

**Study of Information Acquisition and Usage Behaviors of Montana State  
University Library's Constituents**

Primary Research Conducted by:  
Marketing Club at Montana State University

Presented to:  
Tamara Miller, Dean of Montana State University Libraries

October 10, 2007

## Table of Contents

Executive Summary	3
Introduction	4
Background and problem definition	4
Research objectives	4
Research Design and methodology	5
Results	
Focus groups	7
Student survey	9
Faculty survey	14
Limitations	17
Recommendations	18
Conclusion	20
Appendix	21

## **Executive Summary**

Montana State University Libraries (MSUL) commissioned the Marketing Club at Montana State University (MSU) to conduct primary research that would assist MSUL in making future resource allocation decisions. The primary objectives of the research were to determine the information acquisition and usage behaviors of MSUL constituents.

To achieve the objectives, marketing club researchers conducted three focus groups. One focus group involved Bozeman High School students, whereas the other two were comprised of MSU students. In addition, MSU's faculty and students' information acquisition and usage patterns were recorded with the help of two separate surveys specifically designed to target each group.

Key findings are as follows:

1. When searching for information, MSU students prefer the Internet over conventional resources such as textbooks. In contrast, MSU faculty seeks information primarily through library resources followed by the internet.
2. Although MSU students' use of library databases is at par with MSU faculty, the students' reliance on help from librarians is substantially lesser than faculty's use of librarian help.
3. Students are embracing mobile technologies for personal use, but students' pace of adoption of new technologies such as RSS and blogs that are potentially useful in education is slow.
4. Faculty's awareness and usage of RSS feeds and blogs was higher than students.
5. Students still value face-to-face time with faculty, however, for students the most important factor in searching for information is the ease with which information can be retrieved.
6. Upper level students are more likely to use library resources and less likely to put faith in resources such as Wikipedia.
7. A substantial number of faculty and students believe that within a 1-5 year time frame it is possible to offer course material through personal electronic devices. However, faculty members expressed a lesser likelihood than students to use such technology.

Based on the results, the Marketing Club recommends that MSUL become a repository of information as well as any and all information technology resources which may be used to access information and knowledge in the current information technology environment as well as in the future.

## **Introduction**

This report presents findings from primary research conducted by the Marketing Club at Montana State University (MSU) in response to a request made by the Dean of MSU Libraries (MSUL) Tamara Miller, to assist with gathering necessary information to make future resource allocation decisions.

## **Background and Problem Definition**

MSU Libraries cater to approximately 13,000 students and nearly 1100 full- and part-time faculty members. MSUL's mission is to facilitate student and faculty success by providing access to information and knowledge.

Due to the dynamic information technology environment that MSUL finds itself in, it is important to MSUL's administration to make informed decisions about how faculty and students access and use information and knowledge. To make such decisions it is critical that MSUL's administration is aware of the information acquisition and usage patterns of both current and future constituents. Based on the premise of staying abreast of the constituents' needs, the following problem was identified:

MSUL's administration needs a better understanding of how the constituents of MSUL acquire and use information. An improved understanding of constituents' needs will assist MSUL's administration with making well-informed resource allocation decisions as well as with pursuing pertinent technologies that will further MSUL's mission.

## **Research Objectives**

Following the important step of defining the problem, MSUL's administration and Marketing Club researchers met on January 30<sup>th</sup>, Feb 5<sup>th</sup> and Feb 17<sup>th</sup>, 2007 to arrive at a common understanding of the objectives of the primary research. Based on these meetings, the following three research objectives were mutually agreed upon:

1. To find out how MSUL's constituents currently meet their information and knowledge needs.
2. To measure MSUL's constituents' awareness and usage of innovative technologies that assist in the acquisition of information and knowledge.
3. To measure future students' information acquisition and usage behavior.

The aforementioned objectives were designed to not only critically assess the relative importance of resources that current students and faculty use to perform their duties but also to determine in what fundamental ways the acquisition and usage of information and knowledge may change in the imminent future.

## **Research Design and Methodology**

The Marketing Club research team identified two primary research methods that could assist MSUL in achieving the aforementioned research objectives. These are focus groups, and surveys.

1. Three focus groups were conducted with eight to twelve participants in each focus group. MSUL's administration is particularly interested in knowing how the new generation of students learns and how the new generation integrates electronic social networking websites and search engines with traditional information sources. The rich and complex space occupied by attitudes, opinions, and behaviors related to emerging technologies and how they shape learning is not fully captured in traditional closed-ended survey responses. Therefore, a focused discussion format was considered more suitable for gaining insight into the views of MSUL's constituents. Moreover, because of the rapidly changing technological environment, relying solely on survey methodology, which draws from the current state of knowledge of the survey designers, runs the risk of developing a survey instrument that consists of under-specified research questions. The rationale and composition for each proposed focus group is as follows:
  - a. Two focus groups were conducted with MSU students. One of these included college juniors and seniors and the other included freshmen and sophomore students. Because of the rapid rate at which technology is changing, separating student groups at the two-year mark was considered pertinent for comparing and contrasting opinions in order to uncover key themes that may underlie the responses of the two groups. The focus group for the upper classes was comprised of 5 juniors and 7 seniors. The second focus group consisted of 6 students from the sophomore class and 6 from the freshman class. Each focused discussion lasted approximately 60 minutes. Participants received \$10 in lieu of their participation.
  - b. One focus group was dedicated to obtaining the opinions of high-school seniors regarding their the acquisition and usage of information and knowledge. This focus group was

conducted at Bozeman High School. Fourteen students from Bozeman High school participated in this focus group. Seven out of 14 of these students intended to attend MSU. Even though the other participants were not enrolling at MSU, they fit the profile of the generation that is believed to be well-versed with information technology. Thus, it is believed that understanding how future college students in general are trained to access and utilize information is important to sustain the mission of MSUL. Recruitment was sought with the permission of Bozeman High School administration. Although a monetary incentive was offered, the Bozeman High School administration suggested that refreshments were sufficient to compensate students for participation. The research team respectfully complied with the request.

2. To gather information about current patterns of information acquisition and usage of MSUL's on-campus users the research team developed a survey questionnaire. Surveys are critical for achieving a better understanding of a large population by accessing representative samples whose selection is based on statistical principles. Surveys offer an important benefit because results from a statistically valid sample can be generalized to the population of interest within a known margin of error. Survey data are analyzed and interpreted for MSUL's administration in this report. Details regarding survey administration are as follows:
  - a. The Marketing Club developed two separate surveys tailored to two different populations of interest; students and faculty at MSU. The surveys are included in the appendix to this report. The student survey focused on issues concerning current methods of acquisition and usage of information for academic purposes. The faculty survey focused on assessing patterns of information acquisition and usage relevant to supporting teaching and research activities. Because we have no prior reason to believe that students and faculty from different colleges access and utilize information differently a random sample was preferred over a stratified sample. Participation was requested through instructors whose classes were picked from a random sampling of classes in session at MSU. Instructors were requested by electronic mail to allow access to their students during class time. If an instructor did not wish to allow access, another randomly picked class was used to substitute the inaccessible class.
  - b. In all 246 student responses were obtained. Although in the proposal presented by the Marketing Club to the MSUL

administration a random sample of 384 students was promised, accessibility constraints imposed by instructors prevented the research team from delivering the promised sample size. However, it must be kept in mind that the suggested sample size was based on the assumption that the variability in responses would be at the theoretical maximum such that 50% of students would answer any particular dichotomous-response in one way, and the rest would answer the same question in the other way. Based on the variability observed in the data, a sample size of 246 is statistically sufficient to achieve a 95% confidence in the results with a  $\pm 6\%$  margin of error rather than the 5% margin promised in our proposal.

- c. In all 96 faculty responses were obtained. In the research proposal a random sample of 260 faculty members was promised. However, access to the faculty was considerably more difficult than assumed by the researchers before the surveying began. Given the observed variability in responses on selected questions in the survey, it is pertinent to believe that a sample of 96 can provide us 95% confidence in our results within a  $\pm 8\%$  margin of error.
- d. Details of sample size and margin of error calculations are available upon request.

## **Results**

### ***Focus Groups***

The same moderator conducted all focus groups. Doing so minimizes any bias in results that may be attributed to a change in moderator.

A protocol consisting of 15 questions was developed to conduct the focus groups. Some of the questions asked during the focus groups were as follows:

1. Which Internet sites do you use for research purposes?
2. What considerations do you make when gathering information for an assignment given by your teacher?
3. Do you use Wikipedia?
4. Would you instant message/facebook /myspace your teachers for homework/test help?
5. What would help you as a student that is currently not available at Montana State University? (College focus groups only)
6. What kind of Internet sites do you frequent the most?

7. What resources do you use to complete assignments/papers/projects?
8. What is your single greatest resource when completing an assignment?
9. Does your prospective college's information infrastructure have a bearing on your decision to attend? (high school only)

To sustain the flow of focus group discussion some of our questions were based on the discussion taking place within the focus group. Thus, we transcribe the responses without mentioning the specific question that was asked. The responses have enough context to allow the reader to understand the topic being discussed. Sample verbatim responses are transcribed within the text of the report. Key themes that emerged from the focus groups were as follows:

#### High school

- Open to emerging technology
- Highly interactive in Social Networks
- Majority of the Research done on-line
- "Where is the library?"
- A majority into on-line/console games
- Heard about colleges giving students laptops/ipods
- Use Wikipedia to start research

For the college focus group our classification was based on credits earned plus credits currently enrolled in. The number of years at MSU had no bearing on class level.

#### Freshman and Sophomore:

- Exploring emerging technology
- Facebook and Myspace users
- Use print resources to supplement on-line research
- Use Wikipedia to start a majority of their research
- "Sometimes I just want to get the assignment over because I don't really care about the subject matter"
- Core/uninteresting/boring classes are a waste of time
- Easiest information source is used to complete assignment

#### Junior and Senior:

- Hesitant to use Wikipedia (Rumors about validity)
- Use librarians for important papers/assignments
- Internet sources and on-line print sources used for less important papers

- “Brand loyal” but willing to try new technologies if they have a proven track record and will increase productivity
- “At this point in academic career, I can’t afford to have invalid information”
- “My future could depend on my senior thesis”
- Have a plan of action for attacking an informational problem

Overall we found that each set of focus group participants had a different set of priorities when choosing and using information sources. The high school group was very concerned with maintaining their social dominance in whatever media they could. This included being a part of social networks, communicating about homework through instant messaging and even using the same search engines to be consistent with their peers whose opinions they highly value. The freshman and sophomore focus grouped revealed the ability to handle heavy class loads and their negative attitude towards core classes that they did not find interesting. This is relevant because this attitude leads students to look for the path of least resistance when acquiring information.

During this focus group we discovered that when a student was doing a project/ paper for their major he/she would spend more time to properly understand their sources before using them. The junior and senior focus group revealed that once the students are either accepted in their college or have passed their core classes they are far more focused on their information sources. Both the seniors and the juniors always made sure that any source they used was both verifiable and accurate. Some of the students were worried about being accused of plagiarism even when they did all their own work. They talked about the software used by teachers to catch students and how it always worried them even if they wouldn’t cheat. The experience at the college level has given them a significant advantage when a teacher assigns a large demanding paper. Most of them had a ‘plan of action’. This can be as simple as writing a date in their planner or as extensive as writing an outline after class and heading straight to the library to start research. This ‘plan of action’ was not mentioned in any other focus group. The seniors and juniors are far more willing to take advantage of specialized help while freshman and sophomores would take advantage of more general assistance with course work.

### ***Student Survey***

Following the focus groups, data gathering for the student survey was initiated. A total of 246 students took part in the student survey. Of these students, 32% were Freshmen, 17% were Sophomores, 32% were Juniors, 18% were Seniors, and 1% were Graduate Students at the time of

participation. Married students comprised 4% of the sample and part-time students were also only 4% of the sample. The average age of respondents was just below 21 years with a maximum age of 49 and a minimum age of 17 in the sample. Males account for 55% of students surveyed. It is worth noting that the registrar's office lists the gender composition of the student body enrolled in Fall 2006 as 53% male. The close resemblance of the sample statistic to the population parameter bolsters our confidence in the results.

### *Computer Use*

When asked if students have a computer at home, 99% said yes, while only 1% of students surveyed said no.

Respondents were asked to divide the time spent on computers into three categories: recreational use, coursework, and job-related use. Results indicate that use of computers for entertainment made up for 49% of overall use followed closely by use for coursework (45%) and job related use (6%). The low incidence of job related use can be explained by the statistic that 37% of the students in the sample did not have any job.

### *Internet Connectivity*

Respondents were asked about the type of Internet connection they have at home. The responses indicated that a vast majority of students have high-speed internet available at home. Cable Internet subscribers constituted 43% of the sample whereas 46% had DSL. Only 1% still relied on dial-up connections, and 3% used satellite based Internet. The rest did not know what type of Internet connection they had. Furthermore, 70% of the sample also had wireless connectivity with their Internet.

### *Helpful Resources*

To determine which resources are most helpful to students for completing coursework, students were asked to list their top three most used resources. An open ended format was preferred in order not to constrain students' thoughts about what they find helpful for achieving academic excellence. Obviously, quantifying verbatim responses poses a challenge but we attempted to group similar responses into unique categories and determined that of all resources mentioned, computers and computer labs are considered most helpful in getting academic work done. The Internet was considered the second most important resource, and books were considered the third most important resource. Other popular answers include teachers and search engines.

Continuing with the objective of finding out how students acquire information, survey questions were designed to measure students' awareness and usage of various electronic resources including both

campus electronic resources such as WebCT as well as generic new technologies such as e-books and podcasts among others. Results reveal that 60% of students were aware of e-books but only 25% had ever used them. Similarly 67% were aware of podcasts but only 15% used them. Awareness of RSS feeds was the lowest of all resources and technologies in the survey. Only 16% of the students were aware of RSS feeds and only 5% indicated that they use them. In contrast only 3% were unaware of WebCT. Of the rest who were aware of WebCT, 95% indicated that they used it. As expected, all respondents were aware of Google as a resource and 99% said that they used it. The MSU Myportal also enjoys high awareness and usage. Only 1 student in the sample was unaware of Myportal. Ninety-five percent of the respondents used Myportal.

The awareness and usage levels of library resources may perhaps be of greatest interest to the MSUL administration. Results indicate that 90% of students were aware of library databases and 78% used them. In contrast, usage of the services offered by librarians was lower. Although 91% said they were aware that librarians were available to help them, 46% indicated that they do not use these services. Perhaps the electronic accessibility of databases precludes the need to meet face to face with librarians. Further evidence of the ease of access to online resources is found in the high awareness and usage enjoyed by Wikipedia.com. Ninety-seven percent of students were aware of Wikipedia and 87% of students indicated that they use it. Finally, 80% of the sample indicated that they were aware of blogs; however, 70% of the sample indicated that they did not use blogs.

In summary, it appears that although RSS and Blogs are not new technologies any more, the MSU student body is still in the early adoption stage when it comes to these technologies. The MSU resources including WebCT, Myportal, and the library resources enjoy impressively high levels of awareness and with the exception of face-to-face contact with librarians, the MSU resources also enjoy high levels of usage.

### *Usefulness of Resources*

Although awareness and usage of resources is helpful in determining the media used by students to acquire information and knowledge, the relative importance of resources can also be assessed directly in relevance to coursework. The survey included questions regarding the usefulness of certain resources in assisting students with the completion of coursework. Usefulness of a resource was measured on a 7-point scale anchored at 1 (not useful at all) and 7 (very useful). Results indicate that students consider Google to be the most important resource for coursework. The mean score for usefulness for Google was 5.98. Respondents indicated that the least useful resource was Myportal with a

mean score of 4.13. Mean scores for usefulness of other resources are as follows:

Books 5.54, MSU Wireless Network 5.0, MSU Libraries 5.3, MSU Library Hours 5.23, Library Staff 4.19, WebCT 4.79, Library Databases 4.93, Wikipedia 4.8, and Teachers' help 5.73.

It appears that even though students benefit from new technologies and find them useful, old fashioned face-to-face help from their instructors is still highly valued. At the same time, the highest rated resource was Google and that indicates that the landscape of information acquisition has changed considerably and that the usefulness of online electronic resources cannot be denied.

### *Ownership of Electronics*

Given that the use of electronic resources is becoming increasingly prevalent in academic life it was considered pertinent to assess the ownership patterns of various electronic gadgets among the student population. Students were asked whether they own the following devices: MP3 player, game console, laptop computer, cell phone, desktop computer, and a PDA/Blackberry. Results indicate that the average number of devices owned by a student is 3.4. Seventy percent of respondents own an MP3 player whereas 44% own a game console. Approximately 96% have cell phones but only 10% have a PDA or Blackberry. Results reveal that 78% of the respondents own a laptop computer. In contrast, only 46% own a desktop computer. Of those who own a laptop computer 93% also own a desktop computer. However, among owners of desktop computers only 55% own a laptop computer.

It appears that more students are adopting mobile technology in the form of cell phones and laptop computers rather than desktop computers. The increasing use of technology by students begs the questions of how soon students believe that personal electronics such as cell phones will realistically be used at MSU for delivering course content, and how likely are students to use personal electronics for learning. These questions were asked in the survey. In response, 64% of students surveyed believe that personal electronics will realistically be used at MSU to deliver course content within 1-5 years, 33% believe 6-10 years is when this will happen, and the remaining 3% believe this will occur within the next year.

In response to the question regarding likelihood of using personal electronics for learning course content, on a scale of 1 to 7 (1 being very unlikely and 7 being very likely) the average is around 4. It appears that students are indifferent about this issue. On the "very likely" end of the scale, fewer students agreed with the likelihood of using personal electronics for course content. Only 17% rated the likelihood of using personal electronics as six and seven on the seven point scale whereas 45% of the ratings were three and below.

Taken together, the results regarding the possibility of receiving instruction by cell phone as well as the students' own likelihood of using cell phones for course content indicate that at least the present sample and possibly the current cohort of MSU students is not ready for emerging technologies in the field of education. The research team speculated whether this is because the Internet generation wants things to be easy and at the touch of their mouse rather than delivered through their cell phone. To study the role of ease of information acquisition we included questions that measured students' perceptions of the ease of gathering information on the Internet.

### *Ease of Gathering Information*

In order to measure students' perceptions of the ease of gathering information on the Internet, the following question was used: "In general I find that compared to reading textbooks it is easier to gather information on the Internet". The response options were limited to "strongly disagree", "somewhat disagree", "somewhat agree", and "strongly agree". The mean response on this four-point scale was 3.1 indicating that on average students indeed find it easier to search for information on the Internet. Close to 80% of students leaned towards "somewhat agree" and "strongly agree" with 37% stating that they strongly agree that it is easier to find information on the Internet compared to reading books.

It may be for this reason that when given an assignment that requires research, students most often search the Internet followed by library resources (including the library website). Fifty seven percent indicated that this was how they conducted research. Searching library resources only and talking to a librarian are hardly an option for any student surveyed (cumulative percentage 1.2%). Online resources are the predominant form of research used by students on campus.

### *Reading and Viewing Habits*

Students' readings habits may also be surmised from whether they read newspapers in addition to course material. When asked about newspaper reading habits, 56% of students stated that they read the paper daily or several times a week. Only 11% never read newspapers. Of those that do read newspapers often, 42% read hard copy. Only 8% read the paper online without ever reading hard copy.

Television viewing habits were also studied in the survey. On average students watch one hour and forty five minutes of television every day. The minimum was zero and the maximum was 8 hours per day.

The majority of students (43%) are watching entertainment channels such as MTV, VH1, E! and movie channels. Only 8% of students are watching strictly sports channels such as ESPN. The second most watched channel type is educational (31%), followed by the local networks (18%).

This means that a majority of students are watching shows that require a cable connection.

### *Other Findings*

A cross tabulation was used to detect differences in awareness of technologies across class levels. Freshmen and sophomores are least aware of RSS Feeds and over 90% of these class levels don't use RSS. Juniors are the most likely group to use RSS and seniors, though some are aware of it, are more likely to not use it. From this, we can conclude that though technology is readily available, it is not always preferred. Even though students may be familiar with some of these offerings, they may not use them consistently. Due to being in a highly technological, Internet driven age, students are better able to pick and choose which resources to use based on the ease of use.

### *Faculty Survey*

When analyzing faculty results, demographics such as academic title, age, sex, and tenure-track status were considered. The average age of the faculty sample was 48 years. Thirty eight percent were full professors, 15% were associate professors, 20% were assistant professors and the rest were in other ranks such as instructor or adjunct professor. Females constituted 30% of the faculty sample.

When asked about which college these faculty members teach in, 41% responded as being a part of the College of Letters and Sciences. The Colleges of Agriculture, Business and Arts and Architecture represent the other large portions of faculty responses.

### *Computer Use*

In the faculty sample, 97% owned a home computer. This shows us that there are slightly fewer computers at the homes of faculty members when compared with that of students.

Time spent on these computers can be divided into three areas: recreational use, teaching, and research. Faculty spent 33%, 33%, and 34% of their time on their computers pursuing each of these activities respectively. Compared to students, faculty members spend about 15% less time using home computers for recreation, and more for job-related tasks.

When asked about the type of Internet connection used by faculty members at home, respondents indicated that they use cable Internet (35%), DSL (37%) and satellite connections (8%). Interestingly, compared to student responses, more faculty members still use dial-up (17%), perhaps due to living further away from campus. At the same time, faculty also use more DSL than students whereas students use more cable than faculty.

Faculty members that have a wireless connection at home represent 57% of the survey population. Faculty wireless connectivity is also 13% less than the students. However, many faculty members have daily access to Internet in their offices and while on campus, and may not need Internet access at home which may account for this difference.

### *Helpful Resources*

To determine which resources are most helpful for faculty members to teach, respondents were asked to list their top three most used resources in an open ended format. After grouping and analyzing all resources mentioned, the results indicate that the library and its website are considered most helpful, followed by the Internet. Books and textbooks were also regarded as helpful. In the students' results, library was nowhere in the top three.

Faculty members were also asked which top three resources are useful when doing research. The library was once again the first choice, followed by the Internet. Talking to other professors and using student aides is also considered useful to faculty members.

Similar to the student survey, faculty's awareness and usage of various resources was also measured. Results indicate that faculty's awareness of e-books (82% were aware) is higher than students' awareness of e-books. However, faculty's usage of e-books is identical to that of students (25%). Faculty awareness of podcasts (83% were aware) was also higher than students. Moreover, compared to students, more faculty members were using podcasts (28% vs. 15%). Faculty members are also considerably more aware of RSS feeds (43% are aware) and compared to students a greater proportion of faculty members uses RSS feeds (12% vs. 5%).

While only 45% of students used librarians' help, 80% of faculty members use librarians' help. Surprisingly, 41% of faculty members do not use WebCT. Faculty awareness of Google was also 100% although 4% indicated that they do not use it. Compared to students' usage of Myportal (95%), faculty usage of Myportal is lower (63%). Compared to students, faculty members had a slightly higher awareness of library databases (95% vs. 90%). Faculty used library databases about as much as students (80% vs. 78%). The awareness of blogs among faculty was 93%. The proportion using blogs was similar to students (70%). Faculty awareness of Wikipedia matched the students (98%), however, faculty usage of Wikipedia as a resource was considerably lesser than the students (73% vs. 87%). Surprisingly, only 7% of the faculty in the sample stated that they use the MSU VPN. Most faculty members (78%) were not aware of the VPN technology.

### *Usefulness of Resources*

Usefulness of resources is also an important consideration when determining what type of support to provide faculty members with in order to assist them in teaching and research. On a scale from 1 to 7, 1 being not useful at all and 7 being very useful, the library seems to be most useful to faculty members (5.7), while MyPortal seems to be rated least useful (3.3). Wikipedia is also ranked low for faculty members (3.7), but search engines are ranked high (5.62). Usefulness of library hours was rated in the middle of the scale (4.7) whereas usefulness of WebCT received a lower score (4.1). Library databases also received high ratings (5.4) on the usefulness scale.

### *Ownership of Electronics*

As use of electronics increases for both students and faculty, it is helpful to know how many electronic devices are owned by faculty. On average faculty members owned 3.2 gadgets. Although the average number of devices is similar to that owned by students, the majority of faculty members own a laptop (80%), which is slightly higher than the results for students. Very few faculty members (10 respondents out of 94) own a game console (34% less than students). Cell phone ownership is 25% less than the student results, but PDA/Blackberry ownership was 22% more than students.

Fifty-six percent of faculty members believe that personal electronics will realistically be used at MSU to deliver course content within 1-5 years, 42% believe 6-10 years is when this will happen, and the remaining 2% believe this will occur within the next year. These results are quite similar to those obtained from the student sample.

The mean response to the question regarding likelihood of using personal electronics for delivering course content, on a scale of 1 to 7 (1 being very unlikely and 7 being very likely) is around a 2. Faculty members are more likely to disbelieve the idea that courses could be delivered through the use of personal electronics. This suggests that faculty is even less likely than students to consider creating and delivering course content using personal electronic devices. Almost 75% of faculty members rated their likelihood at 3 or below on the 1 to 7 scale.

### *Ease of Gathering Information*

When asked if faculty members believe it is easier to gather information on the Internet, the majority (38.3%) responded by marking "somewhat disagree" whereas the second highest response was "somewhat agree" (31.9%). However, when looking at the strongly disagree and somewhat disagree together, faculty are split right down the middle on how easy they believe it is to gather information on the internet. Regardless of the even split, the proportion of faculty who find it

easy to gather information on the internet is 30% lesser than that of students surveyed, meaning that faculty members are more likely to reference books than the internet, and are therefore more likely to use the library.

When looking for an article for research, faculty members most often search library resources followed by the Internet (55%). This proportion is 36% greater than students. Students are much more eager to search the Internet before anything else, while faculty members are more likely to consult a librarian and try other options first.

### *Reading and Viewing Habits*

Results regarding newspaper reading habits indicate that 62% of faculty members read newspapers daily. Only 3% never read them, which makes it 8% less than the results from students surveyed. Of those that do read newspapers, most were in hard copy (66% said they read mostly or only hard copy). Although the proportion is higher than the students, most students also read their newspapers mostly in hard copy. Among faculty, only 3% read the paper only online. However, one must be mindful that the margin of error is  $\pm 8\%$ . Notwithstanding sampling error, faculty members seem to prefer hard copies of books, references, and newspapers, while students are gradually moving more into the technological age.

### *Other Findings*

A correlation test indicated that there is a significant positive correlation between perceived ease of gathering information on the internet versus books and the likelihood that faculty will deliver course content on personal electronic devices. However, it must be kept in mind that exactly half of the faculty members also believe that it is not necessarily easier to gather information on the Internet. Of these, the majority believes that it is not very likely that electronics will be used for delivering course content. Overall, faculty members are much less likely to use the Internet and computers for research and teaching, and may underestimate the capabilities of these devices. They in turn, are more likely to reference libraries and use hard copies.

## **Limitations**

The limitation for this research was the complexity of the topic and the faculty survey response rate.

The complexity of this topic was something that we tried to tackle from our various meetings and we believe was focused upon when it came to the design and implementation of the survey. Even with our combined understanding of this topic we still didn't take into

consideration the complexity that each and every individually has to deal with on a daily basis to properly choose the right “vehicle” to reach their information destination. Some of these decisions, we believe, are made at a purely sub-conscious level because an actual understanding of the pros and cons of the infinite possibilities would overwhelm anybody including a college student or professor. Our team doesn’t have the training to use research methods that could elicit sub-conscious thoughts about acquisition and usage of information. Other techniques such as observation and ethnography may provide further insight into information gathering and usage behaviors of the community at MSU.

Faculty surveying has always been difficult for MSU students. We had observed this in our MKTG 342 class when student groups returned poor sample sizes if faculty were required to be a part of the sample. Although we understood this difficulty intellectually when we approached this problem we didn’t understand the magnitude of the problem in application. From the beginning we understood that we would have to personally hand out each and every one of the surveys to one faculty member at a time. We could have achieved a greater sample size had we decided to use an event to distribute the surveys. However, such a practice would not make our population a representative sample of the entire MSU population.

Unfortunately, our door-to-door method proved ineffective at best. Each and every one of our surveyors was met with little to no cooperation from the MSU faculty. In some cases when faculty members were overwhelmed with work, we would drop off a survey and ask if they would either drop it in the mail or leave it at a mutually agreeable location. Even with this freedom and lack of time constraints the response rate was far less than expected. We felt this was a very unfortunate state of affairs but we did understand the faculty’s time schedules and their obligations to the students in their current classes. Our team was never discouraged but a little frustrated at times during the sampling of the teachers. This difficulty was assessed and we reduced our sample size due to lack of participation from the faculty. Even though this increased our margin of error we felt our time was better spent analyzing and making recommendations than forcing our survey upon the MSU faculty.

## **Recommendations**

Useful research does not merely present facts but instead weaves facts together to provide solutions to a problem. Thus, our recommendations focus on the resource allocation problem that initiated this research. We attempt to provide possible directions that the MSUL administration can take toward making such decisions on a day-to day basis as well as for long term planning. Our recommendations are based on our overall

understanding from the direct focus group responses, as well as statistical results from surveys.

We believe that an underlying theme that emerges from the three focus groups and the analysis of the two surveys is that MSUL's constituents access information in different ways. However, their underlying need is the same which is the acquisition of information and knowledge in a medium that is easy for them to interact with.

Before the invention of modern technology if one wanted to access information one would simply open a book and search for the information that was needed. The book was easy to use and the information readily available if one could read and understand the language in which the book was intended for. In the 21<sup>st</sup> century the "book" has changed but the end being pursued is still the same.

The pursuit of information is especially important for college students and faculty. Our results confirm that even though a substantial number of students is aware of emerging technologies students don't use these technologies for course work. Rather than seeing this as a threat, we suggest that MSUL see this as an opportunity to be the repository for information technology. In an effort to stay consistent with the library's mission to provide access to information and knowledge to facilitate successful student and faculty, MSUL needs to be the place where the various technology questions related to information acquisition and usage are answered. If students and faculty don't have the knowledge base to properly use a resource, be it a database or an electronic gadget that they wish to get RSS feeds on, they will not use that resource to access information. Thus, our primary recommendation is to have the library become a repository not only for information and knowledge but also for any and all technologies that could possibly be used for accessing information. Thus, expertise in interactive mobile communication among devices such as phones, PDAs, and laptop computers should be the forte of the library staff.

Further, we recommend that the library raise its level of communication about library technologies and do so on a continual basis so as to keep its constituents informed as new technologies emerge.

We also recommend that the library assumes the primary authority when it comes to information gathering issues previously handled by the ITC. Whether this is accomplished through joining hands with ITC or establishing an expertise in-house is a decision beyond the scope of our work. However, we believe ITC should be strictly focused on infrastructure that supports the libraries efforts.

The library not only needs to communicate with constituents about new technologies, but in an effort to stay consistent with the underlying theme of any university, the library also needs to educate constituents on how to use current technologies. We believe the library needs to teach

people how to open the “book” and properly access the information. These educational classrooms/one-on-one/group settings could be catered to non-academic usage such as teaching students how to access an RSS feed on their favorite entertainment channel such as VH1 with the understanding that once students are familiar and comfortable with these technologies, course work could also easily be completed in this manner.

As a research team we believe that this is what the primary function of the library will be and could be. Findings from both our qualitative and quantitative research support our recommendations.

## **Conclusion**

MSUL commissioned the Marketing Club to fulfill three research objectives that emerged from the need to make well-informed resource allocation decisions. Achieving the three research objectives required an understanding of the information acquisition and usage behaviors of MSUL’s constituents including current students and faculty as well as future students. By providing detailed descriptive information on the information usage and acquisition patterns of MSUL’s constituents, the Marketing Club research team strongly believes that it has successfully achieved these objectives and provided MSUL with pertinent information that shall aid the MSUL administration with future resource allocation decisions.