Virtual Reference

By Richard W. Boss

Virtual reference, also known as digital reference, is online reference service that enables library patrons to ask reference questions directly or through a library's Web site. The user may be at home, in an office, at school, or in a library. Some virtual reference services also place answers to frequently asked questions (FAQs), selected reference tools, and access to selected databases on the Web site. The question answering service using Internet technology is the essential component, without which the use of the name "virtual reference" is misleading. No matter how many reference tools are made available online, the lack of opportunity to ask questions of reference librarians makes the service something other than virtual reference.

History

Virtual reference was introduced approximately 15 years ago. The best known of the early efforts was the Internet Public Library (www.ipl.org) a service launched in 1995 by the University of Michigan's School of Information and Library Studies. Initially an experiment, it is now a well-established service that is a collaborative effort among nine schools of library and information science.   Since January 1, 2007, the service host for the program has been the Drexel University College of Information Science and Technology.   While the URL was not affected, the name was changed to ipl2 when the Internet Public Library and the Librarians' Index merged in 2009. The service provides a variety of online resources arranged in broad subject areas, a number of pathfinders, an extensive FAQ section, and a Web form for asking reference questions.   The service now operates 24/7 most of the year. IPL has a staff of volunteers that answers questions, usually in no more than three days. IPL can be accessed directly or through a link on a library's Web site.

Several public libraries initiated "ask a librarian" virtual reference in the late nineties. Since that time, hundreds of public and academic libraries have joined them. For the first several years, the libraries provided an e-mail address or a Web form for patrons to ask questions from anywhere at any time. Reference librarians, usually those already working regular hours at reference desks, would work on questions submitted when the library was closed, or that could not be answered immediately, as time permitted. Most libraries also added other components to their virtual reference service, especially knowledge-

bases online resources.

The CLEVNET consortium in Ohio launched the first 24/7 virtual reference service in June of 2001. With funding from the State Library of Ohio and the participation of many of the state's public libraries, the service went statewide in 2004. The service is currently called KnowItNow24x7 (www.knowitnow.org).   Almost all of Ohio's public libraries provide links to the site and approximately 20 percent participate in the answering of questions. It is believed to be the busiest service of its type in the country. General reference is available all hours; assistance by subject specialists is available from 9:00 a.m. to 5:30 p.m. Monday through Saturday. The service is available in English or Spanish to anyone by merely entering an Ohio zip code.

New Jersey's Q and A NJ (www.qandanj.org) was launched as a statewide 24/7 virtual reference service in October of 2001. It was made possible by sharing responsibility among reference staffs at scores of public and academic libraries and at a reference center. There are two question forms, one for general users and another for college students seeking help with coursework. The service now also offers access to a number of databases. Unless connected from a library, a patron must enter a public or academic library barcode number to gain access. Q and A NJ seeks to answer most questions online within 15 minutes. It does not answer questions that involve extended research, but will get the requestor started.

Forms of Communication

Initially, the only forms of communication between a remote library patron and a reference librarian were e-mail and online Web forms.

While ubiquitous, e-mail does not offer the instantaneous response that library patrons may seek. It is also difficult to conduct an effective reference interview using e-mail because many questions require clarification. It may take three or four exchanges just to determine what the library patron really wants.

A Web form is somewhat better than e-mail because it can be designed to elicit all of the needed information, including the all-important "needed by" information.

In the last few years libraries have also undertaken live, interactive chat to overcome the drawbacks of e-mail and Web forms.   A chat begins when an Instant Message (IM) from one party goes to another party who is also active on IM and is not already involved in another chat. An attempt to send an IM to someone who is not online, or who is not willing to accept IMs, will result in notification that the transmission cannot be completed. If the online software is set up to accept IMs, it alerts the recipient with a distinctive sound or on-screen message. In the past, both users had to be using the same software, but that is now rarely the case. However, chat software was designed for one-on-one conversations among friends, not for high-volume question-answering services that must be able to queue and route questions. Nor do they offer a knowledge base of frequently asked questions (FAQs) with answers and electronic resources. For those reasons, libraries are increasingly turning to Web contact center software.

In the last few years texting has been added. Known as SMS reference, at least 250 libraries were using it as of 2009. Patrons text questions on their cell phones; librarians type answers on a secure Web site.

Software for the various types of virtual reference are discussed in a later section.

Knowledge Bases and Linking Tools

A library or consortium may choose to build a knowledge base as part of a virtual reference service. There are many tools to facilitate the effort. A typical one organizes sites by subject matter. The list is in alphabetical order by subject, and then title name. Links take searchers to the resources.   An internet search on "knowledge base software" will turn up scores of them. Many vendors of integrated library systems also offer software to support non-MARC databases. OCLC's QuestionPoint, discussed later in this TechNote, includes a library specific knowledge base product.

Solo and Collaborative Reference

Virtual reference can be provided by a single library, the "solo" approach, or it can be a collaborative effort among many libraries.

The Solo Approach

When the service is provided by a single library, the service usually is available only to its own patrons. Access to online resources and a means to submit questions typically is 24/7, but responses to questions submitted after library hours are usually returned no earlier than the following day. Some libraries have found that it is more realistic to commit to two-day service. The main advantage to the solo approach is that a library determines its own policies and procedures; therefore, no compromises with other libraries are necessary.

The Collaborative Approach

A collaborative approach may involve as few as two libraries. When that is the case, 24/7 response is difficult to achieve, but it may be possible to extend the response hours when the libraries have different hours because of differences in budgets or because they are in different time zones. More commonly, the two-library approach involves libraries with different collection strengths and staff subject expertise. The libraries will need to agree on policies and procedures. Particularly important is agreement on the level of service because a library's reputation may suffer if the level of service extended by its partner is better or worse than its own.

The most common way to achieve 24/7 response is to participate in a consortium of libraries over a large geographic area. That spreads the burden more broadly and results in greater collection resources and staff expertise than just two libraries can achieve. It does mean that a library has to adopt the policies and procedures of the consortium even

when these are not consistent with its own preferences. A score of state libraries were sponsoring statewide virtual reference service as of 2009.

In any collaborative virtual reference, the issue of access to licensed databases must be examined. Many licenses limit access to patrons of the subscribing library. Unless the participants limit access to the databases to which both/all subscribe or relicense the databases as consortium subscriptions, the patrons in the participating libraries will not have comparable resources available.

Examples of Collaborative Virtual Reference

There are a number of collaborative reference services, most coordinated by state library agencies. That of New Jersey has already been mentioned. Colorado's service (www.askcolorado.org) has been available in both Spanish and English since 2003. Any Colorado resident may access the service 24/7. The task of responding is shared by more than 75 participating libraries, including public, academic, school, and special libraries. From two to five reference librarians are available at any one time. They answer more than 4,000 questions a month.   The software used is Ask A Librarian from Tutor.com (www.tutor.com/libraries). Tutor.com also provided Ask Colorado with after-hours service and Spanish language service from its "Ask A Librarian Express."

Maryland's AakUsNow (www.askusnow.info), which was launched in 2003, is worthy of mention because it has a very high level of participation by public libraries, including all 18 of the large municipal and county-wide library systems. A number of academic and special libraries also participate. The service is available 24/7. When none of the participating libraries is open, service is provided by libraries in other states through QuestionPoint.   The majority of questions are answered during chat, with those that require some research answered by e-mail within 72 hours.   A transcript of the chat session is sent by e-mail. As of late 2009, more than 250,000 questions had been answered during live chat and another 50,000 by follow-up e-mail.

Some virtual reference services focus on specific areas. For example, Government Information Online (http://govtinfo.org) specializes in finding government information sources of all kinds, and answers questions through chat or e-mail. It is a free service that is supported by a number of public, academic, and state libraries. All of the participating libraries are official federal depository libraries.

There are also virtual reference services that target special audiences. Among them is a collaborative virtual reference service that serves visually handicapped persons. Known as InfoEyes (www.infoeyes.org), it is a collaborative effort among approximately 20 libraries for the blind.

The largest collaborative virtual reference is global in scope. It is QuestionPoint (www.oclc.org/QuestionPoint), a joint effort of OCLC and the Library of Congress that is based on the Collaborative Digital Reference Service launched by the Library of Congress and 15 partner libraries in 2000. The collaboration between OCLC and LC began in 2001. QuestionPoint is not only a virtual reference service; it is a supplier of software tools.

QuestionPoint Details

There are two major components to the QuestionPoint virtual reference service: Reference Management Service and 24/7 Reference Cooperative. A library participating in the Reference Management Service receives software that enables it to offer virtual reference support directly from its Web site by e-mail, Web forms, and chat; and to create and maintain a local knowledge base. There are cooperative tools that enable a library to work collaboratively with other libraries. There is also access to a global knowledge base built by the libraries that participate in the program.

24/7 Reference is an around-the-clock reference service provided by libraries that choose to participate. A library commits a minimum number of hours of reference assistance to the service in return for access to reference groups that may be a local consortium, a statewide program, or the global network.

To join QuestionPoint, a library fills out a subscription order form on the site. There is a fee for participating. A library may join directly or as part of a statewide service or consortium. Members of statewide services and consortia pay less than individual libraries.

More than 2,200 libraries in 28 countries were participating as of mid-2009. Almost 431,000 questions were answered in the 2009 fiscal year, bringing the total number since mid-2002 to 4.6 million. QuestionPoint's interface is available in 14 languages. A number of statewide services were linked to QuestionPoint as of mid-2009, among them California, Delaware, Illinois, Maine, Maryland, Montana, New Jersey, North Carolina, Oregon, Pennsylvania, Washington, and Wisconsin. In addition, there were participating regional consortia in Arizona Indiana, Kentucky, New York, and Texas.
The Knowledge Base that is part of QuestionPoint had in excess of 21,000 records in mid-2009.

OCLC regional networks offer workshops on OCLC QuestionPoint service. They are designed to provide an understanding of how QuestionPoint works, how it can fit into a library's current reference service, and how to administer a QuestionPoint account and customize it. They usually are half-day workshops.

Outsourcing Virtual Reference

A library or consortium offering virtual reference may choose to outsource after-hours virtual reference or all virtual reference. The leading vendor since 2003 has been Tutor.com. It offers a professionally staffed 24/71 service accessible through libraries (www.tutor.com/libraries/virtual-reference). For customers who staff their own service, but not 24/7, rates are negotiated for the hours that the service is used. The service includes providing references from a customer's databases. It has been offering after-hours service for Connecticut's statewide InfoAnyTime and Colorado's AskColorado since mid-2006.

Virtual Reference Guidelines

The Ad Hoc Committee on Virtual reference of ALA's Machine-Assisted Reference Section has developed a set of guidelines for implementing and maintaining virtual reference services and defining the issues that must be addressed in planning virtual reference. It is unique among the many sources available on the Web in its concern for protecting the privacy of library patrons. The guidelines are based on those developed by Bernie Sloan and set forth in her article "Electronic Reference Services: Some Suggested Guidelines, Reference & User Services Quarterly, 38 (1) 77i-81, summer 1998. The URL has changed more than once in the past few years. The fastest way to reach it is to use Google or another search engine by entering the search term "MARS Digital Reference Guidelines."

Virtual Reference Software

Libraries with Web sites or e-mail addresses do not need additional software to send and receive e-mail messages.

Chat software is available for free download from a number of sources. The most widely used in virtual reference appears to be Pidgin (www.pidgin.im). It works with almost all chat networks except Google. Google has its own Gtalk (www.google.com/talk). Meebo (www.meebo.com) works with almost all chat networks, including Google's. A library or consortium that needs a high-volume high chat capacity should consider boldchat (http://www.boldchat.com), a software package that leases for as little as $29 per month per concurrent user. The typical hardware requirement is a small Web server costing no more than $3,000.

 The most widely used text messaging or SMS virtual reference software is Mosio's Text a Librarian (www.textalibrarian.com). It was developed specifically for libraries. It works with e-mail, instant message, and Web chat systems. The price is $65 to $199.92 per month depending on the number of user log-ins.

Special software is required to support all types of communication for a service. More than 50 companies have been supplying Web contact center software to online retailers such as L.L.Bean, Lands End, and major insurance companies. The software was designed for answering questions and providing interactive customer service. It queues and routes Web calls to the next available staff member, allows a staff member to push Web pages to service users, supports the building and maintenance of knowledge bases, and allows questions and answers to be captured for inclusion in a FAQ file. Many of the Web call center products also include VoIP (voice over Internet Protocol) so that voice communications is possible. A particularly attractive feature of some Web contact center software is co-browsing. It enables a reference librarian and a patron to share the same Web pages, including online databases and other services that require authentication.

nfortunately, most of the vendors do not offer pricing scaled to meet the lower activity levels of libraries and library consortia. One of the few vendors that appears to have accounts of all sizes is Right Now (www.rightnow.com). It licenses software on the basis of both the number of seats (the number of call handlers at one time) and traffic volume. Prices begin at $110 per seat per month.

The most widely used comprehensive software specifically designed for library virtual reference are those from Tutor.com (www.tutor.com/libraries/virtual-reference) and OCLC's QuestionPoint (www.oclc.org/QuestionPoint). Prices are available only after submission of a library profile.

Training Virtual Reference Librarians

Washington State developed a unique training curriculum that addresses core competencies for library staff providing virtual reference service. Named "Anytime, Anywhere Answers."   It was designed for both workshops and for delivery via the Web. Funding for the training program was discontinued in 2006, but a considerable amount of information continues to be available on a now frozen web site (www.vrstrain.spl.org) and in a monograph by Buff Hirko and Mary Bucher Ross entitled "Virtual Reference Training: The Complete Guide to Providing Anytime, Anywhere Answers." Published in 204 by ALA Editions, it is available for $50.00 (ISBN-13:978-0-8389-0876-1).

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