COLLABORATIVE LIBRARIAN/MIS RESEARCHING TECHNIQUES

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ABSTRACT

In today’s rich information technology environment, project success depends on team members’ ability to find timely, accurate, and relative information in the least amount of time. Today’s classrooms also foster a learning environment rich in support technology, making information more accessible than ever, but less discernible. Some of the best business and information technology (IT) resources available, either via the Internet or university libraries, remain unknown to students. Collaborative efforts between librarians and business faculty can make a difference. This paper will discuss the collaborative processes and outcomes achieved through development of a focused “access to information/research skills” model unit in a management information systems (MIS) course. This team-teaching effort by the faculty member and librarian will provide students with information-seeking skills and knowledge of information resources necessary for success in their IT careers.

Keywords: MIS/Librarian Collaboration, Resource Searching Techniques, Searching Models

INTRODUCTION

The availability of timely information is the key to success in today’s business world. Our senses are bombarded daily with more and more information. We talk about it in our business college classes. Yet, when it comes to having our students “find” that information or to “search” for it, many remain at a loss. The expectations are that students somehow “know” how to “find” information the instructor is requesting or to engage in meaningful research. Some of these expectations may arise from an assumption that incoming freshmen are more computer literate than in previous years.

The information retrieval technology is changing as evidenced by escalating increases in computer speeds and the emergence of mass storage media. Coinciding with these technological advances is the escalating volume of information. We know the information is out there somewhere, but we continue to struggle with finding it.

College Librarians also struggle with the emergence of electronic media for information storage and retrieval in addition to the traditional hard copy sources. The business term “reinventing” or “reengineering” has found its way into libraries as they change to truly reflect the emerging image of libraries as warehouses of knowledge. Librarians are retooling and repositioning themselves to provide new and enhanced services to their customers (students) in their searches for information. Assistance is available to students through call centers, through e-mail and chat, and via Internet-based access to library holdings in hard copy and digital formats.

The business world is moving toward a focus on re-engineering of their business processes. Their objective is to achieve increased productivity and reporting capabilities with decreased
operational costs. They also expect college graduates to be proficient in the “information searching/finding techniques.” The faculty teaching in the MIS curriculum should take the opportunity to collaborate with college librarians to develop a researching technique or strategy that can be used in teaching MIS students how to “find” and “evaluate” information. We need to equip our students with navigational tools to sail unhampered through the immense sea of information without fear of becoming lost in the information Bermuda Triangle abyss.

Informal Data Collection

In an effort to informally solicit feedback from students relative to their knowledge of information-gathering strategies, freshmen and sophomores from two selected business courses were given a brief questionnaire. In a freshman introduction to business course, when students were asked if they believed having a basic computer knowledge would enable them to find any information they were asked to locate, 63% believed it would. A sophomore class, having taken at least one prior computer course responded with 94% believing it would.

However, when it came to asking whether or not instructors should provide some searching methodology/strategy prior to requiring a research paper, 100% of the freshman class indicated the instructor should while only 59% of the sophomore class felt it was necessary.

One additional question addressed the priority used when asked to search for information for a paper. For the freshman class, 64% indicated the Internet as their first choice while only 40% of the sophomore class indicated the Internet as their first choice. The class was about equal on their second choice of searching, that being to check library sources.

If one wanted to draw any conclusions from the informal survey, it would be that as students progress in their degree programs, they find less need for a searching strategy (perhaps having learned it already or question its importance), but tend to realize that not all searching for information can be accomplished from the Internet alone. This shows at least some level of progression from the freshmen to sophomores in their understanding of perhaps the limits of the Internet, however it does not detail whether or not there has been any progression in the skills for finding information. This is an area that should be further explored in future research.

RELATED RESEARCH

With the advance of technology and the World Wide Web (WWW), there has been much research conducted by librarians and business faculty into the information-seeking skills and behaviors of business majors. It is certainly no secret that most college students, in general, prefer the use of electronic or WWW resources over library databases, catalogs, and print materials. The same could be said for those majoring in business. Perhaps even more so, due to the nature of their fast-paced, information-hungry classrooms, work environments, and future professions. In the business curriculum, there is much emphasis on the necessity of accessing information quickly for survival in the world of competing companies and industries.

Morrison writes: “In such a technological working environment, the commodity that becomes most important is information. Being able to obtain the best available information in the shortest
period of time is the *workplace skill of the future*” (9). Just how business students are obtaining the “best information” in the timeliest manner, however, has been the focus of many studies. Morrison reveals that 64% of business students in a sample study indicated they used most frequently Web business sites over any other library databases or print resources (9). In Lombardo’s survey of students selected from a required business course, almost 39% indicated they had visited the library four times or less in a semester and approximately 48% of them most often conducted their research at home from their personal computer, with 83.3% preferring to use Web resources first over library or print resources (8).

Other studies, although less prolific, have concentrated on the collaborative efforts between business faculty and librarians in attempts to teach information-seeking and library skills to business students. These studies reveal there is a solid history of collaboration among business faculty and librarians in the development and delivery of various forms of library instruction within business courses. The involvement level of the librarian within the actual class, length and number of sessions, and subject matter covered have all shown a wide range of alternatives throughout the years. Just as library instruction has steadily developed from the “ad-hoc” or “one-shot” library lecture approach, to emphasizing course-integrated assignments and instruction, team-teaching, and collaborative and active learning methods, so too has library instruction in the business curriculum. Judd details the integration of bibliographic instruction into the course objectives of a marketing curriculum, using a team-teaching approach and series of workshops with real-world applications (7). Cudiner reports on a collaborative effort between an economics faculty member and librarian to teach search strategies and skills necessary for searching the WWW and library resources effectively using some active learning methods (2).

As collaboration between librarians and business faculty has developed, business schools have also worked to establish college-wide information competency standards within their curriculum. Jacobson reports on the development of such requirements whereby a research assignment, involving the use of library resources, was required to be completed by all business majors in a required core marketing course (6). Fiegen documents the collaboration of a business librarian and professors of management in developing a model for the adoption of information literacy competencies as learning outcomes for an undergraduate business curriculum. An important observation made throughout this study was that “different courses in the business curriculum concentrate on very different information competencies,” thus addressing the issues of the need for more integration of information competencies in courses not presently targeted, such as courses in management information systems (3).

It is evident that business schools have recognized the need for some library instruction, particularly in core marketing and financial courses, focused on how to research financial and company information. However, the level of library instruction development in the MIS/IT major courses has not been as prominent. In addition there has been little emphasis on the specific characteristics, qualities, and knowledge of databases and data warehouses for MIS majors that may play a role in their information-seeking capabilities, behaviors, and intelligence when searching library and Web resources.
COLLABORATIVE MIS MODEL/STRATEGY/UNIT

The related research described prior collaborative efforts between library personnel and college of business personnel in developing and assessing information literacy/library instruction within specified courses. The model described below includes an expanded collaborative effort between library personnel and faculty teaching in the MIS curriculum. The model includes three class periods devoted to hands-on searching strategies and information resources presented by the librarian. Each of the three class periods will be followed by the students’ application of the strategies to a specific research assignment. In addition, pre-class collaborative planning was conducted for the purpose of developing the research topic and assignment and identifying the supportive role to be played by the librarian.

Model Components

This model/strategy works to develop a research assignment that will target three objectives, as well as complementing selected *Information Literacy Competency Standards for Higher Education*, developed by the Association of College and Research Libraries (ACRL) (1). In addition, this model reflects the concept of reinforcing and integrating research skills, information technology skills, and writing skills, similar to Gammill’s approach to linking a content course with a skills course (4). The objectives of the assignment, displayed in Tables 1, 2, and 3 below, involve the subject matter the course instructor wants the students to learn (the

| Assignment Objective: Students will gain a basic understanding of knowledge management (KM) and its relationship to business/MIS. |
| Research Skills Objective: Students will learn to identify different sources of information, including reference books, scholarly and trade periodicals, and books. Also, develop a strategy for searching for these sources in library databases and online catalogs. |
| MIS/IT Objective: Students will learn to incorporate and present a selection of the information they found using specified computer/IT programs, such as PowerPoint and Word. Students will also apply the information-seeking skills learned to search for additional information in library resources on how to use one of the specified IT programs, PowerPoint, to make the most effective presentation. |
| Instructions: Research the topic of knowledge management and write a report on how it is being used in business/MIS today. The report should include an authoritative definition of KM and draw upon information gathered from the following sources: |
| 1. Reference books/materials |
| 2. Scholarly articles on KM |
| 3. Trade articles on KM |
| 4. Books or book chapters on KM |
| In addition to the written report, develop a PowerPoint presentation, highlighting the information in the report. Search the library resources for characteristics of a successful PowerPoint presentation, incorporating them into the presentation, and citing the references in the PowerPoint. Be certain to cite all of the resources you used in the report and PowerPoint correctly, according to APA format. |
| Library/Information Resources and Computer/IT Tools Applied: Online library catalogs and databases (Factiva, LexisNexis, ABI/Inform), business encyclopedias/reference materials, word processing software (Word), presentation software (PowerPoint). |
assignment objective), the information-seeking skills and strategies both the librarian and instructor want the students to learn so they can access information (the research skills objective), and the ability to analyze and incorporate the information found into a presentable document by use of technology and computer tools relevant to the business/MIS industry (the MIS/Information Technology (IT) objective). These all reflect the knowledge and skills that the students will need to know in their future business and IT work settings.

Table 2: Part II—Knowledge Management Unit

| Assignment Objective: Students will gain an understanding of companies that specialize in and/or utilize KM. |
| Research Skills Objective: Students will learn to identify and search several sources to find company and financial information. |
| MIS/IT Objective: Students will learn to incorporate and present a selection of the company information found, in chart format, by using specified computer/IT programs, such as Excel and Word. |
| Instructions: Find two companies that specialize in and/or utilize KM. Write a report analyzing each company’s use of KM in relationship to business/MIS. The report should include the following information: 1. Name of company, address of headquarters, chief executives 2. Chief financial data for the last five years 3. Chief products/services/competitors 4. Stock prices for the last six months 5. Latest companies news/press releases relative to KM The report should also include a chart (created in Excel) comparing each company’s total sales for the last five years. |
| Library/Information Resources and Computer/IT Tools Applied: Print and online library business directories/tools (Directory of Corporate Affiliations, Dun & Bradstreet, Standard & Poor’s, Mergent, Value Line), online library databases (Factiva, LexisNexis, ABI/Inform), reputable business/government Web sites (Sec.gov, Hoovers.com, Yahoo!Finance), word processing software (Word), spreadsheet software (Excel). |

Table 3: Part III—Knowledge Management Unit

| Assignment Objective: Students will gain an understanding of knowledge management through exploration of non-library Web resources. |
| Research Skills Objective: Students will learn strategies for searching the Web, as well as how to evaluate the information they find on the Web in terms of validity, reliability, etc. |
| MIS/IT Objective: Students will search the Web for statistical- and/or text-related information from knowledge management sites and design a database populated with information from KM sites. |
| Instructions: Use a search engine to find a minimum of three KM companies that are on the Web. Review all information about the company. Determine what types of information can be incorporated into a database. Download the chosen information into a database you have designed. Also, locate three supporting articles about KM that appear on the Web. Evaluate these three sources in terms of the criteria listed below and prepare an Executive Summary Report of your analysis. Evaluation criteria: Authority, Currency, Point of View or Bias, Accuracy, Relevance |
| Library/Information Resources and Computer/IT Tools Applied: Internet search engines (Google, AltaVista), Web site evaluation techniques, word processing software (Word), database software (Access). |
Model/Strategy/Unit Planning Steps

The process of planning, designing, and implementing a collaborative Librarian/MIS faculty “access to information/research skills” unit, that can be employed in a MIS course can be summarized as follows:

1. Initial meeting with MIS faculty and librarian
2. Establish communication preferences and meeting times (pre-planning and throughout the semester)
3. Review goals and objectives of the MIS course
4. Write research assignment, incorporating strategies for searching a variety of information sources and applying several computer/IT programs
5. Establish goals and objectives for research assignment
6. Establish times for library instruction sessions (which week of semester)
7. Incorporations into Blackboard/Course Management System (CMS): Add links to university library Web site and librarian’s course Web guide with contact information. Add librarian to course discussion lists
8. Preface assignment with introduction of librarian (at beginning of semester)
9. Library/Information resources instruction: Part I
10. Follow-up meeting to discuss success/problems
11. Library/Information resources instruction: Part II
12. Follow-up meeting to discuss success/problems
13. Library/Information resources instruction: Part III
14. Follow-up meeting to discuss success/problems
15. Review assignments submitted by students, especially references cited
16. Consider improvements and/or changes to assignment for future applications

CONCLUSIONS

Presented in this paper was a three-part research assignment collaboratively developed using the above steps in the model/strategy. The unit of information was designed to introduce MIS students to a variety of informational resources available through their college library and outside sources. The model called for collaboration between the subject matter reference librarian and the MIS faculty member. The preliminary planning efforts resulted in links to be included in the course management software for the MIS course as well as planning for three (Parts I, II, and III) hands-on library, student-orientation sessions for finding and evaluating information for the designated research project. While the first two sessions with the reference librarian focus on finding informational sources considered to be reputable, the third session focuses on the alternative sources of information available through the Web.

The collaborative unit was designed so that a maximum number of different resources would be introduced to the student. However, each school would have to customize the assignments to fit the sources available through their respective libraries. It is recommended that the collaborative model/strategy be incorporated into one of the first classes required in the MIS curriculum in
order to allow for maximum, continued student growth and development of searching strategies throughout their remaining courses.

This integrated effort also works to demonstrate the mutual benefits that can emerge from collaboration between MIS personnel and librarians. Librarians can teach the information-seeking skills while MIS personnel can provide the skills necessary to making information readily available in electronic databases and systems (5). In this case, MIS students will be able to apply their knowledge of information retrieval to designing information systems, both in the classroom and in their future work settings. This is certainly a consideration for future research and collaborative endeavors. Other areas of study could include analysis of the impact of the MIS majors' computer skills on their information-seeking skills, comparing their knowledge of the construction of the WWW vs. the Internet vs. online library resources available via the WWW and how they function, and the further development and integration of teaching information-retrieval skills to MIS majors in their core curriculum.

The authors are currently seeking a grant to fund the development, testing, and implementation of several MIS research units following the model/strategy described above.

REFERENCES