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DEMYSTIFYING VIRTUAL REFERENCE

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BY FOOT OR BY FINGERTIP?

When one thinks about a library, it's not unlikely that the mind will conjure up an image of collections housed within a physical building. However, another front door to the library demands increased attention from librarians and patrons alike: the library's Web site. Within the space of a human lifetime the medium and method for disseminating and retrieving information have shifted drastically, from tangible to digital media. This shift's repercussions have transformed the information landscape. Although the challenges that the changes in information retrieval and dissemination have posed now seem mundane, libraries are still struggling with the long-term, far-reaching consequences.

Before the advent of the networked computer, libraries served as a primary hub for information dissemination. Today, libraries must compete with a multitude of formal and informal information providers in the digital sphere. One aspect of information retrieval that libraries still have a corner on, however, is reference. The profession places a high priority on reference as a traditional and increasingly valued role of librarians. With the exponential proliferation of available information, users—regardless of their level of information literacy—often require research assistance beyond that which a search algorithm or frequently asked questions (FAQs) page can provide.

Virtual reference services have become ubiquitous for libraries with an online presence. However, these services rarely occupy a space of prominence on a library's main Web site. At the time of this writing, only 6 of the 124 member libraries of the Association of Research Libraries have chat widgets

on the main page that allow patrons to immediately contact a library employee for assistance. (In contrast, almost all the member libraries contain prominent search boxes that let users directly interact with collections.) In almost all cases, virtual reference services are at least one click deeper into the Web site. These links often occupy very little screen real estate, making it difficult for them to compete with other Web content.

Why Aren't Virtual Reference Services at the Fore at More or All Libraries?

Increasingly, researchers are calling into question the cost-effectiveness of staffing a physical reference desk with librarians. The outcome of one study, conducted by Susan Ryan (2008), suggested that 74 percent of questions received at a traditional reference desk did not require the expertise of a trained professional to answer. With evidence-based decision making decreasing the need for librarians at a desk, the logical place for reference librarians to assist patrons is "out and about meeting users when and where the help is needed" (Watstein and Bell, 2008, 6). In the current research milieu, meeting patrons at their point of need is almost synonymous with providing virtual reference services. Libraries have a unique, and largely unexploited, opportunity to highlight their strength in reference by pushing these services to the forefront in online environments. Doing so is only one method that librarians can employ to make virtual reference services a priority at their library.

ASTOUNDING SAMUEL GREEN

In 1876, in the first issue of *Library Journal*, Samuel Green of the Worcester Public Library published an article entitled "Personal Relations between Librarians and Readers" in which he chronicled the many situations in which a librarian might be of assistance in fulfilling a patron's information need. Notably absent from these interactions was the use of letter writing to communicate with people at a distance. In the vision of reference services that Green presents to readers, the patron invariably "calls for the work, and takes it home to study" (Green, 1876, 77). Now, the patron, the materials she's looking for, and even the librarian answering her question need not reside in a library for a reference transaction to occur.

Joan Reitz's *Online Dictionary for Library and Information Science* (2007) defines *digital reference* as "services requested and provided over the Internet, usually via e-mail, instant messaging ('chat'), or Web-based submission forms, usually answered by librarians in the reference department of a library, sometimes by the participants in a collaborative reference system serving more than one institution." The core of this slightly antiquated definition rings surprisingly true, despite methods (such as virtual worlds and

text messaging) that don't strictly rely on the use of a Web browser to access the Internet.

Although technology evolves rapidly, it is useful to frame current virtual reference services in terms of the history of remote reference. Whether a librarian chooses to send a letter, write an e-mail, or video chat with a user, his intended goal is the same. The only difference is the medium he selects and the constraints that medium places on communication. As mainstream methods of communication change, librarians must ensure that their approach to virtual reference is flexible enough to accommodate necessary revisions to services.

As of December 2009, the Pew Internet & American Life Project reported that 93 percent of Americans aged 18 to 29 use the Internet (Rainie, 2010). Although older Americans are less likely to use the Internet, it is important to note that as educational attainment increases so does the statistical likelihood that one is an Internet user. While 63 percent of people with a high school education use the Internet, the percentage jumps to 87 percent for those with a college degree and 94 percent for those with tertiary education (Rainie, 2010).

Between 2005 and 2008 all age groups polled (from age 12 to 76 and over) experienced growth in Internet use (Jones and Fox, 2010). In the foreseeable future, it seems likely that Internet use will increase and eventually level off to a constant across age groups and levels of educational attainment. To remain relevant, libraries must be ready for patron bases that increasingly expect reference interactions to take place in a technologically mediated, virtual environment. In addition, librarians must be receptive to unanticipated changes in how their users initiate contact in virtual environments:

Despite the power that email holds among adults as a major mode of personal and professional communication, it is not a particularly important part of the communication arsenal of today's teens. Only 14% of all teens report sending emails to their friends every day, making it the least popular form of daily social communication on the list we queried [landline, mobile phone, in person, IM, text message, messaging over social networking sites, email]. (Lenhart, Madden, Smith, and Macgill, 2009, iv)

While e-mail is a primary mode of professional communication for librarians, there may come a time when maintaining a presence in a prevailing social networking Web site becomes just as important to conversing with patrons.

In the same year that Green's landmark article was published, Alexander Graham Bell was awarded a patent for the telephone, a technology still used today by librarians to provide reference services at a distance. Although we don't know whether Green found the advent of telecommunication particularly striking or relevant to his interactions with patrons, hindsight allows today's librarians to imagine the unique set of challenges new technologies can pose to interpersonal communication.

THE HARDEST BUTTON TO BUTTON

The *Virtual Reference Bibliography* (<http://vrbib.rutgers.edu/index.php>), first established by Bernie Sloan and now maintained at Rutgers by Marie Radford, is an index of over 900 works about virtual reference. Searching a library science database such as Library and Information Science Abstracts (LISA) will yield approximately the same number of citations. Clearly, a very large corpus of literature already surrounds virtual reference. Why are librarians still talking about it? The answer to this question is multipronged and illustrates the challenges that face virtual reference providers.

Many of the problems that virtual reference practitioners deal with are technological in nature. First and foremost, much of the software that librarians employ to connect with remote users was never designed with the reference interview in mind. Instead, these young technologies were created to facilitate casual communication and thus lacked the functionality required to coordinate online reference at a library. Examples of technologies that have achieved widespread use due to their popularity with users are programs such as AOL Instant Messenger or services such as text messaging. As these technologies developed over time, their creators' goals were focused on a set of needs distinct from those in reference work.

At the same time, software specifically designed for librarians and virtual reference has proven less than competitive. Vendor products became notorious for lagging behind technologically, imposing unreasonable constraints on users (such as having to install software on their computers), and generally not meeting needs as easily as free products. Only recently have freely available and vendor products begun to meet the needs of both the librarian and the user.

Libraries also have philosophical tendencies that serve as hurdles to excellence in virtual reference. Although this is a stereotype and not true of all institutions or individuals, libraries have a reputation for being slow to change, taking conservative or wait-and-see approaches. Instead of taking risks and seizing opportunities, libraries hesitate and are subsequently forced to change to avoid obsolescence. For visionary virtual reference providers, institutional resistance to change may be the largest challenge to overcome for virtual reference implementation. Libraries of the 21st century that are stuck with late 20th-century technological infrastructures need to remain cognizant of advances in virtual reference. Lina Coelho (2009) summed up this sentiment perfectly when she stated that "it is essential to know what is happening beyond 'the limits of the possible' set by your institution's IT department."

If libraries want software tailored to both librarians' and users' needs, one option is to build and maintain the tool in-house. Although not focused on virtual reference, an excellent example of open-source software is Oregon State University's *Library à la Carte*. Ideally, instead of one library designing and disseminating virtual reference software, several libraries could band

together in a consortium to design and support virtual reference software across several institutions. Gaining traction, buy-in, and funding for such a project may be difficult, but it is a challenge that virtual reference providers should rise to rather than shy away from.

A bevy of challenges face online reference providers, be they technological, philosophical, or monetary in origin. However, the literature contained within the previously mentioned *Virtual Reference Bibliography* and library databases provides an excellent starting point for addressing the hurdles that must be overcome to provide virtual reference services.

THE LONG AND WINDING ROAD TO ASSESSMENT

Selection, implementation, and assessment of library-wide virtual reference services are topics each worthy of their own book, and as such a multitude of monographs is dedicated to each of them. The important first step is to perform a needs assessment for the service. The results of a successful needs assessment can provide valuable insights for informed decision making throughout all subsequent steps of virtual reference service implementation.

Users' needs should shape an institution's technical and operational approach to reference. Before librarians begin vetting different software, hardware, or service plans, they should identify how patrons want to connect to the library. Outlining, and later articulating, clear service-level expectations (such as hours staffed and types of questions answered) will help with measuring the success of the implemented service. Based on the patron base being served and resources available to meet the said need, service levels will vary widely between different types of libraries.

The needs of virtual reference service operators should be taken into consideration as well. In many cases a virtual reference service should centralize the flow of queries yet still allow for flexibility, especially in multilibrary systems. A virtual reference service should supply librarians with the tools to effectively fill patrons' information needs, the functionality to make seamless referrals, and a framework from which to draw meaningful metrics.

Benchmarking with peer institutions can provide valuable insight into what similar libraries do to meet user and librarian needs. Reviewing other libraries' decisions may also alert librarians to considerations that they had not yet anticipated. Libraries will have to consider several salient points. Will the library select a vendor product or develop one in-house? Will the library staff the service with librarians or paraprofessionals (or even outsource the service in whole or part)? Will the library place the responsibility for virtual reference on one or several librarians, departments, and so on? There are no foolproof courses of action for any of these decisions; rather, having a firm understanding of an institution's resources and patron base will guide librarians to realistic and manageable choices.

Anyone who has spent some time in the Zs knows that there's a plethora of sources about assessing virtual reference services. In the past, at the most basic level, reference services have been evaluated based on the number of patrons served. A remnant of this system can be seen in Association of Research Libraries statistics, which still record reference transactions as a lump sum associated with a library. However, collecting quantitative data without context has been outmoded for some time. Increasingly, reference assessment has been blended with qualitative data garnered through surveys such as LibQUAL+ to provide a more holistic picture of services at an institution. A patron's "willingness to return" and use a service again is increasingly a measure that has become shorthand for quality (Nielson and Ross, 2006, 63). A baseline for quality can be easily achieved by following the Reference and User Services Association's behavioral and the International Federation of Library Associations and Institutions' digital reference guidelines, suggested courses of action that current virtual reference providers follow to greater and lesser extents (Shachaf and Horowitz, 2008).

The next logical step in assessing virtual reference services is to move beyond user perceptions of quality to a system that places an internal emphasis on excellence in customer service. Although many librarians will recoil at such corporate verbiage, internalizing the need for distinction in patron relations should be a clearly articulated job responsibility for reference providers. The days of splitting hairs over which desk (reference, lending, or tech help) a question should be asked at are over. (In the virtual environment, services are rarely divided in this way.) In the patron's mind, she is consulting the correct person to help her: a library employee.

Of course, not all assessment will focus on users. Virtual reference services will invariably come under financial scrutiny, not only for the cost of technology, but also for employee time expended. The important thing to remember is that, should a particular approach to virtual reference prove ineffectual, librarians should be willing to revisit and revise past decisions to reinvigorate the service. Although the process seems commonplace, establishing professional virtual reference services includes a certain amount of risk that library administrators must be willing to take on. Assessment, as a result, shouldn't be a one-time process. Continual evaluation with incremental changes will result in a dynamic virtual reference service that changes to meet the needs of the institution, professional, and patron.

BACK TO THE FUTURE: OLD PROBLEMS OR NEW OPPORTUNITIES?

Several hot topics in reference relate directly or indirectly to virtual reference services. While some are unique opportunities for librarians to innovate and provide superior service, others are known problems that must be addressed for professionals to move forward in their work.

As Lenhart and colleagues (2009) mentioned in their Pew Internet & American Life report on *Teens and Social Media*, the social aspects of Web 2.0 are increasingly a primary method for young people to communicate. These channels, often considered informal, are a logical place for librarians to extend reference services should they prove overwhelmingly popular among a patron base. The key is to prioritize, but not write off, new modes of virtual reference. An academic librarian may find that it is imperative to offer reference services in a university's course management system, where all students must log on to find course readings, grades, and so on. Meanwhile, that same librarian might abandon an interesting platform such as a virtual world due to the small percentage of the patron base that actually uses this service point. Alternative and novel venues for virtual reference allow librarians to reach highly specific groups of patrons. Such activities should be appropriately balanced with methods of communication that allow librarians to reach the widest possible audience.

As mobile computing technologies become increasingly affordable and functional, more and more patrons are using mobile platforms to access library resources and services. According to the Pew Internet & American Life Project, "more than half of Americans—56%—have accessed the internet wirelessly on some device, such as a laptop, cell phone, MP3 player, or game console" (Horrigan, 2009, 1). The challenge of helping a patron navigate a physical space will put increased emphasis on wayfinding aids in both physical and virtual environments. In addition to allowing patrons to move during a reference interaction, technology will increasingly empower virtual reference providers to get out from behind the computer and meet "virtual" patrons who are actually within the library to provide face-to-face service. Librarians will also be able to multitask more effectively when using mobile devices, roving when not engaged in a virtual reference interaction.

Unfortunately, the future of virtual reference service isn't all about possibilities. Privacy, as it relates to digital communications, should be a persistent concern for librarians. The American Library Association's *Code of Ethics* states that library professionals must "protect each library user's right to privacy and confidentiality with respect to information sought or received and resources consulted, borrowed, acquired or transmitted" (American Library Association Council, 2008). Librarians must be canny when it comes to privacy, vetting virtual reference software to ensure that patrons' privacy is respected. Currently, many popular, free, Web-based e-mail services employ data mining to display targeted advertisements. While data mining is usually automated, it still violates the profession's ethical conviction of confidentiality and should thus be avoided. In addition, building an institutional knowledge base or data warehouse of reference interactions must be done with care, removing identifiable patron information to safeguard privacy.

There are many future challenges that face virtual reference service providers. Some, such as providing reference services despite reductions in staffing, are complex, institution-specific problems beyond the scope of this chapter. However, many of the issues facing virtual reference today require librarians to revisit the profession's core values, affirm their importance, and work to ensure that they will be upheld in the digital sphere.

BUSTING MYTHS, TAKING NAMES

A librarian's receptivity to virtual reference should, of course, not be taken for granted. There are persistent myths about virtual reference that need to be dispelled. The first is that virtual reference is for the next generation of professionals, that crowd of 20- or 30-somethings for whom implementing technology in libraries seems like a breeze. Fluency in a virtual environment doesn't correspond with age but rather with familiarity and practice. People of any age can become adept at virtual reference.

Another myth is that virtual reference is, quite simply, a lot of extra work. This idea most likely sprang from one individual being asked to spearhead virtual reference services at a library. When added to preestablished job responsibilities, serving as the axis on which virtual reference services turn could be overwhelming. In such cases, journal articles with titles like "Doing Virtual Reference along with Everything Else" begin to take on a darker, ominous tone. Ideally, even at the smallest libraries, virtual reference responsibilities should be shared. With proper management of the service, no practitioner should feel overwhelmed by his workload.

Finally, although virtual reference used to be viewed as a service that could be offered inexpensively, needing only free tools and a skeleton crew to be implemented, it is increasingly viewed as a service with a price tag, especially at large libraries. However, purchasing software, hardware, labor, or data plans is still not necessary to implement virtual reference successfully. Even at large libraries, reasonably priced and free options are still being employed to provide service.

Offering virtual reference services involves implicitly or explicitly answering a series of questions. For the practitioner, it's important to keep in mind that reference skills are transferable and can be adapted to new technologies. Actively participating in the process by which these technologies are implemented and evaluated affords the opportunity to shape the resultant system. Librarian input facilitates a virtual reference service that grows increasingly efficient behind the scenes and is user centered—custom tailored to librarian and patron alike.

What's the next step for a professional who wants to get involved with virtual reference or is already in the thick of it? The answer is simple: Talk to those who excel at remote reference. Seek out the people who are passionate

about excellent service and the most effective ways to provide it. Staying hip to developments at one's library and within the profession is easier when one's in good company. No virtual reference librarian need work in a vacuum.

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