New Technologies for Virtual Reference

A Look at Skype and Twitter

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"In the rapidly moving world of the information age, information seeking behavior is increasingly multi-faceted, on demand, real-time and diverse. Despite the emergence of the internet and the availability of a wide variety of robust search engines that can seek information with increasing speed and accuracy, people are turning to their school, public, and academic libraries more frequently and in larger numbers than ever before." (Chow)

As virtual reference services have become solidly established in libraries in recent years, and as online communication has become prevalent in the commercial sphere, we are continually challenged to evaluate new and emerging technologies to determine their potential for enhancing our users' access to, and experience of, our University of Michigan Ask a Librarian virtual reference service.

To that end, this paper examines the potential of Skype and of Twitter, popular social media in many realms, for enriching our virtual services.   While this paper focusses on Skype and Twitter, there are other existing or emerging tools, such as Apple's FaceTime, Google+ Hangouts, iChat, and Tango to name a few. In addition, the open source Web Real Time Communication (RTC) program can be used to develop applications such as voice calls, [video chat](), P2P file sharing and so on from within browsers.

Skype: What is it?

Created in 2003 and acquired by Microsoft in 2011, Skype ([http://www.skype.com/intl/en-us/home]()) is a Voice Over Internet Protocol (VoIP) communication tool that can be used to conduct audio or audio/video "telephone" conversations between internet connected computers. It allows conversations to take place anywhere in the world, and both the service and the software are free. Software must be installed on a computer in order to use the service. Skype can also be used to connect with international landline and mobile phones, on a monthly fee basis or by pay-as-you-go.   In recent years, Skype has added mobile applications for Android and iOS devices.

Basic Skype service is free and includes Skype-to-Skype calls, one-to-one video calls, instant messaging and Screen sharing. Tiered fee-based services add features such as group video calling and live chat customer support.

How have libraries implemented Skype?

Libraries have reported experimenting with Skype as far back as 2008 when Char Booth, then at Ohio University, described that library's experience offering Skype as a means of interacting with reference staff.   Ohio University's (OU) library was well known as an early adopter of providing Skype-based reference service. The OU Skype a Librarian service was introduced in early 2007, and included the option of asking reference questions via Skype from a kiosk within the library or remotely. OU's service was widely publicized in library literature and professional conferences (Booth). However, the service did not gain ground at OU and was discontinued.

A recent survey reports that approximately 20 libraries offer reference or other services via Skype (Miles). Many of these libraries are in smaller institutions, but a handful of somewhat larger institutions (UNC at Greensboro, Madison Area Technical College, Framingham State University, St. Edwards University, Southeastern Oklahoma State University) now incorporate Skype into their suite of reference services.

Of the 186 libraries participating in this survey, most (88%) began to use Skype for reference services within the past two years and report a small number of questions, indicating that this technology is still in the exploration and growth phase of its use to enhance reference services.

Advantages of Skype as a reference tool include:
- Bringing visual and nonverbal cues back to virtual reference
- IMing simultaneously – send links, pdf files, articles or jing videos via IM while video chatting, and
- Co-browsing – sharing screens with patrons

The disadvantages include the need for special equipment, the awkwardness factor of being "on screen," and a low level of interest in the use of Skype for reference service among undergraduates (Gervasio and Steinmann).

Our own Faculty Exploratory (FE) staff have begun to deploy Skype as a method for assisting remote users with technology-based issues over the past year. According to FE staff, this technology offers the significant advantage of being able to see exactly what patrons are attempting and to demonstrate rather than describe either through conversation or text, how to effectively accomplish a task, be it a format conversation or a sophisticated search strategy in a specialized database (L. Sutch, personal communication, June 12, 2012).

How might MLibrary think about Skype?

Video conferencing tools such as Skype offer librarians the ability to "visually demonstrate the teaching moments of the transaction… [and to] consider the needs of users who simply learn better visually." (Steiner) In addition, video conferencing enables a service interaction which more closely emulates an in-person interaction, which both research and our own informal polling of incoming freshman show to be by far the preferred method of communicating with librarians (Chow and Croxton).

Though Skype as a service delivery medium may initially reach a small demographic of our community, there are several potential applications that merit further consideration:

- Communicating with UM community members working abroad or away from the UM campus such faculty, Ph.D candidates, graduate students, undergrads studying abroad, research fellows, etc. (See White, Ye and Guccione)
- Enhancing the level of service provided by Ask a Librarian.
- Enhancing the reach and communication options for the Library engagement in outreach activities, including Global Initiatives, Road Scholars, Detroit Center, etc.
- Extending "face-to-face" reference service among subject specialists, field librarians and other learning, teaching and research staff and their respective schools/departments.
- Providing a more personalized and effective alternative to text-based communication for in-depth virtual reference questions or research consultations.
- Targeted marketing to selected demographics as well as offering Skype as a mechanism for enhancing the instructional capacity of virtual reference interactions through the use of screen sharing has great potential to introduce
- Providing professional level support outside of times and locations it is available in the library.

What would be required to implement this service enhancement?

The following is intended to serve as a starting discussion point for planning for incorporating Skype into virtual reference services, should we move forward with implementation.

- A clearly communicated purpose for incorporating this technology into our suite of services.
- Guidelines for how and when it might be offered or suggested to patrons.
- Development of a pilot program to inform a possible staffing model.
- Training for staff who would be providing service through this medium.
- Documentation for installing or accessing the appropriate technology both staff and patrons.
- Support for the installation and troubleshooting of technology on staff workstations.
- Publicity and marketing for new service.

Resources for further study:

Booth, Char (2008).   Developing Skype-Based Reference Services. *Internet Reference Services Quarterly,* 13 (2/3), 147-65.

Clifford, Christine and Jennifer Nelson (2010, March). *Video Reference: A Pre-Test and Pilot Project*. PowerPoint presentation presented at Library Technology Conference, St. Paul, MN. Retrieved from http://digitalcommons.macalester.edu/libtech_conf/2010/concurrent_a/33/

Chow, Anthony S. and Rebecca A. Croxton (2012). Information Seeking Behavior and Reference Medium Preferences: Differences between Faculty, Staff and Students*. Reference & User Services Quarterly*, 51 (3), 246-262.

Cohen, Sarah Faye and Andy Burkhardt (2010). Even an ocean away: developing Skype-based reference for students studying abroad. *Reference Services Review,* 38 (20), 264-273.

Gervasio, Darcy and Emilie Steinmann. (2010, November). *Is Skype Viable as a Virtual Reference Tool in Academic Libraries?*   PowerPoint presentation at Wisconsin Library Association, Madison, WI.

Miles, Dennis. (2012, March). *Skype Use in Libraries: A Survey*. PowerPoint presentation presented at Oklahoma Library Association Conference, Norman, OK.

White, Alicia, Ye Yunshan and Margaret Guccione (2009) Study Abroad Students: Designing Library Services to Meet Their Needs. *Journal of Library Administration,* 49, 187-196

Twitter: What is it?

Twitter is a free micro-blogging service that allows its users to send and read text-based messages of up to 140 characters known as "tweets" via the Twitter website, external applications or SMS (short message service). Access to tweets can be restricted or openly available.

A recent Pew study reports that:

> *"Twitter use within the overall population remained steady over the last year, and usage rates within most major demographic groups changed little over the same time period. The youngest adults (those between the ages of 18 and 24) are the primary exception to this trend, -- nearly one third of internet uses in this age group now use Twitter, up from 18% in May or 2011 and 16% in late 2010."*

> *"Twitter may not be gaining new U.S. users as fast as it used to, but the users it has are much more engaged, according to a report from the Pew Internet and American Life Project." (Pew)*

How have libraries implemented Twitter?

The vast majority of libraries (of all types) using Twitter continue to use it as a communications and public relations mechanism – tweeting about resources, services, events and/or community information. While a handful of libraries accept reference questions via Twitter, it is more common for libraries to offer SMS or 'text a librarian' services.

The Johns Hopkins University Sheridan Libraries offers Twitter as a medium for receiving inquiries and note on their blog:

> *"Since @mselibrary has been on Twitter, we've noticed an uptick in reference questions tweeted to us. Our mission is to communicate with our students, faculty, and staff in whatever means they prefer so if you're on Twitter, please tweet us or send us a direct message with your reference question, in fact, send us any question at all that you have about the library!" (Sheridan Libraries).*

The Houston Public Library is another example of a library offering a Twitter based reference service with the following caveat:

> *"Keep in mind that Twitter is a public service, so anything you ask us and our answers in response will be publicly viewable. You can follow us so we can send you a private direct*

message if you want. However, questions involving private information, such as account information, would be better asked using one of our other reference services, such as email or phone." (Houston Public Library)

Finally, some libraries are using Twitter to share actual reference questions in a public forum and their answers in an informational (as opposed to a service) capacity. (Fields)

How might MLibrary think about Twitter?

Currently, several units or groups within or related to the University Library use Twitter as a means of communicating with their communities, among them are: MLibrary Marketing and Communications, MLibrary Gallery, the KNC, the Diversity Committee, the the Hathi Trust Project, the Taubman Health Sciences Library, and the Shapiro Undergraduate Library. However, there does not appear to be an overall MLibrary Twitter account for communicating about the library broadly.

Whether Twitter is a good fit for reference interactions is questionable. As noted above, the public nature of Twitter calls into question its appropriateness for such a service. In support of arguments against using Twitter for reference, Text A Librarian, a library IM product vendor (perhaps not an entirely unbiased source) notes on their [web page]() that:

> *"There are multiple steps required (including registration, phone validation, double following and detailed direct messaging instructions) for a non-Twitter using patron to ask you a reference question privately, from their phone, not posted to the internet." (Mosio)*

Ask a Librarian and reference services more generally might collaborate with other tweeting library units to communicate about services in several ways OR create a new Twitter account for the purpose of inviting questions to existing service points, showcasing the types of questions we handle (see below), and issuing general reminders of the ways in which the University community can tap into the excellent services offered by the Library. Additional potential applications and/or projects include:

- Consider Twitter as part of a set of text messaging options for receiving virtual reference questions, especially those suited to quick answers (when does the Science Library close tonight; where are the HB call numbers? How can I renew a video?). Consideration for this could be folded into planning related to virtual services delivered via text messaging more generally. It should be noted that this would require tracking another avenue for incoming

requests.

- Tweet frequently asked questions/answers as part of a general communication strategy, exercising due caution involving patron privacy where applicable. The Nebraska Library Commission does just this, with links to answers to the FAQs. As noted, a handful of libraries use Twitter to share reference (actual) questions and their answers. (https://twitter.com/NLC_Reference)
- Research our Ask a Librarian clientele and their preferences for interacting with information providers to better assess if and how Twitter fits into our overall service delivery picture. The relatively scant information suggests at least at one institution, student interest in using library services via Twitter is low (less than 20%). (Del Bosque)

What would be required to implement this service enhancement?

There is not a convincing argument for using Twitter as part of our virtual reference services suite, but just like Skype, we can offer starting discussion points for planning purposes. That is, we would need:

- A clearly communicated purpose for incorporating this technology into our suite of services.
- Guidelines for how and when it might be offered or suggested to patrons.
- Development of a pilot program to inform a possible staffing model.
- Training for staff who would be providing service through this medium.
- Documentation for installing or accessing appropriate technology for both staff & patrons.
- Support for the installation and troubleshooting of technology on staff workstations.
- Publicity and marketing for new service.

It would be important to understand the potential return on investment (ROI) for the adoption of any particular social media technology (deGroat) as part of virtual reference service. Though we want to stay attuned to potential technological applications for service enhancement and/or expansion, the current ROI for Twitter seems to be insignificant.

Resources for further study:

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