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The Local Nature of Digital Reference

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Introduction

In response to the extensive availability of digital library resources and the rising number of remote users, many libraries now offer digital reference services through e-mail and chat. The growing use of interactive chat software with its real time interactive capability has prompted librarians to consider collaborative ways in which to offer this service. A concern expressed frequently in informal discussions of such collaborations is how difficult it would be for the staff at one library to answer questions for another, considering that many questions tend to be "local". Intrigued by the perception of "local," librarians at the University of Tennessee (UT) in Knoxville undertook a study of digital reference questions received through chat and e-mail to determine the percentage of questions requiring on-site handling.

Literature Review

The extensive bibliographies on digital reference service compiled by Bernie Sloan (2002) and Joann Wasik (2003) provide an excellent overview of this area. Much of the literature is anecdotal—authors describe the implementation of pilot projects and present data on the number of questions, time of day for activity, and user demographics. Although some studies mention the types of questions encountered in the digital environment, very few articles examine the questions themselves in any great detail.

Several studies on e-mail reference that include a component of question analysis provide some insight into the local nature of digital reference, such as the Bushallow-Wilbur et al. (1996) analysis of user demographics, use patterns, and types of questions. While the questions were categorized simply as reference and non-reference, 19% covered questions about the library's policies, services and catalog. Hodges (2002) used descriptive statistics and content analysis to assess user needs. Results reflect the shift to remote access of library resources with 23% of requests relating to technical problems. In one of the few studies to focus on question types, Diamond and Pease (2001) analyzed the complexity of e-mail reference questions received over a two-year period in an academic library. Their results suggest a strong local component with 35% of the questions relating to the library's catalog, databases, policies/procedures, and connectivity while another 17% came from students needing "starting-points" for an assignment.

Chat reference service, a relatively new phenomenon, has generated studies about collaborative initiatives for offering 24/7 service. Kibbee et al. (2002) found that their chat service received a high proportion of questions related to library resources and services and questioned the feasibility of inter-institutional collaboration. In a study that looked more closely at the local component, Sears (2001) reported that 60% of chat questions were related to the library's policies, procedures, collections, or resources and speculated this finding would have significant implications for collaboration.

Although these studies support the perception that many digital reference questions do have a "local" flavor, it is unclear if these types of questions must be answered only by the user's "home" library. This study attempts to answer that question and address the implications for collaboration.

Methodology

The University of Tennessee Libraries is a member of the Association of Research Libraries (ARL) and holds over two million volumes. The main library and four branch libraries serve approximately 25,500 students and 1,100 faculty at a public, land-grant institution. The University of Tennessee's digital reference service includes both e-mail and chat. For this study the investigators analyzed 694 e-mail questions and 210 chat questions received between August 2001 and April 2002 for their local nature.

The investigators divided questions into four broad categories: policy and procedures, holdings, access, and factual (See Table 1 at the conclusion of this paper). Then each question was considered for the local aspect. Defining *local* posed one of the more difficult tasks of the study. Technically, any question related to a library's collection, services, and resources is local in the sense that it pertains to elements particular to that library, campus, and community. If one looks at questions from a collaborative viewpoint, however, the local nature of a question is only an issue if it requires on-site handling for completion.

For this study, the questions considered local were those that demanded on-site expertise, knowledge, or access to locally held resources. Questions readily answered by a search of the Libraries' catalog or web pages were not considered dependent on a response from a person located at the University of Tennessee Libraries. Referrals of questions to other departments required on-site handling only if they would be difficult for a non-affiliated person to determine. In this study the need for on-site knowledge was considered exclusively at the point of reference service, even though completion of a question might entail handling by another department. Questions designated as *on-site* needed a staff member at the University of Tennessee Libraries for an answer or appropriate referral. Questions designated *off-site* could be handled by a partner library. The investigators expected that the majority of requests for information would demand on-site attention.

Policy and Procedures

Policy and procedures represented 13% (*n*=119, Table 1) of the total number of questions examined and covered the guidelines and restrictions that govern how and for whom services and the collections are made available. Within this category queries pertained to circulation, document delivery, special collections, and collection development. Circulation and document delivery dominated this category and accounted for all but 18% of the questions concerning policy and procedures (Table 2).

Eighty-two percent of the 119 policy and procedures questions were designated off-site. Overall, the Libraries' web pages did a satisfactory job of providing the specifics to answer questions such as:

- What do I do if a book I need is checked out?
- How do I obtain borrower's privileges if not a student?
- How do I request a dissertation from another university?
- Will the Library loan theses to universities outside the U.S.?
- How does a faculty member have books delivered to his/her office?

Even requests for information that required putting the questioner in direct contact with another department were natural, simple referrals. Examples include:

- How does a person not affiliated with the University obtain copies of World War II documents that are part of Special Collections?
- How do I check the status of my borrowing activities?

The twenty-one questions designated on-site for policy and procedures included problem-related requests for assistance, recognition of names and relationships that would not be apparent to a non-affiliated person, and situations where the Libraries' web pages simply did not provide the needed information. No matter how detailed, web pages cannot possibly cover every conceivable scenario that users will describe.

UT students who were off-campus for a variety of reasons such as distance education, spring break, and fieldwork experience and who sought document delivery posed several problematic questions. Distance education students are eligible for special delivery options, but they do not routinely self-identify. UT librarians are familiar with the clues that would lead to a quick check of a UT student's status as distance education. A partner could not be expected to recognize such indicators.

Nine of the twenty-one on-site questions came from users who either wanted to purchase copies of UT master's theses or who sought information on the status of their orders. A partner librarian would not know that Interlibrary Services (ILS) photocopies UT theses for a fee, as the Libraries' web pages did not include this information, and referral to ILS was not obvious.

Another batch of on-site questions came from people not affiliated with the University and who had requested faxed or photocopied selections of pages from materials only available locally or regionally. Typically, the requester

lacked adequate information for an interlibrary loan transaction; thus the request needed additional attention to supply the missing bibliographic detail. Most often the librarian photocopied and mailed or faxed the needed item.

Of particular note are the potential difficulties posed by unfamiliar names and acronyms that a partner librarian from outside the state of Tennessee would not necessarily recognize. For example, on-site questions dealing with KUDZU requests would require a partner librarian to establish first what KUDZU is (an expedited interlibrary loan initiative among several southeastern academic libraries) and then how requests for books are tracked and documented for users. Acronyms such as ORNL, TBR, UTSI, and UTMC and our relationship to each of these entities pose no difficulty for a UT librarian. However, a partner would have to decipher the acronym, establish what, if any, connection exists to the University, and then determine which privileges would apply. UT's web pages spell out these relationships, but a partner would have to be willing to take the time to sift through the information. Familiarity in these cases makes a response simple and swift. A partner would find these queries at least moderately difficult to handle.

Overall, policy and procedure questions will pose the least amount of difficulty for a partner library, particularly when care is taken to create detailed policy and procedure web pages.

Holdings

Fifteen percent (*n*=135, Table 1) of the total number of questions focused on the contents of UT Libraries' collections. The holdings category was subdivided into four types: books, serials, UT dissertations, and other (Table 3). Typical questions include the following:

- Does the library have a particular title—book, journal, etc.?
- What materials does the library hold on a certain subject?
- Does the library have this issue/edition?
- Is this title available in a specific format?

Fifty-six holdings questions concerned serials, which included journals, magazines, and newspapers as well as campus telephone directories, UT course catalogs, and other serial titles. Most of these questions could be answered by searching the catalog, but twelve required on-site handling. Some questions revealed problems with UT's periodical subscriptions. Several patrons asked about the University of Tennessee's yearbook, in which case knowing that the title is *The Volunteer* is essential before searching the catalog. Some questions required visual inspection of the shelves to confirm the holdings information due to erroneous or incomplete information in the catalog. A few questions involved determining the availability of specific periodicals found within UT's electronic full-text databases. Unless the partner institution has access to the same databases, these types of holdings questions would be difficult to answer.

Fourteen questions were about theses and dissertations completed at the University of Tennessee. Six questions had to be answered on-site, primarily because the theses and dissertations had not arrived in the library yet or were waiting to be cataloged. When the thesis could not be located in technical services, the next step involved examining commencement programs to determine if the student had actually graduated.

Thirty-seven of the forty questions relating to books in the Libraries' collection could be answered off-site by searching UT's web-based catalog. Only three questions required on-site answering because the catalog did not accurately reflect the status of the item, or the librarian had to use an in-house version of the catalog to search by call number, an option currently not available through the web interface.

The twenty-five holdings questions in the category designated as *Other* had the largest proportion of on-site questions, with seventeen needing someone at UT to answer them. This category included a wide variety of materials such as maps, video and sound recordings, ERIC documents, data sets, and aerial photographs. These items were largely uncataloged and often relied more on manual searching.

Librarians from other institutions could easily answer 72% of the holdings questions with a search of the UT Libraries' online catalog. However, 28% of holdings questions posed problems for three primary reasons:

- The materials were uncataloged.
- Someone physically handled a print resource to answer the question.
- The online catalog did not provide enough information to answer the question

Uncataloged materials and electronic journals will present the biggest challenge to collaboration. Retrospective cataloging may not be a high priority given the constraints on budgets and personnel. Although electronic journals are included in the catalog, publishers and aggregators are constantly changing the content of their online collections, making it difficult to keep holdings information current.

Access

Comprising 16% (*n*=149, Table 1) of the total number of questions received, access questions concerned how to connect—or problems with connections—to the Libraries' electronic resources, such as the catalog, databases, online reserves, and electronic journals and books (Table 4). Forty-eight (32%) of the 149 access questions required on-site handling. They included difficulties with malfunctioning equipment, campus network problems, and disruption of services from vendors. Interesting to note is that many requests for help came from users who were familiar with the resource and could recognize a problem. They typically wanted confirmation of the problem and an estimated time for resolution.

Nine of the twenty-six questions about reserves required on-site help. Examples of the occasional, yet essential, need for local information included knowledge of server problems caused by power outages, familiarity with the organization and location of reserve readings, and awareness of alternatives to make uncooperative files print or play.

The two on-site questions about the catalog dealt with local quirks of the online public access catalog (OPAC) such as the need to ignore the browser's navigation buttons and the ability to troubleshoot error messages. The ten on-site questions concerning electronic books and journals dealt with subscription problems and server downtime.

The twenty-seven questions about databases that required on-site knowledge dealt with subscription problems, changes in vendors, servers being down, and availability of databases among the various UT system libraries. Questions were often variations of, "Why do I get this message?" or "Why can I not get in now?"

Questions that could be easily handled off-site by partner libraries included inquiries about usernames and passwords for accessing the databases, requests for help in finding and viewing online reserves, and questions about searching the catalog. The Libraries' web pages deal well with providing information about reserve readings, passwords, remote access, database licensing restrictions, and services available to remote users; therefore, many of these questions were considered manageable by off-site librarians.

Factual

The investigators divided factual questions into five groupings: the University of Tennessee Libraries, the University of Tennessee, Knoxville and Knox County, Tennessee, and Other (Table 5). Most questions were of the ready-reference type, although not necessarily brief in nature. Other questions served as beginning points for writing assignments or research projects— requests for database recommendations or for help in getting started. Comprising 55% (*n*=501, Table 1) of the total questions, factual constituted the single largest collection of requests.

Factual–UT Libraries. Seventy-two questions (Table 5) concerned the UT Libraries and included queries about the buildings, location of call numbers, location of specific departments, contact information, availability of tutorials, where to make photocopies, cost of printing, and administrative specifics about selected services. Fifty-two of these questions required on-site knowledge.

Twenty-three of the on-site queries came from librarians at other institutions and from information science students. The majority asked for information about the UT Libraries' selection of chat software and our experience with running a chat reference service. Others were curious about the addition of a Starbucks to Hodges Library, history of the Libraries' OPAC implementation, vendor and producer information for databases offered by the UT Libraries, and information on our serials management vendor. Clearly, these questions required firsthand knowledge.

A source of several digital reference requests was locating books in the stacks. Although much effort has gone into providing call letter areas for the stack floors in tutorials and via a web-based stacks locator, this information is difficult to find within the Libraries' web pages.

Surprisingly, 72% (*n*=52, Table 5) of the factual questions about the Libraries required on-site handling. The investigators expected the Libraries' web pages to provide most answers, but much of the information sought was situational ("Is the graduate computer lab open yet?"), experiential ("Are you pleased with your choice of chat software?"), and local to the point that a response required strong familiarity with the buildings ("What is the name of the author whose bust is near the centaur?").

Factual–University of Tennessee. The sixty-two (Table 5) factual questions about the University varied widely but tended to fall into the following groups: people, academic programs, student services, campus computing, sports, and University history and traditions.

Eighteen questions were about people with roughly one-half being designated as on-site. Requests for current contact information were easily answered by the University's web directory and by pages for individual departments. On-site questions required using materials only available locally, such as old yearbooks, student directories, and salary listings.

The University's web pages handled very well the twenty questions about sports, university history and traditions, academic programs, and student services. Referrals were easily discerned for the most part. The three on-site questions required use of in-house resources such as old course catalogs and a published history of the University that would not necessarily be held by a partner library.

The nine requests for help with campus computing included problems with UNIX and e-mail accounts, difficulties with online registration, and confusion related to the University's course management system. The University web pages provided answers for all but three questions; those requiring on-site handling were either worded so vaguely as to make an appropriate referral very difficult or required familiarity with a specific system such as Blackboard.

Of the remaining fifteen University-related questions, the six designated on-site made use of local resources such as University-generated documents or required several phone calls to identify the office or person best able to supply an answer. Examples of on-site requests concerned the number of students who move out of state upon graduation, the percentage of students who commute, and the Nobel Prize winners affiliated with the University.

By and large, the University's web pages did a good job of providing the needed information, particularly when the questions related to the present time such as, "Who is the incoming president of the University?" Vaguely worded questions that required interpretation ("I would like to print out my schedule.") and questions about the past that went beyond the more popular sorts of queries ("Why are the school colors orange and white?") were the ones typically designated on-site.

Factual–Knoxville and Surrounding Area. Of the ten questions (Table 5) about Knoxville and the surrounding area, six required on-site handling or specific knowledge of local resources. Access to historical accounts about Knoxville and resources of limited availability proved essential for this sub-category. On-site questions required finding histories of local place names, information about the 1982 World's Fair, and material written by a local journalist.

The four off-site questions were either easy referrals or were answered using widely available resources. These requests dealt with information about local businesses, Knoxville during the Civil War, and statistical information.

Tennessee. Nine of the thirty-eight questions (Table 5) about Tennessee required special handling, extensive knowledge of local resources, or the use of print or microfilmed materials not widely available outside of the state of Tennessee.

On-site questions included queries about Norris Dam, the family of a Tennessee opera singer, and the history of Tennessee's medical schools. In order to make appropriate referrals in these instances, familiarity with local resources, such as the McClung Collection in the Knox County Public Library and the Tennessee Valley Authority library located in Knoxville, proved advantageous.

The remaining twenty-nine questions about Tennessee were easily referred or were answered using resources that are generally available in most libraries. Common examples of these questions include locations and spellings of names of towns in Tennessee, state data for school funding, school curriculum standards, information about former governors of Tennessee, and existing state laws.

Other Factual Questions. The 319 factual questions (Table 5) falling into the *Other* grouping covered all imaginable topics— everything from the Chinese symbols for the four

seasons to a pediatric height and weight chart. Roughly 97% of the requests for information in this group could be answered potentially by a partner librarian. As expected, the number of questions requiring on-site handling was very low, specifically, nine questions. They most often involved physical consultation of a book in the collection (frequently a book not held by many libraries) or follow-ups to previous questions that would require access to prior e-mail exchanges or chat transcripts.

Included in off-site *Other* were 120 questions from UT students seeking resource recommendations for a particular topic or asking for help with how to begin collecting information for an assignment. Although this type of question certainly has a definite local flavor, the investigators decided not to designate these as on-site. The expectation is that a partner librarian would be willing to provide responses framed in the context of print and electronic resources accessible to UT faculty, staff, and students. Important here is the assumption that a partner would take the time to consult the UT Libraries' catalog, menu of databases, and locally created subject guides. Database selection represented the overwhelming majority of recommendations sought by students (38% of *Other*) and included the single largest grouping of chat exchanges.

Conclusion

With 682 questions (75% of the total) relating to access, holdings, policy and procedures, UT Libraries' databases, and information about the University of Tennessee and surrounding community, the *perception* of local is quite strong. Only 23% of the total number of questions demanded on-site knowledge, expertise, or access to resources held by the UT Libraries. Analysis of the 904 chat and e-mail reference requests did not reveal the expected high percentage of questions that required

exclusive handling or referral by a UT reference librarian.

The results indicate that 77% of the digital reference questions could be handled reasonably effectively by partner librarians at another institution and suggest that the on-site aspect is not strong enough to inhibit collaboration significantly. The 23% that would require on-site handling would more than likely not all arrive on the partner's assigned shifts; there would be some distribution of those on-site questions, making on-site handling less than 23% of the total load.

This study suggests that several factors contribute to successful partnership. To collaborate effectively partners should

- Create well designed and organized web pages with clear navigation and search options
- Become well acquainted with each other's web sites, knowing where to find information about circulation policies, etc.
- Shape answers in terms of the other library's resources and students
- Review questions with the goal of providing information needed by the other library to be made available on a web page or in a knowledge base, a database of reference questions and answers
- Communicate information about thorny class assignments
- Provide status reports on remote access problems.

Collaborative digital reference is not simply a matter of one library turning its chat service off and redirecting users to the next available partner library. Success depends, in large part, on preparation and communication. Only by working closely with each other can participants in collaborative reference ensure that users receive the best service possible—service that retains the local touch.

Table 1. Number of Questions by Type

Category	E-mail	Chat	Total
Policy/Procedures	105	14	119
Holdings	106	29	135
Access	122	27	149
Factual	361	140	501
Total	694	210	904

Table 2. Policy and Procedures Questions

Category	E-mail	Chat	Total
Circulation	38	3	41
Document delivery	39	17	56
Special collections	13	1	14
Collection development	8	0	8
Total	98	21	119

Table 3. Holdings Questions

Sub-Categories	Off-Site	On-Site	Total
Serials	44	12	56
Books	37	3	40
Other	8	17	25
UT Dissertations	8	6	14
Total	97	38	135

Table 4. Access Questions

Sub-Categories	*Off-site*	On-site	Total
Databases	65	27	92
Reserves	17	9	26
E-journals/E-books	11	10	21
Catalog	8	2	10
Total	101	48	149

Table 5. Factual Questions

Sub-Categories	Off-site	On-site	Total
UT Libraries	20	52	72
UT	41	21	62
Knoxville	4	6	10
Tennessee	29	9	38
Other	310	9	319
Total	404	97	501

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Assessment in Libraries: Practical Approaches for Creating a Continuous Assessment Environment

June 2004, Orlando, Florida

SELA is organizing a one-day workshop for academic librarians entitled "Assessment in Libraries: Practical Approaches for Creating a Continuous Assessment Environment", to be held in Orlando, Florida in late June, 2004.

Scheduled presenters Dr. William N. (Bill) Nelson, Professor and Library Director at Augusta State University in Augusta, and Dr. Robert W. (Bob) Fernekes, Information Services Librarian/ Business Information Specialist at Georgia Southern University, have facilitated numerous workshops on implementing the Standards for College Libraries (ACRL, 2000).

As details about the workshop become available, they will be posted to the SELA website: http://sela.lib.ucf.edu/.