating information on a critical and recent global issue: the COVID-19 pandemic. Click on the form found **here** to respond to this exercise	Digital Literacy
Rethinking the value of Google *with Evan Sterling*	For this challenge, you are asked to rethink the value of Google for searches in certain fields. Listen closely to Evan's discussion of divergent thinking, grey literature and Google. Now, imagine you are UO's Engineering Librarian, and a student in the Master of Engineering Management program needs your help finding information related to their "client" project. Let's put Evan's tips to use as you take on this challenge. Click on the form found **here** to respond to this exercise	Engineering

Thank you for participating! We hope you've enjoyed our OER.

Credit for music used:

0:00 until 23:00
FLOW by tubebackr https://soundcloud.com/tubebackr
Creative Commons — Attribution-NoDerivs 3.0 Unported — CC BY-ND 3.0
Free Download / Stream: https://bit.ly/tubebackr-flow
Music promoted by Audio Library https://youtu.be/MU-ng80Sf88

At 23:00 onwards
Buddha by Kontekst https://soundcloud.com/kontekstmusic
Creative Commons — Attribution-ShareAlike 3.0 Unported — CC BY-SA 3.0
Free Download / Stream: http://bit.ly/2Pe7mBN
Music promoted by Audio Library https://youtu.be/b6jK2t3lcRs
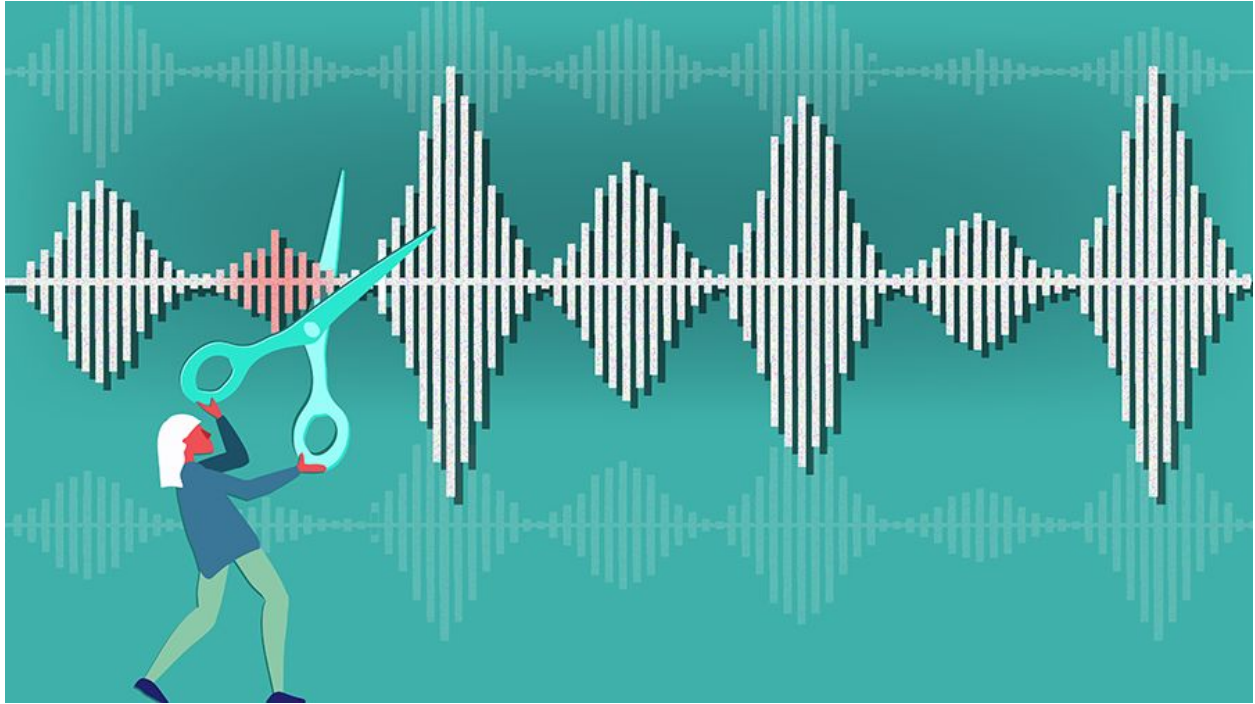
Transcripts

Please find below a transcript for each podcast episode:

Episode 1: Thinking outside the box *with Mish Boutet*

Episode 2: Selecting appropriate and relevant search terms *with Lindsey Sikora*

Episode 3: Rethinking the value of Google *with Evan Sterling*

Blog entry #2 Resources for Librarians

Where can I find copyright-free music for my podcast episodes?

This one is our favourite, but Jamendo is another good one. Don't forget to check the permissions, and give credit where it's due.

Audio Library — Music for content creators:
https://www.youtube.com/channel/UCht8qITGkBvXKsR1ByIn-wA

How to produce radio and podcasts — experts

NPR Training — Storytelling tips and best practices:
Professional sound from a DIY studio: It can be done!
How to decide what to cut (or not) in an interview
How to mix: 8 steps to master the art of mixing audio stories
Want razor-sharp focus in your audio stories? This group activity can help

Jay Allison's Transom.org
TOOLS: In-depth look at using digital recorders, microphones, editing software +

Looking to delve deeper into library land? Check out our list of fave library-related podcasts!

- [Librarian's Guide to Teaching Podcast](): @librarian_guide
- [No Librarians Allowed](): @LibsAllowed
- [Circulating Ideas](): @circideas
- [The Librarian is in](): @nypl
- [Library Land Loves](): @ONLibraryAssoc
- [Two Librarians and a Microphone](): @IngramContent
- [Stacks and Facts](): @StacksEtFacts
- [Lost in the Stacks](): @LibraryRadio
- [Beyond the Stacks]()
- [Cyberpunk Librarian]()
- [Out on the Wire](): @jccabel

There are also many "best-of" lists of librarian podcasts on the web, like this [one]().

Books and e-resources

[Out on the Wire](): The Storytelling Secrets of the New Masters of Radio, by Jessica Abel

[We Didn't Know How to Promote a Podcast. So Here's All We Learned](), by Buffer

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