Electronic Resources and Services of the NCSU Libraries

Report of 1997/98 Focus Group Interviews

July 18, 1998

Survey team:
Keith Morgan, Acting Head, Digital Library Initiatives, and Client Services Librarian for Networked Resources
Eric Lease Morgan, Networked Technologies Development Librarian, Digital Library Initiatives
Doris Sigl, Librarian for the Organization of Networked Resources, Digital Library Initiatives
Jinnie Y. Davis, Assistant Director for Planning & Research
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Executive Summary

The NCSU Libraries held six focus group interviews during the fall 1997 and spring 1998 semesters to survey 42 NC State faculty and students. Our purpose was to find out how they use the digital collections and services of the Libraries, what they think about them, how they learned to use them, what kinds of obstacles they encountered, and what their concept of the ideal library is.

We found that the participants:

• actively use a variety of digital resources but would like the quantity, quality, and speed of these offerings increased
• endorse the digital initiatives of the Libraries but continue to rely on print resources as well
• want greater and easier accessibility (especially via remote access) to Web resources but want librarians to make the Web easier to use, with pages customized to individual interests
• want both “just-in-time” training and formal instruction in use of electronic resources
• like new technologies for convenience of remote access to resources and for getting to information faster, but they still value an attractive and comfortable physical environment and personal interactions with library staff, especially reference librarians
• are often unaware of electronic resources and services already offered by the library

Overall, the NCSU Libraries’ electronic resources and services, as well as the array of our initiatives in progress, are highly rated.

Two recommendations emerging from the discussion are: (1) give priority to completion of the “MyLibrary” model of a personalized, user-created library Web interface page as an answer to the information overload mentioned by participants; and (2) pursue definition of the online public access catalog vis-à-vis other digital
information resources, and communicate those concepts to users. Many additional ideas were generated from the focus group sessions; they largely reinforce goals and objectives already identified by the Libraries and may be used to provoke useful discussion among the library staff.
Introduction and Purpose

For 1997/98, the NCSU Libraries selected the area of electronic resources and services as the second topic in its systematic program of user surveys. Over the last decade, library expenditures for electronic resources and computing equipment had increased dramatically, and the library had introduced new services and staff to serve users’ information needs. As new information technologies permeated teaching and learning activities, library resources were stretched thin in an effort to meet the emerging demands of the digital environment while continuing to support user needs for print collections. With the help of tuition increase monies starting in 1996/97, however, the NCSU Libraries was able to make a commitment to expand its collections further and to establish the “digital library.” Consequently, the library administration recognized the importance of ensuring that library expenditures truly address user needs on this campus and of determining what those needs are in the rapidly changing digital environment.

The survey project was assigned to the newly formed Department for Digital Library Initiatives (DLI), whose responsibilities include the creation of innovative, user-responsive electronic services and resources for campus-wide instruction and research. Department members are Keith Morgan (acting head and Client Services Librarian for Networked Resources), Eric Lease Morgan (Networked Technologies Development Librarian), and Doris Sigl (Librarian for the Organization of Networked Resources). Karl Fattig served as Web Development Librarian from December 1997 to May 1998 and participated in the project during that time. Jinnie Davis (Assistant Director for Planning & Research) coordinated the project with DLI.

It took the survey team several meetings to define more precisely what we wanted to learn from our users. While the group had general guidance from a Directors Council discussion of scope and needs, the topic was still very broad, ranging from interest expressed in technical problems encountered to types of electronic resources and how they are being used. Potential survey populations of interest included faculty, students
(both undergraduates and graduates), extension agents, Centennial Campus users (including corporate employees), and TRLN partners.

Both the process of reviewing the literature and of determining an appropriate methodology helped us define the final scope and participants. We established that we were still at an early stage of information gathering. What we wanted to find out was: how faculty and students at NC State use the electronic resources and services of the Libraries, what they think about them, how they learned to use them, what kinds of obstacles they encountered, and what their concept of the ideal library is. We defined the term “electronic resources” broadly to encompass any information in digital format, including the NCSU Libraries Information System, commercially produced electronic databases, locally scanned or mounted databases, CD-ROMs, and Web resources. “Electronic services” included any of the array of digital services offered to the public, including classes taught by Research and Information Services Department staff, the Learning Technologies Service’s support for development of online instructional modules, networked printing, and the planned facilities of the Scanning and Digitization Laboratory.

**Literature Review**

In reviewing the library literature, DLI members attempted to locate user surveys on a similar topic that could be replicated or adapted by the NCSU Libraries. Many studies attempt to gauge user satisfaction with library service in general, but few as yet focus solely on the digital environment. Recent published literature about studies on electronic resources tend to break out into two types: questionnaires on patron use of and satisfaction with CD-ROM resources, primarily citation databases; or studies of system transaction logs to discern user success with such tasks as locating items, using controlled or keyword vocabularies, and narrowing or broadening topics. We found no existing survey in the published literature that seemed to address our purpose.

**Methodology**

The team initially approached this study with the intent to conduct a printed mail
survey, preferably based on an existing survey instrument. The literature review showed that research reported so far tended to form disparate parts of a vast and nebulous topic that was constantly shifting as the technology advanced and as campus use of computers matured. The team realized that, by the time we designed, conducted, and reported on a mail questionnaire, the results could well be outdated and irrelevant in next year’s campus environment. We also debated the pros and cons of various other survey methods: electronic-mail surveys, online surveys at the point of database use, unobtrusive observation, transaction logs, and focus group interviews. DLI considered conducting an online survey but ultimately rejected the idea as the method for an initial use study of the NCSU Libraries’ digital offerings; rather, it may be better suited for a future study of specific resources.

Because we wanted to learn as much as we could not only about users’ actual experiences with electronic resources and services but also about their perceptions of them, the team decided that the focus group interview technique was appropriate for our situation. This methodology is generally acknowledged to be appropriate as an exploratory approach to qualitative research and for use in generating ideas for questionnaire survey content. The use of open-ended questions allows participants greater freedom in expressing their thoughts and creates a synergistic, idea-building effect through direct interactions among group members. This type of interview also gives the facilitator the ability to probe further into answers and observations. Several articles about general library user surveys made the point that eliciting specific comments from users was more useful for service planning than merely referencing numeric satisfaction percentages.

We recognized, however, that a primary disadvantage of the focus group technique lies in the fact that its results are often not representative of the target population. Its use is acceptable, however, for application of results in short-term situations. The team also realized that the wealth of data gathered from the focus groups could serve as a valuable tool for generating discussion of critical issues relating to the digital library among the staff and for raising awareness of these issues among our users.
In October 1997, the Libraries contracted with the Center for Urban Affairs and Community Services (CUACS) to review the survey instrument, facilitate the focus group interviews, tape the sessions, and produce a report of findings. DLI members devoted an afternoon to conducting a library orientation session for CUACS staff. We gave Rick Shields, research and evaluation consultant, and Arthur Anthony, program evaluator, a physical tour of the D. H. Hill Library, including the Faculty Senate Chambers and the Staff Training Room, where several of the focus group interviews were scheduled. During the tour, the team described the functions of the library’s various public service areas. Finally, DLI staff provided Shields and Anthony a thorough online tour of the library’s electronic resources and services, complete with relevant printed descriptions for future reference.

Sample Selection
The final survey population consisted of current faculty members, graduate students, and undergraduate students. In particular, we sought participants who were familiar with information technologies, so we could learn from the experiences of those who had actually used our present resources or services.

We began by soliciting the names of potential participants from library staff (reference librarians, branch librarians and other department heads, collection managers, library administrators), faculty and students (University Library Committee members, Student Senate, Student Government, pertinent listservs), and university administrative staff (including Graduate School, Student Affairs, residence halls). The team quickly realized that the management of pertinent information for each of the hundreds of potential participants could be a daunting, labor-intensive task if performed manually, and we created a database to accomplish this task. We relied on the ease and speed of electronic mail for almost all communications to participants. Both the letters of solicitation and initial correspondence with potential volunteers included an explanation of the study, its purpose, use of results, approximate length and time of the interviews, and an offer of refreshments at each session. We also asked each volunteer for the names of other
possible participants.

Individuals who were willing to participate were asked to reply via electronic mail or an HTML form. We gathered both personal information (name, electronic-mail address, university affiliation) and times of availability during a set period in November and entered this data into the database. After two months, the database of names contained about 330 entries.

The selection of the participants was a simple application of Boolean logic against the database. We organized the focus groups by faculty, graduate student, and undergraduate categories. We also elected to group participants in the sciences separately from those in the social sciences and humanities. While mixing participants from differing disciplines might have generated interesting discussion, we thought the flow of the conversation would proceed more quickly if participants were from backgrounds with more similar patterns of information use. We also decided initially to separate students from faculty members, in case the former might feel intimidated by the latter. In addition, because of the university’s current focus on the development of the Centennial Campus, we established a separate group of faculty, researchers, and graduate students located on that campus. To keep the project within manageable proportions, we decided against creating special sessions for extension or corporate library users who would require different questions.

Searching the database for individuals with similar academic characteristics who were available at similar times, we were able to create five focus groups with an average of eight participants each. We again used the database to send potential participants confirmations and instructions on when and where the meetings would take place.

Obtaining undergraduate participation in the interviews proved to be one of the most difficult aspects of this project. When our initial solicitation failed to elicit enough undergraduates who were available at the same time, we repeated our request to student leaders, made phone calls, sent electronic-mail messages, posted invitations for
participation on the library's public workstations, and left forms at the reference desk. None of these activities garnered a single additional participant.

After the initial five interviews of faculty and graduate students were completed in fall 1997, we adopted a more proactive approach during the spring 1998 semester to organize a focus group of undergraduates. We followed up with faculty from the first group sessions and with instructors of required undergraduate courses (i.e., with very large enrollments) to ask for permission to visit their classes and invite undergraduate participation. After receiving permission, DLI members visited a dozen classes to explain the process and offer $25 library photocopy cards as inducements. Eventually we distributed 600 paper invitations, from which we received just fewer than 100 potential participant names. After searching the database for individuals of similar characteristics, we were able to compose only one focus group of seven undergraduates who were able to attend a session at the same time. Of those, only five attended the sixth and last interview (one overslept and the other got lost).

During this second, spring-semester phase of the focus group study, we also attempted to hold at least one session composed entirely of non-users of information technologies, to learn why they had not yet used any electronic services or resources at all. Again, it was difficult both to obtain names of those who were non-users and to schedule enough participants at the same time to constitute a group. In the interests of completing the study this year, the team decided to leave this approach for a later study.

Survey Instrument Design
The survey team consulted with many others in early fall 1997 to determine the kind of information needed to help library management make informed decisions about digital collections and services. Besides creating our own preliminary list of questions, the survey group met with the Research and Information Services Department (RISD) to seek the perspective of front-line public services staff. RISD staff had many helpful ideas about question areas that would provide the library with useful data. The survey
group also elicited comments via electronic mail from library department heads, including branch librarians, on what they considered the most urgent issues that need to be addressed in this area, the critical segments of the user population that most needed to be surveyed, and the kinds of information that the Libraries is most lacking for administrative decision making. Only two department heads replied.

By October 1997, the team developed preliminary questions covering:

- resources and services used by patrons
- satisfaction of users with those resources
- missing resources
- problems experienced by users, especially with technology
- technologies regularly used by patrons
- methods for learning to use the resources and services
- training needs
- the ideal library

In a meeting with CUACS representatives, the group agreed to schedule two-hour slots for the interviews; we knew we needed to reduce the number of questions to fit in the time available. CUACS staff suggested focusing the questions on several broad areas, with more in-depth questions for backup to provoke additional discussion if time allowed.

Within the broad areas discussed, the survey group narrowed the questions to seven. Of these, five were tagged Priority 1 (i.e., those we wanted all focus groups to address), and two, Priority 2 (those we wanted to cover in addition, if there was time), so the facilitator could adjust the number of questions asked. Each question was accompanied by a brief explanation, with examples, for the use of the facilitator if the need arose. The Assistant Director for Planning & Research also sent the draft questions to members of the Association for Research Libraries’ user survey workshop instructors for comment and to the library department heads and Directors Council members for review. See the final questions in Appendix 1.
Survey Administration
After the completion of the interview questions, the Assistant Director for Planning & Research obtained research approval in early November 1997 from the chair of NC State’s Use of Human Subjects in Research Committee, via the Vice Chancellor for Research, Outreach, Extension, and Economic Development.

DLI scheduled five focus group interviews during the week of November 17, 1997. Four took place at the D. H. Hill Library and one was conducted at the Research II building on Centennial Campus. The separate session with undergraduates was held on January 29, 1998, in Biltmore Hall. The library survey group handled all room scheduling, directional signage, set-up/clean-up activities, and refreshments for participants. Additionally, each group member attended at least one focus group session as an observer.

CUACS staff facilitated and taped each session as contracted. Shields provided an introduction to the purpose of the interviews, gave participants copies of the questions for their reference and conducted all questioning. Anthony taped the sessions and recorded extensive notes on a flip chart. Shields was able to cover all seven questions in all of the sessions.

Data Analysis
The analysis phase of the focus group data proceeded along two tracks. While CUACS staff distilled notes and tapes into a written report, the survey team began working directly with focus group session tapes.

First, we listened to all the tapes as a group to get a direct and joint sense of all the user responses, as well as to extract informative and arresting quotes. While this process was time consuming and sometimes tedious because of uneven audio quality, it also allowed for team discussion of results as we listened. The quotations formed the basis of a presentation to the full library staff in January 1998.
Next, the Assistant Director for Planning & Research hired professional transcribers to turn the tape content into text. They spent a total of 49.5 hours in January to produce transcriptions of the six sessions (i.e., about twelve hours of tape). Each survey group member then listened to at least one tape—generally of the same session we had observed, to ensure the fullest context for difficult passages—while editing the written transcript for accuracy.

After the final focus group session in January, members compiled independent lists of findings for their session areas. In discussing how to distill the essence of numerous and far-ranging findings in thirty- to sixty-minute presentations to various stakeholders throughout spring 1998, the group devised a conceptual framework that will be elaborated in the “Results” section of this report. This structure, along with the CUACS final report, helped form the basis of our final results and recommendations.

**Communications/Publicity**

From the outset, ongoing communication about the study to both the library staff and to the user community was deemed a critical part of the survey project. The team kept staff informed via announcements at various meetings, written status reports in the staff bulletin during the fall and spring semesters, and a midway presentation—the humorous “Raw Data Revue” (see Appendix 2)—at the January 5, 1998, full staff meeting. Communication to the user community included status reports in the Libraries’ monthly newsletter (in print and on the Web), electronic-mail messages to individual participants as follow-ups after the interviews, and publicity posted on the Web about electronic resources mentioned at the sessions (e.g., announcements about Web of Science).

The team compiled a summary document of major issues and sample quotes for use in generating discussion about the focus group results. Slightly different versions of this document formed the basis of a library department heads meeting on March 31, 1998, a University Library Committee meeting on April 27, 1998 (to elicit responses from faculty and students on their perception of the accuracy and ubiquity of the findings),
and a professional staff meeting on May 19, 1998. (See Appendix 3 for the final version of the summary.) The survey team is also considering various publication or professional presentation opportunities for this study.

Results and Discussion

A general caveat about results from focus group interviews is their lack of generalizability because of the small numbers surveyed and the non-representativeness of the sample. In this case, both the CUACS consultants and the survey team agreed that the results were sufficiently uniform and in line with prior staff experience. After completing the six interviews, the team considered holding additional ones but agreed that it was more important at this point to complete the report and recommendations from this study promptly, for timely implementation and follow-up. Primary factors in this decision were the similarity of responses we were hearing from the six groups surveyed, which also echoed--though at greater length--answers to the open-ended question on the 1997 library survey on collections use. The CUACS report describes the substance of the focus group conversations and should be read in conjunction with this report, which does not duplicate the detailed points raised by the focus groups. Appendix 4 contains the summary from the CUACS report.

In general, the study team was heartened to hear that participants think the NCSU Libraries is “headed in the right direction.” They find our digital resources and services useful and the staff helpful, and they approve of our varied efforts to improve our offerings. As one faculty member enthusiastically testified:

I’ve noticed a very marked and steep improvement in the quality of the services I get from the library . . . it’s gotten better and better, and in the last year, it’s gotten great! I don’t really have any complaints.

Because a purpose of this study was to identify problems perceived by users, however, the discussion of results will focus on areas in which participants voiced dissatisfaction with the Libraries in some way.

Through analysis of the primary data and review of the CUACS report, the survey
team sought to structure the extensive findings in a meaningful way. Because of the diffuse nature of discussion in a focus group, which generated significant comments on many topics, we decided that categorization by the seven questions originally asked of each group was not necessarily the best way to organize the results. Instead, we identified four broad areas that encompassed most of the issues raised by the focus groups: service, interface, teaching and learning, and publicity. The meeting presentations and discussion document followed these four categories, as does this “Results” section. In addition, we list miscellaneous results, including problems encountered in the course of the study.

Service
Concerns from the focus groups that are related to the broad concept of “service” can usefully be categorized in three components: quantitative, temporal, and qualitative (or, phrased another way: more, faster, and better). “Quantitative” refers to requests for more of something already existing or new services beyond what the library currently offers. For example, participants mentioned an interest in more online databases (as opposed to CD-ROMs), more computers, new scanning and digitization services, and online help via chat services.

The temporal aspect of service encompasses requests for improvement in the speed of our offerings (e.g., “UnCover is quite cumbersome and slow” and “JSTOR is very nice, but data transmission is slow”). Other examples involving tasks over which the library staff may have more control include requests for improving the speed with which e-mail reference questions are answered or an ILL request is filled.

Finally, and perhaps most importantly, “qualitative” refers to a perceived need to improve service excellence and is intrinsically related to the other components. Focus group participants asked for improved remote access, greater access to interlibrary loan information online, more graphic and imaging resources, and more full-text materials. Several comments reflected a need to ensure that our service ethic--prominently articulated in the library vision and values statements--is understood by staff.
throughout the library system, including student employees, to provide full and complete service for all interactions with our patrons.

**Interface**

Focus group participants want an intuitive, easy-to-use and customizable gateway to the library’s electronic resources. They say the interface the Libraries now provides to its digital as well as non-digital services can stand some improvement. These improvements fall into three areas: customization, organization, human interaction.

It is clear that many of the Libraries’ patrons seek a way to obtain only the electronic resources they need and no more. They want the library to provide a means for users to customize a page of resources “just for them,” based on a user profile. The following quote epitomizes this desire: “[I’d like to] have a customized personal library account, a profile of searches you do, along with search engines you normally use.” Similarly, our patrons say they “really struggle with the huge lists” and are “yearning” for only the subsets of information in which they are particularly interested.

According to focus group participants, the organization of the library’s resources needs improvement:

I think they should categorize things in a better way or a more logical way by science or liberal arts or at least break it into bigger groups so that if you decide where to go, you could get there.

Evidently, the library's users cannot find their way around the library's (or others’) Web pages, which are characterized as “obtuse.” People want more intuitive screens with clear paths to resources—organizational themes analogous to “information cosmologies” or collections of data and information grouped together by common subjects. They say they are used to “hierarchical kinds of things,” while Web pages have a “random organization.”
Users perceive librarians as experts who can help patrons select the right resources and make the best use of them, but who are not well integrated into the information system. Deploring the lack of this human touch reflects the need of the user to talk to another human being: “Everything is electronics. It’s the future. It is not endearing, [and we need] at least one reference librarian answering questions.” In other words, focus group participants expect access to computerized information resources, but they also expect the Libraries to continue to provide guidance to those resources from knowledgeable and service-oriented staff.

**Teaching and Learning**

Trial and error is the most common approach to learning about new resources: “We’re explorer-type learners, or we wouldn’t be faculty.” When asked how they learned to use the Libraries’ resources and how they would like to learn, users divided into two camps. The first group wants “just-in-time” instruction, preferably delivered by human beings, available when they have an information need, as seen in comments such as:

- I think we’re all “just in time.” You know, when you need it, you go look for it.
- Your learning readiness really peaks when you have a particular problem.

The second group wants formal classroom training in the use of electronic resources, with some—including students themselves—favoring this as a requirement, especially for undergraduates. The focus groups endorsed the necessity of offering credit or other incentives that would induce more students to take courses in understanding and evaluating information. The library’s challenge lies in serving both groups effectively.

The constituencies for library instruction differ significantly. Faculty were resistant to standardized classes for themselves. They want to have on-demand instruction at the point of need. Assistance is especially appreciated with learning new or unfamiliar databases or in making the transition to a new interface for a favorite database: “I need help and education about the scope of databases available, especially when I’m
venturing into unfamiliar ones.” Faculty new to the university would like a tailored program with hands-on training that would help their productivity at NC State.

Because graduate students are pursuing in-depth study, they benefit by individual or small group instruction in the digital resources of their chosen discipline. This is particularly true at the start of writing a thesis or dissertation. Undergraduates need to know how to access and use a variety of electronic resources, yet they may rarely come to the library. Basic publicity efforts about the library’s resources as well as online instruction from the library’s Web site may be most useful for this group. It is notable that students responding to NC State’s 1997 pilot sophomore survey rated “training to use the library” lower than our other services.

Focus groups also expressed interest in a wider range of content training, viz.:

• Critical thinking sessions devoted to evaluating information, especially from the Internet
• Assistance with particular techniques, such as downloading and manipulating data, using Telnet and other software protocols, and locating older publications
• In-depth training for difficult resources such as Statistical Master File, Lexis/Nexis and government documents

Publicity
Exchanges such as the following were common in the focus groups:

- TRIPSaver is wonderful. I love it!
- TRIPSaver--what’s that?

or “There’s an abstracting service called Current Contents--I wish there was an electronic one I could get to” (the NCSU Libraries has Current Contents online). They show that users frequently lack knowledge about services that the Libraries is already offering or about collections resources that we already own. Clearly, library staff must continually make its clientele more aware of our information products and services.
Focus group comments also reflected a general lack of understanding of what the online public access catalog (OPAC) is and what it contains. Participants expressed concern about the future of print resources and whether the Libraries will continue to support them. These comments suggest a need to reiterate the Libraries’ commitment to obtaining print resources for those disciplines that need them and to explain better that many print resources will not be available electronically, so a complete information search must still include them. We also heard many requests to “tell me what’s good,” indicating a need for new methods of supporting current awareness and information-filtering tools.

Other
Results not incorporated into the four categories include comments on the ideal library, the role of the information professional, problems raised that are beyond the control of the Libraries, and findings about the focus group interview process.

The focus groups described their ideal library as a combination of state-of-the-art digital resources and services--available at all times without access delays--along with print collections (“Being able to see a paper version is more efficient for use than the electronic version--they work together.”) As already noted, they value having reference librarians on hand to give help when needed. The physical ambience is also important: users want a comfortable and pleasant building (with a coffee shop) that enhances the information-gathering and assimilation process: “It needs to be an attractive and convenient facility. Being open all the time is great, being a pretty place--these aren’t minor things.” Finally, a fundamental passion for books and libraries was apparent in comments that waxed poetic:

- There’s just something magical about having a [physical book] in your hand, something really tactile about the whole interaction with books.
- A library [is] a mecca of knowledge where I can come and worship any time.
Our library users are clear about the role of the librarian in the digital library. They look to us as the information professionals with the expertise to select and obtain resources they need (“to decide what’s worth getting”); to separate the information wheat from the chaff, especially in the chaotic Internet environment (“tell me where the 2% of valuable stuff is”); and to organize information so they can easily get what they want, especially via the Web (“customized delivery of information” and “focus on the role of being the link between me and all those resources”). They also encourage an active outreach role for collection managers and reference librarians.

Obstacles to optimal use of digital resources include two areas that were frequently mentioned but are not under the direct control of the Libraries. One is the inadequacy of the technical infrastructure, including the insufficiency of computers across campus, contention for ports for remote access, and slowness of data transmission. The second is the bewildering and frustrating differences in interfaces and search systems designed by vendors for the databases they market, especially those infrequently used (“Something I used six months ago may have changed and I have to learn it all over again!”) as well as the restrictions on use imposed by licensing agreements.

An important by-product of the survey process was the creation of the database of participants, which proved to be indispensable to the selection process. Another was the incorporation of multiple venues for discussion. The Raw Data Revue presentation provoked a great deal of interest in the project on the part of library staff and garnered such comments as, “That was the best full-staff meeting I’ve ever attended!” Similarly, after the energetic discussion generated at the professional staff meeting, a librarian commented that it was “really enjoyable! I appreciated the explanation of your methodology, the discussion of the results, and the opportunity for librarians to exchange ideas on what are obviously topics of interest to us.” Both the professional staff and the University Library Committee provided significant input into how the Libraries might go about implementing the many suggestions that the focus groups provided.
The major difficulties we encountered in the course of the project--aside from determination of the exact scope of the study--were the following:

- **Scheduling.** We estimate that 900 users were invited to participate. Of those, 151 were willing, yet only 42 were actually able to attend the time slots available. Because of this, we had to adjust our original notions of groupings--for example, we had hoped to have two groups of graduate students divided into broad sciences and humanities/social sciences discipline areas but ended up placing the few who responded into the faculty focus groups. Undergraduates, however, were by far the hardest to reach and schedule. They did not have enough free time between classes for the interviews; the week before Thanksgiving is traditionally hectic, often filled with papers, projects or tests due before the break; many undergraduates do not use the library or its resources very often; even with the incentive of a $25 copy card or class credit, students seemed uninterested in taking part. Increasing the awareness of the focus groups, increasing the inducements, and making potential participants better understand that user recommendations have been implemented in the past are all possible methods for increasing participation in the future. At the same time, the focus groups were competing with a precious resource--time--and library services are often not seen as critical in the daily life of the average undergraduate.

- **Extraneous information.** Though the facilitator clearly articulated that the objective of the focus group interviews was to elicit feedback about electronic resources and services, the very first remark in the first focus group concerned a paper-based library service. Such comments frequently came up throughout the six interviews. Although useful information was gathered about topics such as hours of operation, photocopiers and copy cards, seating, group study rooms, building comfort and navigation, these did not directly contribute to our knowledge about use of digital services. Additionally, the focus group facilitator occasionally let such digressions continue too long.

- **Transcriptions.** A few sessions suffered from poor quality, because participants spoke too softly, the room had bad acoustics, or the microphone was not well placed, causing some comments to be lost. Although the transcribers received a
brief orientation to the project and to pertinent terminology, the quality of their work varied according to their individual skills and to their degrees of understanding of the library context of the discussions.

**Action Items, Recommendations, and Ideas Generated**

**Action Items**
In addition to the recommendations for future actions listed below, where possible, the survey team took immediate action on items arising from the study. They included:

- Adding time at the end of the focus group sessions for team observers to correct immediately any misperceptions or incorrect statements made by the participants, and to give them more information about services or resources they mentioned during the sessions
- Publicizing information on commonly held misunderstandings in issues of the library newsletter and on the Web in the spring semester
- Notifying individual focus group participants via electronic mail when resources of particular interest to them became available (e.g., Web of Science)
- Referring participants to appropriate library staff for follow-up on specific questions (e.g., about LOBO) or problems
- Researching and developing in DLI the “MyLibrary” model of a personalized, user-created library page as an answer to the information overload mentioned by participants.

**Recommendations**
Two primary recommendations emerge from this study. The team recommends that they be given priority in implementation, although—in light of limited resources—item 2 should be addressed after item 1 is in production mode.

1. **MyLibrary:** Invest time, money, and personnel into the continued development of “MyLibrary” as a high priority. “MyLibrary” is a Web interface to collections of Internet- and library-based information services owned and accessible by the university, which allows users to customize lists of hotlinks appearing in their browser windows based on their needs and descriptions of themselves. A student,
faculty, or staff member is able to display only the items the individual wants, while library staff can send pertinent suggestions and information targeted to specific users. This type of aid to organizing the flood of information available through the Web was clearly of great concern to our users.

2. **OPAC:** Assign to a small ad hoc group the task of leading a discussion of the definition and role of the online public access catalog, especially in comparison with that of the library’s Web site and our other digital offerings. The process of creating these definitions, as well as the definitions themselves, will spark debate among library staff and provide a better understanding of the role of each library department in supporting these services. Communicating these definitions to library constituents will offer them a clearer conceptual understanding of the organization of digital library information and resources. For example, for the OPAC, explain what it is, how it differs from a card catalog, and how its resources differ from those found via the library home pages.

### Ideas Generated

The various discussions of focus group findings showed that the issues raised were critical ones that resonated with users and staff. Based on these follow-up discussions, the team identified ideas specific to each of the four main categories. As topics arising from focus group sessions, they are presented here as suggestions that may be used to provoke further discussion about the problems identified. The team did not pursue investigation of feasibility, cost, or priority. Most of the ideas are not new to the library staff, but some are still in progress while others have not been acted upon.

#### Ideas Generated: General

- Consider conducting future focus group interviews with groups not well represented or not included in this study: undergraduates, graduate students, and non-users.

#### Ideas Generated: Service

- Investigate feasibility of customer service training for all staff (including student
assistants and branch library staff) who interact with the public in a regular capacity. Establish operations that reflect the principles of excellent service, both within the D. H. Hill Library and each branch, and among libraries in the system. Train staff so they can be effective teachers for users of new electronic resources.

- Ensure that, wherever possible, public service desks follow the same policies throughout the library system so users can be assured of receiving the same service, whether at a branch or at D. H. Hill.
- Implement ILL online ordering and investigate status checking so users can trace progress of their requests.
- For circulation, implement electronic holds and recalls with electronic-mail notification to requester.
- Discuss possibility of allocating more computing resources for electronic-mail access for students, faculty, and staff in the D. H. Hill Library building, as more courses are conducted online.
- Clarify catalog holdings statement to include diskettes, CD-ROMs, microfilm, etc.
- Investigate ways to help Systems staff understand users’ daily technical needs, perhaps by spending time observing at public service desks, being on-call for technical questions, or receiving orientations and updates from public services staff.
- Implement electronic office hours on the Web for collections and reference specialists.
- Investigate creation of an electronic collaboration room for public use, with workstation, printer, etc., and an online booking method.
- Implement clearer methods of delineating the end of a print run and its electronic availability. [Doris?]
- Investigate a method of allowing faculty to charge back to departmental accounts for networked printing and other charges.

**Ideas Generated: Interface**

- Better maintain and formalize the appearance of digital resources, specifically the Web server, which is the primary front-end to the library’s digital services but has only begun to demonstrate a particular “look and feel” because of the decentralized
approach to its development so far. The role of the Web Development Librarian position must be clarified vis-à-vis the Systems staff role, and that position must be empowered with authority and staff to manage effectively the entirety of the World Wide Web server.

• Increase the human presence within the Libraries’ information systems by creating better point-of-use options, including interactive tutorials, chat rooms, instant electronic reference, and electronic office hours for subject specialists in reference and collection management. These options should supplement and not replace current communication channels between library clientele and library personnel. As more of the library’s services become digital and fewer people need to visit the library in person, options for digital communications with librarians will become more important.

• Create a “virtual” union catalog in conjunction with TRLN institutions and appropriate vendors, using a Z39.50 interface (which is provided by DRAWeb2). The OPAC is the central resource of a library, with information about all of our scholarly resources. By combining the resources of fellow TRLN institutions, the Libraries can provide better, more complete access to the TRLN collections.

Ideas Generated: Teaching and Learning

• Use multiple technologies to address “just-in-time” training needs and to reach as many users as possible. Consider implementing: online chat service with RISD, interactive video with RISD, taped basic instructional sessions on VHS for users to check out; online tutorials; reserved machines with a librarian on call on the main reference floor for drop-in, on-the-spot instruction (as opposed to self-use).

• Convert all basic RISD instructional paper handouts to PDF or other electronic format, while retaining paper versions.

• Coordinate with other TRLN libraries or NC LIVE institutions to create training materials for heavily used databases.

• Target specific faculty audiences for training, especially for the more complex databases; offer on-site training for a department or school, a possible cooperative effort between RISD and Collection Management.
• Target specific faculty or administrative units (e.g., for freshman orientation) for partnering on information instruction for entry-level students.
• Offer special training services for new faculty.
• Offer special training services for transfer students.
• Lobby information vendors for better online documentation about their databases and for intuitive, understandable database titles.

**Ideas Generated: Publicity**

• Emphasize to all library staff the importance of communicating what they can offer to the user community. Collection managers, public services staff, and branch staff in particular should publicize and communicate information about new services and resources.
• Sponsor regular demonstrations of library services on the Brickyard to attract high-profile publicity while reaching those who might not enter the library building.
• Expand existing demonstrations of library services to students, faculty, and staff in their classrooms and/or offices. With a portable computer, network connection, and some networking experience, librarians could regularly visit potential patrons using the “circuit rider” model. This practice would give users the convenience of meeting on their own ground, thereby increasing the likelihood of their participation, as well as giving librarians a better chance to know their patrons and their specific needs.
• Continue to emphasize in user instruction the skills needed to evaluate information. With the growing wealth of information resources available, especially via the Web, library users must learn to select information based on quality and not merely convenience.
• Include the NCSU Libraries’ homepage URL in a default signature file for all outgoing staff electronic-mail messages. When we move to the successor client for QuickMail, include this signature file in new system setup and training.
Appendices


Appendix 3. Focus Group Interviews on Electronic Resources and Services of the NCSU Libraries, 1997/98 (for University Library Committee discussion; also modified for other presentations)


Note: Copies of the report from the Center for Urban Affairs and Community Services and of the extensive transcriptions from the six focus group sessions are on reserve.
Appendix 1

Questions for Focus Group Interviews on Electronic Resources and Services at the NCSU Libraries, November 17 - 21, 1997, and January xx

[N.B. The facilitator asked priority #1 ranked questions first and went on to priority #2 if time was available. Examples in brackets below were for the benefit of the facilitator.]

ELECTRONIC RESOURCES THEMSELVES (Note: questions in this section are priority ranking #1)

1. What electronic resources (any type, not limited to library resources) do you use regularly to support your research, teaching, and/or learning? What qualities make these useful to you?

[Examples of resources: Internet sites; electronic journals; databases, news groups, listservs, etc.
Examples of usefulness: format; searching features; timeliness; comprehensiveness; leading resource in a discipline, etc.]

2.a. Which of these, if any, do you access through NCSU Libraries?

[Examples of electronic library resources: online catalog; databases; full-text resources; Internet sites, etc.)

b. Do you access these resources within the library or remotely? If remotely, please talk a bit about your access method.

[Example of access methods: World Wide Web; Telnet; Internet Service Provider; etc.]

3.a. Which electronic library resources are particularly useful to you? What qualities make them so?

[Refer to examples in #1, above]

b. Which electronic resource(s) useful to you are missing from the library’s offerings?

PROBLEMS (Note: this question is priority ranking #2)

4. What problem(s), if any, prevents you from making best or complete use of the library’s electronic resources?
[Examples of problems: technical difficulties with logging in; not enough online help; unable to understand structure of services; differing database interfaces and search terms; difficulty with downloading or manipulating search results, etc.]

INSTRUCTION (Note: this question is priority ranking #2)

5. How did you learn to use the library’s electronic resources?

[Examples: trial and error; reading the help screens or handouts; working with a librarian; taking one of the library’s instructional classes, etc.]

THE IDEAL LIBRARY (Note: these questions are priority ranking #1)

6. What one electronic service could NCSU Libraries offer that would aid your teaching, research, or learning?

[Examples: scanning or other digitization services; training sessions for self or students, etc.]

7. What would your perfect library be like? Is it a physical place, a virtual space, a series of services? Other visions?
Appendix 2

RAW DATA REVUE
Selected Quotes from Focus Group Interviews
Script, 12-19-97 rev.

JYD • library survey program and status of this year’s study
• we’ll be conducting a few more interview sessions in January, then we’ll compile, analyze, and report on the results
• in the meantime, however, we wanted to give you a flavor of what we’ve been hearing in these sessions with mostly faculty and graduate students across disciplines
• please keep in mind that these are just selected quotes, so they’re not necessarily representative of all the comments
• also, we did ask for their problems and complaints, so there will be some negative comments as well, but we’re not trying to pick on any dept. in particular. In our discussion and analysis phase, we hope to involve all the depts. in addressing issues of concern.
• no real surprises; mostly already addressing--so we hope this will leave you feeling energized
• introduce members of the Raw Data Revue: DLI members

JYD - We asked questions about the **electronic resources and services** that people use.

1. “I use Current Contents”
2. “Current Contents”
3. “There’s an abstracting service called Current Contents--I wish there was an electronic one I could get to.”
4. “None of this existed 7 or 8 years ago”
5. “The library is really going in the right direction”
   1. “Nine out of 10 times if I want something in the library I can find it from my office”
   2. “I go to the library maybe once a year, maybe once every two years.”
   3. “For the most part my students found what they needed"
4. “I think they’ve made a lot of progress in making these search facilities available”
5. “The print stations seem to work--even though I have to pay for them.”

1. “The library has been a major player, a launching pad for Project 25.”
2. “[Project 25:] Never have so many resources been thrown at so few courses”

JYD - As I mentioned, we also sought out **problems that they had.**

1. “My main use of the library is when I want information very quickly. Generally what I want is checked out.”
2. “[I’d like] electronic recalls of books--for instant notification if someone wants a book.”
3. “I know there’s a lot more out there in government materials but I need help finding
things. Is there a more efficient way to find federal documents?"
4. "I do a lot of documents stuff . . . that’s where I get lost."

5. “It’s not uncommon for 10% of CDs not to be working.”
1. “Sometimes you have to wait.”

2. “My biggest problem is when you can’t make a connection.”
3. “Between Duke, Chapel Hill and here, all 3 of the catalogs are available, but they’re not integrated . . . and they used to be. Maybe there’s a reason, but it’s a loss.”

4. “All search methods are slightly different . . . [need a] more global, unified way of getting at information.”
5. “UnCover is a terrific service”
1. “UnCover is quite cumbersome and slow.”

2. What’s missing? “Citation indexes.”
3. “This building is a disaster when it comes to finding things”
4. "It's a real job in this building just finding out where things are"

5. “JSTOR is very nice, but data transmission is slow”
1. “JSTOR is absolutely terrific”

2. “ILL is the most unelectronic part of the library”
3. “Interlibrary loan--they’re great, but I always feel frustrated.”

4. "I have to praise the new TRIPSaver . . . You can save a trip"
5. “TRIPSaver is wonderful. I love it!”
1. “TRIPSaver--what's that?

JYD - They had lots to say about the **Web and our Web site.**

1. “I use the Web all day, every day.”
2. “I'm yearning for help that takes me to a subset of what I need for my discipline”
3. "The library has probably lagged in telling people how to do things, get to databases, services”
4. “I can’t find my way through the library’s Web pages . . . it’s obtuse.”
5. “I think people avoid State’s Web pages and the library’s Web pages when they can. For me, it’s kind of a last resort.”
1. "We're used to hierarchical, not random organization”
2. “Now that resources are on the Web, it’s much better”
3. “If you start at the library’s Web page you can get just about anywhere you want”
4. “All kinds of information are out there on the Web. Very convenient but of unknown value.”

5. “My impression of undergraduates is that their searches begin and end with Yahoo”
1. “They just assume that if it’s on a Web page somewhere, it’s accurate”
2. “Students aren’t necessarily doing academic things on the Web, so they’re just as
unfamiliar as we are with some of these databases”

3. “Does the library intend to go to a completely Web product?”
4. “Being able to see a paper version is more efficient for use than the electronic version. They work together.”

JYD - How did you learn to use the library’s electronic resources?

ALL - “Trial and error!”
1. “Mostly error.”
2. "We’re explorer-type learners, or we wouldn’t be faculty”

3. What would I like to see? “Just-in-time training”
4. “Your learning readiness really peaks when you have a particular problem”

5. “I’d participate in a workshop.”
1. “I don’t have lots of time—even if you offered a training session, I wouldn’t attend.”

2. “[I’d like to have] staff to do training on an on-call basis.”
3. “Is there training for students?”

4. “Most people can’t spool up information from a training session to use later”
5. “Just [give us] a contact person [to call on] if you’re interested in a resource and how to use it.”

1. “Something I used 6 months ago may have changed and I have to learn it all over again”
2. “I need help and education about the scope of databases available, especially when I’m venturing into unfamiliar ones”
3. “We need more time for faculty to retrain themselves with the new electronic resources”
4. “There’s too much information in the library newsletters now . . . something may be buried in there but I don’t have time to find it.”
5. “It would be useful to have a synopsis online, brief information about every electronic resource available.”
1. “Help screens aren’t that much help.”

2. “Get away from getting people here . . . get it online, as a programmed text operation [or] autotutorial.”
3. “There was a hard copy introduction to library research . . . that’s the kind of online, self-directed approach [needed]”
4. “Maybe if they incorporate it into an English class?”

5. “I’ve noticed a very marked and steep improvement in the quality of the services I get from the library . . . it’s gotten better and better, and in the last year, it’s gotten great! I don’t really have any complaints.”

JYD - We found they did value the library as a place. Why do you go to the library?
1. “To get out of the office!”
2. “Because going to the library gives you every option. I think it’s a good environment.”
3. “It reminds you of why you got into this business when you go over there and smell those books.”
4. “You’re gonna end up at the library sometime, somehow, somewhere, so you may as well go there to start with.”
5. “The fact that the library is open 24 hours is a good thing—it widens the opportunity to take advantage of all the electronic resources.”

JYD: The library staff got a lot of comments, mostly compliments.

1. “People in the library are always really great.”
2. “The quality of the professional staff here is outstanding. . . . It’s absolutely essential for those of us needing assistance.”
3. “Every time I go there I grab one of those Reference people.”
4. “There should be savvy, knowledgeable personnel at the service desks—it makes all the difference in the world”
5. “You can have a good experience at midnight and a bad experience at 10 a.m.”

JYD: They also told us what they thought the role of the library should be.

1. “To decide what’s worth getting.”
2. “To make us aware of what is there—instead of everyone trying independently to find things.”
3. “The Web has 98% junk—I want the library to tell me where the 2% of valuable stuff is.”
4. “[We need some kind of] indicator [or] rating system [for Web resources]—using the library’s resources, I assume some research went into why something was picked.”

5. “Customized delivery of information.”

1. “Focus on the role of being the link between me and all those resources.”

2. “There’s too much information.”

JYD - Finally, we asked what their idea of the **perfect library** would be like.

1. “The ideal library duplicates the physical library and its resources”
2. “With the ideal library I have access to everything and am able to print it off in my office”
3. “One where you walk in and every book in your field happens to be there”

4. “Full text.”
5. “Cheap full text, available now.”

1. “A set of services rather than a space”
2. “[It] draws me in and allows me to concentrate for real”

3. “I wish it were more Barnes & Noble-ish”
4. “The ideal physical library would include a coffee shop”

5. “[Where] most of what I want is available electronically”
1. "Get everything remotely if possible"
2. “I’d like to see the library subscribe to as many online journals as possible”

3. "Don’t do away with the books on the shelves”
4. “Electronic and paper resources work together”

5. “It needs to be an attractive and convenient facility. Being open all the time is great, being a pretty place—these aren’t minor things”
1. “Physical, non-virtual space is still highly useful.”
2. “To sit quietly in a serene environment and have at least one reference librarian available”
3. “There’s just something magical about having a [physical book] in your hand, something really tactile about the whole interaction with books.”

4. “A library [is] a mecca of knowledge where I can come and worship any time”
Appendix 3

Focus Group Interviews on Electronic Resources and Services of the NCSU Libraries, 1997/98

As background for the 4/27/98 ULC discussion, this document categorizes major themes arising from the focus group interviews conducted in fall 1997 and spring 1998 under four topics: Service, The Interface, Teaching and Learning, and Publicity. Six groups were interviewed, comprising a total of 42 faculty, graduate students, and undergraduates.

Questions posed to each group were based on a survey instrument containing seven questions about use, needs, and desires relating to the digital library. While participants had an overwhelmingly positive response to what the NCSU Libraries offers and the direction it is taking, for the purposes of ULC discussion, the selected quotes below focus on areas in which the Libraries can further improve.

I. Service

The focus group interviews raised some interesting comments and questions about service. Since “service” is such a broad concept it may be useful to categorize these service concerns into three elements: quantitative, qualitative, and temporal. (Or, phrased another way: more, better and faster.) Quantitative service refers to a request for additional services than the Libraries already offer. The temporal aspect of service encompasses the many requests for improvement in the speed of our offerings. Finally, and perhaps most importantly, qualitative refers here to a perceived need to improve service excellence and is intrinsically related to the other components.

Quantitative

"Have copiers on every floor of the stacks."

“Cheap full text, available . . . now”

“The library at the Vet School has, like, two functional computers. That’s it. So, I mean you can go over there about any time of the day, you’re not sure you’re going to be able to access.”

“Is it reasonable to expect a library to provide this [i.e. scanning] service? Usually it’s specific enough task that you probably have it at the departmental level, otherwise, if you have one scanner, you have a line 50 feet long.”

[Scanning] This is something that if the Library could facilitate, so the faculty member could say I would like my students to have access to this set of articles, that the Library could then scan those, set up a Web site as you just described it, that would be a terrific service.

Generally, there does not appear to be enough computer stations. Everywhere you go they are all busy.

{News Groups and List Servs] are something the Library could provide to NC State community being a central institution, that many people in all different parts of the University who are interested in similar things and have no idea that they’re there. There could be lists for ongoing discussions and help and
advice from one another that cross disciplinary boundaries. The Library would be doing a big service.

**Temporal**

**ILL is cheap but too slow**

“I’d like to see electronic recall of books and instant notification when recalled item is available... we need stuff within 24 hours for deadlines.”

“Amy alluded earlier about doing something when Inter-library Loan is too slow. Inter-library Loan is, in some cases, unconscionably slow, straight out of 200 years ago, Stone Age, and I understand that resources are being put into it to speed that up. When it takes a month and a half for something to come, when it actually exists in some other library is real crazy.”

...The reference desk being so helpful when you speak to them in person, but the turn-around time being slow when you try electronically. I think that’s a service that would be a great help to me

**Qualitative**

“But, finding the thing you go back to the Stone Age. You go back and file through unorderly newspapers or with regard to articles, UnCover, you find articles, and you look in the stacks and they’re not there so you go to the Reference Desk and they send you to Interlibrary Loan, then it turns out a week later you get a message from Interlibrary Loan they won’t get you this because the Library has it. Where they have it is on diskettes over here that nobody seems to know how to find in less than a week. Now if you could fix just that I would be very happy. Because having to wait a week for something that is in fact here and that someone somehow in ILL knows is in the library, that ought to be speeded up, or something I can do by myself and apparently it isn’t.”

“I have a pet peeve; but I have a goal that on the Reference Desk we rotate the technical support people; there are some who are doing a great job in the background. Let’s put them out on the Reference Desk two hours a week or something in the middle of the fray, so that when users have a problem they see first hand what works and what doesn’t.”

A real advantage in getting reference help electronically as opposed to in-person, is that a specialist can help you. A specialist may not be there at the desk when you are there, but in a matter of a few hours, rather than in a day, you could have a response to the question that you posed.

There are days when, as old fashioned as it is, I like to come over here, get a stack of books and go plop in a chair somewhere, and sit and look at stuff, and I think--I get tired of sitting in my office, or people bothering me, I can’t think about what I need to think about. I wish there were some places around here that were what I call, a little more Barnes & Noble-ish. Some of the chairs in stacks, after awhile, you’re not going to nap in those things.

I think what the campus lacks a lot is places where people can work together with print or online materials. Those do not have to be in the Library, but a whole bunch of them should be. This serves as a combination lounge, work, trends, electronic, a lot of that.

More help with understanding and using government documents.

“Have someone online live who can answer your questions through a chat service.”

“[electronic materials] don’t go back very far, and they quit maintaining the hard copy . . . it’s much less convenient than it was a year ago when you could walk over and get a hard copy.”
“I’m talking about a free access. One that I don’t have to go through some agony to actually use it.” Difficulty of getting books from branches; “too bad” attitude of staff (students), “you end up at a stone wall”

“I think one thing that’s a problem is when you can’t make a connection. The system is down.”

“It’s a pain to sometimes have to get that information, pay for it, and then get reimbursed.”

II. The Interface

Focus group participants regularly encouraged the Libraries to improve the “interface” it provides to electronic resources. It is clear that users want an intuitive, easy-to-use and customizable gateway to electronic resources. The Libraries must develop a plan to improve navigation and user-friendliness within its information systems as well as offering options for customization of the front end. Below are quotes, organized thematically, which support this conclusion.

My Library (“Have it your way...have it your way”)

“I’ll have the usual.” — This is a fairly common request that a patron might make in a frequently visited restaurant. They don’t want to see the whole menu. Maybe they want to know about the specials (which you have posted on the bulletin board at the front door). But they may just want the same thing they had the last time. In much the same fashion, the Libraries’ patrons seek a way to get just what they need in the way of electronic resources, and no more. The Libraries needs to provide a means for patrons to customize a page of resources “just for them” based on a user profile. This could also provide another means of communication (using push technologies) between subject specialists and their clientele.

“Have a customized personal library account. A profile of searches you do, along with search engines you normally use.”

“I really struggle with the huge lists and if you go to the really detailed lists that list everything and gives you a little paragraph on what that index supports, it’s overwhelming. Somehow, I’m yearning for help that takes me to the subset that I’m interested in by discipline or something. Now part of that may be there and I just don’t know it.”

“One of the problems once you get into it, there are lots of resources available, encyclopedias and all that)...is to know we do a search and get lots of hits. A lot of the time I spend is wading through a lot of things, trying to decide what is the best. If there was some indicator, a rating system..."

“We need the library to be a clearinghouse... there’s too much information...tell me where the 2% of valuable stuff is.”

“I really think that if you can do it from your office, you can do it from downstairs. It’s not quite as easy, because they’ve got it blocked — you can’t just key in the URL — you have to do a search to get there”

Organizational

“You can’t get there from here,” said the old New Englander to the tourist. Likewise interviewees frequently complained of frustration using the Libraries’ and the University’s web pages. They
want intuitive screens with clear paths to resources. The Libraries must develop a plan to improve its information systems and electronic resource offerings by striving to provide more consistent navigational design, particularly in the Libraries’ WWW pages.

“I think they should categorize things in a better way or a more logical way by science or liberal arts or at least break it into bigger groups so that if you decide where to go, you could get there.”

“One thing that is an annoyance to me that’s related to that is the number of levels we go through doing [a search].”

“There are actually a lot of things there that you don’t know about and you’re not going to find them very easily just by going to the Library Web page and looking at branches. Very hard to find your way around, to know what’s there.”

“We’re used to hierarchical kinds of things. . . . [the Web pages have] random organization”

“Somehow, I’m yearning for help that takes me to the subset that I’m interested in by discipline or something.”

“[The Libraries Web pages] have everything, but it’s just kind of splotched together. You have to search through it and you have to think about what you’re looking for. It’s not something that comes .... You’re looking at a directory, but it’s very vague.”

**Human Touch**

*Users also perceive that the expert librarians who can provide them with help selecting the right resources and making best use of the system are not an integral part of the information system. The Libraries should seek to increase the human presence in the system, perhaps by creating better point-of-use options for getting assistance (chat rooms, instant e-reference, tutorials etc.).*

“One of the best things about the Library is not electronic; rather, it is the reference librarian.”

“Everything is electronics. Its the future. It is not endearing, and at least one reference librarian answering questions.”

**Integration**

*Users also expect to find a common interface to the NCSU/Duke/UNC library catalogs. What is frustrating for many of them is that they remember a time when such a service was provided. This request was one of the most often-repeated during the focus groups. The Libraries should investigate creating a “virtual” union catalog in conjunction with TRLN institutions and appropriate vendors perhaps by utilizing a webbed Z39.50 interface.*

“More unification of all different search methods and a hook from citations to library holdings.”

“. . . between Chapel Hill and here all three of the catalogues are available. They’re not integrated so I find myself trying to treat three libraries as one but being blocked electronically, constantly retyping searches and things, go from one to another. They used to be, before the most recent library information service, you could search them all at the same time.”

“Lack of common search interface”
III. TEACHING AND LEARNING

Approaches

When asked how they learned to use the Libraries' resources and how they would like to learn, users divided into two camps. The first group wants “just in time” instruction, preferably delivered by human beings, available when they have an information need; the second group wants formal classroom training, with some favoring this as a requirement. The library’s challenge lies in serving both groups effectively.

Point of Use

“I think we're all “Just in Time”. You know, When you need it, you go look for it. I think it’s a real problem because if you learn it at one point, by the time you need it, you've forgotten it, or the technology's changed.”

Have knowledgeable staff on hand

“I think the most useful thing we can have is a handout sheet with instructions, one category could be here’s how to find a book, here’s how to get an article, this is what you do to get a few abstracts in the system”

“Perhaps better information for this purpose is what not to do. A two or three day short course I think would be the thing not to do because most people can’t just spool that up from a fire hose exposure.”

Formal instruction

"I think they should have a required workshop... because trial and error is good way to learn but the quickest way is to have somebody show you and you learn it yourself." [hit everyone, especially freshmen and transfer students]

“I wish that more people would teach those introductory courses so that they didn’t go through their whole four years here and not come over here till the last year.”

“I think I’d ask for a tutorial to teach students how to use all this stuff, so I could go into my class and say, “okay, y'all, this is it.” Have it set up in such a way that they would have to fill something out so that I would know if they really did it. I would put it just as a regular assignment.”

Give assignment with requirement as best way for students to learn

Constituencies

The three primary library constituencies--faculty, graduate students, undergraduate students--expressed differing needs as well as styles with regard to training. Faculty may be very facile in their own discipline(s) but need help branching out; graduate students may need an overview of research resources as well as depth in particular areas; undergraduates may need assistance with basic critical thinking skills. Instructional offerings would need to be tailored for each constituency.

Faculty

Faculty learning is via “trial and error”

Give new faculty hands-on training
“I’d say if you’re a first semester teacher here give yourself a week in time just to explore and try everything from the office (to the library)... We have these dedicated personnel in the library... ask them what we’ve got. They’ll always sit down and show you where to look for your discipline.”

“There may be a whole scope of additional indexes or electronic resources that I should be using that I’m not aware of, so it's incumbent on the Library to educate the user and make us more aware of the broader context of resources.”

“The problem that I have is that services that I use infrequently often change format as electronic media, and resources are updated and improved. Well, by the time I do back to using this thing I used several months ago, it is three versions into the future. Now I’ve got to figure out how the heck to use it again....”

**Graduate Students**

[faculty member]“I would like maybe once a semester for my graduate students to review with a qualified librarian how to search for materials related to particular topics”

“If you’re doing a thesis or something, you need the library. A lot of students don’t know exactly how to use everything.”

Sometimes grad students teach faculty

**Undergraduates**

Some students never enter the library because they think everything’s online

“I don’t know if the library’s Web site has instructions on the Web page on how to access electronic resources. If it doesn’t, it should. It would be good for freshmen.”

**Content of Training**

*As expressed in the focus groups, the content for training ranges from assistance in effective use of specific resources to the mechanics of manipulating the retrieved information.*

**Critical thinking and evaluation, especially of Internet**

Undergrads don’t understand how to assess quality of Internet information

Students relying on Internet sources use only recent info

“They haven’t learned to distinguish the quality of the information that’s out there. Anybody can put up a web page. And just because they found it on the Internet, they think it's legitimate.”

The libraries should teach critical thinking skills regarding the Internet. Internet Survival.

**Specific resources**

“Something else that needs work is the Statistical Master File . . . it’s hard to search, very cumbersome. I don’t know if it’s available remotely. I’ve always used it in the library.”

“So, if there was just more effective organization or training on access of government materials it
would really help."

**Techniques**

I haven’t really figured out how to work Telnet.

Difficulty of downloading, manipulating data (e.g., from Adobe Acrobat, from large databases like census)

How to find minor publications (e.g., older, non-scholarly magazine)

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**IV. PUBLICITY**

Based on the comments from the focus group interviews, the Libraries needs to make its clientele more aware of its information products and services. Many of the quotes below illustrate a lack of understanding about what the Libraries is already doing in this regard. The Libraries needs to continually remind its users of this fact. Below are quotes, organized into themes, supporting this conclusion.

**But We Own That**

Interviewees were continually requesting things the Libraries already owns or for which it already provides access. Why didn’t these people know this? Many times these are big ticket items costing a lot of money in licensing fees. When determining the amount of money these items cost, should the library add a small percentage to the fees and use that money for advertising? Should the library should spend more to make endusers know of an item’s existence, the more it costs?

“One thing the Library is going to do is to start subscribing to these online journals, like the Journal of Biological Chemistry.’

“There is an abstracting service called Current Contents. . . . The library gets paper copies, but I wish there was an electronic copy of it.”

“[I don't know whether or not the] Books in Print volume [has] gotten on the Web.”

“There are two outstanding services that I don’t think we have access to: DIALOG and Chem Abstracts.”

“I wish it [the Libraries Web server] had citation indices.”

**Use the OPAC**

What is the OPAC? How is it different from a card catalog? What is in our OPAC? Things we own?

Things we paid for? Things to which we provide access? Is it a finding aid or an inventory list? If the Libraries were to aptly answer these questions and communicate the answers to its endusers, then the Libraries’ endusers may learn how to make better use the OPAC.

“[We don't know whether or] not available [resources are] in library, or [whether] it's a well-kept secret.”

“It sounds really funny to say it but I don’t know if they have them [(various databases and CD ROMs)] in the library. They used to get the hard copy. I haven’t checked for a while. [Examples include:]”
International Monetary Fund, the International Financial Statistics

**Paper Works**

*Because much of the Libraries' content is, and will continue to be, physical in nature, and because it is swimming against a "tide of computer hype," it must make its clientele aware of the relationship between print and electronic media. The Libraries must make its clientele understand the relationship is similar to the relationship between radio and television. While television has much more functionality, radios are still quite useful and many times a better tool for a particular application. Paper works.*

"Within a few years [is it] the intention [of the Libraries to] submit all dissertations and theses [online]?"

"I find that sometimes when you're searching you [can go to] the paper version [and it] is more efficient. You're able to see a whole page, a certain type of entry, or move [through] three or four volumes. They [paper and electronic resources] work together."

**Tell Me What's Good**

*Traditionally librarianship has focused its attention on the collection, organization, archiving, and dissemination of information. With the advent of almost ubiquitous networked information, much of the Libraries' services can be done by its endusers themselves. Maybe it is now time for the profession to more strongly assert its ability to evaluate information and more strongly recommend ways for the enduser to "separate the information wheat from the chaff." The Libraries' clientele seem to want to be told what is good information.*

"Faculty want notification -- preferably via e-mail -- about new library resources and services. Also, better publicity about existing ones. [Examples include Uncover or TRIPSaver.]"

"The library needs to rationalize what is available only in the library and what is available to a typical faculty member in their office."

"One of the best URLs I ever ran across was from a thing in the Washington Post every Wednesday. It has recommended Websites, and it might be useful for the library to think about doing that to educate both ourselves and students, for websites they find that are really useful."

"I would certainly like to see the Library subscribe to many of the major journals that are online and make them available to the entire academic community."

"I can't keep up with them. It's impossible. You [can] get continual updates from the library staff who are watching this as well. [It] really helps."

**Accessing the Libraries**

*Providing human-to-human, interactive service has always been a cornerstone of librarianship, yet the Libraries' clientele don't know when the Libraries' services are available, how to make recommendations for acquisitions, or how to connect to it electronically. When they do have convenient access to the physical space and librarians, they really appreciate it. The Libraries need to make its clientele more aware of how to access it.*

"Maybe because that's Monday-Friday, 9:00-5:00. That's maybe when the professional staff is on board. At the other times, I know money and funding for positions is important and I certainly think its very important to get the best people you can to staff the desk of the library at all different hours."
“I am totally ignorant regarding what computer labs [are] associated with the Library. Are there terminals students can get to just to do all this general Internet work? I do 50% of my homework through e-mail and my students are frustrated.”

“[I don’t know] how to connect from home [or] which service provider is best.”

“Have wondered about how to get the department more involved in the acquisition process. . . . Maybe the answer is for them to come visit us more, whether we want to see them or not. And go around and visit the faculty. I think that what is used is going to depend on what is supplied. Whether the fact is that they are good things or not. It’s what the faculty think is most important. Not the students. They follow what the faculty want.”

Training

The Libraries understands the difficulty of navigating today’s information landscape, and it has facilitated ways to teach this skill. Yet its clientele do not seem to know of the existence of these services or are unwilling to participate in them. The process of training is a lot like a help screen. Everybody wants it but nobody wants to make of use it. Maybe the Libraries needs to publicize its training services in a different light.

“I don’t know if the Library’s website has instructions on the Web page on how to access electronic resources. If it doesn’t, it should. It would be good for freshmen.”

“There’s no training and unless [undergraduates] have taken their own initiative to come over here and do it, or been forced into it in some way, they just don’t come in here.”

“You can make an appointment and bring your students over here and a subject librarian will go through things. Professors have to know that this service is available for students.”

“Keyword search--until the librarian told me about it, I didn’t know it existed.”

“[Students are] using the Web to find information about [everything] and I’m not sure what kind of databases they’re getting into. There was no hard copy introduction to library research that was done and I don’t know if that has been updated to incorporate electronic access but that kind of approach is a self-guided thing that freshman students could go to the library and get a couple cups of coffee. I think about that as being a component for the freshman comp course . . . and if . . . self-directed, accomplishment-based, or progress-based, that program would be sort of like [an orientation] for the library.”

Document delivery

Once items are located in the Libraries’ collection, its users don’t know their rights, responsibilities, or privileges that go along with obtaining physical items. The library needs to make its clientele more aware of these services. How does the Libraries satisfy document delivery needs?

“[I don’t know about] having items recalled by others [or the] length of checkout time.”

“TRIPSaver? What’s that? [I don’t] how to sign up, turnaround time, charge, limits, [etc.]”

“Can we submit a library request from our office now, instead of com[ing] over [to the library]?”
N.B. Last appendix is photocopy from CUACS report.