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Tentative Findings from Student Surveys and Interviews as Compiled at the Conclusion of the Research Phase of the Rutgers University Libraries Web Interface Redesign Project

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Introduction

From January through July, 2009, I worked as the Lead Anthropologist with the Rutgers University Libraries to conduct an ethnographically based study of how undergraduates, graduate students, and faculty were using the existing Rutgers University Libraries Web interface to conduct online research and compose papers and reports. This report elaborates on the quantitative (survey) findings of that study as derived through two online surveys and gives tentative findings of the qualitative (interview) aspects of the study.

The survey was created through a collaborative effort of a Project Team, comprised of the Libraries Web Advisory Committee (WAC), and a Core Team of library administrators and site designers. Members of both teams included Grace Agnew, Ka-Neng Au, Stephanie Bartz, Susan Beck, Jeanne Boyle, Valeda Dent Goodman, Shaun Ellis, Rebecca Gardner, Karen Hartman, David Hoover, Thomas Izbicki, Rhonda Marker, Samuel McDonald, Chad Mills, Robert Nahory, and Tao Yang. Sam McDonald and Jeanne Boyle worked to design and post the survey online using SurveyMonkey.

Of all survey respondents, one randomly selected graduate and one undergraduate student were awarded a MacBook computer, and a second student in each category likewise was awarded an iPod touch. These awards were enough to secure a high number of responses but may have also inspired multiple entries while encouraging undergraduates to take the graduate survey and vice-versa. It is hoped, however, that the survey itself and these significant prizes served not only to provide useful data but also acted as a positive outreach to the student community by the Libraries. Promotion of the research project carried a strong message that the Libraries cares about the students’ work and perspectives. Some of the comments on the survey indicate that this good will was felt and reciprocated. Also, several students noted that they had learned of the existence of services that they had not known before and were curious now to try them out.

Rationale

The Purpose of the study was to investigate the research behaviors of Rutgers University undergraduates, graduate students, and faculty in an effort to highlight how library and information resources are used, in particular, the Libraries website. It is hoped that this research will highlight ways in which the website might be improved to either enhance the research experience for users and/or attract new users. Ideally, the study will inform a redesign of the entire Web interface.

The survey was the first task of the initial Discovery Phase of the study. As stated, the survey was collaboratively constructed by the Lead Anthropologist and the members of the Core and Project Teams.

Processes

Originally, the Core and Project Teams planned to conduct both undergraduate and graduate surveys simultaneously. The survey event, titled Twenty-One Days to Have Your Say, was to run from March 21 to April 12, 2009, and was publicized widely by the Libraries. Due to conflict with another survey by another campus division, we had to alter the dates of the survey and
postpone the undergraduate survey until later in April. The undergraduate graduate survey ran from April 20 through 27. The graduate survey ran from April 7 through April 14.

A pilot survey ran from March 20 through 25 in which all library faculty and staff were invited to complete the survey. For this pilot, the library personnel were asked to take the survey as if they were an undergraduate or graduate student and fill it out accordingly.

For the purpose of this report, the data from SurveyMonkey was imported into an Excel spreadsheet and then cleaned. Duplicate email addresses were deleted (the first submission being retained); non-Rutgers email addresses were deleted as the survey itself stipulated that one was required for verification. Undergraduate students who took the survey during the graduate survey period were deleted, as were those few graduate students who took the survey during the undergraduate period. Responses where less than half of the answers were completed were also deleted. Several students filled out the survey but did not provide email addresses; some of these were retained on the assumption that students were interested in assisting but simply did not want to be contacted.

Though the prizes offered (two MacBook computers and two iPod Touches) were substantial enough to encourage students to take the survey, they were also significant enough to encourage students to submit more than one response or to “satisfice” their responses by submitting answers that were adequate at best. The gleaning strategy sought to provide the best statistics possible by counteracting such responses while not discarding useful information.

**Findings: The Survey**

A total of 6,398 surveys were analyzed for the final tallies.

A total of 2,649 surveys were submitted for the graduate survey. Of these, 2,456 were retained after gleaning, meaning that 193 surveys (7.3%) were not included in the final processing. Of the 3,984 undergraduate surveys that were submitted, 3,942 were retained and 42 (1%) were omitted. While it might seem like the graduate respondents were more reliable, most of the surveys deleted from the graduate data set were from undergrads who took the survey before it was their turn. In cases of ambiguity, I retained the student response and gave the students the benefit of the doubt where possible, such as in instances where students claimed to be a first-year student, sophomore, junior, or senior early in the survey and then claimed to be graduate students for the purpose of the prize drawings.

**Respondents**

Of the 6,398 total students, 1,395 (21.8%) were in the arts and humanities, 497 (7.77%) were in business, 1,952 (30.51%) were in the social sciences, 2,546 (39.79%) were in science, technology, engineering, and medicine (STEM), and 8 (.13%) failed to answer the question. Figure 1 illustrates relative percentages by discipline of all students in the survey.

Of the 2,456 graduate students responses, 491 (20%) were in the arts and humanities, 97 (3.95%) were in business, 992 (40.39%) were in the social sciences, and 876 (35.67%) were in science, technology, engineering, and medicine. Of the 3,942 undergraduate students, 904 (22.93%) were in humanities, 400 (10.15%) were in business, 960 (24.35%) were in the social sciences, 1,670 (42.36%) were in science, technology, engineering, and medicine, and 8 (.2%) did not respond to the question. Figure 2 illustrates the percentages of undergraduates versus graduates according to discipline.
Campus Representation

For the entire data set (n=6,398), 307 (4.8%) hailed from Camden, 5,634 (88.06%) were from New Brunswick/Piscataway, 440 (6.88%) were from Newark, and 17 (.27%) did not respond (Figure 3).

Of the 2,456 graduate students, 159 (6.47%) were primarily affiliated with the Camden campus, 1,990 (81.03%) were from the New Brunswick/Piscataway, 303 (12.34%) were from Newark, and 4 (.16%) did not respond to the question. For undergraduates, 148 (3.75%) were from Camden, 3,644 (92.44%) were from New Brunswick/Piscataway, 137 (3.48%) were from Newark, and 13 (.33%) did not respond (Figure 4).
Class Standing

Of all the student surveys coded, 744 (.69%) came from first-year students (Freshman), 927 (14.49%) identified as Sophomores, 1,140 (28.76%) were Juniors, 1,108 (17.32%) were Seniors, and 2,418 (37.79%) were Graduate Students. There were 61 (.95%) surveys that were ambiguous or where the respondent failed to indicate class standing. These ratios are reflected in Figure 5. All told, 3,919 undergraduates surveys (61%) and 2,418 graduate surveys (38%) were tabulated, with 61 (1%) that could not confidently be determined.
Research Papers, Presentations, and Projects

For question five, we asked the students how many papers, articles, presentations, or projects that required research they produced this school year. For the graduate students (n=2,456), 4.75% (116) reported that they wrote no papers in the past year, 8.55% (210) reported having written one paper, 39.45% (696) wrote two to four papers, 28.87% (709) wrote five to ten papers, and 18.24% (448) wrote over ten papers this year.

For undergraduates (n=3,942), 5.66% (223) wrote no papers this year, 11.11% (438) wrote one paper, 40.66% (1603) produced between two and four papers, 27.27% (1,075) wrote between five and 10 papers, and 594 (15.07%) wrote more than ten papers. Nine undergraduates (.23%) and four graduate students (.16%) did not answer this question.

Relative percentage ratios for undergraduates and graduate students are shown in Figure 6.
Questions six, seven, and eight probed how often students used the Libraries website in general, in an average week, and in the week prior to the interview.

Figure 7 illustrates the ratios of all students combined (n=6,398). Here, 4.97% of students (318) reported that they never used the RU Libraries website, 11.72% (750) said that they seldom used it, 19.94% (1,276) said they sometimes used it, 26.51% (1,696) usually used it, and 36.07% (2,308) always used it. Fifty students total (.78%) did not answer the question.

Figure 8 illustrates significant differences in ratios between undergraduate and graduate student responses. For the undergraduates (n=3,942), 7.26% (286) claimed to never use the Libraries website, 16.26% (641) said they seldom used it, 23.85% (940) sometimes used it, 27.12% (1,069) usually used it, and 24.68% (973) reported that they always used the site when conducting research.

For graduate students (n=2,456), only 1.3% (32) said that they never used the site; 4.44% (109) said they seldom used the site; 13.67% (336) sometimes used the site; 25.53% (627) usually used the site; and a majority, 54.36% (1,335), said that they always used the site when conducting research.

Nine undergraduates (.23%) and 17 graduate students (.69%) did not answer the question.
Questions seven and eight asked the same question: How often did students use the Libraries website? But each question differed in the time period involved. Question seven asked respondents to reflect on an average week, and question eight asked students to respond based on their use the week prior to their taking the survey. As might be expected considering the time of the school year the survey was administered, the prior week was rated below the average in all categories. Conversely, we might expect that had the survey been administered during the last two weeks of the term, these results would have been different as students prepared their term papers and for final exams.

Figure 9 illustrates the ratios of all students combined (n=6,398) where 16.54% (1,058) of students said that they never used the Libraries website, 57.81% (3,699) said they access it between one and four times a week, 15.21% (973) access the site between five and nine times a week, 5.38% (344) access it between 10 and 14 times per week, and 4.08% (261) access it 15 times or more per week.
In accordance with questions six, graduate students reported accessing the site more than undergraduates. Figure 10 contrasts the undergraduate versus graduate responses as reported for an average week.

Figure 10 illustrates the total differences between an average week and the week prior to the survey.
Means of Site Access

Question nine asked how students typically access the Libraries website. The options were to bookmark the site using a web browser or a service such as delicious; to Search for the Libraries home page using a search engine such as Yahoo! or Google; to Type the URL directly into the address bar of the browser; or to link to the site from My Rutgers, Sakai or Blackboard; another Rutgers page (such as the link from the Rutgers home page); Google Scholar; or another page that could be specified. From these options, a majority of students, or 35.17% (2,250, n=6,398) regularly type the URL into the browser. (Some students commented that their browser automatically filled in the rest of the URL as soon as they typed the first few letters.) The second most popular option, at 22.76% (1,456), was to access the site through a bookmark. Only 13.99% (895) of the students access the Libraries page through their MyRutgers page, 12.36% (791) search for the site using Yahoo! or Google, and 10.43% (667) access the Libraries main page through another Rutgers page (most presumably, based on comments, through the main page at Rutgers.edu). Very few students used the other options: 1.95% reported “other,” 1.61% (103) came to the site through Google Scholar; 1.41% (90) came through a link via Sakai or Blackboard; and .33% (21) did not answer the question.

These ratios are illustrated in Figure 12.
**Most Used Resources**

Question 10 asked respondents to rank 13 different online resources as Very Important, Somewhat Important, Not Important, and Never Used. The results indicated that the most used Web resources are Google, the RU Libraries website, IRIS, and Indexes and Databases. The least used references are Yahoo! and WorldCat. JSTOR and Searchlight were similarly not cited as being important for student Web research.

Figure 13 illustrates the range of importance, including a category for those who did not answer the questions. Table 1 presents the numbers of students who responded to each category followed by those numbers expressed as percentages.
Table 1: Typical Means of Site Access, full data

<table>
<thead>
<tr>
<th>Access</th>
<th>Grads</th>
<th></th>
<th>Undergrads</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td></td>
<td>%</td>
<td></td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Bookmark</td>
<td>842</td>
<td>34.28%</td>
<td>614</td>
<td>15.58%</td>
<td>1456</td>
<td>22.76%</td>
</tr>
<tr>
<td>Search</td>
<td>182</td>
<td>7.41%</td>
<td>609</td>
<td>15.45%</td>
<td>791</td>
<td>12.36%</td>
</tr>
<tr>
<td>Type</td>
<td>754</td>
<td>30.70%</td>
<td>1496</td>
<td>37.95%</td>
<td>2250</td>
<td>35.17%</td>
</tr>
<tr>
<td>MyRutgers</td>
<td>215</td>
<td>8.75%</td>
<td>680</td>
<td>17.25%</td>
<td>895</td>
<td>13.99%</td>
</tr>
<tr>
<td>Sakai, etc.</td>
<td>18</td>
<td>0.73%</td>
<td>72</td>
<td>1.83%</td>
<td>90</td>
<td>1.41%</td>
</tr>
<tr>
<td>Anthr Rutgers Pg</td>
<td>321</td>
<td>13.07%</td>
<td>346</td>
<td>8.78%</td>
<td>667</td>
<td>10.43%</td>
</tr>
<tr>
<td>GglSchlr</td>
<td>67</td>
<td>2.73%</td>
<td>36</td>
<td>0.91%</td>
<td>103</td>
<td>1.61%</td>
</tr>
<tr>
<td>Other</td>
<td>53</td>
<td>2.16%</td>
<td>72</td>
<td>1.83%</td>
<td>125</td>
<td>1.95%</td>
</tr>
<tr>
<td>N/A</td>
<td>4</td>
<td>0.16%</td>
<td>17</td>
<td>0.43%</td>
<td>21</td>
<td>0.33%</td>
</tr>
</tbody>
</table>

|                 |       |         |            |         |       |         |
|                 | 2456  | 100.00% | 3942       | 100.00% | 6398  | 100.00% |

**Citation Management Systems**

Responses to question 11 indicate that a great majority of all students do not use citation managers such as Refworks, EndNote, or Zotero. Most students, 41.64% (2,664, n=6398) said they did not use one at all; 29.45% (1,884) replied that they were not currently using one but were considering it. Of those who did use a citation manager, 11.89% (761) use RefWorks, which is provided free by Rutgers. Endnote was next popular at 8.6% (550), and 1.02% (65) use
Zotero. Only 6.81% (436) reported using a different citation manager, and of these, the most commonly noted were BibTex or EasyBib. These student ratios are illustrated in Figure 14.

Figure 14: Citation Management Systems

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**Most Important Activities**

Students were asked to rank common information or activities available through the Libraries website as Very Important, Somewhat Important, Not Important, and Never Used. The three top responses were Find Articles or Journals (with 79.42%, n=6,398 ranking this as Very Important), Find Books (with 55.88% saying this was Very Important), and Access Indexes and Databases (with 52.84% ranking as Very Important). Next in importance was Request Items from Another Library (with a 43.9% Very Important ranking), Check My Account (36.96% Very Important ranking), Access Course Reserves (38.18% Very Important), and looking up general library information such as hours, directions, and phone numbers (34.73%). Few students valued the access to Research Guides (16.63 Very Important) or the Ask a Librarian feature (12.04% Very Important). Chat with a Librarian (8.8% Very Important) and Read Library News and Events (7.16% Very Important) ranked exceptionally low, but the lowest ranking of all was for RUcore (4.77% Very Important). The relatively high percentage of students who did not answer the questions pertaining to Chat with a Librarian, Research Guides, or RUcore may indicate that students were not aware of these resources or did not understand what they were and how they might be useful.

Figure 15 illustrates the relative importance of these resources or activities, and Table 2 gives the specific numbers for each category.
Figure 15: Library Resources Ranked in Importance

Table 2: Activities, full data

<table>
<thead>
<tr>
<th>Activity</th>
<th>N U</th>
<th>N I</th>
<th>S I</th>
<th>V I</th>
<th>N/A</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find Books</td>
<td>417</td>
<td>669</td>
<td>1690</td>
<td>3575</td>
<td>47</td>
<td>6398</td>
</tr>
<tr>
<td>Find Art or Journal</td>
<td>104</td>
<td>323</td>
<td>858</td>
<td>5081</td>
<td>32</td>
<td>6398</td>
</tr>
<tr>
<td>Request</td>
<td>738</td>
<td>1225</td>
<td>1564</td>
<td>2809</td>
<td>62</td>
<td>6398</td>
</tr>
<tr>
<td>Ask a Lib</td>
<td>1640</td>
<td>2194</td>
<td>1714</td>
<td>770</td>
<td>80</td>
<td>6398</td>
</tr>
<tr>
<td>Chat with LIB</td>
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<td>2560</td>
<td>1101</td>
<td>563</td>
<td>110</td>
<td>6398</td>
</tr>
<tr>
<td>Reserves</td>
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<td>1250</td>
<td>1630</td>
<td>2443</td>
<td>83</td>
<td>6398</td>
</tr>
<tr>
<td>Resrch Guides</td>
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<td>1995</td>
<td>1736</td>
<td>1064</td>
<td>98</td>
<td>6398</td>
</tr>
<tr>
<td>Gen Lib</td>
<td>696</td>
<td>1011</td>
<td>2391</td>
<td>2222</td>
<td>78</td>
<td>6398</td>
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<td>1289</td>
<td>1851</td>
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<td>2507</td>
<td>1343</td>
<td>458</td>
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<td>6398</td>
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<tr>
<td>Index/Dbses</td>
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<td>899</td>
<td>1519</td>
<td>3381</td>
<td>62</td>
<td>6398</td>
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<tr>
<td>RUcore</td>
<td>2254</td>
<td>2985</td>
<td>741</td>
<td>305</td>
<td>113</td>
<td>6398</td>
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<table>
<thead>
<tr>
<th>Activity</th>
<th>Freq</th>
<th>6.52%</th>
<th>10.46%</th>
<th>26.41%</th>
<th>55.88%</th>
<th>0.73%</th>
<th>100.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find Books</td>
<td>417</td>
<td>6.52%</td>
<td>10.46%</td>
<td>26.41%</td>
<td>55.88%</td>
<td>0.73%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Find Art or Journal</td>
<td>104</td>
<td>1.63%</td>
<td>5.05%</td>
<td>13.41%</td>
<td>79.42%</td>
<td>0.50%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Request</td>
<td>738</td>
<td>11.53%</td>
<td>19.15%</td>
<td>24.45%</td>
<td>43.90%</td>
<td>0.97%</td>
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<tr>
<td>Ask a Lib</td>
<td>1640</td>
<td>25.63%</td>
<td>34.29%</td>
<td>26.79%</td>
<td>12.04%</td>
<td>1.25%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Chat with LIB</td>
<td>2064</td>
<td>32.26%</td>
<td>40.01%</td>
<td>17.21%</td>
<td>8.80%</td>
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<td>25.48%</td>
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<td>1.30%</td>
<td>100.00%</td>
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<td>Resrch Guides</td>
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<td>23.52%</td>
<td>31.18%</td>
<td>27.13%</td>
<td>16.63%</td>
<td>1.53%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Gen Lib</td>
<td>696</td>
<td>10.88%</td>
<td>15.80%</td>
<td>37.37%</td>
<td>34.73%</td>
<td>1.22%</td>
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<tr>
<td>News</td>
<td>2011</td>
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<td>39.18%</td>
<td>20.99%</td>
<td>7.16%</td>
<td>1.23%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Index/Dbses</td>
<td>537</td>
<td>8.39%</td>
<td>14.05%</td>
<td>23.74%</td>
<td>52.84%</td>
<td>0.97%</td>
<td>100.00%</td>
</tr>
<tr>
<td>RUcore</td>
<td>2254</td>
<td>35.23%</td>
<td>46.66%</td>
<td>11.58%</td>
<td>4.77%</td>
<td>1.77%</td>
<td>100.00%</td>
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</table>
**Website Access: Browsing Habits, Devices, and Web Browser of Choice**

Questions 13, 14, and 15 probed students’ browsing habits in general. Question 13 asked if students are familiar enough with the Libraries website to know exactly where the resources they need are or if they primarily figure where things are by browsing or by utilizing the site index. If they cannot readily find what they are looking for, do they search the website? If they do get confused, are they likely to ask for help or will they just give up?

The answers here were markedly different between graduate and undergraduate students. When it came to knowing exactly where things are 31.92% (784) of graduate students gave a positive response as opposed to 4.34% (171) of the undergraduates. Similarly, 49.69% of the graduate students could find what they need through browsing whereas only 2.64% (104) of the undergraduates could do this. Undergraduates reported relying on the site index more than graduate students (55.35% (2,182) versus 7.61% (187)). Both used other search strategies nearly equally (with undergrads searching 9.41% (371) of the time and grads 7.33% (180). However, undergraduates were far more likely than graduate students to become confused by the site. Significantly, 15.25% (601) of the undergraduate students reported that they commonly got confused and asked for help (as opposed to 1.34% (33) of the graduate students), and 11.90% (469) got confused and just gave up (versus 1.67% (41) of the graduate students). Differences in these ratios are demonstrated in Figure 16, and the numbers are given in Table 3.

**Figure 16: Search Tendencies, undergrads vs. grads**
Table 3: Search Strategies, full data

<table>
<thead>
<tr>
<th>Tend to (grads)</th>
<th>Tend to (undergrads)</th>
<th>Tend to (totals)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know</td>
<td>784 (31.92%)</td>
<td>171 (4.34%)</td>
</tr>
<tr>
<td>Figure</td>
<td>1220 (49.67%)</td>
<td>104 (2.64%)</td>
</tr>
<tr>
<td>Index</td>
<td>187 (7.61%)</td>
<td>2182 (55.30%)</td>
</tr>
<tr>
<td>Search</td>
<td>180 (7.33%)</td>
<td>371 (9.41%)</td>
</tr>
<tr>
<td>ConfHelp</td>
<td>33 (1.34%)</td>
<td>601 (15.25%)</td>
</tr>
<tr>
<td>ConfQuit</td>
<td>41 (1.67%)</td>
<td>469 (11.90%)</td>
</tr>
<tr>
<td>N/A</td>
<td>11 (0.45%)</td>
<td>44 (1.12%)</td>
</tr>
<tr>
<td></td>
<td>2456 (100.00%)</td>
<td>3942 (100.00%)</td>
</tr>
</tbody>
</table>

Of course, this data should be considered against the fact that undergraduates rely on the Libraries website far less than graduate students do. Also, interview data suggests that undergraduates are probably more likely to get confused and give up than they are indicating here. More so, once an undergraduate student gets confused and retreats back to Google, he or she may never return to the Libraries website again.

When contrasted with prior questions, it becomes very clear that our most sophisticated users of the Libraries website are the graduate students (as especially indicated in question 10). This should not come as a surprise since graduate students are most reliant on sources such as indexes and databases, subject research guides, and general-purpose databases such as Academic Search Premier. While graduate students are also slightly more frequent users of Google Scholar, they tend to become less reliant on search engines such as Yahoo!, Google, and Wikipedia. It would be interesting to explore the processes—or evolution—whereby students gradually become less reliant on Google and begin to explore the resources provided by the Libraries as they mature as scholars over their academic career.

Due to the increased sophistication of graduate student researchers, perhaps we should have interviewed more graduate students and fewer undergraduates for the qualitative aspects of the study. It frequently became clear during interviews that undergraduate students were not the best consultants for this study. Worse, many were not even interested in becoming better users of the Libraries Web interface because their confidence that they could find what they needed without using this resource was quite high. One undergraduate actually said, “It’s not like I’m not getting A’s—why do I need to use the library’s website?”

Graduate students could thus be the best consultants so far as the site redesign goes. The graduate students would have more to offer—their experiences would truly help us to reconfigure the site navigation. As it is, I interviewed 21 undergraduates and eight graduate students. In retrospect, I wonder if it would have been more sensible to have interviewed 21 graduate students and eight undergraduates? More will be said on this in the Interview section of this report.

Question 14 asked which devices students regularly used to browse the Web. Students were allowed to choose from more than one category. As would be expected, most used laptop or desktop computers. Most students, 86.25% (5,518, n=6,398) reported using laptop computers for their Web browsing. This was followed by desktop computers, at 54.19% (3,467). Fewer students used a mobile Web device such as a Palm, Blackberry, iPhone, or iTouch (15.77% or 1,009), a cellular telephone (6.64% or 425), or a netbook or other such sub-compact laptop (4.1% or 262). It will be interesting to see how these ratios change in future years. Suggesting future
trends, undergraduates were twice as likely regularly to use a cell phone to access the internet (8.24% (325) versus 4.07% (100) respondents). Those using a PDA were similarly greater than their graduate student counterparts (18.16% or 716 versus 11.93% or 293). This data suggests that perhaps, if we aspire better to engage our undergraduates, the Libraries would do well to design a version of the Web interface that would be easier to navigate through these mobile devices. The percentages of undergraduate and graduate students using netbooks was very similar: approximately 4% in each category (3.99% for graduates and 4.16% for undergraduates) which suggests that these subcompact computers have not yet caught on widely. These total figures are presented in Figure 17.

Firefox is clearly the browser of choice among both undergraduate and graduate students, with 73.16% (4,681) of students in combined categories (n=6,398) listing it as the browser they use most regularly. Internet Explorer was a second choice, selected 46.94% (3,003) of the time. Safari was selected 21.3% (1,363) of the time. Lagging significantly, Opera was listed 1.77% (113) of the time, and “Other” was chosen 1.16% (74) of the time. These ratios are illustrated in Figure 18. Differences in ratios between graduate and undergraduate students in these preferences were negligible with undergraduates preferring Firefox (75.49% (2,976) response versus 69.42% (1,705) of the graduate students) and graduate students preferring Internet Explorer (52.44% (1,288) versus 43.51% (1,715)). As with question 14, students were allowed to select more than one option.
Perhaps the most difficult question to evaluate from this survey was question 16, in which we asked how many hours each week the student spent on several popular web activities: research for school-related subjects, research for non-school subjects, reading news, IM or chat, online games, Second Life, Facebook, or MySpace. Possible selections were none, less than one hour, between one and five hours, between six and 10 hours, between 11 and 15 hours, and over 15 hours. A comparison of all responses is illustrated in Figure 19.
Clearly, the least utilized Web activities are MySpace, Second Life, online news, and computer games. The most hours are spent on research for school, IM/chat, other research, and Facebook.

Table 4 gives the numbers for combined graduate and undergraduate results.

### Table 4: Hours Spent on Common Web Activities, all students

<table>
<thead>
<tr>
<th>TOTALS</th>
<th>n/a</th>
<th>None</th>
<th>&lt;1</th>
<th>1 to 5</th>
<th>6 to 10</th>
<th>11 to 15</th>
<th>over 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>RsrSchool</td>
<td>20</td>
<td>166</td>
<td>718</td>
<td>3085</td>
<td>1371</td>
<td>486</td>
<td>552</td>
</tr>
<tr>
<td>RsrchOther</td>
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<td>773</td>
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<td>2789</td>
<td>795</td>
<td>229</td>
<td>210</td>
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<tr>
<td>News</td>
<td>58</td>
<td>368</td>
<td>1826</td>
<td>2944</td>
<td>847</td>
<td>224</td>
<td>131</td>
</tr>
<tr>
<td>IM/Chat</td>
<td>57</td>
<td>1600</td>
<td>1719</td>
<td>1711</td>
<td>717</td>
<td>306</td>
<td>288</td>
</tr>
<tr>
<td>Games</td>
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<td>1380</td>
<td>789</td>
<td>250</td>
<td>70</td>
<td>63</td>
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<td>2nd Life</td>
<td>88</td>
<td>5592</td>
<td>346</td>
<td>228</td>
<td>88</td>
<td>29</td>
<td>27</td>
</tr>
<tr>
<td>Fbook</td>
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<td>1640</td>
<td>2335</td>
<td>852</td>
<td>306</td>
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<td>Mspace</td>
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<td>5121</td>
<td>840</td>
<td>254</td>
<td>54</td>
<td>21</td>
<td>32</td>
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</tbody>
</table>

<table>
<thead>
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<th>TOTALS</th>
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<th>&lt;1</th>
<th>1 to 5</th>
<th>6 to 10</th>
<th>11 to 15</th>
<th>over 15</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.31%</td>
<td>2.59%</td>
<td>11.22%</td>
<td>48.22%</td>
<td>21.43%</td>
<td>7.60%</td>
<td>8.63%</td>
</tr>
<tr>
<td>RsrchOther</td>
<td>1.64%</td>
<td>12.08%</td>
<td>23.40%</td>
<td>43.59%</td>
<td>12.43%</td>
<td>3.58%</td>
<td>3.28%</td>
</tr>
<tr>
<td>News</td>
<td>0.91%</td>
<td>5.75%</td>
<td>28.54%</td>
<td>46.01%</td>
<td>13.24%</td>
<td>3.50%</td>
<td>2.05%</td>
</tr>
<tr>
<td>IM/Chat</td>
<td>0.89%</td>
<td>25.01%</td>
<td>26.87%</td>
<td>26.74%</td>
<td>11.21%</td>
<td>4.78%</td>
<td>4.50%</td>
</tr>
<tr>
<td>Games</td>
<td>1.13%</td>
<td>58.99%</td>
<td>21.57%</td>
<td>12.33%</td>
<td>3.91%</td>
<td>1.09%</td>
<td>0.98%</td>
</tr>
<tr>
<td>2nd Life</td>
<td>1.38%</td>
<td>87.40%</td>
<td>5.41%</td>
<td>3.56%</td>
<td>1.38%</td>
<td>0.45%</td>
<td>0.42%</td>
</tr>
<tr>
<td>Fbook</td>
<td>0.84%</td>
<td>15.19%</td>
<td>25.63%</td>
<td>36.50%</td>
<td>13.32%</td>
<td>4.78%</td>
<td>3.74%</td>
</tr>
<tr>
<td>Mspace</td>
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<td>80.04%</td>
<td>13.13%</td>
<td>3.97%</td>
<td>0.84%</td>
<td>0.33%</td>
<td>0.50%</td>
</tr>
</tbody>
</table>

This data suggests that students do indeed spend much of their online time conducting research for school. Significant differences exist, though, between hours each week that undergraduate versus graduate students reported, as illustrated in Figure 20. A majority of undergraduates (55.12% or 2,173, n=3,942) reported spending between one and five hours a week on school-related research whereas graduate students were skewed significantly higher. 18.89% of graduate students (464 of 2,456) reported spending over 15 hours a week on research as compared to only 2.23% of undergraduates (88 of 3,942). This should not come as any surprise, but it does indicate that there are significant differences in the research needs and habits between undergraduate and graduate students. Again, this data causes me to wonder if perhaps we have underrepresented graduate students in our interview strategy.

To illustrate other differences, I have included all undergraduate results in Table 5 and graduate results in Table 6. I would draw the reader’s attention to the Facebook results, which indicate that undergraduates are more frequent users of this social networking service. If the Libraries seeks better to engage undergraduate students, perhaps Facebook would be a good place to do this. Although this could backfire if the Libraries were to seem intrusive, it could be a good venue through which to advertise Libraries services and to outreach to undergraduate students. One good way to do this would be through the use of clubs whereby students could become “fans” and the Libraries could promote news and events, thus further encouraging undergraduate student involvement and participation.
Figure 20: Weekly Hours Spent on School Research, grads vs. undergrads

Table 5: Hours Spent on Common Web Activities, Undergraduate Students

<table>
<thead>
<tr>
<th>UNDERGRADS</th>
<th>n/a</th>
<th>None</th>
<th>&lt;1</th>
<th>1–5</th>
<th>6–10</th>
<th>11–15</th>
<th>over 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>RsrcSchool</td>
<td>14</td>
<td>147</td>
<td>624</td>
<td>2173</td>
<td>733</td>
<td>163</td>
<td>88</td>
</tr>
<tr>
<td>RsrchOther</td>
<td>45</td>
<td>566</td>
<td>1054</td>
<td>1690</td>
<td>409</td>
<td>102</td>
<td>76</td>
</tr>
<tr>
<td>News</td>
<td>31</td>
<td>264</td>
<td>1212</td>
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<td>56</td>
</tr>
<tr>
<td>IM/Chat</td>
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<td>778</td>
<td>1006</td>
<td>1171</td>
<td>527</td>
<td>216</td>
<td>222</td>
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<tr>
<td>Games</td>
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<td>1988</td>
<td>994</td>
<td>611</td>
<td>206</td>
<td>61</td>
<td>51</td>
</tr>
<tr>
<td>2nd Life</td>
<td>39</td>
<td>3381</td>
<td>232</td>
<td>174</td>
<td>73</td>
<td>24</td>
<td>19</td>
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<tr>
<td>Fbook</td>
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<td>909</td>
<td>1550</td>
<td>658</td>
<td>243</td>
<td>202</td>
</tr>
<tr>
<td>Mspace</td>
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<td>3114</td>
<td>538</td>
<td>171</td>
<td>41</td>
<td>17</td>
<td>29</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OVERGRADS</th>
<th>n/a</th>
<th>None</th>
<th>&lt;1</th>
<th>1–5</th>
<th>6–10</th>
<th>11–15</th>
<th>over 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>RsrcSchool</td>
<td>0.36%</td>
<td>3.73%</td>
<td>15.83%</td>
<td>55.12%</td>
<td>18.59%</td>
<td>4.13%</td>
<td>2.23%</td>
</tr>
<tr>
<td>RsrchOther</td>
<td>1.14%</td>
<td>14.36%</td>
<td>26.74%</td>
<td>42.87%</td>
<td>10.38%</td>
<td>2.59%</td>
<td>1.93%</td>
</tr>
<tr>
<td>News</td>
<td>0.79%</td>
<td>6.70%</td>
<td>30.75%</td>
<td>46.17%</td>
<td>11.44%</td>
<td>2.74%</td>
<td>1.42%</td>
</tr>
<tr>
<td>IM/Chat</td>
<td>0.56%</td>
<td>19.74%</td>
<td>25.52%</td>
<td>29.71%</td>
<td>13.37%</td>
<td>5.48%</td>
<td>5.63%</td>
</tr>
<tr>
<td>Games</td>
<td>0.79%</td>
<td>50.43%</td>
<td>25.22%</td>
<td>15.50%</td>
<td>5.23%</td>
<td>1.55%</td>
<td>1.29%</td>
</tr>
<tr>
<td>2nd Life</td>
<td>0.99%</td>
<td>85.77%</td>
<td>5.89%</td>
<td>4.41%</td>
<td>1.85%</td>
<td>0.61%</td>
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<tr>
<td>Fbook</td>
<td>0.66%</td>
<td>8.98%</td>
<td>23.06%</td>
<td>39.32%</td>
<td>16.69%</td>
<td>6.16%</td>
<td>5.12%</td>
</tr>
<tr>
<td>Mspace</td>
<td>0.81%</td>
<td>79.00%</td>
<td>13.65%</td>
<td>4.34%</td>
<td>1.04%</td>
<td>0.43%</td>
<td>0.74%</td>
</tr>
</tbody>
</table>
Use of Common Web Tools

Question 17 asked students if they had accounts with commonly used Web tools: blog (as an author), Facebook, Flickr, Google, MySpace, Twitter, Yahoo!, and YouTube. The combined results are displayed in Figure 21. This chart coincides with the findings of question 16 and again suggests that if we desire to integrate Web 2.0 technologies or services into the Libraries website, Facebook is the most likely place to do so. Most students have Google or Yahoo! accounts, at 72.04% (4609, n=6,398) and 52.22% (3,341) respectively. YouTube is also prominent with 45.67% of students (2,922) having an account. There has been some discussion of creating video tutorials for use of the Libraries Web resources, and this number suggests that YouTube could be a viable place to host such content.

Only 20.77% of the students contribute as authors to blogs, and very few have accounts with Flickr (13.27% or 849), MySpace (31.78% or 2,033), or Twitter (15.16% or 970).

So far as differences between graduate students (n=2,456) and undergraduate students (n=3,942), a majority of graduate students blog (24.43% versus 18.49%), have Flickr accounts (16.29% versus 11.39%), or have Google accounts (75.33% versus 69.99%). More undergraduates than graduates have Facebook accounts (92.24% versus 78.3%), use MySpace (34.45% versus 27.48%), Twitter (16.57% versus 12.91%), Yahoo! (53.5% versus 50.16%), and YouTube (61.11% versus 38.56%).
Overall Satisfaction with the Libraries Website

Question 18 gauged overall satisfaction with the Libraries Web services by asking students to report whether they were Very Satisfied, Satisfied, Neither Satisfied or Unsatisfied, Unsatisfied, or Very Unsatisfied with the website. These ratios are illustrated in Figure 22. There were no significant differences here between graduate and undergraduate students, as indicated in Figure 23. Specific numbers are given in Table 7.
Table 7: Overall Satisfaction, full data

<table>
<thead>
<tr>
<th></th>
<th>Grads</th>
<th>Undergrads</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Satisfied</td>
<td>755</td>
<td>1043</td>
<td>1798</td>
</tr>
<tr>
<td>Satisfied</td>
<td>1339</td>
<td>2062</td>
<td>3401</td>
</tr>
<tr>
<td>Neither</td>
<td>249</td>
<td>718</td>
<td>967</td>
</tr>
<tr>
<td>Unsatisfied</td>
<td>94</td>
<td>77</td>
<td>171</td>
</tr>
<tr>
<td>Very Unsatisfied</td>
<td>13</td>
<td>29</td>
<td>42</td>
</tr>
<tr>
<td>N/A</td>
<td>6</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2456</td>
<td>3942</td>
<td>6398</td>
</tr>
</tbody>
</table>

Figure 23: Overall Satisfaction with the Libraries Website, graduate vs. undergraduate students

Consent for Further Contact

Question 21 asked if we could contact the respondent to ask additional questions. A great majority of all respondents, 74.79% (4,785, n=6,398), said that we could do so. However, a greater number of graduate students than undergraduates gave this consent: 83.39% (2,048) versus 69.43% (2,737). These differences are illustrated in Figure 24.

I think that this is significant for a number of reasons. First, this survey repeatedly indicates that, when compared with undergraduates, graduate students are our greatest “stakeholders.” They are the more sophisticated users of the Libraries website, and their academic success is more strongly correlated with their ability to utilize the tools and resources
offered there. Second, this difference demonstrates the sense of ownership that graduate students might feel toward the website as opposed to the undergrads. As graduate students are often junior faculty, working for Rutgers as teaching or research assistants, they might feel more compelled to respond to our query for assistance and feel (or desire to feel) more connected to the Web redesign project. Similarly—and this was mentioned by several of the graduate students interviewed—many of the graduate students had specific things that they wanted to express to us, most notably pertaining to their frustrations in navigating the site.

For these reasons, again, I would suggest that graduate students be given higher priority as consultants as the Web redesign process moves forward. Not only do the graduate students feel more connected to the project and have more at stake, but they also tend to be more grateful for the interaction and, likewise, gained the most from the interview process.

Figure 24: May We Contact You? undergrads vs. grads

Comments
Questions 19 and 20 asked students to comment on what features they would like to see added to the Libraries website and if they would like to add any other comments. Members of the Project Team met to derive codes by which to begin to process this information. They derived 22 codes pertaining to ask-a-librarian, alumni issues, circulation, citation managers, collections and collection development, communication, facilities, federated search, library hours, interlibrary loan, face-to-face instruction, online instruction, IRIS, general compliments or “kudos,” library maps, site navigation, other, personalization, proxy issues, research guides, vendor issues, and aesthetics. A table of student comment responses is included here (Table 8), which suggests that students are most concerned with collection development, federated search issues, IRIS, general site navigation, and personalization. They are least concerned with general library facility information or hours and do not seem to desire increased face-to-face interaction. Many students were also complimentary of the existing website and library services. Further Project Team
committee work should tease out these findings and use them to suggest more concrete suggestions for Web interface improvement.

In considering this table data, it is important to remember that there were 2,456 graduate student surveys and 3,942 undergraduates and that the codes did not form mutually exclusive categories—one comment could be coded for up to three different categories.

Table 8: Student Comments per Category

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th># of &quot;feature&quot; comments, undergrads</th>
<th># of &quot;feature&quot; comments, grads</th>
<th># of general comments, undergrads</th>
<th># of general comments, grads</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>AAL</td>
<td>25</td>
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<td>74</td>
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<td>Alumni</td>
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<td>3</td>
<td>Circulation</td>
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<tr>
<td></td>
<td>Instruction (face-to-face)</td>
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<td>9</td>
<td>46</td>
<td>23</td>
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<td></td>
<td>Instruction (online)</td>
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<td>Navigation</td>
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<td>336</td>
<td>264</td>
</tr>
<tr>
<td>17</td>
<td>Other</td>
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<td>78</td>
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<tr>
<td>18</td>
<td>Personalization</td>
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<td>38</td>
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<td>Proxy</td>
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<tr>
<td>21</td>
<td>Vendor Issues</td>
<td>33</td>
<td>50</td>
<td>30</td>
<td>34</td>
</tr>
<tr>
<td>22</td>
<td>Visuals</td>
<td>73</td>
<td>54</td>
<td>142</td>
<td>104</td>
</tr>
</tbody>
</table>

This data is being further tabulated by the Project Team.

**Tentative Findings: Interview Subjects**

This section of the report is tentative only. A more detailed and comprehensive report on the interview data is forthcoming by the Lead Anthropologist for this study.

Over the course of the study, which amounted to eight weeks of on-campus residency by the Lead Anthropologist plus two brief visits prior to the onset of the summer term, 21
undergraduate students, eight graduate students, and four faculty members were interviewed. Interviews ranged from 40 minutes to an hour. All interviews were recorded onto video and transcribed. All videotaped interviews were burned onto DVDs and will be viewed by Rutgers librarians and those involved in the Web redesign process.

Due to significant time constraints, this report cannot offer in-depth analysis of the interview data. However, the Project Team is currently working to edit all interview transcripts and generate a report for each. The amount of data collected in the interview process was considerable; transcripts ran between 25 and 40 pages each, and each will have to be coded in order to best inform the site redesign project. Nine codes were derived for this process: federated search issues including Searchlight, Google, or Google Scholar; front or “home” page issues or problems; interlibrary loan issues; journal or database issues; librarian interaction; site navigation issues; social networking possibilities; citation management issues; and vendor problems or issues (including IRIS). These codes will be incorporated into the interview transcripts and can also be correlated back to the interview footage by linking to the time code.

From these interviews, it is clear that the Libraries website is a greatly underutilized resource. With rare exceptions—especially students in the Sciences—undergraduate students simply do not use it. The site is not welcoming or engaging to undergraduates, and there is little incentive for students to explore the content provided. On the contrary, many students feel intimidated by the website. But rather than see this as a limitation of the site design itself, many students feel that their frustrations reflect their own ineptitude: the site makes many students, undergraduates in particular, feel dumb.

Even graduate students have a difficult time navigating the site. I was repeatedly amazed at how few students were able to easily navigate to the A–Z Index of Electronic Journals. Graduate students were especially frustrated that there was not one Google-like search box that could help them explore all the site resources—why were electronic journals distinct from print journals, for instance? Yet the same students who crave such a federated search tool often looked right past Searchlight.

The two most underutilized Web tools that come to my mind are Searchlight and the Subject Research Guides. I cannot recall one student who utilized the Subject Guides, though these are a very significant resource that the library faculty have spent considerable time developing. Students don’t seem to know they even exist, let alone what they are—and this is true of the four faculty members interviewed as well. As for Searchlight, very few students know what it is, let alone how to use it. Even more rare are the students who realize that there are advanced search features available.

The other most unfertilized tools are citation management systems. Several students recognize the need for such a system and have created their own “workarounds,” such as creating their own database using Filemaker’s Bento. Students are intrigued by RefWorks and Endnote, but they fear the time it will take to change their research habits and input their existing data into these tools. Students need to be encouraged to keep track of citations, references, and other such data early on—by the time students are writing their theses or dissertations they then say that they have too much information to back up and begin using reference management tools. This is also true of faculty members, some of whom have hundreds of articles saved on their hard drives, loosely organized in folders. The university subscribes to RefWorks, but there is little promotion or encouragement for students to use this service and hardly any training. Many students, even those working on MAs or PhD.s, don’t even realize that one can easily import citation information from such databases as JSTOR and Academic Search Premier into these systems. I
cannot help but wonder how much time and energy students would save if they only knew how powerful and useful these reference management systems can be.

Conclusion

The 2009 Rutgers University Libraries Web Interface Survey demonstrates some significant differences between undergraduate and graduate students, though nothing discovered strikes one as being overly surprising. It is hoped that the data provided in this report will undergird the assumptions that the Web design team uses as it moves forward. Compounded with the interviews, this data could inform not only the Web redesign project but also contribute to other library resource and service questions. But of all the things that come to the fore through this study, one conclusion becomes particularly clear: many of these students, both undergraduates and graduates, are not the expert users of the website that we desire them to be. Yet many of them strongly desire to become more adept at research strategies.

Students need to be trained how to utilize our Web resources. Undergrads are not inspired or motivated to learn about our online resources such as Searchlight, Academic Search Premier, or the extensive (and expensive) resources provided by JSTOR, Elsevier, EBSCO, and others. The interview data suggest that a little training goes a very, very long way. The question may then be, to what extent is it the Libraries place to provide this education?

I hope that this research project inspires Rutgers librarians to feel that yes, it is in part their responsibility. Perhaps there are ways in which the website itself can become both more user friendly and didactic. The payoff could be quite high as we all work to create the best learning situation for both undergraduates and graduates at Rutgers. If we are to agree that the system as it stands is not sufficiently teaching our students to conduct sophisticated online research, then perhaps we can do a better job of partnering with Rutgers faculty to correct these oversights and shortcomings. It is not enough to provide these resources. We must also step up to make sure that students are aware of these resources and that they know how to use them. It is my sincere hope that the redesign of the Web interface will somehow address these shortcomings and that the Web designers will continue to seek the advice and assistance of our student users.
Appendix 1: The Survey

1) What discipline are you affiliated with at Rutgers? (Select the one you identify most with either from your major, course, or program.

Response Options:
- Social Sciences
- Science, Technology, Engineering, and Medicine
- Arts and Humanities
- Business

2) What campus are you affiliated with at Rutgers?

Response Options:
- Camden
- Newark
- New Brunswick/Piscataway

3) What is your current status at Rutgers?

Response Options:
- First year student
- Sophomore
- Junior
- Senior
- Graduate Student

4) How many semesters have you been at Rutgers? (count fall, spring, and summer terms)

(Open response)

5) How many papers, articles, presentations, or projects that required research did you produce this school year?

Response Options:
- 0
- 1
- 2–4
- 5–10
- 10+

6) How often do you use the Rutgers University Libraries website when you do research?

Response Options:
7) How often do you use the Rutgers University Libraries website in an average week?

Response Options:
- Never
- 1–4 times
- 5–9 times
- 10–14 times
- more than 15 times

8) How often did you use the Rutgers University Libraries website last week?

Response Options:
- Never
- 1–4 times
- 5–9 times
- 10–14 times
- more than 15 times

9) How do you usually access the Rutgers University Library website?

Response Options:
- Bookmark (in your browser or a service like delicious)
- Search for it using a search engine such as Yahoo! or Google
- Type in the URL or address
- Link from MyRutgers
- Link from Sakai / Blackboard / eCompanion / eCollege
- Link from another Rutgers page
- Link from Google scholar
- Other (please specify)

10) How important are each of these resources to your research process?

Response Options:
- Very Important
- Somewhat Important
- Not Important
- Never Used

Response Topics:
- Google
• Google Scholar
• Yahoo!
• Wikipedia
• Rutgers University Libraries website
• Searchlight
• JSTOR
• WorldCat
• Academic Search Premier
• Subject Research Guides
• Rutgers University Libraries Catalog (IRIS)
• Interlibrary Loan (including EZBorrow)
• Indexes and Databases

11) Do you use a citation manager such as EndNote or Refworks? If so, which do you use most frequently?

Response Options:
• No
• No, but I am considering it
• EndNote
• Refworks
• Zotero
• Other (please specify)

12) Please rate each of the following activities for which you use the Rutgers University Libraries website:

Response Options:
• Very Important
• Somewhat Important
• Not Important
• Never Used

Response Topics:
• Find books
• Find articles or journals
• Request books or articles from another library
• Use “Ask a Librarian”
• Chat with a librarian (Meebo)
• Find course reserves
• Consult subject research guides
• Look up library hours, directions, and/or phone numbers
• Access MY ACCOUNT
• Read library news and events
• Use indexes and databases
• Use RUcore
13) When you use the Rutgers University Libraries website, do you tend to (check one):

- Know exactly where things are
- Figure things out by browsing
- Use the site index
- Search the website
- Get confused and ask for help
- Get confused and give up

14) Which devices do you use regularly to browse the web? (you may choose more than one)

Response Options:
- Cell phone
- Mobile web device (such as a Palm, Blackberry, iPhone, and iTouch)
- Netbook (or other sub-compact laptop)
- Laptop
- Desktop

15) Which web browser do you regularly use? (you may choose more than one)

Response Options:
- Chrome
- Firefox
- Internet Explorer
- Opera
- Safari
- Other

16) On average, how many hours do you spend every week for each of the following activities?

Response Options:
- None
- <1 hour
- 1–5
- 6–10
- 11–15
- 15+ hours

Response Topics:
- Research for school
- Other research
- Reading news
- IM or chat
- Online Games
- Second Life
• Facebook
• MySpace

17) Please indicate whether you have an account with any of the following:

Response Options:
• Yes
• No

Response Topics:
• Blog (as author)
• Facebook
• Flickr
• Google
• MySpace
• Twitter
• Yahoo!
• YouTube

18) In general, how satisfied are you with the Rutgers University Libraries website?

Response Options:
• Very satisfied
• Satisfied
• Neither satisfied nor unsatisfied
• Unsatisfied
• Very unsatisfied

19) What feature would you like to see on the Rutgers University Libraries website that is not there now?

(open response)

20) Please provide other comments you may have regarding the Rutgers University Libraries website:

(open response)

21) May we contact you with additional questions?

Response Options:
• Yes
• No

22) Please indicate if you wish to be included in the drawing for the MacBook computer/iPod touch:
Response Options:
• Yes (graduate student)
• Yes (undergraduate student)
• No
Appendix 2: Interview Schedule

Part 1: General Research Questions

Begin by asking about the student’s recent research projects, academic and career goals.

What are the primary online resources you use to conduct research for your papers and assignments? Where do you go first?

Please think of a topic that you might research and demonstrate how you would go about conducting an online search for materials on that subject.

Do you regularly use the following web-based services for your research? How often?

- RU Libraries website
- MyRutgers?
- Google
- Google Scholar
- Wikipedia
- Other library website?
- Any other web resources you would add?

When was the last time you contacted a Rutgers librarian? What was your question? How did you contact them? What did you learn?

Do you use Wikipedia? Do you cite it in your papers? If you teach, do you allow students to cite it?

What percentage of your research involves books vs. journal articles?

Once you find a resource that you might use in your work, how do you keep track of it?

Do you print out most of the PDFs/articles you find, or do you read them on the computer screen?

Do you normally mark on or highlight your text?

Where are you most comfortable working?

Part 2: Collaboration Questions

When you first start working on an idea for a project, do you discuss it with other people? If so, whom? (at what stage of the development process?)
Have you ever collaborated on a research project with other students from within Rutgers?

Have you ever collaborated with people from institutions or agencies apart from Rutgers?

Have you ever shared references or other resources with other students? If so, how did you do so?

Would you like to see something on the Libraries’ website that would encourage or facilitate collaboration?

**Part 3: Publishing Questions**

Do you use or contribute to a blog?

How do you feel about blogs? How do you feel about people who journal or blog publicly?

**Part 4 (for graduate students):**

Have you ever published a paper in an academic journal?

Do you feel that some of the papers you have written are publishable?

If so, are you considering submitting your work to a peer-reviewed journal?

And how would you identify and select a possible outlet for publication?

Do you plan on publishing a version of your dissertation after its completion?

Do you belong to any professional organization? If so, which ones? Why/why not?

Do you subscribe to any academic journals outside of those organizations? Why/why not?

**Part 5: Close**

Is there anything you’d like to suggest that the Rutgers librarians can do to improve their website?

Is there anything you’d like to suggest that the Rutgers librarians can do to improve their services overall?

Would you like to receive information or updates from the Rutgers Librarians? And what kind of information would you want?
What if you wanted to communicate with them? What would be the best way?

Would you want to receive that information through Facebook?

Is there anything else you would like to tell me or that I forgot to ask?