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Virtual Reference

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Virtual reference, also known as e-reference, is online reference service that assists patrons by placing answers to frequently asked questions (FAQs) on a library's Web site, mounting selected reference tools, providing an e-mail address or Web form for library patrons to ask reference questions, and/or providing real-time assistance using chat or instant messaging software. Virtual reference can be provided by a single library or it can be a collaborative effort among many libraries. When the service is provided by a single library, the service offers 24/7 access, but not 24/7 response. When it is a collaborative effort among many libraries in different time zones, 24/7 response becomes possible.

Virtual reference was introduced more than a decade 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. It 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. 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. Despite its name, many academic libraries link to IPL.

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. Whether the library provides an e-mail address or a Web form, the idea is that a patron can ask a question from anywhere at any time, rather than being face-to-face with a librarian. Reference librarians, usually those already working regular hours at reference desks, can then work on questions that cannot be answered immediately as time permits. Most libraries have added other components to their virtual reference service, especially online resources. Some consortia, including Q and A NJ (www.qandanj.org) have offered real-time "chat" on a 24/7 basis, a service made possible by sharing responsibility among reference staff at member libraries and at a reference center. The New Jersey service is believed to be the oldest consortium-based chat service. It celebrated its third birthday in October, 2004.

Forms of Communication

Until recently, the most common form of communication between an off-site library patron and a reference librarian has been e-mail. 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.

Live, interactive chat was tried by many libraries to overcome the drawbacks of e-mail. While it is possible to communicate back and forth and answer a question, and to tell the library patron to go to a specific address on the Web, it is not possible to take the library patron there. Nor is it possible to assist a library patron with a database search. Finally, 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.

Increasingly, libraries are turning to Web contact center software. More than 50 companies have been supplying such 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.

Among the most widely used Web contact center software packages for libraries are the Virtual Reference ToolKit from Tutor.com (www.tutor.com). VRLplus from Docutek (www.docutek.com) and LSSI Virtual Reference from Library Systems & Services (www.lssi.com). The price may be as high as \$10,000, plus seat licenses.

Local Virtual Reference

Scores of libraries have implemented virtual reference on their own. They have usually begun with a simple e-mail option for asking questions. As volume built, they have found it necessary to acquire and install specialized virtual reference software. The main drawback to undertaking virtual reference locally is that hours of coverage are more limited than with collaborative services and the knowledge base grows much more slowly.

Libraries that plan to build a knowledge base of their own should consider using the subject breakdowns of Librarian's Index to the Internet (www.lii.org). LII has organized information into 15 broad categories and hundreds of sub-categories. Many of the links it offers are available to any library to add to its knowledge base.

Collaborative Virtual Reference

There are a number of collaborative reference services, most coordinated by state library agencies.

Typical of the statewide collaborative efforts are those of Colorado and Washington. Colorado's is particularly interesting because it is available in both English and Spanish. (www.askcolorado.org). Any Colorado resident may access the service 24/7. The task of responding is shared by 43 participating libraries, including public, academic, school, and special libraries.

The Colorado program was launched in 2003 with funding from the Library Services and Technology Act (LSTA) and contributions from the participating libraries. The software used is Virtual Reference ToolKit from Tutor.com (www.tutor.com/libraries). Tutor.com also provides after hours service and Spanish language service from its "Librarians by Request" service.

Washington State has developed a unique training curriculum that addresses core competencies for library staff providing virtual reference service. "Named "Anytime, Anywhere Answers," it is designed for both workshops and for delivery via the Web. Information is available from Buff Hirko, the Statewide Virtual Reference Project Coordinator (bhirko@secstate.wa.gov).

The largest collaborative virtual reference service is 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. More than 1,500 libraries in 20 countries were participating at the end of 2004. QuestionPoint's interface is available in ten languages.

Libraries may choose to participate in QuestionPoint at one of three levels:

Local and global with standard communication

A participating library 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. In addition, there is access to a global knowledge base built with contributions from all of the participants. Unanswered questions can be sent to other libraries in a local reference network or a global reference network of all participants. QuestionPoint automatically locates and displays the best possibilities for obtaining an answer from specific QuestionPoint participating libraries by comparing the requirements of the questions with the profiles of all

QuestionPoint participants. If the selected library cannot answer the question, it is routed to the next likely candidate.

Local and global with enhanced communication

At this level of participation, standard communication is enhanced with virtual interview capabilities so that a library patron can see a reference librarian on the screen and hear him or her speak if the PC has speakers. It is also possible to share applications with a library patron so that both s/he and the librarian can see the other's application. With this functionality, a reference librarian can assist a library patron in searching databases, the patron access catalog, or any Web site.

Global only

This option is for use by reference librarians only. They can submit and receive questions from other participating libraries and access the global knowledge on behalf of library patrons.

To join QuestionPoint, librarians fill out a subscription order form on the site. The service costs \$2,000 per year for individual institutions, but members of consortia generally pay less than that.

QuestionPoint absorbed the 24/7 Reference Service of the Metropolitan Cooperative Library System (MCLS) of Southern California in 2004. That added 500 libraries to QuestionPoint, 60 percent of them outside California. The merged knowledge base has more than 7,000 question and answer pairs. 24/7 Reference was launched in 2000 using LSTA Funds. The software products developed by MCLS are available under license from OCLC for use by a single library or a consortium. Information is available at www.247ref.org. Pricing is based on the size of the population served. Among the statewide consortia using 24/7 Reference products are Delaware's AnswersONLine, Maryland's AskUSNow, and North Carolina's NC Knows. One does not have to subscribe to QuestionPoint to use the software products independently of QuestionPoint participants.

An important collaborative virtual reference service is one that serves visually handicapped persons. Known as InfoEyes (www.infoeyes.org), it is a collaborative effort among approximately 20 libraries for the blind.

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 (www.ala.org/ala/rusa/rusaprotocols/referenceguide/virtrefguidelines.html) 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.

Virtual Reference Service Plans

An excellent planning document for collaborative virtual reference is that prepared by the Statewide E-Reference Task Force of Oregon in 2002. It is available at www.osl.state.or.us/home/libdev/cref/proposal.html/. Other plans can be found by logging on the Web sites of state library agencies.

Workshops and Conferences

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 and are priced at \$100 or less per person.

A more general introduction to virtual reference is available at conferences sponsored by the Virtual Reference Desk (VRD) Project. VRD (www.vrd.org/network) is a program of the U.S. Department of Education that targets K12 students, educators, and parents. The participating services are other agencies of government, including museums and the Library of Congress. Despite the narrow service focus of VRD, its virtual reference conferences are broad in scope. They are usually held for two days each November.