If we build it, will they come?
 -- Understanding reference users in the age of texting

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Abstract:

Libraries have always embraced communication technologies to provide reference services. While text messaging becomes a significant avenue for communication and social activities in people's daily lives, it is rapidly gaining popularity in the library world as well. A new form of reference service, text messaging reference (TMR), has emerged, enabling library users to seek help from librarians via texting.

A research project funded by Institute of Museum and Library Services in the United States has been under take to actively investigate how library users perceive and use TMR. A close scrutiny of TMR from the user's perspective is essential to ensuring successful service delivery and satisfactory user experiences. Findings from this will offer a thorough depiction of how user information needs can be successfully fulfilled by TMR, and therefore yield insights to help libraries develop TMR best practices, and effectively and efficiently promote and deliver the service to library users.

Introduction

Libraries have always embraced communication technologies (e.g. telephone, email, instant messages, online chat) to provide reference services. While text messaging

becomes a significant avenue for communication and social activities in people's daily lives, it is rapidly gaining popularity in the library world as well. A new form of reference service, text messaging reference (TMR), has emerged, enabling library users to seek help from librarians via texting.

As more and more libraries begin offering TMR, it is important to examine how the service is perceived and received by library users. A close scrutiny of TMR from the user's perspective is essential to establishing a solid understanding of user information needs and information seeking behavior in the age of texting, and hence ensuring successful service delivery and satisfactory user experiences. However, current TMR literature primarily consists of accounts of service implementation at individual libraries and there is little empirical research on TMR users. To fill the void in the literature and further professional understanding of TMR, a research project funded by Institute of Museum and Library Services in the United States has been undertake to actively investigate how library users perceive and use TMR. This project comprises of three components:

- A comprehensive literature review of people's texting behavior
- Focus group interviews among teens, the largest demographic of texters, about their awareness and perception of TMR
- Survey among library users about their TMR experience

Findings from this project are presented in this paper.

Literature Review on Texting Behavior

As an increasingly popular medium of communication, texting has become a frequently studied topic in the literature of communication and media studies. When examining people's adoption of texting, researchers often use Davis' (1989) technology acceptance model (TAM) as a theoretical construct. TAM suggests that attitude toward information technology is the main mediating variable leading to behavioral intention and actual technology use. Lai (2004) found that service quality and perceived value can contribute to improved level of satisfaction among texting users. Yan, Gong and James (2006) found that perceived usefulness, ease of use, and subjective norms lead to attitudinal changes toward texting and usage. Turel, Serenko, and Bontis (2007) also found that perceived values, including performance value, emotional value, monetary value and social value are key factors predicting people's behavioral intention to use texting. Kim, Park and Oh (2008) echoed all the previous research findings and concluded that the perceived enjoyment, perceived monetary value, perceived usefulness and perceived ease of use are the four major factors affecting the use of texting. They even went a step further to discover that network factor, interface convenience, and context controllability have significant indirect impacts on people's adoption of texting through their respective paths on perceived usefulness and perceived ease of use.

However, the intricacies of social, cultural and emotional behavior observed in texting exceed beyond what the TAM can capture. In their study of texting usage in Finland, Japan and the U.S., Xu, Teo and Wang (2002) proposed that cooperation among industry players, low cost, more attention to special mobile user groups and effective marketing and government support would facilitate the adoption of texting. Wang and Hausman (2006) establishes a conceptual framework to incorporate characters of texting as a communication venue, user profiles, nature of the social system and marketing environment in explaining why people use texting. Baron, Patterson and Harris (2006) suggests that texting is sometimes used as a way of avoiding communication as well as enabling communication because the choice of texting renders people control over the timing, composition and interactivities of their communications. O'Sullivan's (2000) information management model illuminates that rationales and strategies that people use in selecting and using communication technologies are grounded on a desire to regulate information flows between individuals and to manage perceptions in social interactions. Based on this model, Mahatanankoon and O'Sullivan (2008) suggests that texting might be an appealing option for problematic interactions even as it provides an appealing option for communicating positively in various settings and situations. This theory led them to conduct a study to employ two expectancy-based constructs, self-efficacy and locus of control, to predict anxiety and attitude valence toward texting, and their findings indicated that enhancing users' ability and their sense of personal control can further the use of texting.

The young generation is the fastest growing user demographic of texting, and how they are using this communication channel has interested some researchers. Seeking to explore what motivates youngsters ages 12 to 25 to use texting, Peters, Almekinders, Buren van, Snippers, and Wessels (2003) conducted a study from a uses-and-gratification point of view. Their findings resulted in four types of motives: entertainment, social interaction, immediate access and efficiency (in time). Furthermore, adolescents (age 12 to 18) use texting more often for intrinsic or social use, like entertainment and social interaction, than young adults (age 18 to 25), who use texting more often for instrumental or task-oriented use, like efficiency. Horstmanshof and Power (2005) conducted a focus group study among college students and found that they mostly sent text messages to close friends. Texting was considered to be an inexpensive, effective and convenient way for one-to-one communication, maintaining social connections, and eventual storing memories. The address books in their mobile phones represent different groups of contacts (e.g. intimates, close friends, family, and work contacts). Interacting with these groups via texting varies in language use and patterns of communication, which are influenced by factors such as cost of communication, desire for control of communication flow and protection of personal privacy. Similarly, Leung (2006) found that college students use texting because of its convenience, low cost, and the utility for coordinating events. In addition, he noted that people who were socially anxious and were unwilling-to-communicate face-to-face and

were put off by the confusing texting lingos appeared to be those who spent less time, instead of more, on texting despite the assumption that texting could help overcome student's shyness about bringing up difficult topics with friends.

Teens' Perception of TMR

Focus group interviews were conducted among 36 teen library users, and among them only one was aware of the TMR service provided by the library. She learned about it from library's promotional material; she stated "They had a little cut-out and they set it on one of the counters. I'm just nosey so I look at everything and it just happened to catch my eye." Despite her awareness, she had not used the service.

In the interviews, participants discussed their willingness to use the service in their information seeking process. The opinions were evenly split among three groups: willing to use it, it depends, and would not use it.

The affirmative attitude stemmed from the following reasons:

- They could obtain authoritative and trustworthy information from the service.

- They appreciated the convenience of the service, such as long service hours, the ability to make information inquiries remotely, the ability to receive information help when their cell phones lacked access to mobile Web, and the ability to save received information for future references

- Texting was a communication venue they were familiar and comfortable with and it constituted a less intimidating way to ask for information help than calling or talking to a librarian

The "it depends" group offered three factors that would determine their use of the service:

- The service would need to provide an immediate answer

- Their information needs would have to be of the type they considered the service able to address: one participant commented that "I think it depends on like, do you really need the information? Is it like something you really need for school? Because in that case, it might be better to actually talk to someone face-to-face. You can get a better more accurate response, but I mean, you can text if it's something like you don't really need right away, like referring to a book or a link or something that you could get over time.", while another stated that "I might. If I ever was, like doing a project for school and I needed information"

- They would have had to exhaust their preferred information sources first

The group that indicated unwillingness to use the service identified three reasons:

- There were other preferred alternatives to ask for information assistance easily and quickly, as indicated by the following quotes, "It would make it more complicated than necessary, like, send a text message where you could just talk to them", "I honestly think that if you call them, you know, they'll answer it more quickly than texting. You know there's so many people that text now. But if you call, guaranteed, you know 80% sure that someone will answer the phone".

- They felt awkward texting a librarian because of the impersonal nature and the lack of knowledge about the appropriate etiquette, as indicated in the following comments, "You don't know who it is", "while you're texting them, can you use abbreviations, like if they'll understand what you're saying".

- They were concerned about privacy and did not wish to have their cell phone number known.

Regarding the types of information needs that could be fulfilled by TMR, the prevailing view among the participants was that they would be seeking reference help from the service for school-related information needs. They would be texting librarians for recommendations on resources, guidance on search strategies, and ready reference help for their assignments, as indicated in comments like "if we're looking for like a certain thing like hemoglobin, then, then we can ask them if they have anything on that certain subject", "if I want to find something on a certain subject then, like, what to search on a database or something like that", and "if you're like sitting at home, writing a paper, I wonder, like, who did this or what the date was; you can just, like, text the librarian and be, like, what date did this person take over England?"

Seeking answers to library-related questions was another expected use of TMR. Most participants imagined they would text librarians for information about library hours, circulation (e.g. whether a book is available), facility (e.g. computer, study room) and book reservation, library events, and personal library accounts (e.g. holds and overdue books).

Overall, the participants' intended use of TMR was consistent with how they had been using other types of reference services. The sentiment was well characterized by one comment "I would mostly use the library thing for, like, library questions or homework questions." In the meantime, the participants almost unanimously agreed that they would not text librarians for any personal information needs (non-imposed information needs that arise from personal interests and curiosity). Topics that are generally considered of personal interest to teens include pop culture, gaming, relationships, and sex. For questions on these topics, the teens agreed that they would prefer to search for answers on the Internet or send texts to non-library-based services like Chacha.

Use and Non-use of TMR among Library Users

Survey research was conducted among users of seven participating libraries of My Info Quest (MIQ)[1], a nation-wide collaborative TMR in the US. Launched in July 2009, MIQ was initiated by a librarian then at the Alliance Library System, and participated by libraries of multiple types. It is self-organized and managed by volunteering member librarians[2].

A total of 303 valid responses were received, and among them, 255 (84.2%) were from people who never used the TMR service provided by their library, and 48 (15.8%) were from those who did. Among the respondents, 16.5% was under 18 years old, 17.2% was between 18 and 25, 10.2% was between 26 and 30, 17.2% was between 31 and 40, 13.5% was between 41 and 50, and 25.4% was over 50.

The 255 non-users of the service were asked about their reasons for not having used the service and their interest in using it in the future. Most of them (59.8%) had not used the service by the time of the study because they were not aware of it; 22.5% explained that they were not texters, and therefore the service was not appropriate for them; another 22.5% considered their information needs adequately met by receiving assistance from librarians via other venues like telephone, email or coming to the reference desk; 15.7% stated that they generally did not ask librarians for help because they were self-sufficient information seekers and they were able to use library resources and other information resources independently; and finally, a modicum of 2.4% offered the following reasons: they were too busy or too forgetful to use the service, issues with their mobile phones such as a broken screen or insufficient texting plan prevented them from using the service, and they lacked the knowledge of what types of information assistance were provided by the service.

When measuring whether respondents would be interested in using the service in the future, three options were listed – Yes, No and Maybe. More than half (58.2%) of the non-users selected "Maybe", depending on whether they have the need or not; close to one-fourth (23.7%) opted for "No"; and only a mere 18.1% granted a positive "Yes". Those showing no interest in future use of the service were further asked to supply a brief explanation, and the following reasons were identified:

- They do not foresee the need to use TMR because their current information seeking venues are sufficient, as indicated in these comments: "I just ask my wife to look up stuff for me", "I do my own research online, using SPL.org and many other websites", and "I walk in and ask questions or call".

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[1] Detailed information about MIQ can be found at http://myinfoquest.info
[2] Details of MIQ's operation can be found in Lili Luo, Emily Weak, (2012) "Managing a Text Reference Consortium: The My Info Quest Experience", Reference Services Review, Vol. 40 Iss: 2.

- They do not text because they dislike texting, cannot afford it, or consider themselves old fashioned and not willing to engage in this relatively nascent communication channel.

- They lack the knowledge of how to appropriately use the service, as one respondent commented, "I don't really know what kind of questions would be good to ask. I have a lot of questions, but there are a lot of different ways to get them answered and I don't know which are best referred to a librarian".

- Their previous unpleasant experience with librarians via other reference venues makes them reluctant to use TMR.

The 48 TMR users discovered the service by a number of different means, as shown in Table 1.

How users discovered TMR	Percentage
I found it on the library Website.	41.7%
I learned about it in the library promotional material/events.	16.7%
I heard about it from someone I know.	6.3%
I heard about it from a library staff member.	37.5%

Table 1. How users discovered the availability of TMR

Users indicated a high level of satisfaction with the service they received. When asked to rate their satisfaction level on a five point Likert scale (1 being not satisfied at all, and 5 being very satisfied), 87.6% selected "4" or "5" as their rating, and only 8.3% considered their service experience as "not satisfied at all".

What users liked about TMR was investigated in order to identify the appealing characteristics of the service. Table 2 provides a break-down of the different aspects of the service that attracted users.

What users liked about TMR	Percentage
It's easy to use.	77.1%
It's convenient.	66.7%
It's fast to get an answer.	52.1%
I'm comfortable with it.	47.9%
Librarians are a reliable source of information.	4.2%
It's cool and fun.	4.2%
It is useful when I have an idea of the question I want to ask but cannot form it into a specific Google search.	2.1%

Table 2. What users liked about TMR.

Conclusion

There are some common themes that have arisen from the literature review, the focus group interviews and the survey study. Discussion of the themes and their implications for successfully providing TMR for library users is presented below.

Increase awareness

Both the focus group interview and survey results indicate that library users mostly lack awareness of the availability of TMR. This echoes the findings of awareness studies on other digital reference services such chat reference (Naylor, Stoffel, & Van Der Laan, 2008; Connaway, Radford, & Williams, 2009). In order to make TMR known to library users and encourage them to use the service, active marketing campaigns need to be implemented. Currently, the marketing efforts documented in the literature were targeting academic library users, primarily students, faculty and staff (Giles & Grey-Smith, 2005; Hill, Hill & Sherman, 2007; Kohl & Keating, 2009; Pearce, Collard, & Whatley 2010; Weimer, 2010). Some common outreach activities are listed below, and interested libraries may also consider these strategies and tailor them to their user community.

- Announce the service on library Website, library digital signs, library blog and library pages on social networking sites like Facebook

- Set up an information kiosk outside of student gathering places to distribute information about the service

- Promote the service when interacting with students during reference transactions, information literacy instruction sessions and library orientations

- Promote the service via campus media (e.g. publish featured articles in campus newspaper, have an interview on campus radio station, advertise on university Webpage)

- Hold a contest with prizes to encourage students to use the service

- Distribute promotional material such as flyers, small business cards, scrap note paper, and posters (both large posters and small 3 X 5" table tents) across campus

In the meantime, the survey study found that TMR users mostly learned about it from browsing the library Website or from conversing with a library staff member. Since these are the two most effective venues to draw attention to the service, libraries can devise promotional activities that could take advantage of these two venues. For example, a prominent electronic banner displayed on the library Website can be eye-catching; when librarians interact with patrons in reference transactions, at library

programs or through impromptu chats, it can be helpful to offer an interesting introduction to the service.

Build a proper perception

The literature review reveals that the perceived usefulness, ease of use, monetary value, and enjoyment are the major factors affecting people's attitudes toward texting. In other words, perception greatly impacts how people engage in texting as a communication venue. Similarly, how people embrace texting as a reference venue is also contingent upon their perceptions. The focus group interview findings suggest that teens tend to view texting as a personal and informal way of communicating, and associate libraries with formalness and authority, and this discrepancy between perceptions results in their reluctance in using the service. Therefore, in order to encourage more library users, especially teens, to use TMR, it is important to build a proper perception of the service among library users. For example, libraries may strive to soften the impersonal view of TMR and establish a friendly, less formal image of the TMR librarian. It is also crucial to educate teens about the service, such as how the service works and who answers their questions, and let them know the service is friendly, personal, and informal, reflecting teens' own perceptions of texting as a communication venue, and they are welcome to continue their regular texting style such as using abbreviations when texting a librarian.

Highlight appealing qualities

Based on the findings from the focus group interviews and the survey study, a number of appealing qualities of TMR can be identified: easy to use, convenient, fast, and being a reliable source of information. This knowledge helps libraries understand what users like about TMR and what attracts them to use the service, and therefore devise appropriate strategies to highlight these qualities when promoting the service to their user community.

In conclusion, this in-depth research project on TMR users offers a thorough depiction of how user perceive and use TMR and how their information needs can be successfully fulfilled by the service. Findings from the study will help libraries develop TMR best practices, effectively and efficiently promote and deliver the service to library users, strengthen the role library plays in their information seeking process, and establish a positive and sustaining relationship between libraries and their user community.

References of this paper can be found at http://amazon.sjsu.edu/html-lililuo/ifla2012/references.htm