

Library Tools for Connecting with the Curriculum

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Abstract

Serving as liaison librarians at the department level, the authors discuss strategies for integrating library and online resources with the curriculum. Examples of technology-based capabilities range from current awareness services, e-reserves, and journal finding applications to smart linking functions that can be built into library catalogs, licensed databases, course syllabi, and tailored research guides. Attendees will be able to increase student engagement with learning resources by using their institution's library tools more effectively, and by requesting librarian assistance to employ these functions in online research guides and course syllabi.

Introduction

In this era of accountability and cost effectiveness coupled with assessing student outcomes, this paper explores what classroom faculty and librarians can do to more effectively engage students with learning resources. This exploration is envisioned as the first step in understanding how new technologies are changing the ways university and college librarians and classroom faculty are responding to the expectations and needs of learners for on-demand access to library and licensed resources. Enhanced library service and course management capabilities for providing multiple points of access to resources and user-initiated library services, such as current awareness, inter-library loan, and electronic reserves, are increasingly built on advances in linking technologies.

Linking technologies allow librarians and classroom faculty to map library resources to the curriculum and structure the learning process to accomplish learning objectives in a fashion that facilitates student contact with library and other resources. Accordingly, one of the first tasks to be accomplished is to identify the topic(s) to be researched and the types of resources to be used, i.e., journals, newspapers, reserves, reference collection, circulating books, government documents, and online databases. For example, a professor may provide students with a list of suggested or preferred professional journals

that the articles must be found. If the intent is for the student to efficiently locate the journals to be searched, then the traditional journal title list could be constructed as a web page with appropriate links. The types of links provided could range from library catalog entries to online sources including full text/image databases covering each of the journal titles, as well as links to electronic journals when applicable.

Developing or providing multiple entry points into the world of learning and library resources provides an excellent opportunity for librarians and classroom faculty to assess their efforts in guiding information retrieval. With a focus on the course and its research requirements, classroom faculty and librarians can customize online course syllabi and research guides to facilitate learning specific research skills – navigating a myriad of online content, locating and obtaining print sources, and evaluating what they find. For example, Brenda Reeb and Susan Gibbons (2004) suggest that tailoring research guides to meet student research needs “. . . at a course level are more in line with how undergraduate students approach library research” (p.123). Thus, with a renewed emphasis on course research requirements, librarians and classroom faculty can create a customized approach for learning research skills in support of selected courses.

The Need to Link to the Source or as Close as Possible to the Source

A primary aspect of information literacy is the ability to use the best information available for a given purpose, leading librarians and teaching faculty to the realization that students often do not possess the skills to locate the information needed and that they tend to rely on whatever is easily obtainable unless specifically directed to appropriate sources. In general, college students feel somewhat confident in using computers and searching for information on the Internet. All too often, however, students do not know how to find the information that they really should use and are content to rely on whatever they find online. Students often tend to be “technologically savvy” but not necessarily information literate and often mistakenly believe that technical savvy is the equivalent of information literacy (Brown, Murphy, & Mark, 2003). Students want to find information quickly, preferably with a single search, without having to read lots of instructions, decide which source to search, or drill through multiple sites.

Librarians, while trying to keep pace with changing technology, are concerned with the ability of students to obtain the best information, realizing that our complicated web pages are in direct competition with search engines such as Google, Yahoo and others that tempt our students with a single search box that will find results for almost anything they type into it. Not being information savvy, students reaching a fairly low frustration level in seeking information through the library channel, all too often resort to the simpler route. Our job as librarians and classroom faculty is to ensure that students know when it is appropriate to do a Google or Yahoo search, and when it is preferred to look for information in a scholarly publication. And further, students need to be able to evaluate the quality of the information obtained whether from the web or a database purchased by the library.

Even those of us who have been librarians or classroom faculty for a while and have completed our education requirements before the development of the Web, realize how complicated the issues of information literacy and research are for present day students. While on the surface conducting research in the current information environment seems easier than in the past, the sheer volume of in-

formation and number of choices make the process more complicated than in a strictly print research environment.

An example of how complicated locating the best information for a particular purpose can be is locating the full text of an article referenced in a database. First of all, the student must decide which database is the logical first choice for the information needed. Another big problem we have found in web usability testing is students often do not understand what a database is and how to select the one most appropriate for their research topic, according to Bede Mitchell, Dean of the Library and University Librarian, Georgia Southern University (personal communication, April 20, 2004). After successfully navigating through the maze of databases and locating relevant article citations, the student must determine how to locate the complete article. Until recent technological developments, students had to check multiple sources to determine the availability of an article. For example, a student with a citation might miss the fact that the entire text is available in the very database in which he or she is searching because all databases do not have the same look and feel. Some databases show an obvious link to the full text while others require drilling through multiple layers or even linking to another site. After determining that indeed the article is not available, there is the possibility that the article is available in another database that must also be searched. Indeed, if no online full text is available, there could be print holdings in the library collection that necessitate a search of the library catalog. And if no holdings are located online or in the library collection, there is the option of filling out a request for an inter-library loan, which of course means that the article will not be available to use for the assignment due tomorrow. It is no wonder that the Google search box begins to look like the best solution to many students.

A-Z Lists and SFX

Librarians not only play a role in helping students to develop information literacy, but also attempt to organize information to simplify retrieval of the desired information. Fortunately as technology advances, librarians have access to new tools that are making the job of organizing information more efficient. Gradually, information resources are becoming integrated so that the information seeker has fewer resources to check and fewer places to look to find the information needed. Such tools include A-Z listings of journal titles with online links to the source of the information, direct links to databases and journal titles, and new linking software tools such as SFX which incorporates context sensitive linking technology allowing librarians to connect information from multiple databases or providers (Walker, 2002). While these tools do not necessarily increase information literacy, they do increase the likelihood that students will find reliable information and not bypass the expensive and quality resources provided by the institution. In the long run, will it not serve the purpose of information literacy if students are actually using appropriate resources because they are easier to access?

Software for the creation of A-Z journal locator lists is available from a number of vendors. While this software does not provide the seamless access to information for which we are striving, it certainly heads us in the right direction. A student with a citation can check the A-Z listing to find all the locations of the journal without checking multiple databases. Such listings generally include links to search the library catalog and to submit an interlibrary loan form as well. Many libraries are adding linking tools such as SFX so that a citation located in one database will link to other databases and even the library catalog.

A-Z listings for databases are also useful tools for students as well, particularly when local holdings and those available through consortia are integrated. In Georgia, all types of libraries have access to a statewide collection of resources called GALILEO, which stands for **GeorgiA Library LEarning Online**. For several years, libraries maintained local database listings on their respective web pages and a link to the GALILEO resources. Only recently could a library integrate local databases into the GALILEO listing or provide direct links to GALILEO titles from the local listing. The existence of two resource lists is a barrier for students who do not care how resources are funded but are only interested in how easily they can locate the information that they need. The flexibility of integrating local resources with the GALILEO listing or of doing just the opposite and creating “express” links to GALILEO resources from institution level sites gives many options for librarians and teaching faculty alike for customizing research interfaces and assignments in order to link directly to the resource needed for a particular purpose by students.

The library catalog can also be enhanced to make electronically available information easier to locate by the addition of direct links added to library records so that electronic material can be accessed from the catalog without the necessity of consulting a separate list or web page in addition to checking the catalog. Links can be created directly to many databases and journal titles, depending on the licensing arrangements for a particular resource.

The Link to Information Literacy

New linking technologies can be utilized by classroom faculty as well as librarians, not only for their own research needs, but in creating assignments for students that make information easier to access, promote the use of appropriate information and enhance information literacy. If librarians and teaching faculty begin to think like students, the realization occurs that students tend to think in terms of one specific course or assignment. Thus, providing students with the traditional bibliography of library resources useful for the discipline is not much help to them, particularly for those students who have not developed information literacy skills. However, if librarians and faculty provide “bibliographies” or guides with direct links to resources related to specific courses or assignments, students will have a greater chance of locating and using appropriate information (Reeb & Gibbons, 2004). Librarians and classroom faculty can become partners in this endeavor with librarians assisting classroom faculty in determining resources available, and how best to link them whether through a web site, a course management tool such as WebCT, an A-Z listing of journal titles or research databases, or the library catalog since many resources have restrictions on their use and require the use of a proxy server or other mechanism to ensure that only authorized users gain access.

By targeting specific information needs and linking to the source or as close as possible to the source, students can be assured of accessing appropriate information and decrease their reliance on search engines as the sole source of information. Although it is not possible to make searching for information as simple as students perceive it to be with an online search engine, customizing access to information based on specific information needs can certainly enhance efforts to increase student literacy. Linking to the source or as close as possible to the resource, on the part of both librarians and classroom faculty, will better serve students in locating the information that they need and in turn increasing their information literacy skills.

“My OPAC,” PURLs, and “Library LookUp” Features and Capabilities

Once librarians and faculty have determined the resources necessary for courses being taught and how best to link those resources to a web site, course management tool, or library catalog, further steps can be taken to make syllabi, bibliographies, and other resource materials more useful to the students by using “My OPAC,” PURLs, and/or “Library LookUp”.

First, teaching faculty and students using the library catalog at their institution may have options to set their preferences, save searches, and/or select items to be placed in a shopping cart. These features may be found in the catalog under a name similar to “My OPAC”. One feature of “My OPAC” is to log into “Your Account”. This allows faculty and students to find out how many books they have checked out, when those books are due, any fines/fees, and any book requests made. Once logged into their account, faculty and students are able to define the kind of search they would like as their default (i.e., keyword or exact search), tell how many results to display a screen at a time (i.e., 10, 15, 20, etc.), and tell which databases to search after searching the catalog for the same topic.

Another feature of “My OPAC” is the faculty or students’ option to save any searches conducted. Once a search has been saved, the faculty member or student can decide how often to have results emailed to him/her. Additionally (s)he can specify whether all results from the saved search should be emailed or just new results if any are found. This allows the faculty and student to keep abreast of all new books and periodicals that arrive in the library on a regular basis.

The last feature of “My OPAC” is similar to “my shopping cart” found on online stores such as Amazon.com or Barnesandnoble.com. Some libraries may have this feature disabled; nonetheless, it is still an option to those who do have this feature enabled. This feature allows faculty and students to peruse through the results found in the library catalog after conducting a search and any items of particular interest may be selected to be placed in their cart. After perusing the entire results list, faculty and students may go to their shopping cart to print, email, or save those results of interest so they may check them out or save the information for later research.

Secondly, classroom faculty and librarians may conduct searches in the library catalog, and any results they find may be included in syllabi or bibliographies as an active link if these items are placed on a web site, course reserves section of the library catalog, or course management tool (i.e., WebCT). The advantage to performing such searches, known as persistent uniform resource locators or PURLs, include re-executing saved searches, facilitating research on complex topics, and creating current bibliographies of library holdings. Every time a search is performed by clicking on the text that is linked to the PURL, results on a specific topic in books, periodicals, recordings, etc. will be found. PURLs are more up-to-date and accurate than bookmarks because bookmarks die quicker for various reasons. Similar to saved searches in “My OPAC”, PURLs can be performed one time, once a week, or monthly depending on the faculty or students’ preference and assignment according to the assigned course requirement (Davidson, 1998; Online Computer Learning Center, 1995).

Lastly, John Udell has created a bookmarklet using JavaScript. This bookmarklet, called “Library LookUp,” is installed onto an Internet browser toolbar. After searching online bookstores

(i.e., Amazon.com or Barnesandnoble.com) for a particular item and clicking on that item for additional information, faculty and students can search for this same item in their library catalog to find out if the item is owned and if so, whether it is available for checkout. “Library LookUp” searches an item by a single ISBN or multi-ISBN using any of the following online catalog systems: Innovative, Voyager, iPac, DRA, or Talis (Udell, 2004a). Pre-created bookmarklets have been created for numerous institutions using one of the named online catalog systems. If an institution is not listed, then instructions are provided for how to create a bookmarklet for that institution (Udell, 2004b). This is useful for faculty and students because (1) they will not have to purchase the item if they do not desire to do so, and (2) if the item is not in the library collection, they may request it utilizing the library’s inter-library loan or document delivery service.

Electronic Reserves (e-reserves)

Introduced in the past decade, the electronic reserves system of web-based college and university library catalogs is growing in popularity among classroom faculty and students. The purpose of e-reserves systems are twofold: (1) to provide efficient access to required and recommended course materials in electronic form on the web, and (2) to ensure that all authorized users have access to the material. Although e-reserves practices for digitizing content, obtaining copyright permission, and remote access vary by institution, common features of e-reserves systems include the use of drop-down menus for access by instructor, department or course title, the capability to link to related content, campus access through IP recognition, and remote access to support distance learners.

Current Awareness Services

Also, growing in popularity among faculty are current awareness services that provide tables of contents and citation alerts by email as journals are published. Current awareness services are a “useful tool for identifying target journals to send a manuscript for publication, reviewing the literature, as well as covering journals not received” (Nelson & Fernekes, 2002). To initiate tables of contents alerts or citation alerts, a faculty member creates a list of journal titles or a list of keywords/subjects, respectively. An initial keyword/subject search of a current awareness database typically results in a baseline search that can be saved or emailed by registered users. These services can range from a single publisher’s listings to comprehensive databases covering many publishers. Common features of current awareness services licensed by libraries include access to catalog entries and journal titles received by the library in print and online with links to full-text, electronic journals and tables of contents, as well as articles for sale. Complementing this capability is another library service called inter-library loan and document delivery to obtain content not owned or licensed by the library for authorized users.

Conclusion

The cumulative effect of implementing these technologies and a focus on assessment of student outcomes driven by accreditation has resulted in efforts to better serve our constituencies as measured by institutional effectiveness. Through the use of linking technologies and collaboration, library tools can become navigational features that transform online course syllabi and subject guides into tailored research guides, reserve items into electronic reserves, and current

awareness alerting services into faculty and graduate student research tools. The use of linking technologies also serves to strengthen the development of information literacy skills in the disciplines, and offers opportunities for assessment of student learning outcomes related to research and information literacy. Lastly, it improves delivery of content for distance learning courses and online components of traditional classroom instruction.

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