Kathleen A. Monahan. "can i h3lp u?": Analyzing Chat Reference Questions in a Special Collections Library. A Master's Paper for the M.S. in L.S degree. May 2015. 49 pages. Advisor: Claudia Gollop.

This study examines the types of questions asked via chat reference in a special collections library at a public university. Examining a year of chat transcripts (115 transcripts in total), this study categorized questions as research, ready reference, directional, policy and procedural, holdings/do you own, and reproduction requests. It also examined whether questions asked via chat were answered entirely within the chat conversation or if the staff referred the patron to email in order to answer the question at a later time. The study found that 36.7% of total questions were research questions and that 45% of questions were answered completely in chat while 55% were referred to email.

Headings:

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"CAN I H3LP U?" ANALYZING CHAT REFERENCE QUESTIONS IN A SPECIAL
COLLECTIONS LIBRARY
by
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of the School of Information and Library Science
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Table of Contents

Introduction

In a world where people can use chat services to gain help online with their banking, shopping, and technology difficulties, the use of chat has become an expected part of offering public service to potential users. Being able to ask simple questions and to get immediate responses through the use of some sort of instant message service on a website has become a fairly standard customer service offering in a variety of commercial and public institutions. Libraries are no strangers to this trend. Academic libraries have been especially open to embracing this new platform for service, with many libraries offering chat reference twenty four hours a day for users who are not in the building or do not want to physically approach the reference desk. A recent nationwide survey of public and academic libraries found roughly 72% of libraries offered virtual reference (Chow et al, 2014).

Not all types of libraries have equally embraced these new technological mediums, however. While academic libraries have been leading the charge- in both implementation of chat as well as publishing articles and conducting studies on the use of chat in academic libraries- public libraries have been following along as well. Special collection libraries and repositories, however, have by and large remained wary of using chat as an effective medium for providing reference services to their users, as evidenced by an informal survey of special collections and repositories websites as well as the lack of professional discussion and literature on the use of chat in reference.

The Rare Books and Manuscripts Section (RBMS) of the Association of College and Research Libraries (ACRL) defines a special collection library as "a library, or an administrative unit (such as a department) of a larger library, devoted to collecting, organizing, preserving, and describing special collections materials and making them accessible" and elaborates further that special collections materials include "the entire range of textual, graphic and artifact primary sources in analog and digital formats, including printed books, manuscripts, photographs, maps, artworks and audio-visual materials, and realia" (RBMS). The Society of American Archivists defines a repository as "any type of organization that holds documents, including business, institution, and government archives, manuscript collections, libraries, museums, and historical societies, and in any form, including manuscripts, photographs, moving image and sound materials, and their electronic equivalents" (SAA Glossary).

Both special collection libraries and archival repositories (referred to throughout this paper jointly as special collections) deal with primary sources, frequently in very narrow subject areas. Because of this, there is a general thought among many special collections librarians that they only deal with in-depth and complex research questions and do not have the same trend of directional or quick factual questions that reference librarians in academic and public libraries frequently answer.   A fair number of reference questions in academic or public libraries are "ready reference" questions, that is questions that can be answered with a single, straightforward answer that can be found without undue difficulty in a standard reference source (Katz, 2002). However, due to the unique nature of their materials as well as the difference in the typical background of users between a special collection library and an academic or public library, special collection

librarians generally argue that their reference questions are more likely to be research questions, that is an inquiry which requires a large amount of detailed information to assist in a specific work (Katz, 2002).

This perceived difference has affected how special collection librarians handle reference questions as opposed to academic librarians. While academic libraries have embraced chat as a way to be open to users and to handle reference inquiries, special collection librarians want time to delve into thorough searches for their patrons, and therefore attempt to relegate reference queries to email or letter format.

However, access to information and resources in libraries is an essential part of the mission of special collections and repositories. Both the American Library Association (under which RBMS falls) and the Society of American Archivists list access as one of their core values (ALA, SAA Values). As part of a continuing commitment to access and outreach to all users, offering services on different technological mediums, such as chat, should be researched and discussed to determine whether it is an effective way to provide information and access to resources.

Academic libraries have extensively studied and discussed the use of chat in reference services. There is a wide body of literature on offering chat reference services in academic libraries. Discussions have included studies on different chat services (e.g., Francoeur, 2001; White, 2001), types of user interaction on chat (e.g. Houlson et al., 2006; Rawson et al, 2013), as well as examples of how to evaluate librarians' chat reference services (e.g. Luo, 2007; Radford et al, 2013), and how users perceive chat reference services (e.g. Koshik et al., 2012; Ward, 2005; Stoffel and Tucker, 2004). Based on these, and other studies and discussions, academic libraries have largely

decided that chat reference is an effective tool that provides their users with a valuable service in offering reference to those who may not want or be able to directly approach the reference librarians in person.

Special collections, on the other hand, do not have the same breadth of research when it comes to handling email or chat reference. While some special collections do offer chat reference services, there has been little to no published discussion on the effectiveness of these services in special collection libraries. Therefore, this paper is intended to begin to fill in this gap in special collections literature with a case study of how chat reference is used in one special collections library.

This paper aims to analyze the types of reference questions received over email and chat for a special collection library associated with a public university in North Carolina. By analyzing what types of questions are whether there are enough directional or quickly answered questions that would merit continuing to use chat in special collections.

If the overwhelming majority of inquiries received via chat and email are, in fact, in-depth research questions which require too much time for staff to be able to answer in the more immediate timeframe of a chat reference interview, then it is not efficient for special collection libraries to attempt to offer chat reference services. In the same vein, if the vast majority of chat reference questions must be followed up via an email consultation, then chat is the not the most effective medium with which special collection librarians could conduct reference interviews.

If, however, most questions asked in chat can be answered in chat, then perhaps special collections should more aggressively pursue chat as an outreach platform.

Furthermore, if a significant percentage of the questions asked via email contain more readily answered questions that could have been answered via chat, then perhaps a better advertisement of the chat services would be in order for special collections.

By conducting a case study on how one special collection uses chat reference, and what types of reference questions get answered over both chat and email, this study hopes to offer a suggestion on whether special collection libraries could, in fact, be well suited for offering chat reference services in addition to the already common in person and email reference services.

Literature Review

A review of past scholarship on providing reference services, and particularly providing these services through email or chat provides a broader context for this study. This review looks at a definition of virtual reference as well as definitions of types of reference questions. Studies of reference services using chat and using email in academic libraries are reviewed, as well as scholarship studying providing reference services in a special collections environment. The combination of these articles creates a context of what types of reference questions are typically asked in remote reference in academic libraries and the differences of a special collections which may result in different types of questions being asked.

Types of Virtual Reference

In the past twenty years, virtual reference has become an increasingly important part of library services. The Reference and User Services Association 2008), a division of the American Library Association, defines virtual reference as:

> a reference service initiated electronically, often in real-time, where patrons employ computers or other Internet technology to communicate with reference staff, without being physically present. Communication channels used frequently in virtual reference include chat, videoconferencing, Voice over IP, email, and instant messaging.

They further define a reference transaction or service as:

> Information consultations in which library staff recommend, interpret, evaluate, and/or use information resources to help others to meet particular information needs. Reference transactions do not include formal instruction or exchanges that provide assistance with locations, schedules, equipment, supplies, or policy statements (Reference and

User Services Association (RUSA) 2008).

Libraries have begun offering increasingly prominent virtual reference services because of their continuing importance to users and to library services. For one, library patrons are increasingly already active internet users. Virtual reference is also a way to reach patrons who may not be amenable to more traditional library services. Furthermore, virtual reference is essential if libraries wish to remain competitive in the information world and to continue to provide quality reference services (Bridgewater & Cole, 2009).

Chat is an essential part of virtual reference. Some literature makes distinctions between web-based client chats and instant messaging services used by libraries. However, this paper will refer to both services jointly as chat. Both web-based chat and instant messaging fulfill the distinctions made by Bridgewater and Cole (2009): that is, they are "an internet service that allows users to communicate with one another directly in real time." (27). They also follow Kern's (2009) distinguishing characteristics of being synchronous or live service which operate in real-time and are made through an electronic medium, generally by users typing words from one computer to another rather than using voice or video feed.

Email is the oldest of the virtual reference tools, and the most prevalent. It is an asynchronous service in which a user sends a message to a librarian who may or may not be online at the same time (Kern, 2009). Questions may be submitted at any time, and they are answered when the library staff have the resources available to answer them, which allows for an easier scheduling of resources.

The asynchrony of the service means there is more time for thought before answering the question, and it is easier to direct questions to the person who is best suited to answer the question, rather than simply the person who happens to be staffing the reference desk or chat system at the time (Bopp & Smith, 2011). However, this also makes the reference interview and an exchange of questions and information from both the librarian and the user difficult (Lankes et al., 2000). The advantage of chat is that the librarian may exchange questions and information back and forth with the user, therefore conducing the reference interview in real time without needing the waiting time associated with email (Bopp & Smith, 2011).

Types of Reference Questions

While there have been various attempts to categorize the types of reference questions asked in a library setting (e.g. Bopp & Smith, 2011; Cassel, 2011; and Katz, 2002), there is a strong pattern of recurring reference question categories. While almost any reference textbook provides a slightly different categorization scheme, most questions can be defined as directional, ready reference, specific search, research, bibliographic verification, policy & procedural, holdings, and readers' advisory.

Ready reference questions are included in most categorization of types of questions. Cassel (2011) defines these as simply questions that can be promptly answered with consultation of one or two general reference sources. Katz (2002) describes ready reference questions as those in which the librarian must supply only one, uncomplicated answer. Bopp and Smith (2011) and Arnold and Kaske (2005) also include ready reference questions, and define them as simple questions that may be answered easily with one or two typical reference sources.

Research questions are more complex than ready reference questions. They take longer to answer and frequently involve consulting or suggesting a number of sources. Often the user has to take in multiple viewpoints and draw his or her own conclusions (Cassel, 2011). Bopp and Smith (2011) define research questions as those in which the librarian suggests sources, terms, and directions for searching for further information rather than directly answering a question. Katz (2002) makes a distinction between specific search questions- which follow Bopp and Smith's definition of a research question in which the user requires a list of citations, books, reports, or other resources in order to answer a specific inquiry- and research questions. Katz's definition of research questions is closer to Cassel's, in that a specialist needs detailed information and/or a complex answer to aid a specific work or project. For the purposes of this study, both Katz's specific search questions and research questions present the same problems for chat reference- that is, they are too complex and time consuming to fully answer via chat- so both categories will be put together as "research questions" to follow Bopp and Smith's and Cassel's examples.

Bibliographic verification questions are those in which a user needs assistance in checking the source of a known answer to a question or fleshing out incomplete citations (Bopp & Smith, 2011). Cassel (2011) also includes bibliographic verifications as a category and defines it as when a user already has the information needed to answer his or he question but needs assistance in checking the original source of the information.

The nature of special collections research creates some complications with this category. Inquiries on preferred citations of special collections material are quite common, as citation format may vary from institution to institution. These inquiries

however, are easily answered by the librarian checking the institution's preferred citation format, and so are best classified as ready reference to keep with the time and effort it takes to answer those questions. Verifying incomplete citations, however, is extremely complicated in special collections. It may involve a patron needing to go back through an entire collection in order to find the appropriate folder. The amount of time and aid that is needed in order to check a citation in special collections means this best falls as a research question in order to reflect the time and effort needed. This sharp split in types of bibliographic verification in special collections means this study classified these questions as ready reference or research and did not use the bibliographic verification category in order to prevent confusion.

Library patrons frequently ask the reference staff questions that may not involve knowledge of reference materials or searching skills. These questions, while not necessarily "reference" questions, are included because reference staff have a duty to address almost any question asked to them. Furthermore, these non-reference questions can frequently be answered quickly and with short answers, making them ideal for chat. Therefore, the following categories of questions are also included in this study.

Katz (2002) defines directional questions as those in which the librarian only has to supply geographic knowledge of major locations within the library or town. Arnold and Kaske (2005) also included directional questions as a category in their study. There have been a number of studies addressing answering directional questions in collaborative chat reference services (e.g. Bishop, 2011 & 2012; Hall, 2008; Kwon, 2007). These studies show that directional questions are well-suited for chat, even though this may involve more staff training when the librarians answering chat do not

work in the library from which the chat is originating and may not have first-hand knowledge of where places or items are in the library.

Arnold and Kaske (2005) also included policy and procedural questions as well as holdings/do you own questions in their study of types of reference questions. They defined policy and procedural question as "questions pertaining to policies and procedures within the library system … Most of these questions begin with 'How do I'" (180). Holdings/do you own questions are questions in which the patron normally has the name or some information on an item (book, journal, video etc) and would like to know if a particular library owns this item.

Bopp and Smith (2011) also included readers' advisory questions and interlibrary loan/ document delivery questions in their categorization. Readers' advisory- in which patrons seek advice on which book he or she should read, based on patron's interest rather than a specific research need- are almost exclusively found in public and school libraries and are therefore excluded from this study. Interlibrary loan and document delivery questions- in which the patron needs assistance in obtaining a known item which is not currently held in the patron's home library- will be replaced by reproduction requests for this study. Because special collection libraries typically do not circulate their material, interlibrary loan inquiries do not apply. However, many patrons who wish to see material held only in a special collection but cannot travel to the library will request copies of books or manuscripts to be sent to them. Therefore reproduction requests will be adapted as category in place of interlibrary loan questions.

Reference Questions in Chat

Studies have previously been conducted on the type of reference questions asked in chat. Bishop (2012) studied 7021 chat transcripts from October- November 2008 at an academic library. Houlson et al. (2006) studied 631 chat transcripts from 2003-2004 at the University of Minnesota Libraries- Twin Cities campus. Bravender et al. (2011) studied 1557 chat transcripts at Grand Valley State University Libraries between 2008 and 2009. Arnold and Kaske (2005) categorized 357 transcripts at the University of Maryland. Kwon (2007) studied chat transcripts at a public library.

A number of these studies found non-research questions were prevalent among the questions asked via chat. Houlson et al. (2006) found that only 17% of chat reference questions asked by undergraduates needed in-depth reference assistance. When the analysis was expanded to all types of patrons, not just undergraduates, the percentage only increased to 20%. Bravender et al. (2011) found only 23.3% of questions were research questions. Arnold and Kaske (2005) separated research questions and specific search questions, but still found research questions to be 3.2% of questions and specific search 19.66%, making the total research questions to be roughly 23% of questions. Kwon (2007) found only 25.8% of questions in a public library were subject-based research questions. Ross (2009), however, argues that while subject search only made up 32% of all questions in a study of 500,000 QuestionPoint chat transcripts, this was still the most common question type.

Ready reference questions accounted for 35.5% of questions in Bravender et al.'s (2011) study. Arnold and Kaske (2005) found 14% of questions were ready reference

while Kwon (2007) found that only 9.6% of questions in a public library were factual or ready reference questions.

A significant portion of questions asked in chat were non-reference questions. Bishop (2012) found 40% were location based questions, that is directional or policy and procedural questions that would be specific to an individual library. Bravender et al. (2011) categorized 33.5% of questions as directional, technical, or policy and a further 7.7% as citation formatting, totaling roughly 41% of all questions. Arnold and Kaske (2005) found 6% of questions were directional, 41% were policy and procedural, and 16% were holdings/do you own. This brings the non-reference questions to be 63% of the total questions asked. Kwon (2007) similarly found that 8.9% of questions were concerning accessing resources, 48.9% asked about circulation of items, and 6.8% were location questions, resulting in a total of 65.6% of questions categorized as non-reference.

Even though ready reference questions are categorized as reference questions, they are easily answered and well-suited for the quick interactions of chat in the same way that the non-reference questions are also well suited for chat. Therefore, this study focuses more on the percentage of non-research questions versus research questions asked in chat rather than the percentage of reference questions versus non-reference questions.[1] With this distinction in mind, Table 1 (below) summarizes the key results of the previous studies of question types asked via chat.

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[1] A discussion of suitability of research questions to chat reference services, both in academic libraries and special collections, can be found further in this literature review.

Table 1: Previous studies and results

Study	Setting	Type of Question Found
Houlson et al (2006)	Academic Library	80% non-research
Bravender et al (2011)	Academic Library	76.7% non-research
Arnold and Kaske (2005)	Academic Library	77% non-research
Kwon (2007)	Public Library	74.2% non-research

Reference Questions in Email

Studies have also been conducted on the use of email in reference transactions. Braxton and Brunsdale (2004) examined 69 email reference questions in an academic library. Diamond and Pease (2001) studied 450 email questions submitted to an academic library between 1997 and 1999.

These studies found reference questions were fairly common in email. Braxton and Brunsdale (2004) determined that 45 of the 69 email questions were reference questions, while the remaining 24 were about access services. Of the 45 reference questions, 21 (that is, 30% of the total number of questions) involved in-depth answers, offering instruction to the patron on choosing, finding, and using appropriate services. Diamond and Pease's (2001) study found that questions which involved consulting common reference sources was the largest category of questions, though it only accounted for 22% of total questions. The next two question categories were help getting started on a research topic and specific questions requiring a factual answer but were not ready reference- both of which required more than one simple answer in response and accounted for a combined 28% of questions.

Chat vs. Email

The various studies of chat and email found that the majority of questions asked via chat are non-reference questions, that is directional, policy and procedural, or

holdings questions, while the majority of questions asked via email were reference questions- either ready reference or research questions. One study which compared the types of questions asked in both chat and email, however, at an online academic library service found that both chat and email had roughly 19% of inquiries be research or reference questions. The difference in the types of questions between the mediums was users were more likely to ask questions about accessing databases via chat (43% of inquiries in chat while only 26% of inquiries via email), while users were more likely to ask questions about bibliographic verification or administrative matters via email (Lee, 2004).

Lee (2004) notes that chat could be chosen by users depending on the immediacy of the question- if a question needs an answer right away, such as help accessing a database, she may choose to contact a librarian via chat. This is similar to the finding of Ward's (2004) study of users' reason for using chat at Indiana University. There, both undergraduates and graduate students ranked quick response time as their top motivation for choosing to contact the library via chat. Furthermore, undergraduates largely found that chat was an appropriate medium for all types of questions- with "help with research" and "finding specific books or articles" ranked as their top reasons for using chat. Graduate students, meanwhile, tended to see chat as a resource for finding quick facts or locating specific items rather than in-depth research consultations.

Studies of librarians' views on appropriate questions for chat and email are mixed. Janes (2002) surveyed a number of reference librarians in both academic and public libraries on their opinions of providing digital reference. He found that librarians thought digital reference was best suited for ready reference questions, while research

questions were thought to be the worst questions for digital reference. Detailed, research

question were the only category of question to receive a negative percentage in "how well

digital reference serves various kinds of questions" and ranked below personal or private

questions and below questions from children.

Janes' study, however, conflicts with the findings of Wikoff's (2008) study on

reasons chat reference interviews were deferred to email at NCKnows. Of the 210

referrals studied, the most common reason (at 56 interviews and 27% of the time) for

handing off the interview to email was simply the librarian was busy helping other users.

Only 17 interviews (8% of cases studied) were handed off to email because the librarian

wanted more time to research the question before answering the patron, and only four

interviews were sent to email because the library wanted to consult resources which he or

she could not access while on chat with the patron. If chat is so ill-suited for detailed

research questions, one would expect the number of referrals to email due to needing

more time or resources would be a much more prominent percentage of handoffs. This

follows Ross's (2009) argument that chat should not be equated with telephone reference

interviews. She argues:

> There's a good reason to restrict telephone reference to ready-reference
> questions that can be answered over the phone with a short answer.
> However, in the web environment you have far more options for
> providing answers including providing URLs and appending whole
> electronic documents. So why limit our service to ready reference?

While Ross argues for more research questions in chat reference, this may not be

as possible in special collections libraries, which are much less likely to have questions

which can be easily answered with URLs and electronic documents, as Ross suggests

occurs in academic libraries. However, if a large percentage of questions asked via chat

related to non-research questions, as the various studies suggest, special collections could also use chat to answer users' directional, policy and procedural, holdings, and reproduction questions.

Reference in Special Collections

There has been little discussion of email reference in a special collections setting, and none of chat reference in special collections. Duff and Johnson (2001) conducted one of the few studies of email reference in a special collection. After reviewing email reference questions submitted by provincial, federal, university, city and special archives, they found that open-ended questions compromised of 23% of total questions: 13% were user education while 10% were consultations. The other 77% of answers were more closed questions such as service requests, material-finding, administrative/directional, fact-finding, specific form, and known item.

Reference in special collections has some notable differences than in public or academic libraries. Pugh (2005), in her seminal work on offering reference services in archives, argues that no matter the question type, many users are unfamiliar with archives and archival research and therefore depend on the reference librarian or archivist in conceptualizing research, finding relevant materials, devising search strategies, reading handwriting, understanding abbreviations and archival notation, and interpreting context of records.

O'Donnell (2000) argues "a reference archivist stands as a mediator between the user and the source material in a much more central way than a librarian does" (112). This role of mediator is both metaphorical, as the reference archivist must explain more about format and context of the records than is typical in academic libraries or the rare

book librarian must explain more about the edition and publishing process than in a public library, and is also a physical mediator as patrons must go through a reference librarian to gain access to materials rather than entering directly into the stacks.

O'Donnell also argues that seemingly simple ready reference questions in special collections frequently involve much more in-depth research since the materials are not necessarily indexed or arranged in an easily-accessed format as other library resources are. Perry (2011), in her article about transitioning from academic reference to special collections reference, found that the frequency of seemingly ready reference questions which involved in-depth research was more common in special collections than academic libraries.

This concept that special collection users need more guidance and interpretation of materials from the reference librarian has caused many librarians and archivists to believe that special collection reference is too complicated and lengthy to take place via chat. Furthermore, most academic reference description of chat involve showing users online databases or finding items in online catalogs. Since archives and special collections often do not have the same breadth of digital resources (though this is slowly changing in the wake of large digitization efforts and born-digital records), they feel chat is not effective as they cannot quickly send URLs via chat.

Research Purposes

This paper will address the gap in the literature relating to the use of chat in a special collections setting. By replicating studies of the types of question asked via chat in academic libraries to a special collection setting, it will evaluate whether or not chat appears to be effective as a reference tool in special collections. While there are

arguments for answering research questions via chat, this paper will not address that issue. Instead, it will evaluate the types of question asked in a special collections chat to see if there are noticeable percentage of non-reference or ready reference questions which can be quickly answered via chat, as has been found in most academic libraries.

Because reference in special collections is so integral to the operation of the library, chat could be a good medium to answer the many policy and procedural questions- not only such normal library questions as what the operating hours are, but what researchers are allowed to bring into the reading room, whether requests need to be made in advance of the researcher's arrival, how to make such requests, what registration is required, whether photography or scanning of books or documents is allowed, how often items are pulled from the stacks, and other similar procedural questions which special collection reference librarians answer in person, via phone, and via email on a regular basis. Similarly, chat could be a good venue for asking questions about how to read a finding aid, whether a collection is open to researchers, how large a particular collection is, where a particular rare book was published, and other very basic questions which a reference librarian could easily answer after checking a finding aid or catalog record.

This study will look at how chats are currently handled at a special collection library and answer the questions:

- What types of questions are asked via chat?
- What types of questions are asked via email and how does that compare to questions asked in chat?
- How often are chat reference questions referred to email to answer the

question?

Methods

This study employed mixed methods, involving both quantitative and qualitative approaches, to examine reference questions in special collections. The purpose of this study was to evaluate the viability of chat reference as a tool in a special collections environment. It examined if special collections primarily receive research questions that are best handled by email, or if they receive enough ready reference, directional, policy and procedures, holdings, and reproduction requests which merit support for using chat as a reference medium. The content of chat and email transcripts from Wilson Special Collections Library at the University of North Carolina at Chapel Hill was analyzed for the type of research question. Transcripts of chats and emails submitted by researchers were categorized by type of question: research, ready reference, directional, policy and procedural, holdings/do you own, or reproduction requests. Chats were further analyzed to determine if the questions were answered within the chat itself or referred to email. In addition, interviews with academic librarians who oversee chat within the entire library system and train students to answer chat inquiries were conducted to determine how often chats pertaining to special collections were answered by other librarians.

The chat transcripts were analyzed using quantitative content analysis. Wildemuth (2009) distinguishes quantitative content analysis from qualitative content analysis by the characteristics of using the data to answer a fixed question, utilizing a coding framework which is finalized before the coding begins, and creating results which are "numerical, statistically manipulable, and often generalizable" (298). While there are

further opportunities for other approaches to this subject, this study has chosen to do a content analysis of one institution's chat reference as a case study that could be replicated in other institutions in order to conduct a close examination of the reality behind the myth that special collections only receive complex research questions.

The interviews conducted with librarians as a supplement to the content analysis of chat transcripts were the qualitative portion of this study. These interviews were then transcribed and the information was used to supplement the transcripts, primarily as a tool to gather information on the limits of the study. Because these interviews were seen as supplementary to the central research question, they were not encoded and did not undergo content analysis.

Context of the Study

Wilson Library is a large special collections library that houses the North Carolina Collection, the Rare Book Collection, the Southern Historical Collection, University Archives, and the Southern Folklike Collection. These units cover a wide diversity in timespan, format, and geographic areas in their holdings.

The Research and Instruction staff at Wilson Library take reference questions by email, phone, chat, and in person. The vast majority of their remote reference questions are submitted via email. The chat medium is less prominent, with most chat inquiries referred to them when a user begins chatting with a Research and Instruction staff at the academic libraries at UNC-CH and then is transferred to Wilson Library. This may be in large part because the main "chat with a librarian" button on the library homepage goes directly to the academic library and the chat button is not prominent on the Wilson homepage.

Transcripts of all chat sessions are saved within the LibraryH3lp system by the queue in which they were directed (that is, sorted by which library staff answered the question).

Data Collection

Chat and email transcripts from the 2013/2014 fiscal year, which ran from July 2013 through June 2014, were captured and examined for this study. Wilson Library's homepage changed in September 2014, so in order to remove any possible effects this change in website might have had on users choosing chat or email to submit a question, this study will only looked at questions submitted with the old website.

115 chat transcripts were placed in a queue to be answered by a special collections staff member during this time period. Of those 115 emails, 6 chat transcripts were never answered by a staff member and did not include a question; these were excluded from this study for insufficient information. Four more chats were not answered by a staff member but the patron clearly stated their question, so were still included in the study, leaving a sample of 109 transcripts.

Roughly 6000 emails were answered that year as well. A systematic sample of every 80 emails was taken for this email. A random number generator was used to determine the sample would start on the 29th email. In email chains that included multiple messages from the patron and staff, only the initial email from the patron was included in the sample. If an email selected was not a question from a patron but instead an internal staff memo, the email directly before that one was included in the sample. In total, 74 emails were part of this sample. All chat transcripts and emails were stripped of identifiable information by library staff before being included in this study.

Category Definitions

Each transcript or email included in the study was read and placed in one of the reference categories: research, ready reference, directional, policy and procedural, holdings/do you own, and reproduction requests. The first five categories were used in Arnold and Kaske's (2005) study of types of reference questions, which they originally modified from Katz's (2002) classification of research questions for their study.

- *Research questions* are those in which the user is looking for a detailed answer or a potential list of sources for a complex question which would require referring to and compiling multiple sources. Questions such as "How do I research my great great grandfather and find the names of his parents?" or even seemingly simple questions such as "When did Pittsboro get telegraphs?" are research questions.

- *Ready reference* questions are those which can be given a short answer based on referring to one or two standard reference sources. Questions such as "When was *Leaves of Grass* first published?" or "When did UNC first open?" are ready reference questions.

- *Directional* questions are those questions concerning navigating to the physical library or within the physical library. Questions such as "What is the mailing address for Wilson Library" or "Which reading room do I go to?" are samples of directional questions.

- *Policy and procedural* questions are any questions about using Wilson Library. Sample questions include "Can I view the Hogan papers?", "How do I register and request items?" or even "When are you open?".

- *Holdings/do you own* questions are those questions concerning identifying

  material in the library. Questions include "Do you have a map of the Old

  Chapel Hill cemetery?" and "Have the Sam Irwin papers been digitized?"

- *Reproduction requests*, an additional category, is an alteration of Bopp and

  Smith's (2011) category of "interlibrary loan/document delivery" to reflect the

  special collections environment in which many users need access to an item

  they cannot get through interlibrary loan but are unable to travel to the

  institution to use.

Data Encoding

Each of the categories was assigned a numeric value. Research questions were

number 0, ready reference 1, going in order until reproduction requests were number 5.

An initial sample of 14 chats- every 7th chat starting with the third- was categorized by

two separate coders to test for inter-code reliability. One chat was never answered by a

staff member and therefore was thrown out. Of the 13 chats remaining, the coders had

the same answer on 11 out of 13, reaching an 85% consensus. Of the two questions

which received different answers, one started as a holdings questions and then merged

into a research questions, and the coders had different opinions on which one was

considered the "main question" if a chat had two questions. As the second coder had been

instructed to code for what she considered to be the "main question" in a chat containing

multiple questions, it was decided that this instruction was too ambiguous to result in

consistent coding. As a result of this, it was decided that in a chat containing multiple

types of questions, the chat would be coded by the first question asked.

The second difference was with a chat in which the patron was objecting to an exhibit in front of the library and wanted to know who they should register their complaints with. In this inquiry, the coders could not reach a consensus was to whether this qualified as a policy question or a ready reference question. However, as this was a fairly unusual question, they felt this confusion was unlikely to impact the rest of the coding.

The rest of the chat transcripts and email transcripts were coded into the established reference categories. The chat transcripts were then evaluated a second time to code whether the question was answered in the chat session or referred to email.

Interviews

There was some concern that many directional and ready reference questions were answered by staff elsewhere in the UNC library system and never referred to Wilson library. In order to gather an idea of how many and what types of chats were excluded from this study, two interviews were conducted with three librarians from other librarians on campus. One interview was conducted with the librarian who oversees chat reference for all the libraries across the UNC-Chapel Hill campus, and a second interview was conducted with the two librarians who are responsible for training the student reference assistants at the two main librarians on campus. The second interview as conducted with two librarians together as they conduct all training sessions together and felt this would more accurately simulate the information and dynamic imparted while training the assistants. (See Appendix A for interview guide._

Results

Following the categories defined in the previous section, the chat transcripts were classified as seen in Table 2.

Table 2: Chat transcript results

Type of Question	Number of Chats	Percentage of Total
Research	40	36.7 %
Ready Reference	9	8.3%
Directional	2	1.8%
Policy and Procedural	29	26.6%
Holdings/ Do You Own	13	11.9%
Reproduction Requests	16	14.7%
Total	**109**	**100%**

Research questions is the largest category, with 40 chats and close to 37% of the total questions. Policy and procedural is the second largest category, with 29 chats, which coincides with the idea that the unique nature and practices of special collections means their users are very likely to have questions on the policies of the institution. Reproduction requests constituted 14.7% of the total questions, followed by holdings/do you own at 11.9%, ready reference with 8.3%, and finally directional questions- which were less than 2% of the total chats.

The sample of emails were also categorized using the six categories defined in the previous section, and the results can be seen in Table 3.

Table 3: Email results

Type of Question	Number of Emails	Percentage of Total
Research	26	35.1%

Ready Reference	0	0%
Directional	0	0%
Policy and Procedural	16	21.7%
Holdings/ Do You Own	4	5.4%
Reproduction Requests	28	37.8%
Total	**74**	**100%**

Reproduction requests were the most common type of question, with twenty-eight emails.

Research questions were a close second with twenty-six emails, compromising 35.1% of

the total emails. Policy and procedural questions made up 21.7% of the total percentage

of questions, and holdings/do you own questions constituted 5.4% of the questions.

There were no ready reference or directional questions asked via email.

The combined total of both chat and email questions is displayed in Table 4.

Table 4: Chat and Email Results

| Type of Question	Number of Questions	Percentage of Total
Research	66	36.1%
Ready Reference	9	4.9%
Directional	2	1.1%
Policy and Procedural	45	24.6%
Holdings/ Do You Own	17	9.3%
Reproduction Requests	44	24.0%
Total	**183**	**100%**

Research was the biggest overall category of reference questions, comprising 36.1% of

the total with 66 questions. This was followed by policy and procedural, with 24.6% of

questions, reproduction requests with 24% of questions, and holdings/do you own

questions with 9.3% of questions. Both ready reference and directional questions

compromised less than 5% of the total questions asked via remote reference at Wilson

Library.

When analyzing the amount of questions that were answered completely in chat

rather than referred to email, all nine chats that were not answered by a staff member

were excluded. This included the four chats that were not answered by a staff member

but for which the question was stated which had been included in the previous study of

question types, bringing the total number of chats analyzed for completeness down to 105

rather than the 109 chats analyzed for question type.

Of the 105 chats that were answered by a staff member, 47 chats, or 44.8% of the

total amount of chats, were answered in chat and not referred to email. 58 chats, or

55.2% of the total amount of chats, were referred to email. See Graph 1 for an

illustration of this.

Graph 1: Completed Chats vs. Referred to Email
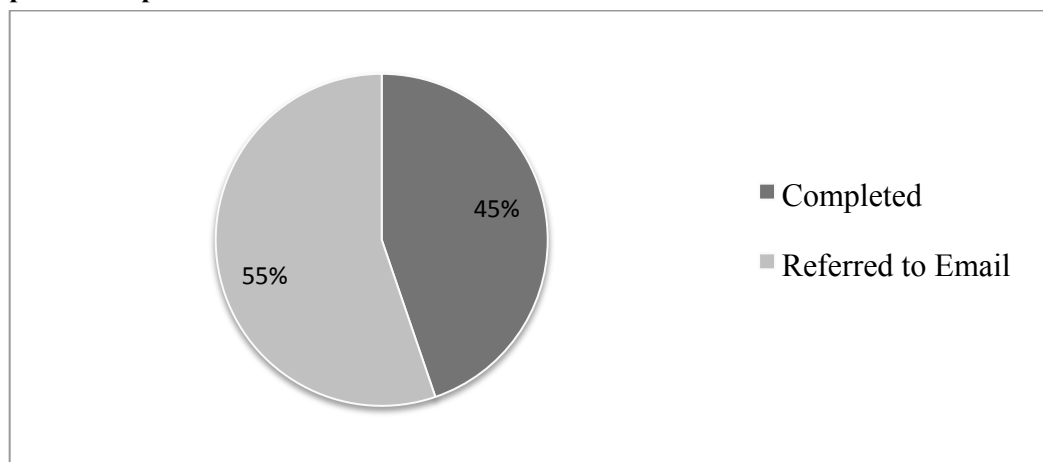
Within the 58 chats that were referred to email, there were a variety of reasons for

this referral. Two chats were referred because the staff member answering the chat

needed to consult with a second staff member who was not present. Eighteen questions

were reproduction requests, and current workflow at Wilson Library dictated that all

reproduction requests be handled via email.[2] Thirty-eight questions were referred to

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[2] Note: The discrepancy in the 16 chats classified as reproduction requests in the question
analysis and the eighteen reproduction requests in the completion analysis is due to the
decision in question analysis that, in cases where multiple questions were asked in a chat,
the first question stated would be classified. Two chats began as holdings questions but

email because the staff member felt the question was too complicated or would take too much time to be answered in chat. See Graph 2 for an illustration of this.

Graph 2: Reasons for Referral to Email
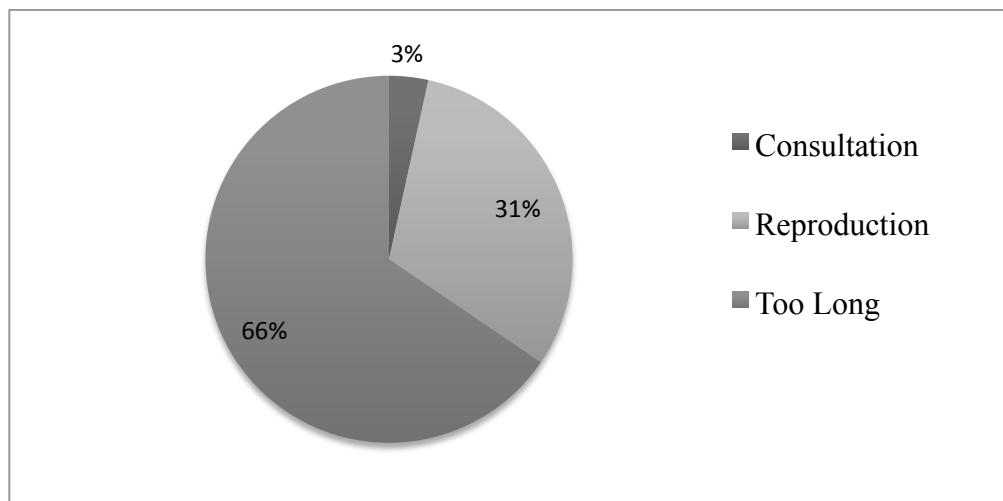
The following section will further discuss these results and their implications.

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later merged into reproduction requests, at which point they were referred to email. See the Discussion section for further detail.

Discussion

Comparison with Previous Studies

This study was modeled after a number of similar studies conducted on chat

services in academic libraries, so as to compare the type of questions asked via chat in

special collections to the results of the studies in academic libraries.

As discussed in the literature review, most studies of academic libraries found that

research questions comprised less than 25% of the total questions asked via chat.

Houlson et al (2006) found that research questions were 20% of their total chats.

Bravender et al. (2011) categorized 23.3% of questions as research questions. Arnold

and Kaske (2005) used slightly different categories, but the combination of research

questions and specific search questions (which still require in-depth research) was 23% of

their questions. These are lower than the percentage of research questions in this study,

which found that 36.7% of total chats were research question

Graph 3: Percentage Research Questions among Studies
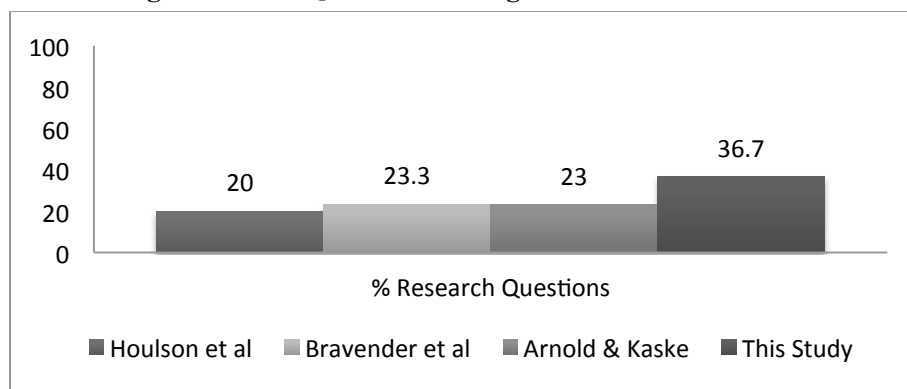
Another difference between the studies in academic libraries and this study of a special collections library is the ability of librarians to handle research questions via chat. Ross (2009) argues that chat is suited for answering research questions by giving guidance on URLs or sending electronic documents to the patrons. One of the librarians who worked with chat at an academic library at UNC expressed similar sentiments, saying:

> Even if it is a research question, [academic librarians] can usually answer it or at least tell them, 'Well, you need to go in this database and search for these terms.' But if you can't do that, what are you going to say? 'Well, you are going to go in this folder and look at these papers...' It is not going to work the same way; the search process is just different.

This difference in how research is conducted, and therefore how research questions can be answered via chat, may account for the difference in the reasons chats were referred to email in this study as compared to Wikoff's study of chats at NCKnows (2008). In her study of the reasons chat reference interviews were referred to email rather than conducted in chat, Wikoff found that only 17 of the 210 referrals studies were referred because the librarian wished to have more time to research the question before responding to the patron. Four more interviews were referred because the librarian needed to consult sources that he or she could not access while on chat with the patron. Needing more time or resources that were not online or nearby physically only accounted for 10% of the total referrals at NCKnows.

In contrast to Wikoff's study, this study found that the reason for 66% of the referrals of chat to email were due to the staff feeling they needed more time or to access resources which were not suitable to being access while on chat with the patron. While Wikoff found that the most common reason for referral was that the staff were busy

helping other users and could not handle an additional chat, this was not found to be the case in this study.[3]

The higher number of research questions, as well as the increased inability to fully answer research questions via chat, in special collections does result in higher percentage of chats which must be referred to email. However, this still leaves that 63.3% of questions received in chat were not reference questions and therefore could be handled via chat. The percentage of questions referred to email- 55% of all total chats- is higher than the percentage of research questions, but this is largely due to the fact that reproduction requests are handled via email in this library.

Though reproduction requests resulted in being referred to email in this study, it is valuable to separate these from the research questions that needed to be referred to email because of constraints on answering questions in chat. Despite needing to send an email requesting a reproduction, the patron still received information from a librarian via chat on whether the library takes reproduction requests and how to submit an order. Other institutions may not handle reproduction requests via email, but rather with an online or paper form or a different workflow, and the chat transactions regarding reproduction requests would be a valuable chance to direct the patron to the appropriate form or webpage so that the patron could submit an order.

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[3] There is a chance that staff helping other patrons could be the reason why ten chats were never answered by library staff in the first place, but as this was not stated in the chat, it cannot be proved conclusively. Even if this were to be the case for all ten unanswered chats, that would still only result in being the reason for 16% of unanswered chats, compared to the 55% of chats which were referred because staff needed more time.

Limitations of Study

One concern in this study is the number of questions that may have been excluded. Most links to chat on the library webpage direct the chat to the two academic libraries on campus. Staff in those libraries begin the chat and then, if they feel the question involves special collections material, transfer the chat to Wilson Library queues for special collection staff to answer.

This study examined all the chats which were placed in a Wilson Library chat queue from July 2013 to June 2014. However, there is a possibility that other questions about Wilson Library were answered by staff at one of the academic libraries and never transferred to Wilson Library. Student assistants, who typically answer chat questions at the academic libraries, are trained to attempt to field all questions themselves. One of the librarians who trains the students explained,

> I think in general we train our students to answer the question if you feel like you
> can – to at least give them something and make an attempt.

Another librarian, when asked what types of questions were generally asked about Wilson Library, explained:

> The most common [question] is probably along the lines of, 'I've seen in the
> catalog this book is in the North Carolina Collection. What is that? Where is
> that?' And those, I'm not sure, they probably don't get transferred to Wilson. A
> lot of times it's just, 'Oh, it's in Wilson Library. Here's the details about the
> building and maybe a link to how to find that.' … The way I encourage our
> students to handle it when I train them is help them as much as you can on a basic
> level. But as soon as you are not confident in the answer, send it over. So I'm
> confident in telling them where the North Carolina Collection is. I'm not
> confident in telling them exactly what your polices are on who can access a
> collection or things like that. Or what the material is.

This indicates that there may be some directional or holdings question which were not transferred to Wilson Library and therefore were not included in this study.

Another complication is added in that sometimes librarians simply gave the phone number or email address for Wilson Library when they felt a consultation was needed, rather than transferring the chat directly. This is especially true since the special collections library has shorter hours than the other academic libraries, so any chats which began when Wilson Library was already closed, the librarians would give the patron the email or phone number of Wilson and encourage them to contact the special collections staff the next day.

There may also have been research questions that should have been referred to Wilson Library, but the student assistants who answered the chat were unaware that Wilson might have resources related to the topic. One librarian stated:

> I do think that all of our students might not be completely aware of all the collections that exist in Wilson. They might know the North Carolina Collection or the really big ones but they might get a question that they are just looking at from a research kind of angle and not even think how Wilson has a collection about that … I think if they are looking for a specific item that exists over there- I think that is likely to get transferred. But if it is more like a general kind of research question, and they don't realize Wilson has materials that could help, than they might not be as likely to.

The interviews with the librarians at academic libraries who frequently train and oversee the answering of chat messages from patrons indicate that there is a high likelihood that there were additional questions involving Wilson that were not included in this study. One librarian estimated that they transferred 75-80% of questions about Wilson to Wilson staff, meaning that the questions analyzed for this study were likely only 75-80% of the total questions asked about Wilson.

It is most likely that the questions that were not included were questions about directions, holdings, or other easily answered questions. This means that the percentages

of questions that were research questions may be slightly inflated since the number of directional and holdings questions in this study is likely lower than the number actually asked. However, because there are likely other research questions which were simply given an email address and phone number rather than transferred via chat, or other research questions which the librarian answering the chat did not realize were well suited for Wilson, this inflation may not be as large as originally indicated.

Conclusions

Further Studies

This study is one case study to begin filling the gap in professional literature on the use of chat in special collection libraries. Further case studies in other special collections libraries are needed in order to more closely examine the use of chat in special collections.

Careful attention should also be paid to the type of special collection library. This case study was set in a special collections library which offers both print and archival material and is connected with academic libraries on a university campus. The type of questions asked in chat may change depending on whether a special collections holds more printed or archival material. Further study should be conducted to see if chat is as successful if the institution is not connected to academic libraries which already offer chat reference services.

Furthermore, this initial study focused on the types of questions asked via chat. Other studies focusing on staff comfort with chat, surveys of special collections' policies and staff training regarding chat reference, and surveys of patrons' feelings towards chat reference would further augment this case study.

Implications for Chat in Special Collections

Before conducting this study, the researcher decided, based on the studies found in academic libraries, that if research questions made up less than 40% of chats, this

paper would recommend special collection continuing offering chat services and making

chat reference a more prominent part of the reference services in a special collection

library.   This case study found that research questions made up 36.7% of total questions,

therefore falling underneath the 40% benchmark proposed at the beginning of this study.

As discussed earlier, while more than half of the total questions (55%) asked in

chat were referred to email, this number was inflated due to the fact that the current

workflow for reproduction requests involves sending the order in through email. In these

reproduction requests, valuable information and the patron's initial inquiry- can this item

be reproduced and how do I request this be reproduced- is still handled via chat.

Furthermore, interviews with librarians who handle chat in academic libraries

indicated that the other librarians appreciated being able to refer chats directly to the

special collections staff. One librarian stated:

> I will say, it is nice to be able to transfer [chats] even if it doesn't happen a lot. I think there are those questions that we feel so out of our depth that it is nice to be able to [transfer over to Wilson]. I mean, if they didn't have chat, we would probably just say, 'You need to call this number and you need to talk to them.' But it is nice to be able to give them something right then because usually if someone is chatting, they want an answer right away. They don't want to be put off saying, 'Oh, you have to email these people and wait two days.'

Another librarian expressed similar sentiments saying:

> Very few [chats that involve Wilson come in per week]. But they tend to be the ones that can only be answered by Wilson. Like, it's not 'Well, they might know something more than me, I'll send it to them.' It is 'I have no idea how to answer this question. I'm glad that Wilson is there to send it over to.'

Especially in cases such as this case study, in which the special collections library is part

of a larger academic library system, offering chat services is a way to connect with other

libraries and to offer a more seamless integration of services across libraries for the

patrons.

Not only is chat a way to connect special collections with the other libraries on an academic campus, but there should be strong efforts to make sure the library staff in academic libraries are aware of the resources in a special collections. One of the problems found in this study is that library staff in other libraries were unsure in what Wilson Library had to offer, which has likely resulted in missed opportunities for reference librarians at academic libraries to refer patrons to the special collections. Providing more cross-training on the strengths of Wilson Library as well as creating an internal web guide or reference document for staff in other libraries about Wilson may be potential ways to further integrate the resources of Wilson into the campus library system.

Offering chat reference services is a way to demystify the special collections library for new users, especially for younger users. Rather than being stopped by simple stumbling blocks, such as what "Rare Book Collection" means and if the patron can use a book in it, how to register and what a patron needs to bring to the library in order to register, or even if the library has any collections relating to a specific person or subject, the patron can get answers from a librarian in the medium in which the patron is most comfortable.

The nature of special collections means that special collections will likely never be able to answer as many questions and in the same depth as academic libraries do over chat. However, there is still enough questions which can be answered in chat that it is worthwhile for special collections to pursue offering more robust reference services via chat.

Appendix A: Interview Guide

How long have you been working with chat reference at UNC?

Do you track subjects or types of questions asked via chat? And if so, how?

Can you estimate how many chats come in per week?

Can you estimate how many of those per week involve questions about Wilson Library?

What types of questions are asked about Wilson? Can you provide some examples?

What training (if any) do you provide for reference librarians on when to transfer a chat

to Wilson?

How do these instructions differ when Wilson is closed (for example, if the chat comes in after 5pm)?

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