Facilitating Undergraduate Use of Subscription Research Databases

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Abstract: Subscription research databases provide undergraduates with round-the-clock access to high quality research articles from scholarly peer-reviewed publications and conference papers which they can use as sources in class research projects. However, research shows that students continue to utilize material from the free Web, discovered via search tools such as Yahoo and Google. This paper will review selected research into student use of subscription research databases and then present strategies developed at Bryant & Stratton College Cleveland Downtown campus to effectively educate undergraduate students in the use of these databases by creating subject-specific handouts which are emailed directly to students, presenting jargon-free step-by-step instructions during targeted bibliographic instructions sessions, and providing individualized assistance when students are working with databases during the research process.

Introduction

Electronic subscription research databases available via library websites make scholarly information (once only available in print periodicals held in physical library collections) accessible to undergraduate researchers at any time of the day or night. This means that academic research is no longer confined to the physical library and its hours of operation, but may take place anywhere that students have access to a computer with an Internet connection.

However, Low (2003) observes that "students continue to Yahoo and Google their way into a vast sea of data" (p. 30), not realizing that subscription research databases "help to guarantee a level of quality information that is not readily retrieved through open Internet searches" (p. 30). Similarly, Eden and Ofre (2010) observe that "university undergraduates are often largely unaware of the myriad of information resources available to them in their university libraries, thereby relying on publicly accessible Internet sites for their research information needs" (p. 16), and Urquhart and Rowley (2007) note that undergraduates, specifically those in the first year, are likely to select information resources based on "time factors, convenience of format, and an unwillingness to try the unfamiliar unless this [is] an explicit expectation" (p. 1192). Confirming these earlier observations, students have recently noted that their preferences for free Web resources are fueled by Google's familiarity ("Students in Their Own Words," 2010, para. 1, 2) and the perception that articles can be located faster on the Web than by using standard library research databases (para. 3).

This paper will examine recent research into the use of subscription research databases by undergraduate students and recommendations on how access may be improved for these users, then examine efforts at the Cleveland Downtown campus of Bryant & Stratton College to improve awareness and use of subscription research databases by undergraduate students across several majors.

Benefits of subscription database use

Undergraduate researchers may immediately realize a number of benefits when using subscription research databases to complete research assignments. Most significantly, a large number of these databases are subject-specific, dramatically narrowing "the overwhelming results returned by their large, 'we-have-it-all' counterparts" (Young, 2004, p. 90) . This subject-specific nature also provides better context sensitivity to student-supplied search terms and improved relevance of return sets, allowing students to focus only on literature which is pertinent to their research topics. As an example, Young (2004) observes that the term "cell" will produce a return set much more likely to meet the academic researcher's needs when entered into a science database than when entered into a free Web search engine (p. 90).

Additional benefits, dependent on the specific database being used, include the ability to search only within academic, peer reviewed publications and conference papers, the ability to examine detailed article abstracts in order to ensure relevance before committing to an entire article, and, in the case of EBSCO databases, the ability to create personal virtual folders where surrogate records linking to individual articles may be stored.

Review of selected research

Bergart (2002) observes that, compared to other sources with which students are familiar, electronic resources require more attention to user training because the format disembodies the text, making the origin and scope of the article less visible. She suggests that faculty should be sure to thoroughly introduce the nature of the research process in class, and that librarians should be sure to reinforce this process when assisting student patrons in using research databases (p. 183). Cooper (2005) suggests that librarians assist faculty in creating projects that require students to use research databases for specific tasks (para. 3). She suggests, for example, that students work in teams to locate articles in preparation for classroom debates (para. 6), that students be encouraged to perform statistical research in order to better understand economic or social trends (para. 10), and that students conduct research into literary criticism in order to better understand literature's context (para. 17).

Eden and Ofre (2010) recommend that the role of the academic library in Nigeria should be redefined, and to help this process libraries should find effective ways of promoting awareness of available resources while exploring various ways of further meeting undergraduates' demand for electronic resources (p. 17). Jong-Ae (2006) also suggests that emphasis needs to be placed on making students aware of subscription

research databases due to students' continued reliance on lower quality free Web sources (p. 1716). She asserts, however, that her study found user training to have no positive effect on perceptions of ease of usefulness of subscription research databases and that user training of these databases needs to be reexamined. She suggests that improving the clarity of the terminology used to discuss subscription databases by removing library jargon may actually be the best way to assist students to easily use subscription databases. In addition, she suggests that adequate user support be provided to help students retrieve information from databases in order to enhance perceived accessibility (p. 1724).

Kim (2006) also found no statistically significant increase in subscription database use based on whether or not students had received general user instruction as part of library orientation. However, she does observe that it is crucial for libraries to improve database accessibility by placing links to databases on the library's home page and shortening the connection path to each database (p. 37).

Korah and Cassidy (2010) also observe that users often have difficulty navigating results pages and accessing full text due to the use of library-specific terminology and icons (as compared to the more recognizable language and icons used on free Web search engines), and on occasion may miss certain essential features completely due to unfamiliar jargon (p. 327). Low (2003) suggests addressing these issues by educating students about the utility of specific databases, developing worksheets that will guide students through each step of database use, and ensuring students know how to access databases by walking them though each step (p. 30).

Student Awareness Strategies at Bryant & Stratton Cleveland Downtown

The Cleveland Downtown campus of Bryant & Stratton College offers associate degrees and selected bachelor degrees across several majors. Each major requires several courses involving significant research projects for which research databases could be utilized.

An array of subscription research databases, including several EBSCO, Gale, and Westlaw databases, are provided for use during student research. These databases may be accessed from the Bryant & Stratton College Virtual Library, allowing students to conduct research in the campus library, any other location on campus via the wired or Wi-Fi campus networks, and off campus 24 hours per day via Internet-enabled device.

Based on the research discussed above, several strategies are being put into place at the Cleveland Downtown campus to ensure students will be familiar with the array of subscription research databases available via the library's Web site and that they will be able to effectively use these tools when needed for assigned research projects:

1. The Dean of Students will request that faculty include at least one relevant research database on course syllabi as part of a bibliography of suggested resources for out-of-class research.

2. Handouts for each database are being developed with non-jargon, specific instructions for accessing the database and screen shots of what users should expect to see as they move through the instructions. These handouts are emailed directly to students and faculty as they are developed, and in the near future will be available electronically from the campus Virtual Library portal.

3. The Dean of Instruction has requested that all faculty invite the campus librarian to conduct a library instruction session in their classrooms just prior to beginning the major course research project. As part of this session, the class will be introduced to how to select and navigate research databases relevant to the course subject matter, and a paper copy of the database handout will be distributed.

4. Library staff members are being trained in specific research database access and are actively reviewing database content in order to be prepared when students ask questions regarding database use.

5. Individual library consultation sessions are being considered, in which students meet one-on-one with the campus librarian, and will receive individualized training on how to choose and access databases and how to examine article abstracts to determine relevance.

Conclusion

Two of the most significant findings of previous research into undergraduate use of subscription research databases are that students tend to use free Web search engines such as Yahoo and Google when searching for information to use in research projects and that traditional user training, as offered in general bibliographic instruction sessions, is not effective at preparing students to use subscription research databases. This may be due to the fact that undergraduates are confused by the heavy use of library jargon used in the database interfaces and instruction sessions, whereas the free Web tools with which they are familiar are jargon-free and easily understandable. However, students are not able to easily access the same quality of scholarly material on the free Web as is available in subscription databases.

The group of strategies outlined above are geared toward making students aware of the existence of research databases available through the Bryant & Stratton College Virtual Library, and to empower students through a variety of instructional tools (targeted bibliographic instruction in the classroom just prior to project research, database-specific handouts, and individualized consultations) to make use of subscription databases for course research projects.

Further research via student survey will be required to measure student response and to determine if adjustment is required to the strategies in order to further enhance student awareness of subscription database resources. The instrument to collect this information will be a two-question, Web-based survey asking if students received targeted in-class instruction on how to search for information in subscription databases and if they subsequently used subscription databases while conducting research. This survey will be

administered near the end of the Winter 2011 semester, and, if necessary, adjustments will be put in place for the Spring 2011 semester.

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