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A Living Network Supports Reference On-the-Go

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Abstract:

At Virginia Tech, as at other academic libraries, reference services have undergone significant changes in the range of services offered, the technology used, and the personnel and models used in providing reference and research support. Many reference librarians who anchored service desks have been drawn to other roles more closely tied to researchers in disciplinary areas. As a result, a new cadre of reference personnel that may not have the disciplinary background, but possesses other proficiencies have taken command at reference service points. These service points are catering to patrons in person, via live chat, via text, telephone, etc.

In this environment, the missing piece has been the ability for the person servicing the reference desk to get real-time input from subject experts at the point of assisting users. At Virginia Tech, we have employed the use of Voxer PTT (http://voxer.com/index.html) to create a living network of experts who can be reached to provide instant input into the research support processes taking place at reference desks. This strategy of using a living network of subject/disciplinary experts has the following benefits:

- *Users can be assisted at the reference point without being ping-ponged from one location to another. The living network takes care of delivering the right experts to the patron.*
- *Walk-in users do not have to set up an appointment to return when subject experts are not immediately available. As noted anecdotally, college students don't usually return if asked to come back later when the subject expert is available.*
- *This network provides optimal subject/disciplinary expertise in assisting patrons.*
- *Experts can provide their input while on-the-go.*
- *Some experts have availed themselves for evening and weekend hours when most student employees service the reference desk, thus providing an opportunity for strong back-up and additional expert support.*

Keywords: Reference Services, Reference Models, Technology, Voxer PTT, Collaboration.

LIBRARY REFERENCE SERVICES: A BRIEF OVERVIEW

User Experience and Expectations

Since Samuel Green's 1876 publication "Personal Relations between Librarians and Readers" introduced the idea that librarians should assist patrons in finding what they need because the readers did not have the time or expertise to find it themselves, reference services have been considers a staple of librarianship. Historically, it has not only served as the primary place of connectivity with library users, but it is also the precursor to library instruction. As Carlin (2007) charts the 20 year evolution in reference services, one is left with no doubt that reference services will continue to evolve going forward.

As technology has advanced, the tools used to provide reference services and the personnel using those tools have evolved. During the first century after Green's work was published, reference service in the United States was either provided face-to-face inside the library or via the post. Patrons would physically visit the reference desk, as they still do today, or mail in questions to which library staff would respond. In the 1960's, reference consultations by telephone became more common, allowing patrons to quickly get the information they required without having to venture to the physical library.

With the appearance of computers outside of specialized labs, libraries adopted email as a new avenue for reference services. The advent of Instant Messaging and chat technology in libraries in the late 1990's, offered the combined convenience of distance reference ala email and the instant gratification of face-to-face or telephone interactions. In turn, the 2000s heralded the use of social media, text messaging, and video consultation in reference transactions. This genre of reference services commonly referred to as 'virtual reference' has seen a steady growth over the last one and half decades. Although some research has shown that virtual reference results in lower satisfaction than in-person reference (Nilsen, 2006), this service has enjoyed numerous accolades for not only taking the reference services outside of the library building, but also for facilitating ubiquitous services and thereby reaching the growing population of users who prefer to conduct research from a distance (Lewis & DeGroote (2008).

Service Models

Various service models have been implemented in the name of reference services (Agosto, Rozaklis, MacDonald, & Abels, 2011; Lee, Ritterbush, & Sivigny, 2010). The most well-known, traditional model requires the patron to seek out a librarian at a set location – the reference desk - and that librarian is then responsible for answering whatever questions arise. The physical desk remains the most popular method of getting help in the library (Granfield & Robertson, 2008). A related model to the traditional service desk model involves what is known as a triage or tiered model: the patron still seeks out a librarian at the reference desk, but that librarian has the option of referring the patron to another librarian or specialist who is better able to answer the question. This process can necessitate multiple visits or contacts with the patron before a satisfactory answer is found, but it can be more effective than relying on a generalist to provide high-quality answers to all incoming questions (Smith, & Oliva, 2010).

An alternative to walk-in reference service is the reference consultation, an often pre-scheduled meeting between a librarian and patron(s) to discuss a research project in more depth than is always possible at a public reference desk. This format also requires the patron to seek out the librarian in his/her own environment much of the time, although recent years have seen an uptick in consultations held outside of library buildings.

Roving reference, in which the librarian proactively walks the building, seeking out and making him/herself available to patrons where they are, is on the rise in U.S. academic libraries. This strategy is designed to meet the growing demand of ubiquitously available service engendered by the availability of online, on-demand information and communication technologies. While roving reference is not suitable for intense research consultations, roving librarians are able to help patrons at their point of need anywhere in the building for basic help with technology, research and materials location.

No doubt there will be ongoing changes in service models as the literature predicts (Gorman & Trott, 2009), so it behoves individual libraries to take note and take charge.

Staffing Models

At the same time that technology and service models have evolved, the composition of the personnel providing reference services has also shifted. Minimum education requirements for reference employment have shifted back and forth over time from participation in a non-degree training program to completion of one or more Masters degrees.

In US academic libraries, professional librarians were the standard for reference staffing for many years. Those librarians hold degrees in librarianship, and sometimes in a second subject area as well. The generalists, librarians who chose to focus on librarianship and service as their area of expertise, are often responsible for maintaining the reference collection as well as staffing the service desk. Specialists with added subject expertise provide much more depth in their areas of study. According to research by Fitzpatrick, Moore, & Lang, (2008), the use of subject specialists in providing reference support is strongly preferred by users over the tiered or triage model. Barratt, Acheson, & Luken, (2010), also found that, even for research assistance in the electronic library, in-person research support is the preferred method of service. However, some argue that staffing the reference desk with professional librarians is not cost effective (Ryan, 2008). Depending on the service model, generalists and specialists may work side by side during one shift or may use the triage model in order to optimize staffing flexibility.

Mixed in with those professionals are the paraprofessionals with significant reference experience developed over years of practice. While lacking the formal training of librarians, many of the paraprofessionals are equally as competent at performing general reference services as the professionals and as such are included under the umbrella term “generalist.”

Academic libraries will sometimes leverage student employees in their reference program. These students are sometimes currently enrolled in library Masters programs, using the real life experience as an apprenticeship in preparation for their professional lives. Other student employees are registered in different graduate programs, and put through a rigorous training program before beginning to serve patrons. Some academic libraries will also hire undergraduate students to do basic reference service, on the theory that other undergraduates will be more comfortable approaching a peer for assistance than they are asking a librarian.

The undergraduate students will often staff the desk with a graduate student or librarian, and will refer complex questions to the senior service provider as needed.

The addition of reference volunteers, while long a staple in public libraries, is relatively new in the academic arena. These volunteers are often librarians or staff from other parts of the library itself – technical services, information technology, etc – who are re-trained in public service and reference protocols. This provides the triple benefit of broadening the career options of the volunteers, giving employees who are often behind the scenes and opportunity to interact with the public, and providing some relief to the reference librarians so they have time for other activities.

The University Libraries at Virginia Tech and undergoing transformational changes in terms of new and emerging librarian roles. This has drawn many librarians into new areas, causing a thinning of subject specialist experts at reference service points. For similar reasons to those expressed by Bugg & Odom (2009), it was necessary to explore staffing models that combined subject specialists, generalists, student employees and volunteers. To ensure that patrons continued to receive in-depth research support, it was important to devise a method for subject specialists to provide real-time input into research support even though they were not physically located at the reference desks.

ENTER MOBILE REFERENCE

The challenges of this model are significant. Patrons want to make a single contact – physically, via phone, or online – and have their questions, regardless of content, answered thoroughly. Library generalists, students and volunteers are able to respond up to a point, but have come up short when faced with complex, subject-specific questions without the support of subject specialists. Patrons also want service on a 24/7 timeframe, rather than having to wait for reference personnel and other specialists to be available.

The need for virtual delivery of real-time subject specialist input at reference desk was even more heightened with the increasing popularity of mobile reference, where library patrons may contact the library for reference support while they are on-the-go. In such a situation, it is difficult for the individual at the reference desk to refer the library user, or ask them to call back later when the subject specialist is available, because when patrons contact the library while on-the-go, not only is there usually a sense of urgency to get the needed information, but also the patron's call may be constrained by how long they can stay on the mobile device. Given the challenge to provide a scope of options for service accessibility to users, it quickly became clear that there must be a counterpart scope of support options available to service desk staff to ensure that, as much as requests came in a variety of ways on a myriad of topics, there was also a corresponding variety of sources and expertise for addressing these requests.

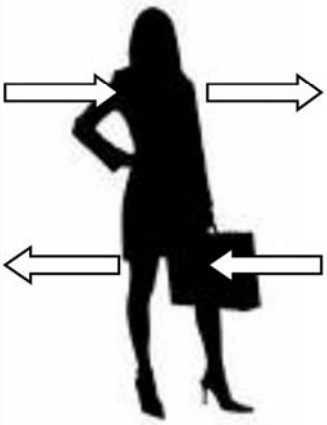
The advent of mobile devices has led to the need to for more flexible reference models, providing reference service to users when and wherever they are, not just within the library building but also beyond. New generations of students have the expectation of service not only in the library, but at home, in the local coffee shop, and on vacation.

VOXER PTT@VT

To address the evolving demands of mobile reference, Virginia Tech Libraries have employed Voxer, a free, push-to-talk walkie-talkie app for mobile devices. Voxer is an

integrated multimedia Push-to-talk application that facilitates instant transmission of voice, text and photos to individuals and groups in real time. It works on any iOS or Android device, and can work on any WiFi or cellular network. Furthermore, there are no geographical barriers as it works both locally and internationally.

Members of the librarian reference group, both specialists and generalists, have either smart phones or iPads on which they have loaded the Voxer app. Each of the two reference desks also have an iPad with Voxer loaded on it. This way, regardless of whether an expert, a generalist, a student, or a volunteer is staffing the reference desk, that person can easily contact the appropriate party to answer any question s/he is unable to handle him/herself without the need to send the patron to another location or have them make an appointment for a future consultation. As an added bonus, other subdivision of the libraries such at the information technology group also have access to Voxer, so reference staff are able to provide help with technology questions that aren't strictly reference-focused, but still essential to patrons' ability to function.

Living Network Using Voxer PTT	Service Point	Library Patrons
Subject/Disciplinary experts: College Librarians: (examples): *Agriculture and Life Sciences* *Art + Architecture* *Business* *Education and Applied Social Sciences* *Engineering* *Performing Arts & Foreign Languages* *Science* *Veterinary medicine* **Backgrounds of reference volunteers:** Web developers Technical personnel Electronic resources personnel EndNote/Zotero/Mendeley Support IR and Data Support Digital Humanities support APA , MLA, and other styles support Technology support		**Patron presence:** In-person By Phone Via Live Chat Via eMail Via Text (SMS) Via other mobile technologies **Assistance areas:** Research papers General reference questions Subject/disciplinary research Bibliographic management Literature search Technology needs

BENEFITS

Virginia Tech Libraries' use of Voxer is still in its infancy, so a more robust longitudinal evaluation will be undertaken in order to capture a full picture of its efficacy. Preliminary feedback indicates that it is useful as a safety net for reference staff not yet proficient in providing reference support. The following voices of participants were recorded during training of volunteers in the use Voxer, held on April 2, 2013 on examples of where Voxer would be useful:

"I have only been doing reference desk for a couple of months...the last time I sat at the reference desk from 1:00 to 3:00pm, I had approximately 10 questions, and I knew about 4 of the 10 answers...I eventually found all of the answers and the reason I did is because I found a more experienced reference desk librarian walking by, and I would wave at them – 'come over here quick!'....maybe Voxer is the answer, I'm not sure...I need to be able to 'wave' either virtually or in reality - Fast!...because I don't need students looking at me like 'you really don't know.' I have tried this on Skype a couple of times but people show as if they are on, but they are not on...what I need to do is to connect fast"

"I started reference at about the same time with [name of previous speaker],...For me trying to search the databases with the student standing right in front of me staring at me as I tried to find the appropriate database in a reasonable amount of time was very frustrating...I found the student something to get started with but had to refer them to [Name of Business Librarian]."

"Someone asked me on my first day where the 'Q' section of the science collection was located, and I didn't know, but [Name of Science Librarian] was available and told me to use the floor map that shows call number locations...Also sometimes I do get questions on the chat service that I am not sure about, which one of the professional librarians could easily answer."

"Having the tools to deal with the 'left field' questions when you are at the desk by yourself is useful..."

Overall, these comments exemplify the need for reference students and volunteers to be connected in real time with experienced reference librarians to receive support at the point of need so that they could, in turn, provide the needed support to library patrons seeking help.

Impact of Model on the Department and Other Services

- Volunteers from other parts of the library have added new perspectives. For instance, some who work on electronic resources access and understand how the 'back-end' of databases and electronic resources works has facilitated more responsive support to users experiencing connectivity problems.

- Subject librarians have been freed to spend more time with outreach activities located within the colleges and departments.

- The Reference and Instruction Services group has gained a greater capacity for reference support by expanding reference training to faculty and staff across the entire library.

NEXT STEPS

As a next step in the Voxer implementations, the libraries intended to approach other service units such as Student Services, the campus technology lab called Innovation Space, and the advising department, to invite them into a campus-wide Voxer network. The intention of this project remains the same as it was at the offset – to provide information services of all types to patrons from a single contact point. By incorporating nodes outside the library into the Voxer network, Virginia Tech Libraries can increasingly become the "go-to" place on

campus for information of all types. As the libraries are currently seen as an information center, adding more valuable services and subject areas to that research information base will enhance the libraries' relevance and create a more dynamic central hub for the Virginia Tech campus.

CONCLUSION

Contrary to common speculation that points to the impending demise of reference services, we hold to the views of Arndt (2010) who states that "Reference services have not been made obsolete by new online search options, and reference librarians are adapting and rethinking their service models in various resourceful ways." We believe that reference is an enduring core of library services, and as long as we continue to reinvent ourselves to meet the changing nature of research support, and to leverage the new and emerging technologies, we will continue to provide needed research support to our users.

A most befitting conclusion to this paper would be a quote from Janes (2004) who states that "there is a vibrant and meaningful future ahead for academic reference services. Based on over a century of traditional strengths and a deep contemplation of how those strengths can best be interpreted in the emerging information environment, we can craft a response that will be of great benefit not only to the people we serve but also to ourselves as professionals." This statement was true then (2004), and we believe it is still true today.

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