Wayne State University
DigitalCommons@WayneState

School of Library and Information Science Faculty Research Publications

School of Library and Information Science

6-1-2004

Student Satisfaction with Electronic Library Resources at Wayne State University

Robert P. Holley
Wayne State University, aa3805@wayne.edu

Ronald R. Powell
Wayne State University

Recommended Citation
Holley, R. P. & Powell, R. R. (2004). Student satisfaction with electronic library resources at Wayne State University. *Journal of Access Services, 2*(1), 41-62. doi: 10.1300/J204v02n01_06
Available at: http://digitalcommons.wayne.edu/slisfrp/36

This Article is brought to you for free and open access by the School of Library and Information Science at DigitalCommons@WayneState. It has been accepted for inclusion in School of Library and Information Science Faculty Research Publications by an authorized administrator of DigitalCommons@WayneState.

This is the author's post print originally appearing in *Journal of Access Services.* Vol. 2, No. 1, 2004, pp. 41-62.

Available online at: http://www.routledge.com/

Student Satisfaction with Electronic Library Resources at Wayne State University

Robert P. Holley
Ronald R. Powell

Robert P. Holley (aa3805@wayne.edu) and Ronald R. Powell (ad5328@wayne.edu) are Professors of Library & Information Science, 106 Kresge Library, Wayne State University, Detroit, MI 48202.
They wish to acknowledge the efforts of the student team in administering this survey.

Abstract

This paper reports the results of a survey of student satisfaction with electronic library resources beyond the online catalog at Wayne State University. Undertaken in Fall Term 2000 as a class project for a marketing course, a student team designed, administered, and analyzed a survey sent to a 10% random sample (2,965) of all students with a return rate of 9.41% (271). Almost 40% of the responding students said that they were unaware of electronic resource though 53.8% of these same students answered subsequent questions about use of these resources. Students aware of electronic resources learned about them much more from their professors (38.3%) than from library efforts to publicize them (18.5%). Students were generally satisfied (68%) except when things went wrong. A high percentage of all students (92.4%) answered that the library should continue to expand electronic resources.

1. Introduction

During the Fall Term 2000, University Libraries at Wayne State University funded a student team from Marketing 7450, Business Research and Methodology, to implement a survey "Gauging Customer Satisfaction with WSU Libraries Electronic Services." The professor, Richard Beltramini, had approached the business bibliographer, Rhonda McGinnis, to see if University Libraries had any interest in working with a team from his class. She forwarded the request to Interim Dean, Robert P. Holley, who, after consultation with the Library Management Group, agreed to participate.

The library selected the topic of customer satisfaction with electronic services beyond the online catalog because University Libraries wished to gather data from its clientele about the effects of its decision to reallocate a significant proportion of its acquisitions budget to electronic resources. Wayne State University is a commuter school with a large number of students who take courses at off-campus centers, mostly in the metropolitan Detroit area. Students and faculty often live far away from the main campus that is located in central Detroit. In addition, the majority of students, especially those at the graduate level, are part-time older students with work and family commitments who often find it difficult to come to the main campus to use library materials. Furthermore, students and faculty receive access to the Wayne State University supported network that allows them to dial in with a local telephone call from almost anywhere in Michigan and from additional selected locations. Those with high speed network connections can access electronic library resources through a proxy server.

For these reasons, University Libraries has moved as quickly as funding permits to purchase access to electronic resources including full text. For the period of this survey, as reported in the *ARL Supplementary Statistics 2000-2001* on the expenditures for electronic resources (2002), Wayne State University was 1st in the percentage of its acquisitions budget (38.54%) (p. 21) expended on electronic resources and 7th in the actual dollar amount expended ($2,387,525) (p. 24).

2. Literature Review

A review of the literature revealed surprisingly few publications about students' awareness and use of and satisfaction with electronic information resources and services provided by their campus libraries. The majority of related publications reported on studies of university faculty and researchers. The Digital Library Federation (DLF) and the Council on Library and Information Resources (CLIR) did recently commission Outsell, Inc. to conduct a large-scale study of 3,200

undergraduates, graduate students, and faculty members at universities and liberal arts colleges in the United States. This study generated 659 data tables which can be viewed at CLIR's Website [?]. The full report, *Dimensions and Use of the Scholarly Information Environment*, was published by CLIR in 2002 [?].

As noted by Greenstein and Healy (2002), the Outsell study focused on how the Internet is affecting the work of students and scholars and what consequences Internet use will have on academic libraries. In that regard, 80 percent of the students and faculty who participated in the study stated that the Internet has changed the way in which they use campus libraries. Similarly, a recent study at Texas A&M (Melgoza, Mennel, and Gyeszly, 2002) found that undergraduate students primarily prefer to use Internet services. But according to the Outsell study, information needs and use vary depending on whether a user is a researcher, teacher, or student; ones academic field; and type of academic institution. The Outsell researchers also found that:

> Search strategies differ depending on whether one is looking for resources for research, teaching, or learning. When searching for a hard-copy book as part of a research project, for example, 83 percent of faculty members and graduate students go online. Nearly half (47 percent) use printed sources (respondents could give more than one answer). Only 23 percent seek personal assistance to locate the book. The pattern for undergraduates looking for books or other materials used in a course is considerably different: fewer (72 percent) go online, and more (35 percent) seek personal assistance. Twenty-nine percent use printed sources to locate the material (Greenstein and Healy, 2002, p. 2).

The Outsell survey also gathered some information about what criteria users employ in evaluating online resources. They are quite concerned with speed and ease of access, information quality, and search functionality. They are less concerned with display options and user-support services. The researchers found that undergraduates and other users at liberal arts colleges generally place greater faith in and make more use of Internet resources than do persons who use university libraries.

In an earlier study, Malone and Videon (1997) focused on undergraduate students' use of electronic resources as represented by works cited in their bibliographies. "The authors found relatively few citations of electronic sources (7%) and a great deal of confusion about the citation format itself" (p.151). Reasons most often given by the students for not using electronic resources related to access

problems and relevancy of the material. Ease of use, currency, and relevancy were, in that order, the reasons most frequently stated for using electronic resources.

Undergraduates, graduate students, and faculty participating in focus groups at the University of Idaho in 2000 ((Young and Von Seggern, 2001) indicated growing use of electronic resources. One undergraduate said, "I was a lot more dependent on librarians and stuff, where now I feel like because of computers and technology, I don't have to worry about whether someone's going to be there. I can just come and do everything on my own by myself" (p. 162). Undergraduates also revealed a lack of distinction between library services and computer labs. "Because the labs are located in the library, students think that the lab monitors are library employees who can assist with research techniques, and conversely, the library staff is assumed to know how to help in the labs with questions about software programs" (p. 165).

The students and faculty in the Idaho study also were given the opportunity to identify characteristics of good information sources. The qualities that they listed included: accuracy, reliability, authoritativeness, timeliness, cost, currency, accessibility, completeness, and organization. The study by Melgoza, Mennel, and Gyeszly (2002) investigated factors important to users searching for information as well. Their most influential factors were: accessibility, convenience, ease of use, and accuracy. The participants in Young's and Von Seggern's (2001) focus groups stated that the ideal "information machine" would be a "mind reader" and "intuitive."

In contrast to the study being reported here, none of the studies cited above focused on student awareness of electronic resources and attempted to measure student satisfaction with their own library's services in this area. Nor were any of them based in an urban research university.

2. Initial Steps

David Askar directed a research team that had twelve members. (See Appendix 1 for team members.) He was the one responsible for negotiating with University Libraries on the content and execution of the survey. Within University Libraries, Robert Holley dealt with Askar and the team on substantive matters with support from Rachel Huber, University Libraries Information Officer.

The research team's first assignment was to submit a proposal to University Libraries that included the results of a literature search; a problem statement; methods and procedures; scope and assumptions; and timing and budget. The research team received the required approvals from the supervising professor and from University Libraries by October 20, 2000.

The research team administered the survey as described below, prepared a final report, and

presented their findings at a class session on December 7, 2000. Holley attended this session and subsequently reported summary results of the survey to the library management team.

3. Problem Statement and Objectives

The following is an extract from the problem statement as prepared by the student team:

> As an urban teaching university, Wayne State University students are typically residents of the greater Metropolitan Detroit area, resulting in the University being primarily a commuter campus. In an effort to meet the needs of both on-campus and commuter students, the University Library system is striving toward creating a virtual on-line system where students will be able to access books, periodicals and a variety of other services consistent with the "library experience."
>
> Consequently, the Wayne State University library system is attempting to gauge students' awareness, current and potential use, satisfaction and obtain input on direction for this initiative. (Marketing 7450 Library Research Team, 2000, p 12)

The objectives, as stated in the proposal, were as follows:

> Provide information to senior administrators regarding student awareness, perceptions and satisfaction of WSU's efforts to create a virtual library system.
>
> Generate data, which can be used to guide the on-line services offered by the WSU library system. (Marketing 7450 Library Research Team, 2000, p 13)

4. Survey Methodology

As was indicated above, this study utilized the survey method for gathering data. (Readers may wish to refer to Powell (2001) for an overview of other methods used to measure and evaluate electronic information resources.) The research team, in cooperation with library staff, created a questionnaire with 29 questions. (See Appendix 2 for the questionnaire.) Of these, 27 were close-ended with multiple choices or short fill-in blanks. Two final open-ended questions asked about "what other electronic resources should the University Libraries provide on-line" and "what factors should the University consider in providing electronic library resources." The final questionnaire

was three pages long. The research team asked twenty-eight students whom they randomly encountered in the Student Center to pre-test the questionnaire on October 17 and October 18, 2000. Twenty-six responded. Several student employees in the Dean's Office also completed the survey and provided comments as part of the pre-test. The time to complete the 27 closed-ended questions was four minutes. The major change from the pre-test was to add a "not applicable" (NA) response choice where needed.

The research team determined that an appropriate sample size would be 10% of the Wayne State University student population. Holley sent a letter to the Office of the Registrar that requested, on behalf of the research team, a database in the Excel format that provided this 10% sample from the student database. The sample included students in all categories (full or part-time), all levels (undergraduate, graduate, etc.) and all colleges and professional schools. Students with addresses outside of North America were eliminated from the sample; but students with Canadian addresses were retained because many students commute from Ontario, Canada. The research team used the database to generate the survey letter signed by the Interim Dean that was sent to the 2,965 students who remained. Each survey included a postage paid return envelope addressed to a post office box that was rented for this purpose.

The response rate was less than expected. Of the 2,965 surveys mailed out, 271 were returned by November 22, 2000, for a response rate of 9.41%. The research team had considered using a random drawing for a prize to improve the response rate, but the rules at Wayne State University for administering such prizes were too complex to make this option feasible.

The research team was responsible for processing and analyzing the surveys. The team scanned the completed questionnaires to assure that a majority of the questions had been answered. A customized program was developed to record and "cleanse" the data in one process. The research team then used the SPSS statistical package to analyze the survey data. To protect student confidentiality and anonymity, the team did not generate data if less than 30 students made up any sub-group.

5. The Results

5.1 Demographics of the Population, Sample, and Returns

The random sample differed from the population as a whole since it included fewer graduate students (36% versus 42%) and had a higher mean age (31.9 versus 28.9). The returns, however, included a higher proportion of graduate students (48%) with a younger mean age (27.3). Apparently, graduate and younger students were more motivated to return the survey. The

demographics for returned surveys were as follows:

Gender	
Male	37.0%
Female	63.0
Student Status	
Full-time	59.3
Part-time	38.9
College	
Education	16.4
Science	14.2
Liberal Arts	13.4
Business Administration	12.3
Other 11 Colleges	43.7

5.2 Awareness of Electronic Resources

The percentage of students who were aware of electronic resources beyond the online catalog was 60.6%. As could be expected, graduate students were more aware than undergraduates (63.3% versus 58.5%) as were full-time in comparison with part-time students (64.4% versus 54.4%). Those aware of electronic resources learned about them as follows:

Found them on my own	40.7%
Professor informed me	38.3
Publicity from the library	16.0
Other classmates	14.8
Librarian	2.5
Other	2.5

From these figures, it is clear that the library's efforts to promote directly its electronic resources is not effective because only 18.5% of the students had learned about electronic resources from library publicity or librarians. Indirect library efforts such as informing the faculty may, however, have had some effect since the second highest percentage of students (38.3%) found out about electronic resources from their professors.

Students were also asked to give their opinion on the effectiveness of eight ways to let them know about electronic resources by agreeing or disagreeing with the statement that "the following are effective ways to let students know about electronic library resources." The response range was rather limited. On a scale of 1-5, "Professors inform students" was highest at 4.05 while

"advertisements in the bookstore" was lowest at 2.97. The differences of opinion between "aware" and "not aware" students was not large. The biggest spread occurred for "Direct mailing to students" where "not aware" students judged this method to be +.49 more effective and for "Interaction with library staff" where "aware" students rated it as +.37 more effective.

5.3 Current Use

The next section asked students to respond to three questions about current use and to rank six factors in order of importance for research to complete class projects. When asked how many times the following statements applied, the results were as follows:

	Never	1-5 times	6-10 time	11-15 times	16 + times
Need to do research for academic purposes	5%	39%	23%	12%	21%
Have used one of the University's Libraries for research	15%	39%	17%	13%	16%
Have used the WSU electronic library resources	21%	40%	12%	10%	17%

The response to this question brings into question an earlier response because of the 106 students who said that they were not aware of the University Libraries' electronic resources, 57 (53.8%) said that they used them, though the greatest number 39 (68.4%) were in the 1-5 times category. Similar ambiguities occur in many other questions in the survey where "not aware" students answer questions about electronic resources instead of choosing the "not applicable" response.

The next questions asked students to rank the following resources for importance in doing research for a class project. The category "Other" had only 7 responses and does not provide meaningful data. Non-responses in the other five categories were in relatively the same range of 39-47.

The ranking of the importance of resources was quite similar for the total sample, students "aware" of electronic resources, and students "not aware" of electronic resources. The ranking for the total sample and for "aware" students was in the following order: 1. WSU Libraries' electronic resources; 2. Non-library Internet resources; 3. WSU Libraries print resources; 4. Local public libraries; 5. Other university/college libraries. "Not aware" students differed in their rankings: 1. Non-library Internet resources; 2. Local public libraries; 3. WSU Libraries' electronic resources; 4.

WSU Libraries' print resources; 5. Other university/college libraries.

The responses to this question clearly indicate that students prefer electronic resources, whether provided by University Libraries or found on the Internet, over traditional print resources. By a smaller margin, responses show that students prefer using their local public libraries (3.21) instead of other university/college libraries (3.63) though "not aware" students value local public libraries much more highly for their research needs (2.68). It is also not clear based upon the question whether students use these two types of libraries for their print resources, electronic resources, or Internet access.

5.4 Satisfaction

The survey included six questions about user satisfaction with the following results for the sample as a whole:

	Agree	Neither	Disagree
Overall satisfaction	68%	23%	9%
Easy to use	62%	24%	14%
Quickly resolve problems	50%	30%	21%
Library staff helpful	61%	22%	18%
Recommend to fellow student	71%	20%	10%
Easy to access	68%	20%	12%

NB. Totals may not equal 100% because of rounding.

The 72 students who identified themselves as frequent library users responded even more positively in all but one category:

	Agree	Neither	Disagree
Overall satisfaction	79%	14%	7%
Easy to use	70%	18%	11%
Quickly resolve problems	54%	27%	19%
Library staff helpful	66%	18%	16%
Recommend to fellow student	71%	20%	10%
Easy to access	83%	10%	7%

NB. Totals may not equal 100% because of rounding.

The area with the least satisfaction for both groups was the ability to resolve problems quickly. Since students expressed general satisfaction with library staff (61%), it would be interesting to learn whether the inability to resolve problems is linked to student use of electronic resources

outside the library where help is not easily available.

5.5 Potential Use

When asked "if most of the library resources that I needed were available electronically, I would" primarily use the physical library, the electronic library, or both, the responses were almost evenly split between the electronic library (48.9%) and both (48.1%) with the physical library far behind (3.0%). Somewhat surprisingly, older students and graduate students would be more likely to use primarily the electronic library.

When asked a similar question with a different focus, "Knowing that WSU Libraries have electronic resources, I plan to" only use electronic resources, physical resources, or both, only 15.7% responded that they would use only electronic resources with a high percentage (83.2%) saying that they would use both. Those currently not aware of electronic resources and students with low library usage were more likely to say that they would use only electronic resources, a fact that suggests that both groups were overrating an unknown resource.

A large proportion of students (88.8%) agreed that "the ability to access library resources from home is very important to me." They agreed by an even higher percentage (92.4%) that "WSU Libraries should continue to expand electronic library resources." The survey did not ask whether they would be willing to have less access to physical resources in return for expanded access to electronic resources.

5.6 Access

Wayne State University students are well connected to the Internet. Only 2.6% have no connection. Most have an Internet connection at home (85.6%). As noted above, all students have "free" dial-up access that is in almost all cases a local phone call. Only 53.3% responded that they had access at school. This is surprising since computer labs are available in many colleges, and University Libraries has over 800 public access terminals available for student use. Finally, 45.6% have Internet access at work though the survey did not ask the touchy question about whether they ever access electronic library resources while on the job. With so many students already connected to the Internet, the question about future plans to get connected had too few responses (32) to be meaningful.

The number of hours per week spent on the Internet was moderate. The most common response was "1 to 5 hours" (45.9%) with "6 to 10 hours" the second most common answer (30.2%). High Internet use, "More than 10 hours," was not that common (20.5%). Reported student use was, nonetheless, higher than the national average at the time of the survey. One source reported that

"the average US user surfs the Internet six hours a week, outside of email" (Internet statistics and usage, 2001) while a report from the Stanford Institute for Quantitative Study of Society discovered that "about two-thirds of those surveyed who have Internet access said they spend fewer than five hours a week on the Internet" (Nie and Erbing, 2000, p. 17).

5.7 Student Comments to Open-Ended Questions

The survey included two open-ended questions. The first (Question 28) asked: "What other electronic resources should the University Libraries provide on-line?" The final report included comments from 71 students (26%) who responded to this question. The most common response was a request for more full-text articles; some students asked for specific resources or for expanded retrospective coverage of current electronic resources. In a relatively small number of cases, students asked for specific resources such as Project Muse and online encyclopedias that University Libraries already provided, a fact that underscores the need to publicize available electronic resources. The second most common response was somewhat off topic in that students wanted a more user-friendly system or improved remote access. Finally, a few students wanted general University services such as more online classes as well as online registration and class schedules.

The second question asked "What factors should the University consider in providing electronic library resources?" Even more students (107 or 39%) responded to this question. The responses are exceptionally varied and include many topics including duplicating responses to the first open-ended question. The greatest concern was access to the system both from on campus and from remote locations. On campus, students wanted increased access to computers that worked. Remote users wanted more system reliability and more help in solving connection problems. The second issue is user friendliness and ease of use, though many of the comments do not make it clear whether the student is talking about computer access or using electronic resources. Finally, other topics included publicizing electronic resources, availability of physical library resources, and the high cost of printing at $.10 per page.

Since many of the student comments dealt with computer issues beyond the control of the University Libraries, the library administration shared the comments with Computer & Information Technology administrators at their regularly scheduled joint meeting.

6.0 Conclusions and Recommendations from the Research Team

The research team provided primary and secondary recommendations based upon the results of the survey. The first key recommendation was for University Libraries to make students more aware of electronic resources. While 95.2% of the students said that they needed to do research in

the past year, only 60.6% responded that they were aware of the library's electronic resources. The research team suggested that University Libraries make 95% awareness its target. The Team suggested three ways to meet this goal. The first was to encourage professors to tell students about library resources in class, especially if they assign research projects. At some point, a second survey of full and part-time faculty might discover the best way to do this. The team's second suggestion was to send direct mailings to students about library services including electronic resources since the students who took the survey rated this option highly (4.03/5.00). A targeted mailing to the student body would be reasonably expensive (around $10,000 for first class postage alone). In addition, the survey mailing itself showed that the University does not have a correct address for some students, especially those who come from abroad. The third suggestion, to "encourage librarians to be more proactive informing students about these services," has the least chance of success and shows some lack of understanding on the part of the research team on how libraries function. Librarians at Wayne State University most frequently encounter students at the reference desk, but these students are likely to be regular users who already are well aware of electronic resources.

The second key recommendation was to increase education. The team suggested that "the Library System should offer classes or seminars at the beginning of each semester to teach students about the features of the system." University Libraries already make a significant effort to provide instruction in information literacy including offering a session on the use of various library tools. In addition, library use is a large component of the UGE 1000, Information Power, that is a required orientation course for incoming students. As the literature indicates, students are not enthusiastic about traditional library instruction before they have actual research tasks to accomplish. (Davidson, 2001) Such instruction would nonetheless increase awareness of electronic resources.

The second suggestion under education was a suggestion that "the Library System needs to develop both online assistance as well as personal support for both on campus [sic] and remote users. Having access 24x7x365 requires supporting users at those hours as well." The authors agree that users of online resources often need assistance, particularly since many users incorrectly assume that the searching rules are the same for all databases. Providing such help, especially for remote users, poses many difficulties. The information science literature amply documents the poor quality of most online assistance and help files and the reluctance of users to consult them even when help files are available. Many questions about electronic resources are difficult to answer over the phone even when personal support is available because of difficulties in accurately describing the problem. Providing 24-hour support is not impossible but would be difficult at current staffing

levels. Perhaps the best solution is to encourage vendors to supply intuitive easily learned systems and to work towards uniform standards for using electronic resources.

In the section titled "Advancements," the research team suggests future steps. The first is that "the Library should make every effort to continually improve their offerings in databases, journals, and books" since "many students requested an increase in the number of full text articles, as well as more online books." This recommendation supports the University Libraries' decision to move as rapidly as possible to increase the number and range of electronic resources. Funding is the main obstacle as well as some issues with technical infrastructure and archival retention. The second recommended step suggests that "the Library System should continue to improve their infrastructure. Being a commuter campus, remote access is extremely important. Increase in bandwidth, speed of downloads, and more stable connections are all key features the Library System ought to address." Unfortunately, most of these improvements are beyond the control of University Libraries. As indicated above, students receive free access to the Michnet network from Wayne State University. For the most part, these connections are stable; but they are limited to 56,000 bps as the theoretical maximum with actual connections usually in the range of 38,000-42,000 bps. It is highly unlikely that Wayne State University will offer free or subsidized high-speed Internet access. In fact, many universities no longer provide any "free" access for commuter students. (Carnevale, 2002)

The research team also provided eight secondary recommendations that they listed without comment. Six deal with gathering additional information from students and other users including further questionnaires, customer satisfaction cards, focus groups, tracking usage through Web hits, on-line comments, and class-specific surveys. The other two suggest additional ways to inform students about electronic resources through a standard seminar on using the library and on-line bulletins on the main Wayne State University home page to tell students about library changes and new resources. Several of these already occur. University Libraries tracks use of the Web site and electronic resources insofar as possible. The difficulty with evaluating use of electronic resources is that the library most often depends upon vendor statistics that arrive at irregular intervals and in inconsistent and often less than useful formats. The decision has been made, however, to seek ways to evaluate these statistics to assure that use justifies the current selection of electronic resources. At the time of the survey, the Library System home page includes "Electronic Resources" as one of the main seven headings at the top of the home page. A mouse over provides ten additional topics with "New WSULS Resources" as the second entry in the list. Clickable links provide immediate access to these items for those who are contractually authorized to use them. Since then, University

Libraries has implemented a complete redesign of its Web site.

7.0 General Conclusions

The authors wish to reaffirm several conclusions that have already been made earlier in this article.

- Almost 40% of the responding students say that they are unaware of Wayne State University electronic resources beyond the online catalog though this figure is suspect because 53.8% of the students who said that they were unaware answered subsequent questions about the use of these resources.

- Direct library efforts to publicize the availability of electronic resources to students have not been effective because only 18.5% (from library publicity or librarian) learned about electronic resources in this way. The better strategy is to work with the faculty to publicize electronic resources to their students since 38.3% of the students found out about them from their professors.

- Students are generally satisfied (68%) with electronic resources except when things go wrong. The lowest satisfaction (50%) was with the ability to resolve problems. Frequent library users were overall much more satisfied (79%) than other users.

- As could be expected, a high percentage (92.4%) thought the library should continue to expand electronic resources. In their open ended comments, students asked for additional full-text resources, greater ease of use, and improved connectivity from off-campus sites.

Areas for future research include:

- Discovering more effective ways for libraries to publicize electronic resources;

- A more focused examination of the characteristics of users and non-users by academic level, discipline, age, and gender;

- Investigating ways to provide practical help for students when they have problems in using electronic resources;

- Differences between residential and commuter universities in the use of electronic resources.

REFERENCES

ARL Supplementary Statistics 2000-2001. (2002) Washington, DC: Association of Research Libraries.

Carnevale, D.. (2002) End free dial-up modem service. In: 10 ways colleges can cut IT Costs. *The Chronicle of Higher Education*, October 4, 2002, A39-40.

Davidson, J. R. (2001). Faculty and student attitudes toward credit courses for library skills. *College & Research Libraries*, 62(2), 155-163.

Greenstein, D. & Healy, L. (2002). National survey documents effects of Internet use on libraries. *CLIR Issues*, 27, 4-12.

Internet statistics and usage. (2001). *This Is Wisbech Business Pages*, November 2001. http://www.thisiswisbech.co.uk/tiw/business/internetstats.htm (Accessed, September 2002)

Malone, D. & Videon, C. (1997). Assessing undergraduate use of electronic resources: A quantitative analysis of works cited. *Research Strategies*, 15(3), 151-158.

Marketing 7450 Library Research Team. (2000) *Proposal to review customer satisfaction with the WSU Libraries Electronic Services*. [Detroit]: Wayne State University.

Melgoza, P., Mennel, P., & Gyeszly, S. (2002). Information overload. *Collection Building*, 21(1), 32-42.

Powell, R. (2001). Measurement and evaluation of electronic information services. In Gorman, G. (Ed.), *Information Services in an Electronic Environment* (pp. 323-341). London: Library Association Publishing.

Nie, N.H. & Erbring, L. (2000) *Internet and Society: A Preliminary Report*. [Palo Alto, CA]: Stanford Institute for the Quantitative Study of Society.

Young, J. & Von Seggern, M. (2001). General information seeking in changing times. *Reference & User*

Services Quarterly, 41(2), 159-169.

Appendix 1

Members Student Research Team

Tarik Alhassani

David Asker, Team Leader

Marianna Boldt

Tanya Evans-Geffrard

Mohammed N. Islam

Jeff Lambert

Dan Morrow

Youssef Muslimani

David Royce

Mike Scznsny

Nawal Gharmili Sefrioui

Janice Swinehart