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Targeting Point of Need to Increase Traffic to Library Resources

By James C. Miller

This paper examines the effect of creating LibGuides tailored to a student's point of need and focuses on their potential to boost usage of library resources. In this study, LibGuides were designed for specific assignments and introduced to students during library instruction sessions. Pre- and Post-LibGuide web traffic suggests that LibGuides increased web traffic to library resources. This article suggests that library resources should not only provide sources for assignments but also assist a student through the stages of completing an assignment. As a corollary benefit, creation of assignment-specific LibGuides increased collaboration and discussion between faculty and librarians.

Introduction

Connecting with a library user can be as simple as finding out the steps they need to take for an assignment or task. This article proposes a method for creating user-centered library resources with the popular software LibGuides, from Springshare, a content management system used by librarians to connect users to library resources and information.

Finding the "point of need" for students at South Georgia Technical College involved gaining an understanding of their essay assignments in psychology and English classes and meeting with their instructors to discuss problem areas. Point of need can be defined as the moment in a student's research process when he or she needs access to certain kinds of information to complete an assignment or task (Peele and Phipps 2012).

Many library websites and bibliographic instruction sessions focus heavily on searching the library's catalog or databases (Head and Eisenberg 2010). Instead of having a library website with broad categories (e.g., databases, magazines, newspapers) with an emphasis on searching, meeting students at their point of need highlights particular tasks (e.g., begin writing a research paper, create a thesis statement). It is important for libraries to "move from source-focused to research process-based instruction" (Stephens 2011; under "What we should do"). The research processes at play vary depending upon the academic setting. Many of the classes within program areas at this author's institution did not require writing essays that incorporated sources and used specific citation styles. Explaining citation and plagiarism was another area of "need" to address in designing information services for this educational setting.

In this case study, the author outlines one library's experience of creating assignment-specific LibGuides designed to meet students at their point of need, which resulted in an increase in overall usage of library resources. This paper hopes to demonstrate the value and "return on investment" that assignment-specific LibGuides can bring to academic libraries.

Literature Review

There are many articles that stress the importance of a LibGuide, or course guide, meeting students at their point of need. Solis and Hampton (2009) address incorporating course-specific web pages in BlackBoard as a

way to raise awareness of library resources and measured the usage of their course-specific web pages. The most heavily used pages had the most course integration (e.g., resources specifically for the subject and assignments). Solis and Hampton (2009) found through student evaluations of their course pages that students were overwhelmed by the library website and preferred course pages because the content was more relevant and tailored to their needs. The article demonstrates that inserting a library webpage where the students access course information (Blackboard) was much more effective than standalone library web resources.

Similar studies such as Daly's (2010) of Duke University discovered through surveys that students found course-specific LibGuide pages in Blackboard useful. Daly's study documented the progress of "embedded librarians" with course-builder access to faculty's courses in Blackboard who created course guide interfaces with library resources using LibGuides. Daly measured hits to the LibGuide pages and found that LibGuides that were introduced with face-to-face instruction were more heavily used than LibGuides that dealt generally with a course's subject area or library resources. Daly (2010) encouraged librarians to develop and maintain relationships with faculty and students in order to develop effective course-specific LibGuides. This article also showed the advantages of having course-guides in Blackboard and introducing those guides in-person to students.

While both of the aforementioned studies address the placement of LibGuides, other studies address students' reception of subject guides. Ouellette (2011) examined student use and perception of subject guides and found that students only used subject guides as a last resort, preferred the database section of the guides, and preferred guides that are clean, uncluttered and use clear language. The author recommends that librarians highlight relevant databases by placing them on the homepage of the subject guide. The results of the study also suggest that librarians spend more time gaining an understanding of the different disciplines of the college in order to address the unique needs of their students (Ouellette 2011). The article highlights the importance of making subject guides more relevant to students by spending time figuring out what students are doing in their coursework and also touches on selecting relevant databases for different subjects.

Reeb and Gibbons (2004) conducted surveys, usability tests, and measured usage statistics, concluding that students do not connect well to subject guides. The article explores the disconnect between the way librarians organize information sources and how students approach information sources. Course management systems have created customized learning environments for students; therefore, the students expect similar personalization and customization on a library web site. The article cites numerous studies showing that students were unaware of subject guides and tended to use the web instead of databases or library resources for research. Reeb and Gibbons assert that coordinating library resources with courses is more conducive to the way undergraduate students approach library research. The article deftly unpacks the idea of "meeting students where they are" and proposes a "mental model" (Reebs and Gibbons, 10) for organizing library resources.

Other studies look at designing LibGuides with specific tasks and assignments in mind and recommend adjustments to LibGuides according to usage. In "Shaping the Curriculum," Kirkwood (2011) provides a section on LibGuides and how they can maximize use of a library's digital resources. Kirkwood measured the number of visitors to an engineering LibGuide page and recommends using LibGuide statistics to guide the process of altering the LibGuide (e.g., removing tabs that are not used) in order to streamline the page. Kirkwood (2011) emphasizes the importance of preparing digital tools that are easy for students

to access with the hope that students will return to use other digital resources for other purposes. The article explains how a well-designed LibGuide boosts usage of digital resources, but only provides statistics for visits to LibGuides and did not track changes in database or resource usage after the introduction of the LibGuides.

Another study focuses on using LibGuides to aid students in the process of research. Little et al. (2010) discusses an initiative to create a Faculty Learning Community for sharing information on teaching research skills and creating a LibGuide that focuses on research methods. The research methods LibGuide was designed to assist a student from the beginning to the completion of a project. Each tab of the LibGuide was designed for each step of the research process (e.g., Getting Started, Choosing a Topic, Writing a Research Question, etc.). This LibGuide linked to different Internet and library resources that support various disciplines at the college. This particular research LibGuide page was one of the most popular guides offered and the authors provided statistics for the LibGuide views. The article provides a strong example of meeting a student at their point of need because it acknowledges each step a student must take in completing a project and provides tailored resources for each step.

Focusing on students' research process is important. In 2010 over 8,000 students from twenty-five different campuses were surveyed and over three-fourths (84 percent) of the students reported that the most difficult step of the course-related research process was getting started (Head and Eisenberg 2010). The 2010 Project Information Literacy Progress Report recommends an emphasis of "the research process over research-finding of sources" (Head and Eisenberg, 39).

The studies all address the importance of meeting a student at their point of need. Most of the articles express the idea that one size does not fit all for library websites and that

there is increased utilization of a website if the content meets a user's needs. However, the only web traffic measured in the studies was visits to the LibGuides pages. The studies did not examine or draw a relationship between the introduction of an assignment specific web page and an increase in overall library resource usage. The studies did not attempt to measure a cumulative increase of library resources after the introduction of a course or assignment-specific web page. This paper attempts to establish such a relationship and supports this assertion with web traffic statistics.

Methodology

Participants

In fall 2011, 177 students attended library instruction sessions provided in English and psychology classes. In spring 2012, 141 students attended library instruction sessions and were introduced to homework-specific LibGuides. Of these students, 64% held high school diplomas, 20% held GEDs, and 15% had less than twelve years of primary education. A small percentage of these students had some post-secondary education. Participants were attending a technical college in southwest Georgia.

Materials

The materials were the homework-specific LibGuides, which were introduced in the spring 2012 semester. The author of this present article created three homework guides using LibGuides. Before creating these homework guides, the author set up meetings with each instructor to discuss the homework assignments. To effectively plan, design, and execute assignment-specific instruction sessions with LibGuides, a librarian needs to be informed of the nature of the assignment, the research skills of the students, and the expectations of the instructor.

Technical Colleges generally lack subject librarians. Subject librarians can be effective for
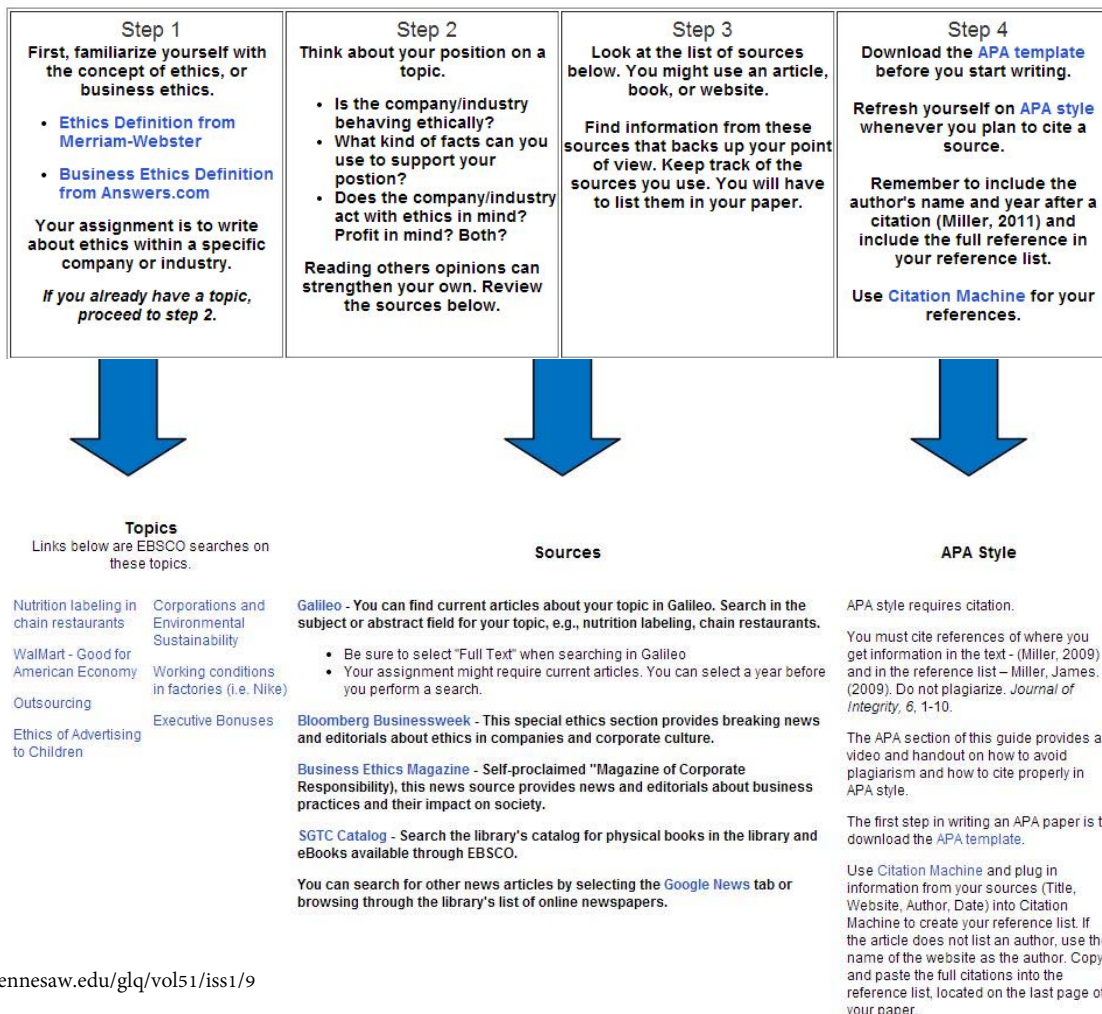
making students aware of library resources because they are in the position to work directly with students and faculty at the point of need within the discipline (Kerico and Hudson 2008). This author was in charge of collection development for over twenty different associate degree, diploma and technical certificate programs. Covering so many different areas created difficulties in developing collaborative relationships with faculty and becoming familiar with their coursework. This lack of familiarity naturally leads to challenges in designing user-centered library resources.

Creating homework guides spurred more interaction with a small group of instructors, who reviewed the homework guides before they were introduced to students. The process of creating LibGuides was beneficial because it put the author in the role of a subject librarian and increased librarian-faculty interaction.

LibGuide Anatomy

The homework guide, which can be viewed at http://tinyurl.com/lgufnah, had three tabs, each with a separate page of resources. The first tab includes suggested steps for writing the assignment and posed questions to the students about their specific assignment topic. These steps include questions students should ask themselves about their topic before they begin writing. This series of questions was designed to get students into a researching state of mind. The first tab also provides appropriate databases for the research assignment and persistent links to the databases for searches on a few of the assignment topics. A link for outsourcing, for instance, brings up current articles on the topic from EBSCO databases. See screenshot below for an English essay assignment about ethics in commercial culture.

Steps to Writing your Essay

Step 1
First, familiarize yourself with the concept of ethics, or business ethics.

- Ethics Definition from Merriam-Webster
- Business Ethics Definition from Answers.com

Your assignment is to write about ethics within a specific company or industry.

If you already have a topic, proceed to step 2.

Step 2
Think about your position on a topic.

- Is the company/industry behaving ethically?
- What kind of facts can you use to support your postion?
- Does the company/industry act with ethics in mind? Profit in mind? Both?

Reading others opinions can strengthen your own. Review the sources below.

Step 3
Look at the list of sources below. You might use an article, book, or website.

Find information from these sources that backs up your point of view. Keep track of the sources you use. You will have to list them in your paper.

Step 4
Download the APA template before you start writing.

Refresh yourself on APA style whenever you plan to cite a source.

Remember to include the author's name and year after a citation (Miller, 2011) and include the full reference in your reference list.

Use Citation Machine for your references.

Topics
Links below are EBSCO searches on these topics.

Nutrition labeling in chain restaurants

WalMart - Good for American Economy

Outsourcing

Ethics of Advertising to Children

Corporations and Environmental Sustainability

Working conditions in factories (i.e. Nike)

Executive Bonuses

Sources

Galileo - You can find current articles about your topic in Galileo. Search in the subject or abstract field for your topic, e.g., nutrition labeling, chain restaurants.

- Be sure to select "Full Text" when searching in Galileo
- Your assignment might require current articles. You can select a year before you perform a search.

Bloomberg Businessweek - This special ethics section provides breaking news and editorials about ethics in companies and corporate culture.

Business Ethics Magazine - Self-proclaimed "Magazine of Corporate Responsibility), this news source provides news and editorials about business practices and their impact on society.

SGTC Catalog - Search the library's catalog for physical books in the library and eBooks available through EBSCO.

You can search for other news articles by selecting the Google News tab or browsing through the library's list of online newspapers.

APA Style

APA style requires citation.

You must cite references of where you get information in the text - (Miller, 2009) and in the reference list – Miller, James. (2009). Do not plagiarize. *Journal of Integrity, 6*, 1-10.

The APA section of this guide provides a video and handout on how to avoid plagiarism and how to cite properly in APA style.

The first step in writing an APA paper is to download the APA template.

Use Citation Machine and plug in information from your sources (Title, Website, Author, Date) into Citation Machine to create your reference list. If the article does not list an author, use the name of the website as the author. Copy and paste the full citations into the reference list, located on the last page of your paper.

The second tab includes a list of search widgets for books and online resources (e.g., library catalog, Google Books, EBSCO eBooks, Britannica Online, Credo Reference, Interlibrary Loan). In this tab a student can search six different sources without leaving the page. See screenshots below of the widgets included on the page.

The third tab includes templates for papers, resources on APA style, and a video tutorial about APA and plagiarism. The video was hosted by YouTube and part of the library's YouTube channel. See screenshot to the right.

The homework guides contain all of the resources the author believed a student would need to complete his or her assignment. Instead of navigating through multiple sections of a library's website and being redirected to different pages, these homework guides were designed to be a compartmentalized, one-stop shop experience for the students.

Timeline and Promoted Resources

From February to April 2011 the library conducted seventeen bibliographic instruction sessions and promoted the library's website, catalog, and YouTube channel. These 2011 sessions followed a more general search instruction model and were not designed specifically around assignments. The instructor guided the students to a "Topics for Research" section of the website, which included persistent links to searches on a variety of topics (e.g., affirmative action, cloning, and gun

control). These topics were not selected on the basis of a particular assignment but highlighted as general research topics. The 2011 sessions highlighted the "Writing a Research Paper" page on the website, which included APA templates to download and links to library tutorials from other libraries about conducting research. Students were also shown a databases page from the website and the instructor demonstrated a few searches in one or two databases. The 2011 sessions included a section on searching the library's catalog and ended with a visit to the library's YouTube channel where a student could watch a video designed by the author as a refresher on the session's key contents.

 The homework LibGuides were created in the fall of 2011 but not published until spring of 2012. Links to the homework guides were
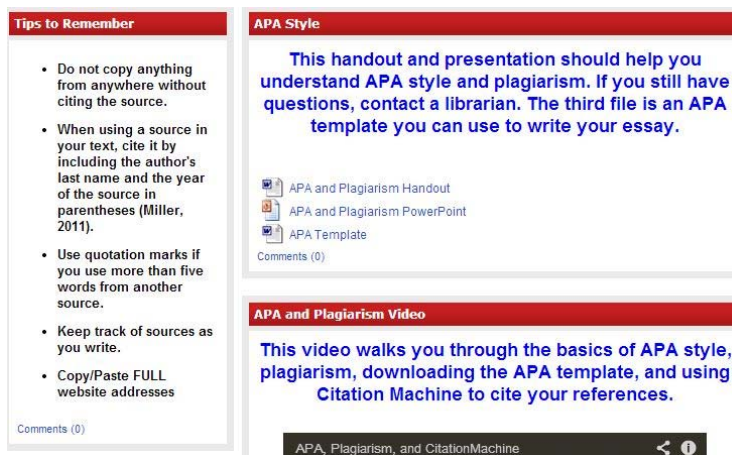
added to the library's homepage in the spring of 2012. From February to April 2012, the library conducted nine bibliographic instruction sessions and promoted the homework guides, which featured the library's website, catalog, and YouTube channel.

Data Collection

Visits to the library's homepage were measured using Stat Counter (http://statcounter.com). Stat Counter can be installed on specific webpages by adding a few lines of code to the webpage. Data was collected for the library's

homepage. The code for Stat Counter was installed on the library's website pages before this author began his employment at the library. Google Analytics is the most widely used web traffic software and there was not a particular advantage or disadvantage to using Stat Counter because both software measures unique webpage visits via cookies in the unique visitor's browser. The library in this study uses Library Solution automation software, which is part of The Library Corporation automation software. Searches on the library's catalog were measured using the LS Reports feature in the automation software, specifically the "Count of Searches in the PAC" report. Visits to the library's YouTube channel were measured with the analytics section of YouTube. The analytics section allows a user to set a custom date range to view channel visits.

Results

Web traffic during January through June 2011 (pre-homework guides) and January through June 2012 (post-homework guides) were compared. In January through June of 2012, searches in the library catalog more than doubled, visits to the library YouTube channel nearly doubled, and the visits to the library's homepage increased (See Table 1).

Table 1

Resource Viewing Before and After LibGuides

	Pre-LibGuide	Post LibGuide	Percentage Increase
Library Catalog Searches	1,753	3,782	115%
YouTube Channel Views	110	200	81%
Library Homepage Loads	2211	3225	46%

Table 1 Bar Graph Format
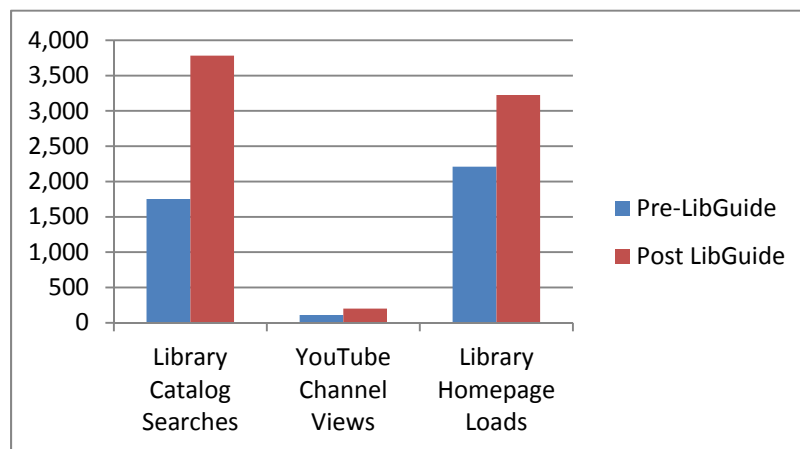
Analysis

There were nearly twice as many bibliographic instruction sessions provided in 2011 (pre-homework guides) than in 2012. The same resources were promoted both years in the bibliographic instruction sessions. The dramatic increase in visits to the library catalog and YouTube channel, despite the lower number of bibliographic instruction sessions, shows a correlation between the introduction of homework guides and a greater usage of library resources. There was a substantial increase in the number of library website loads, but not nearly as large as the jump in web traffic to the library's catalog and YouTube channel. There are links to the homework guides on the library's homepage, but during bibliographic instruction sessions students were given direct links to the homework guides and this allowed them to bypass visiting the library's website. This may account for the relatively less dynamic increase in traffic to the library's homepage in comparison to the increases in traffic to the library's Catalog and YouTube channel.

Discussion

These findings indicate that librarians should design resources and instruction that are not only about searching, but also about meeting a student at their point of need for each step of an assignment. By meeting with faculty and gathering specifics about assignments, librarians can become more than a resource for information sources. Understanding and aiding a student's process of completing a task in this author's experience, paid back dividends in the form of increased traffic to library resources. This is the "return on investment" or ROI that all libraries should seek when designing their website and or LibGuides. ROI in a library setting is defined by Tenopir (2013, 272) as a "quantitative measure expressed as a ratio of the value returned for each monetary unit invested in the library."

There are various methods for calculating ROI. One obvious method is usage reports. It is a basic assumption that the more data showing a resource is used, the more valuable the resource is to the user. Usage reports are important, but a library can more broadly demonstrate its value and ROI by showing evidence of supporting institutional goals. Regional accreditation standards and institutional goals often include information literacy as a learning outcome. Gratch-Lindauer (2002) examined the standards of eight higher education accrediting commissions noting an increase of standards documents that included information literacy. Academic libraries can demonstrate value to administrators by designing information resources that incorporate information literacy into assignments. Information resources, such as the assignment-specific LibGuides are designed to direct students to credible sources (e.g., databases with peer-reviewed journals), to model precise searching with their persistent linked searches to topics, and to assist them in using sources properly to avoid plagiarism. Standard two of the ACRL Information Literacy Competency Standards (2013) is the ability to build search strategies and use them effectively and standard five is recognition of plagiarism and an understanding of attributing sources. When presented to library administration, statistics showing increases in web traffic to library resources, which support institutional goals and/or accreditation standards, can ensure funding for current and perhaps future expansion of online resources. Although this author did not present his LibGuides to the administration nor collect qualitative data about information literacy outcomes post-LibGuides, this method of demonstrating value should be considered by all academic libraries. Continual funding of library resources should not be taken for granted because "today's academic librarians must demonstrate their value to cost-conscious university administrators" (Stielow 2011).

Data Limitations

As previously stated, web traffic to the library's homepage was measured using Stat Counter. This web traffic analysis tool can be configured to measure exit pages, which are pages users click to leave a webpage, in this case the library's homepage. In hindsight, there might have been a way to install or configure the Stat Counter code to determine if most of the library homepage visits resulted in users clicking the link to access LibGuides; in other words, exiting the library homepage to access the LibGuides. Had the author set up Stat Counter to measure exit pages, then the percentage of users that visited the library's homepage in order to access the LibGuides could be measured. This would be valuable data.

Additionally, the library's YouTube channel is available to anyone, not just students at the technical college. Users who are not students at the technical college might be contributing to the increase in YouTube channel views.

Challenges

Funding

LibGuides is commercial software, so ensuring continual funding can be a challenge. However, when designed correctly LibGuides can drive up usage of library resources, specifically if the resources meet students at their point of need. With the abundance of free web traffic software available, statistics are easily gathered on library resources. LibGuides also collects usage statistics. This web traffic can show administrators the return on investment that well-crafted LibGuides can deliver. After a year or two of increased web traffic, LibGuides can easily be presented as indispensable to a library.

Marketing

Ideally, there should be a LibGuide for each assignment that entails writing a paper and/or

research. Staffing shortages can make this near impossible, so assignment specific LibGuides should be created for classes with the largest enrollment, thereby ensuring the largest exposure to LibGuides and the library resources they promote. Every assignment-specific LibGuide should be introduced with a library instruction session. Aside from in-person instruction, LibGuides should be integrated into the course management software a college is using (e.g., Blackboard, Moodle). Putting LibGuides into course management software places your library resources at a student's precise point of need.

Participation and Faculty Buy-In

Faculty involvement with the library or librarians varies from college to college. Depending on the culture, faculty may see meeting with a librarian to discuss an assignment or LibGuide as extra work. In this case, a specific LibGuide can be designed by simply examining the handout that students receive for their assignment. From the handout, a librarian can glean the structure, the number or sources, and other requirements for the assignment and reflect these aspects in the LibGuide. Before it is published the LibGuide should be shared with the faculty member. When the faculty member approves of the LibGuide, then a librarian should follow up with a library instruction session introducing the LibGuide for the assignment.

Meeting with a librarian can be advantageous to faculty because LibGuides can emphasize or re-teach problem areas for students. For example, this author met with faculty who reported students having difficulty understanding what constitutes plagiarism. After hearing this feedback, the author added resources (e.g., videos and tips) dedicated to explaining plagiarism. Targeting trouble areas for students and including them in a LibGuide can save faculty time and effort. LibGuides can address the basic tenets of researching and citing sources, so faculty do not have to squeeze

these topics into their lectures and compromise their coverage of previously scheduled topics in a full syllabus.

Conclusion

Point-of-need LibGuides are a valuable tool in an academic librarian's arsenal. They can position a library to take on the challenges and demands of administrations that are looking for a "return on investment," "data driven decisions," or support for institutional goals or accreditation standards. There are few other tools that allow a librarian, who may not possess skills in HTML or web design, to arrange and present library resources so easily. User-centered resources that meet a student at their point of need are more pressing with the growth of online education. Virtual bibliographic instruction is growing and becoming more sophisticated, but librarians in all settings should heed the message of users who want library resources that are customized to their classes and assignments. As more people of differing ages and computer skill levels enter online or traditional courses, library resources should be accessible and relevant to their coursework. Aside from being highly beneficial to students, point-of-need resources are an imperative for libraries that want to be recognized as nimble and valuable to their institution of higher education.

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