

# Back to the Maxwell Library's Future: Student Library and Information Resource Usage

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## Abstract

College libraries face numerous challenges to survive and thrive as integral parts of campus environments. The library's traditional role of central information resource has been seemingly changed, as a raft of information is available via the Internet. It is available any time, so long as a computer with an Internet connection is available. This research looks into which students are visiting the library, and how they are using it while there. This includes their use of the library as an information resource along with its value as a place to meet and study individually or to conduct group work. A survey was designed using Likert-type scales to measure students' interests in social and academic uses of the library, including electronic information searches at the library and in the public domain. It was administered to a statistically significant sample of the College's undergraduate student body. This research provides an opportunity to evaluate future new services or enhancements to current services based on student feedback on their usage of various technologies as the library progresses through a major renovation.

**Keywords:** Library Marketing, Service Customization, Information Commons, Information Literacy, MyLibrary

## 1. INTRODUCTION

The Maxwell library at Bridgewater State College is evolving as many college libraries are in the midst of the information age. Learning and research methods and practices are changing, reflecting acceptance and usage of the Internet as a research tool. There are several library concepts that have received attention over the past several years defining next steps and what's new in library development. These include the information commons, where a myriad of in-

formation services, both physical and virtual, are provided to library patrons in a contemporary and multimedia friendly environment. A more customized library experience is touted in MyLibrary literature (Morgan, 2000) and field experience. And of course, much greater adoption of electronic resources in conjunction with print media is all the rage, as libraries are able to dramatically boost available volumes via database and other virtual media subscriptions.

It is part of a campus that has won accolades for both its wired and wireless net-

working and information technology access. It is in the second year of a three-year physical renovation, which will create a more contemporary physical environment in which many of its services can be delivered to the campus.

Part of the renovation project is establishing an information commons (Kratz, 2003) and a redefinition of the library space itself for greater social interaction in addition to academic learning. Additional capacity to support group study and project work has been added as part of the first phase. Workstation pods have been fielded, providing a setting for both individual and group work, with access to the library and college information systems as well as the Internet. This is a marked departure from the rows of computers that formerly greeted library patrons at the main entrance. The space has moved away from the look a computer laboratory and toward a more open, collaborative and informal environment.

The evolution of the Internet as a research tool for students and faculty presents a competitive challenge to what may have formally been direct usage of and reliance on the library's resources. A skilled researcher may be able to use resources like Google and Google Scholar to replace the need to use library resources for academic research.

In some cases, this may only be the user's perception, resulting in potentially less efficient and effective research (Waldman, 2003). In these cases, convenience may trump taking the time to learn to utilize all the resources the library brings to bear such as a myriad of on line journals and databases. While the library provides access to information not readily available on the Internet, it faces the challenge of marketing itself as an easy to use, comprehensive, and complementary research tool to others in the public domain that students may be more apt to utilize.

This library is in the process of reinventing itself, striving to remain an integral part of the campus experience in both traditional and new ways. In some respects its role has not changed so much as evolved with infor-

mation technological advances and student learning behavior. This research assesses student's usage of and interest in various technologies available in the information commons. It also assembles marketing data to point to potential technologies and services that might be successfully deployed by the library going forward.

## 2. LITERATURE REVIEW

Students are the primary library user, and understanding who they are and where their interests lie is important to offering services that will encourage their use of the library, either physically or remotely. This information can be analyzed to discern what services they prefer and how they perceive the library. This information is critical to developing and maintaining the library as a sought after resource for research, study and social gathering.

More than 97% of survey respondents were undergraduate students in the age group of 18 to 23, born between 1983 and 1988. This generation of students is referred to as Generation Y, the Net Generation, the Digital Generation, or the Millennials (Gardner and Eng, 2005). Howe and Strauss (2000) define this demographic as the most technologically savvy and ethnically diverse generation to date. They are visually oriented and may have short attention spans, having grown up with television and video games. They prefer active learning exercises and are hard working. Relative to library use, they have great expectations, expect customization, are veterans of technology, and utilize new communication styles compared to prior generations of students (Gardner and Eng, 2005).

Gardner and Eng's 2003 survey at the University of Southern California surveyed library users when they were physically in the library, with the undergraduate subjects representing just over 4% of the campus population. Their results showed the top three library uses were to study alone, computer usage for class work, and to study with a group. The students expect information to be available on a 24x7 basis, either physically, virtually, or both. They are comfort-

able with collaborative learning, often completely booking the library's group workrooms. They also value the social aspect of the library space when working in a group, and expect food services to be available.

A fall 2003 survey at the University of Pittsburgh at Greensburg was conducted outside the library and was aimed at providing information on library use, attitudes and instruction in addition to various demographic data (Duck and Koeske, 2003). This survey asked students what they did in the library and their attitudes toward library services. Most of their respondents were millennials, with the remainder from Generation X, students born between 1965 and 1981. Their survey showed that most students used the library to study. The results also revealed that Internet search engines not provided by the university were being used most frequently for class research and that more than half were uncertain or agreed that library databases were confusing or difficult to use. They found more students to be interested in having refreshments than in longer hours. They also received a strong response that all library materials should be accessible from off campus. Student expectations focused more on comfort and technology rather than facility issues such as library hours.

At the University of Illinois at Urbana-Champaign (Song, 2005), students were found to have greatest interest in personal study space in surveys in 2003 and 2004. Library instruction proved useful in changing students' perceptions of library services. Students were generally more motivated to utilize library services after instruction.

Similarities are present in student responses regarding their interest in shaping the information commons at their libraries. Common interest is shown in attaining greater access to computing resources and a comfortable study space, along with access to refreshments. While generally pleased with library staff responsiveness, students commonly desire even greater service to assist them in their research and usage of library services.

At Seattle Pacific University, the results of an April 2004 survey included many student comments around the need for additional computers as well as library resource (SPU survey, 2005). The library ranks as the favorite spot on campus for students to utilize computer labs. Interest in a quiet study atmosphere stands in contrast to noise generated from group study areas. As with many public spaces, the use of cell phones is also noted as a distraction to those ready to study. Students also called for simplifying catalog and database access. Those who had received instruction on using library systems were more successful and likely to utilize them as part of their research.

A survey conducted in fall 2004 at the University of Cincinnati provided several suggestions in response to how to improve library services (Riemenschneider, 2005). Just over 13 % of respondents suggested the library provide access to more computers, including word processing software. Nearly one in ten respondents suggested improving the library environment with updated carpeting and paint to create a more inviting space. This was echoed by students at Simon Fraser University (Heslop, 2004), who wished to see improvement in library comfort as well as increased group study space. The provision of greater food alternatives was also among the areas some students would like to see, with 4.8% of students suggesting it would provide a better library experience.

An October 1999 survey at the University of British Columbia presents some common results that have carried through the research since that time (Points of View, 2000). At the time, many users were utilizing remote electronic library services and many expected to increase their use of library services. A top facility priority was to add more computer workstations. Other preferences were better photocopiers, group study space, socializing space, and food and drink.

This research attempts to identify library user interests across several areas that have received attention as academic libraries

evolve with changing student interests and demands. This work relates to portions of each of the referenced studies and surveys. The aim is to identify areas the library should focus more or less on in order to address student needs. The broad approach will provide opportunity for more specific, focused research in the future. Areas of focus include both academic and non-academic library uses. Questions around students' perceived research aptitude and awareness address information literacy, and potential information resource or technology interests address the rapid adoption of many media technologies in students' academic and social lives. This would include participation in activities like pod casting, audio and video downloading, and blogging. There were also questions related to library comfort, in light of the ongoing renovation and in thinking about the notion of library as place.

### 3. METHODOLOGY

The authors developed questions to gather information in several areas, drawing on background information from the library Director. The instrument utilized in this research appears in Appendix A. Demographic questions were developed to establish statistical relevance relative to campus population and to organize student responses by major, year of study, gender, part or full-time status, and commuter or resident status, as the college has a significant commuter population.

Questions were developed to establish why students are visiting the library, including a focus on their acceptance of Internet technology to perform research. This was done to provide insight into students' information literacy, and to gather information on whether changes are necessary to bolster the use of the library's physical and digital resources. Several questions asked around Internet research aptitude, and students' preferences for familiar interfaces such as Google and Amazon that can be customized or offer the ability to remember student interests and perhaps suggest similar materials.

Technology questions such as interest in pod casting, blogging, and downloading audio and video were intended to gather data on the degree of acceptance by students in these areas and to provide additional data to library management to help shape potential services or enhance existing ones. Finally, questions around library comfort were meant to provide additional student input in light of the ongoing renovation which has markedly increased library traffic.

The approach utilized was similar to several other studies in the literature. Gardner and Eng (2003) utilized a similar scale to gather information around students' attitudes toward various library services at the University of Southern California (USC). Duck and Koeske (2003) utilized attitudinal scales to allow students to rank various library services at the University of Pittsburgh at Greensburg. Areas they addressed included library hours, availability of refreshments, library staff helpfulness, and electronic journal database use. A Simon Fraser University survey (Heslop, 2003) made extensive use of similar scales directed at evaluating numerous services and facilities including collections and materials availability, facilities issues such as hours of operation, study space and comfort, and information and instructional services. Song also utilized Likert scales to measure student satisfaction and their perceived importance of various library services at the University of Illinois at Urbana-Champaign.

Six undergraduate students each surveyed approximately 50 students for a total survey sample of 304 students during the second half of April 2006. The survey sample was intended to reflect the general demographics of the college. This goal was achieved based upon a review of the responses.

#### Sample Population

Of the 304 subjects surveyed, 36.9% were male and 63.1% female, matching the college's demographics (BSC Factbook, 2005). Each school of the college was included in the sample, with 54.7% of respondents in the School of Arts and Sciences, 24.9% in the School of Education, and 20.1% in the

School of Business. This compares to Bridgewater demographics of 54%, 30%, and 16%, respectively. The age range for surveyed students was primarily 17-23, as 97.4% of subjects were undergraduate students, and 93.5% of subjects were full-time students. Both the survey size and the student body that provided responses are significant enough to provide scientifically and statistically meaningful data.

Surveys were presented to general education and business classes, as well as in various social gathering places throughout campus such as the library and the cafeteria. Subjects were asked to respond to 22 questions in addition to providing basic demographic information such as major, year of study, gender and student status. Twelve questions presented Likert-type measures of attitude scales. Ten questions employed frequency scale responses.

Survey questions were directed at current library usage levels, Internet usage, and usage of various technologies from both social and academic perspectives. Individual surveys were completed in two to three minutes. Several subjects offered additional information that was not specifically part of the survey.

The data was input into and analyzed using SPSS by the students who conducted the surveys. Missing data was filled in with the mean of the remainder of the responses to those particular questions.

#### 4. FINDINGS

Establishing a sense of the traffic the library experiences must consider whether the student is undergraduate or graduate, part time or full time, and a commuter or resident. The vast majority of respondents were undergraduate, full-time students, representing 97.3% and 93.5% of respondents, respectively. Just over half of students surveyed were commuters, representing 52.1% of those surveyed. A total of 47.4% responded they did not use the library at all or only when required by a class. Of the 52.6% of respondents who visit at least once per week, more than half, or 56.1%, make

one or two visits per week, 28.1% make three or four visits per week, and 15.6% visit five or more times per week.

Students were asked whether the library is a useful resource for various types of visits, including researching class assignments, hanging out, meeting classmates for group projects, and meeting friends for individual study. Respondents considered the library most useful for meeting to work on group projects, with 59.2% of respondents agreeing and 28% strongly agreeing. Researching class assignments and meeting friends for individual study were next, with 58.2% of students agreeing and 18.1% strongly agreeing. The library is not currently highly valued as a place to hang out, with 28.6% agreeing and 2.6% strongly agreeing. These results are consistent with those found by Gardner and Eng (2003) at the Leavey Library at USC. In that study, the top three library activities in order of frequency were individual study, use a computer for class work, and study with a group. Socializing was ranked thirteenth of fifteen activities.

As Figure 1 illustrates, library traffic is dominated by students enrolled in programs in the School of Arts and Sciences, followed distantly by the School of Education and Allied Studies and lastly, the School of Business. The sample population was consistent with the college's demographics, and the total counts of visits across the frequency scales were consistent, from visiting only when required to five or more visits per week. On a relative count basis, 123.7% more students in the School of Arts and Sciences visit the library once or more per week compared to the School of Education and Allied Sciences. The same comparison to the School of Business shows 174.2% more traffic from the School of Arts and Sciences.

Year of study indicated that underclassmen visit the library less than upperclassmen for respondents indicated one to two visits and three to four visits per week. The most frequent visitors, indicating five or more visits per week, indicated strongest usage by

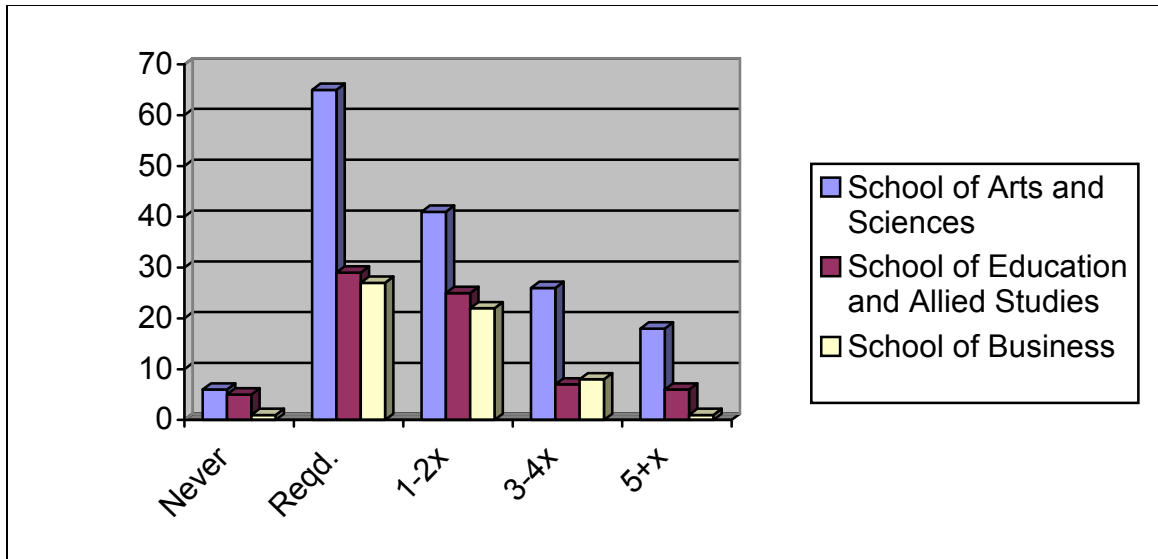


Figure 1. Visit Frequency and School Enrollment

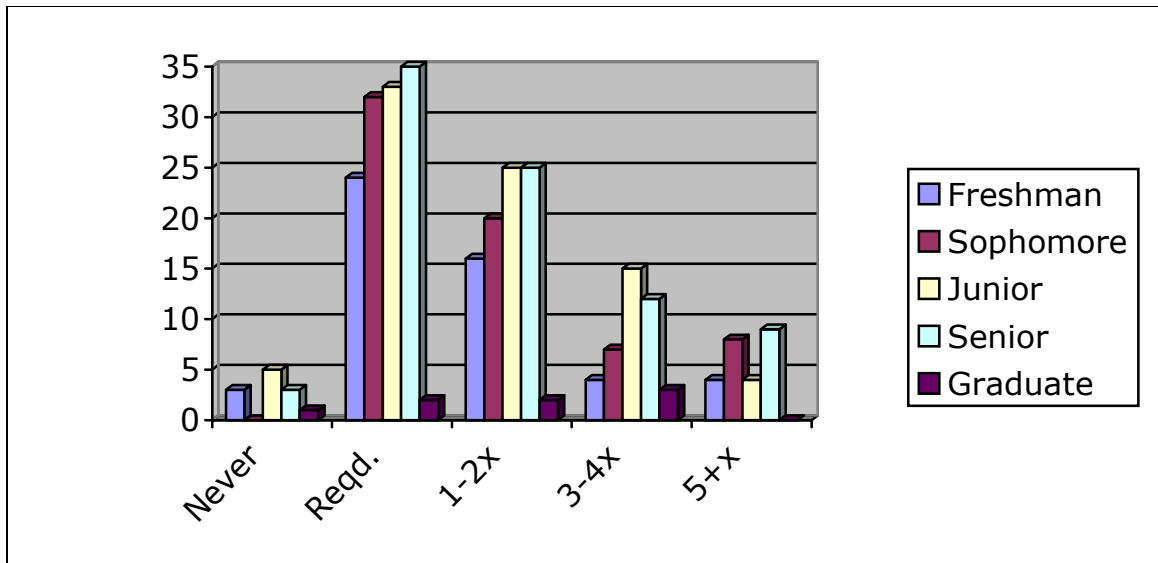


Figure 2. Visit Frequency and Year of Study

sophomore and senior students. These results are illustrated in Figure 2.

Song’s survey at the Business & Economics Library at the University of Illinois at Urbana-Champaign found that library instruction was quite valuable in motivating students to make more use of the library’s ser-

vices. This squares with the School of Business students responding with the lowest frequency of library usage. Further, undergrads visit the library least across the frequency scale in Figure 2. It would appear there is an opportunity for the library to attract greater student traffic generally by bolstering its instructional offerings, particularly

to underclassmen and within the School of Business. Another of Song's findings concerned the amount of Internet usage for career-related research. This could provide another marketing avenue to attract more business students to the library's resources.

Students responded favorably to the library being useful for class research. Just over 77% agreed or strongly agreed with the statement. Nearly two thirds of respondents, or 65.8%, noted they conduct course research on line often or all of the time. The strong response in utilizing libraries for class work or research was consistent across several studies, including Gardner and Eng's 2003 survey where it was ranked first at just over 80%. In our case this question was tied for the second highest positive response, including both agree or strongly agree designations. At the University of Cincinnati, computer usage was among the more popular reasons for utilizing the library, with student comments indicating desire for greater computer access (Riemenschneider, 2005). While just over half, or 51.6%, of respondents indicated they considered the library's databases to be user friendly, just 34.9% of respondents indicated they used the library databases often or all of the time.

When exploring whether a different interface experience might pique student interest, two thirds of respondents indicated a preference for searching the library's electronic databases to have an interface more like Google, with 15.1% strongly agreeing and 51.6% agreeing with the statement. Looking at the prospect of customizing the library web site experience, just over half, or 52.0%, of students exhibited a preference for web sites that remember their interest and highlight products or services of interest based on their prior preferences. Here, 9.9% strongly agreed and 42.1% agreed with the statement.

When asked if students use customized web sites such as MyYahoo!, 19.1% responded they use such sites all of the time, 25.3% use them often, and 22.0% responded sometimes, totaling approximately two

thirds of respondents. Shifting the question to whether the students would customize a library web page if the option were available, it appears fewer students would utilize the capability than use them for their personal interest portals. Here, 5.9% responded they strongly agreed and 29.3% agreed, for a total of 35.2%.

The preference for a familiar, easy to use interface garnered two thirds of respondents agreeing or strongly agreeing. This is a similar result to survey responses at the University of Pittsburgh. In that case, the library system implemented a search engine that allows users to search many databases across different platforms (Duck and Koeske, 2003). This occurred in response to survey results indicating that students were interested in a streamlined search engine to access library information resources. In their study, more than half of respondents were either uncertain or agreed that library databases were difficult to use.

## 5. CONCLUSIONS

Consideration must be given to the overall role of the Maxwell library on campus. Increased traffic following the main floor renovation shows students are attracted to a more contemporary and flexible space. Survey results indicate students value the library as a location for pursuing both academic and social interests. A majority of students visit to participate in group work or to meet or study with friends. The main floor renovation has provided a space suited to those interests.

Students visit the library more frequently as they progress through their time at the college. As more of the library is renovated, additional outreach to incoming freshman and marketing both the academic and social outlets it provides perhaps through freshman courses might assist in building library traffic further. In the interest of broadening its appeal, building upon the success of making Starbucks and other refreshments available may help keep more students at the library longer. High usage levels around working individually or in groups bode well for the ongoing renovation of the library

space. Anecdotal observations show the main floor attracts many more students than the floors that have yet to be renovated. Once the next phase of the renovation is complete, it may be worthwhile to survey students on both floors to gauge what is drawing them to the new space and what will keep them engaged in utilizing the library, academically or otherwise.

One challenge for the library is identifying and providing the services students desire most. This requires consideration of how students learn, the tools they use, the advent of greater group work, and the information revolution. Additional research should gather additional data on the information resources and services that would increase library visitation and usage by students in the School of Education and Allied Studies and the School of Business, which would broaden appeal across the student population. Providing greater access to library instruction, and perhaps folding it into more course instruction, particularly for freshmen students could potentially increase the usage of the library's information resources. This is supported by Song's 2003 and 2004 research.

Students consider themselves fluent in conducting information searches on the Internet. They are in favor of a more "Google" like experience at the library, and prefer websites that remember their interests such as Amazon.com. More research is recommended in this area to more fully define interests in possible services such as being able to customize the library web site, to repackage its databases and on line resources to increase usage, and to market itself as a valuable resource, perhaps complementary to the utilization of public, low learning curve search engines.

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Appendix A. Library Usage Research Instrument

Major				
Year of study	Freshman Graduate	Sophomore	Junior	Senior
Gender	Male		Female	
Status	Part Time		Full Time	
	Commuter		Resident	

- 1) How frequently do you visit the BSC library?  
 Never                      Only when required              1-2x/Week              3-4x/Week              5+x/Week
  
- 2) The library is a useful resource for:
  - a. Researching class assignments  
 Strongly agree    Agree    Neither agree nor disagree    Disagree    Strongly disagree
  - b. Hanging out  
 Strongly agree    Agree    Neither agree nor disagree    Disagree    Strongly disagree
  - c. Meeting classmates for group projects  
 Strongly agree    Agree    Neither agree nor disagree    Disagree    Strongly disagree
  - d. Meeting friends for individual study  
 Strongly agree    Agree    Neither agree nor disagree    Disagree    Strongly disagree
  
- 3) How often do you use the library databases?  
 All of the time    Often    Somewhat    Seldom    Never
  
- 4) You feel you conduct Internet research efficiently  
 Strongly agree    Agree    Neither agree nor disagree    Disagree    Strongly disagree
  
- 5) You would customize library webpage if the option were available  
 Strongly agree    Agree    Neither agree nor disagree    Disagree    Strongly disagree
  
- 6) You would prefer the library databases had more "Google" feel to them  
 Strongly agree    Agree    Neither agree nor disagree    Disagree    Strongly disagree
  
- 7) You use customized web pages (My Yahoo!, etc.)  
 All of the time    Often    Somewhat    Seldom    Never
  
- 8) I like websites that remember my interests and point out products or services I might be interested in like Amazon.com  
 Strongly agree    Agree    Neither agree nor disagree    Disagree    Strongly disagree
  
- 9) Library online data bases are user friendly  
 Strongly agree    Agree    Neither agree nor disagree    Disagree    Strongly disagree
  
- 10) You conduct course research online  
 All of the time    Often    Somewhat    Seldom    Never

- 11) You Pod cast  
All of the time   Often   Somewhat   Seldom   Never
- 12) I would like to be able to download audio or video at the library to my iPod or similar device  
a. Entertainment content   All of the time   Often   Somewhat   Seldom   Never  
b. Educational content   All of the time   Often   Somewhat   Seldom   Never
- 13) You read or post blogs  
All of the time   Often   Somewhat   Seldom   Never
- 14) You would find a library blog helpful.  
Strongly agree   Agree   Neither agree nor disagree   Disagree   Strongly disagree
- 15) I customize my cell phone by downloading ring tones, games  
All of the time   Often   Somewhat   Seldom   Never
- 16) I play video games such as XBOX or PS  
All of the time   Often   Somewhat   Seldom   Never
- 17) The library should offer more food/snack choices  
Strongly agree   Agree   Neither agree nor disagree   Disagree   Strongly disagree
- 18) Starbucks on the lower level should be open longer  
Strongly agree   Agree   Neither agree nor disagree   Disagree   Strongly disagree