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Location-based questions: Types and implications for consortial reference services

Abstract: This paper explores location-based questions asked to a statewide consortial reference service. Literature assumes that non-local librarians would have difficulty responding to questions about places beyond their own library. Based upon the types of questions asked, non-local librarians would benefit from additional local knowledge added to their participating libraries' websites.

Résumé : Cette communication explore les questions géodépendantes posées à un consortium de service de référence offert à l'échelle d'un État. La littérature suppose que les bibliothécaires distants ont plus de difficulté à répondre aux questions non locales. Selon le type de questions posées, les bibliothécaires distants tireraient profit d'un ajout d'information locale sur le site Web des bibliothèques participantes.

1. Introduction

This paper presents results on location-based question types asked in a statewide chat reference consortium. The statewide chat reference consortium used in this study provides reference assistance to all state residents and operates with 115 participating libraries. The service handled 52,071 chat transactions in their last fiscal year 2009/2010. These numbers represent a great deal of growth from the service's first year of service 2003/2004, which received 8,942 questions and included staffing from 76 participating libraries (Ask 2010). The increase in participating libraries in this and many other consortia may be a result of the benefits of pooling digital reference services, which include increased hours of operation, centralized software purchasing and maintenance, and cost savings (Kawakami 2003). Cost savings in times of constricting budgets may cause many libraries to overlook any weaknesses of consortial staffing.

Location-based questions are inquiries that concern a georeferencable site. These questions are asked either about a location (e.g., where can I print?) or about the attributes of a location (e.g., what are the hours of the library?). Although some researchers indicate that these types of questions should be easily answered, these questions may be a weakness in digital reference consortia (Katz 2002). "'Where's the bathroom?'" is a standard directional question at reference desks and although no user is likely to ask for the location of the bathroom online, the types of location-based questions asked to this chat service may receive similarly simple questions such as 'What are the library's hours?' and 'How do I renew a book?'" that are not as easy to answer from a distance (Pomerantz 2005, 1296). All digital reference, but especially consortia with many participating libraries create new problems in responding to location-based questions because unlike face-to-face (f2f) interactions, librarians and users no longer occupy the same physical space and any assumptions about geography are eliminated (Berry Casado and Dixon 2003; Bishop and Torrence 2007; Hyde and Tucker-Raymond 2006; Kwon 2007; Sears 2001). The purpose of this paper is to provide findings on the types of location-based questions asked to

the service. The value of knowing the types of questions asked allows the service to inform librarian training and also build a knowledge base of FAQ for scripted responses or lead to the development of a location-based mobile applications.

2. Literature Review

Findings from previous studies addressing location-based questions vary considerably in the percentage of location-based questions because of the differing types of participating libraries analyzed and varying definitions of location-based questions (Berry, Casado, and Dixon, 2003; Bishop and Torrence, 2006; Hyde and Tucker-Raymond, 2006; Kwon, 2007; Sears, 2001). Due to these differences, a meaningful meta-analysis of results is not possible.

Three of the location-based studies cited were of stand-alone academic library chat services that were considering membership in chat reference consortia due to the consortial benefits recounted previously in this paper (Berry, Casado, and Dixon, 2003; Bishop and Torrence, 2006; Sears, 2001). These three academic libraries assumed that users would ask location-based questions about their home institution and librarians unfamiliar with the user's library, university, and surrounding geography would fail to provide satisfactory service. Two other studies, one of a regional public library consortium and one of a statewide multi-type library consortium, defined location-based questions as those referencing the library as the location (Hyde and Tucker-Raymond, 2006; Kwon, 2007). Collectively the five studies found an average of 20.5 percent of questions asked were location-based questions. Unfortunately, these studies did not go beyond the quantitative percentages and did not explore the types of questions asked.

3. Methodology

To address this lack of knowledge of the types of location-based questions, this study developed a codebook and protocol from a pilot study of ten percent of all chat transcripts occurring during two months in the statewide chat reference consortium. These months were used because the chat consortium usually deletes transcripts at the end of each month to protect users' privacy; however, the chat consortium manager made an exception for this study and saved two months of data. To address interrater reliability, the researcher recruited and trained three external coders for two hours and had them code 30 randomly selected transcripts using the protocol from content analysis and a codebook for question types. Coded material was compared across coders and an acceptable Krippendorff's alpha of .8108 was obtained. To address issues related to intrarater reliability, the researcher coded 30 randomly selected transcripts using the protocol from content analysis twice, allowing one month to pass between coding, in order to ensure intrarater reliability over time. The researcher obtained an acceptable Cohen's kappa of .860. With results from these reliability testings, the researcher proceeded to code the two months of transcripts (7,021 chat transcripts).

Content analysis included removing unusable chat transcripts and copying usable chat transcripts into Microsoft Word. Unusable transcripts included transcripts used for system tests, trainings, or

librarian-to-librarian communications, as defined by Pomerantz, Luo, and McClure (2006). After removal of unusable transcripts and copying of usable transcripts into Microsoft Word, the remaining question transcripts provided the data for coding the types of location-based questions based upon the codebook and protocol.

4. Findings

Findings indicated that the types of location-based questions were all about the attributes of a location. Therefore, none were directional questions (e.g., how to get somewhere?) and all concerned either *geography* or *attribute of geography* questions. *Geography* location-based questions were those about the location of a place (i.e., latitude and longitude) or concerned the physical relation of a location to another location (e.g., where is Darfur?). These types of questions were asked infrequently and the majority of location-based questions concerned an *attribute of geography*. Due to the large number of *attribute of geography* questions, the researcher subdivided these questions into those concerning the places asked about the most—*libraries*, *universities*, and *other* locations.

The *library* and *university* location-based questions concerned the attributes of a library or university. The *other* attribute of geography questions concerned the attributes of an assortment of other places, ranging from Ancient Rome to Yosemite National Park. The *library* type questions are discussed further because they are asked the most and also lend themselves more to the provision of scripted responses or the development of location-based mobile applications, as they relate to the libraries participating in this consortium. The *library* questions were by far the most frequently asked location-based questions (i.e., 78.3 percent of the location-based questions asked concerned a library). Table 1 provides a list of the twelve most asked *library* questions, from most to least frequency.

Question type	Definition
<i>circulation policies</i>	Questions concerned circulation policies (e.g., check-out limit, fines, renewals, requests, placing a hold, and so forth).
<i>find a physical item</i>	Questions concerned locating either a specific physical item or a physical item at a particular library (e.g., book, article, DVD, image, course catalog, and so forth). Digital items do not retain a georeferencable location unto themselves. Therefore, websites and e-resources were not counted as location-based question transcripts or location-based questions.
<i>log-in</i>	Questions concerned logging in to a particular library's databases, catalog, or library account.
<i>library card</i>	Questions concerned library cards (e.g., obtaining a card, canceling a card, reactivating a card, lost cards, and anything related to the physical card).

Table 1. Types of library location-based questions (continues).

Question type	Definition
<i>library services</i>	Questions concerned specific library services unrelated to other types (e.g., printing, copying and faxing services, education, and so forth).
<i>hours</i>	Questions concerned library hours of operation.
<i>problems</i>	Questions concerned users reporting problems at particular libraries unrelated to other categories (e.g., the catalog, database, or website down, noisy library users, and so forth).
<i>employment</i>	Questions concerned employment at a particular library, including volunteering.
<i>library location</i>	Questions concerned the physical location of a particular library building.
<i>staff contact information</i>	Questions concerned contacting individual staff at a particular library.
<i>inside library location</i>	Questions concerned a physical location inside a particular library.
<i>collection development</i>	Questions concerned a library's collection development policies.

Table 1. Types of library location-based questions (continued).

These most frequently asked types of *library* location-based questions require users and librarians to access local knowledge for a correct response. Although these may appear to be simple questions, users are asking them frequently via chat. Therefore, these question types would benefit from scripted responses and the local knowledge required to provide responses to them via participating libraries' websites. Future studies will assess question-negotiation of location-based questions, frequency of location-based questions, and accuracy of responses to location-based questions.

5. Conclusion

The findings imply that users ask *library* types of questions in part because answers to these seemingly simple questions are difficult for users to find online. Therefore, participating libraries should take several steps to improve dissemination of local knowledge on their websites. The library website serves as a virtual branch for these libraries and for that reason the website needs to provide content to make answering location-based questions easy for both users and non-local librarians. In this study's consortium, participating libraries also have begun providing the local knowledge to answer these types of questions in a knowledge base for the service and this may be a solution for other consortia (Bishop, Sachs-Silveria, and Avet 2010). The primary implication of this study on consortial reference services is for libraries to improve the dissemination of their local knowledge to help answer the location-based questions users actually ask in digital reference.

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