

Using Online Resources to Teach Information Literacy

Feature



by Meghan Harper, November 2019

Online resources are not just for conducting research. They are also excellent instructional tools for teaching information literacy skills. Information literacy (IL) includes the ability to identify, find, evaluate, and use information effectively. "Regardless of the terminology, be it digital literacy or media literacy, having information literacy skills are the fundamentals to thrive in a digital space" (Common Sense Education 2019). Online resources offer the following opportunities for IL instruction:

- Understanding resource features such as indices, table of contents, and glossaries
- Identifying and using symbols (e.g. an icon to indicate available audio narration)
- Understanding organizational systems: topical, format categorization, alphabetical, numerical, relevancy, most popular
- Seeking information (e.g. developing search terms, identifying types of resources)
- Saving information (e.g. discerning quantity and quality of information needed)
- Promoting digital citizenship (e.g. citing)

A digital citizen refers to a person utilizing information technology in order to engage in society, politics, and government. Karen Mossberger, Caroline Tolbert, and Ramona McNeal define digital citizens as "those who use the Internet regularly and effectively" (2007). Information literacy plays a pivotal role in arming students with good digital citizenship practices.

Most research databases have organizational schemes that are transferable across digital formats and require information literacy skills. School librarians have unique opportunities to enhance IL instruction while students learn the technical know-how of using research databases and engage with academic content. Teaching how these digital resources organize information and how this information is subsequently accessed, retrieved, and displayed are all important skills that help students understand information organization. Learning about how information is organized helps students make critical choices about which online information resource will best serve their information needs. Dissecting online resources and the information contained within builds conceptual awareness about information findability, reliability, and the variables that affect what information is ultimately found, evaluated, and utilized. These information organizational systems replicated in both print and digital resources can be used to teach students how to critically evaluate information. Students learn the practical skills of seeking, accessing, and evaluating information while demystifying the underlying organizational principles that are the foundation for how information is retrieved. Teaching these IL skills is well worth the time and energy, students will learn how to use online resources more efficiently and effectively as well as applicable lifelong skills.

How Organizational Systems Work

Online resources incorporate a multitude of organizational systems that influence how information is retrieved and displayed to learners. As students access information within the resources, school librarians can use these real-time, relevant experiences as a learning opportunity to help students understand how information organization affects how information is accessed and made available to them.

Organizational schemes are evident everywhere in the world, including in our homes. Discuss with students how items such as DVDs, music, magazines, books, and clothes are stored and categorized in their kitchens, bedrooms, closets, or media spaces. Answers may include by type or color, alphabetically by title, topically, or numerically. These discussions bring awareness of the options for how information is identified, labeled, categorized, and organized. The concepts of *searchability* and *findability* can be explored and strategies for increasing findability can be discussed to promote understanding of these categorizing schemes. The elements of searchability include

identifying search terms and search strategies such as using Boolean operators, utilizing and maximizing search options such as advanced searching, or narrowing searches by publication year or format. These functions within a research database can inform how a student launches an effective search process.

Print resources provide excellent tangible examples of how online resources are structured. Traditional phonebooks incorporate an array of organizational schemes such as alphabetical and/or topical organization. Encyclopedias employ alphabetical and topical organization and the indices that are visual representations of broad to narrower terms within topical organization. Compare indices and table of contents in print versions with online counterparts and similar organizational schemes are evident. Searches can begin at multiple points, such as selecting the letter of the topic from a short cut alphabetical list. These alphabets can be viewed in children's databases as well as those for academic researchers. For children, the alphabet listings are an aid for those students who may not know how to spell the exact topical word for keyword searches but can sound out the beginning syllable.

Primary age children often need to be shown these organizational aids to assist them with using online resources effectively. Students may not have the background knowledge or understanding of the concept or be familiar with terminology used within the academic subject area. Comical examples of students' mispronouncing or using incorrect terminology are often at the core of humorous stories told by school librarians who must decipher what students are seeking. Spelling and topical identification can be an initial hurdle for children getting started with online resources. Alerting students to the built-in aids in online resources such as alphabetical shortcuts, "did you mean?" cues, and search-by-topic options is essential to reducing the frustration some children encounter when using databases. Many online resources intended for the primary age child provide helpful topical drop-down menus with broad categories that align with academic subjects. These added features become bridges to help students with searching successfully within the resource database.

Searching

Teaching students effective search strategies is easily completed by bringing awareness to the options for searching within a database. Using an article result, share with students the importance of subject terms and how to find more "like" articles by using them.

Include reminders about using Boolean operators, how to read a website URL, and examples of how search terms can be broader or narrower. Share online or print pathfinders to illustrate how information is collated in the library collection and how classification systems work within the library to bring *like* materials together as well as the importance of search terms and their impact on the *findability* of a resource.

Relevancy

Understanding relevancy, what it is and how it can be affected by search strategies and the resources' inherent organizational schemes, is another key IL skill. Relevancy is impacted by the type of online resource. For example, library catalogs typically retrieve materials in alphabetical order by the author's last name. Students seldom look beyond the first three listings so resources that include authors with last names in the latter part of the alphabet may never be seen even though one of them might be the better, more relevant resource. For online searching on the Internet, relevancy ranking is "the process of sorting the document results so that those documents which are most likely to be relevant to your query are shown at the top" (Nelson 2019). However, relevancy can be affected by how the search engine is set up. For example, user popularity impacts what article or information is retrieved and appears first in the result list. According to Paul Nelson, "documents most often selected from the results list became more relevant, *even if other documents may have been a better match to the user's query*. Google bases a document's relevancy on the number and authority level of external sites which link to it, what words are used to describe the document by others, and editorial decisions based on the usefulness of the content source" (2019). The concept of relevancy is critical to building awareness of how retrieved information is displayed to the reader.

Saving Features

The saving features within online resources offer multiple possibilities to teach students about organizing and saving their research in preparation of their final product. Additionally, the saving and citing features ensure good practices of digital citizenship and promote savvy critical consuming of information.

Most research databases offer multiple options for saving information: creation of folders, printing, downloading, and emailing. These options provide instructional possibilities that enable real-time relevancy to engage students in creating their own organizational systems for information. Folders should be labeled, and the discerning student will need to decide what information is save-worthy. Article printing can be the impetus for discussion about copyright, plagiarism, and notetaking skills. Printing options can spark discussions about important concepts such as full text vs. abstract, pdf vs. html, and how each format is accessed, cited, and saved.

Abstracts offer opportunities to discuss their role in evaluating information and their importance, and their use in the research process. Additionally, abstracts demonstrate the importance of summarizing an article and its key points, helping students see how a summary of the main point of an article is created. Students can see real examples of abstracts and their usefulness as they search and make decisions about the information and its relevancy. These activities center on critical thinking and evaluation in the information-seeking process.

Email options provide teachable moments about employing good organizational skills. Discussions about evaluating information, identifying key points, and labeling for later use are all important aspects of critical thinking about information and its relevancy to the student's information need.

The citation feature provides opportunities to share information about creating bibliographies and promotes awareness of online citation guides and how they are used, plagiarism, and digital citizenship. Additionally, the cite feature is also a great opportunity to reinforce notetaking and organizing students' research processes.

Universal icons for assistive aids such as narration, phonetic spellings, or multimedia formats of information are critical to helping students' to access and critically assess informational content in the format that is most accessible or preferred. Likewise, an awareness of the icons for print, download, email, and Google Drive as options for saving and organizing information are essential to helping students make smart choices for consuming information.

Strategies for Extending Information Literacy

Information literacy instruction may be extended beyond the direct instruction with the presence of helpful guides. Signage at point of need can remind students to be good digital citizens with citation guides, copyright guidelines, and suggestions for how to seek permission or obtain free online images. All guidelines should be available online or in print. Increase awareness of best practices of digital citizenship with posters, quizzes, or interactive displays.

Consider narrated or static screen captures on how to use research databases. Captures can be printed out or used in handouts, flip charts, or instruction. Check out <https://www.myetpedia.com/screen-capture-technology-in-elt/> for ideas on how you can use screen capture tools and links to "how-to" videos.

Post links to sample permission forms, general guidelines, and citation examples or software virtually and for in-library use. Post FAQs on downloading graphics or music and other tasks that involve information use.

A poster—such as the one available from ALA <https://alastore.ala.org/content/good-digital-citizen-poster>—reminds student about good digital citizenship practices.

The Common Sense Media website provides a wealth of ready-made lessons (<https://www.commonsense.org/education/>). Click on the Digital Citizenship tab to locate lesson plans, downloadable classroom posters, and student games.

Summary

Online resources provide a plethora of opportunities to teach information literacy skills in real-time, relevant ways. Organizational systems translate across print and digital formats of information and are important life-long learning skills. School librarians may look to the library catalog to begin teaching students the basics of organizational systems and their impact on searching and retrieving informational resources. Good search strategies can be transferable from online databases to Internet searching.

Works Cited

Mossberger, Karen, Caroline J. Tolbert, and Ramona S. McNeal. *Digital Citizenship: The Internet, Society, and Participation*. MIT Press, 2007.

Nelson, Paul. "What Does 'Relevant' Mean?" Search Technologies. <https://www.searchtechnologies.com/meaning-of-relevancy>. Accessed August 2019.

MLA CITATION

Harper, Meghan. "Using Online Resources to Teach Information Literacy." *School Library Connection*, November 2019, schoollibraryconnection.com/Content/Article/2209706.

<https://schoollibraryconnection.com/Content/Article/2209706>

Entry ID: 2209706

