Digital Reference Service: Libraries Online 24/7

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Abstract

The integration of the Internet Technology in to Libraries has not changed its mission of providing excellent information service to users but it has added several new dimensions and opened new avenues to their tasks. Reference librarians, while assisting users in the library, now have an additional set of remote users, who access the reference service online, who are more demanding, less patient users who have greater expectations. This paper discusses the methods in Online Reference service and the role of reference librarian in the digital environment.

0.   INTRODUCTION

The integration of the Internet Technology is affecting all functions of academic libraries. The mission of library professionals, providing excellent information service to users, has not changed, but technology has added several new dimensions and opened new avenues to their tasks. Librarians are moving into dramatically different roles as new services are implemented and the rate of change is breathtaking, especially for libraries that have been accustomed to stability in organization and in funding. The utilization of new tools and methods for providing and collecting a variety of information to library users for diverse information needs of instructional, research, learning and entertainment activities has become common. While continuing to provide many traditional information services, librarians are developing new skills and accepting the new roles that are necessary to support technology-based services. Acquisitions librarians still selecting and purchasing books and traditional journals, but now they are also dealing with providing user access to leased electronic databases, full-text journal articles, Internet resources etc without "owning" the resources that are acquired only virtually. Catalogers are also moving into new roles as they attempt to provide enhanced access to the new resources like CD-ROMs, computer discs, multi-format items, and Cataloging the Internet itself is a task that has fallen to librarians. They are making these new resources accessible and applying Metadata standards. Reference librarians, while assisting users in the library, now have an additional set of remote users, who access the reference service online, who are more demanding, less patient users who have greater expectations. This paper discusses the methods in Online Reference service and the role of reference librarian in the digital environment.

1.   LIBRARY REFERENCE SERVICE

Reference librarians assist users in finding, selecting and using various information sources and materials. They rely on a variety of printed and electronic sources to provide relevant and accurate information to their users. Internet is becoming more and more popular source among reference librarians and users. It enables them to search, retrieve, request, receive, and download information from sources scattered all over the world on the web. The traditional work of reference librarians has been greatly impacted by access to electronic publications on the World Wide Web. Now Reference librarians are also using the Web to create electronic publications for in-library users and Web surfers. By creating HTML documents that provide access to Web and other electronic resources, reference service is extended beyond the physical library and designated reference desk hours, opening the building for 24-hour access.

2.   VIRTUAL / DIGITAL / LIVE / ONLINE REFERENCE

The terms "virtual reference," "digital reference," "e-reference," "Internet information services," "live reference" and "real-time reference" are used interchangeably to describe reference services that utilize computer technology in some way. Whether it is email reference, chat reference or an automated routing system, virtual reference is significantly influencing the delivery of high-quality library services (Virtual Reference Canada). Digital reference techniques have been around, in one form or another, for almost a decade now. *VRS or DRS are simply defined as the provision of real-time personal assistance to users via web-based interactive software*. To satisfy the information need, the librarian can "chat" as a component of

the software to answer a fairly specific or simple question, or deliver digital materials, or suggest relevant web resources to the user, and provide online bibliographic instruction. This service may happen when the library is closed, or when the user is unable to get to the library. This way, users can still be in contact with experienced reference librarians. Questions submitted via email and linked web pages require attention from reference staff, and the virtual reference transaction can be more complex and time-consuming than traditional in-library service. The Web medium that poses a new challenge for librarians offers major new tools to give us the power to control our own situation.

With the expansion of reference modes to digital communication, namely e-mail (asynchronous) and chat (synchronous), there has been a delay in applying instruction to digital reference. Academic libraries started first offering e-mail reference where users could submit their questions via an e-mail address. Recently the adoption of Web forms not only changed the quality of the e-mail reference engagement for the better, but also challenged librarians to develop effective means for managing questions and responses. A digital reference transaction will usually include the following elements: the user, the interface (web form; e-mail; chat; video etc.), electronic resources (including electronic or CD-based resources; web resources; local digitised material etc), as well as print resources and the information professional.

3.   PLANNING FOR DIGITAL REFERENCE SERVICE

Detailed guidelines for a Digital Reference Service is drafted by IFLA with a purpose to promote digital reference best practices on an international basis (IFLA Digital Reference Guidelines).
Planning should include consideration of the following (Berube, 2003):
- Physical service location (in a public service area; in a special collections area; in an office; proximity to print resources etc)
- Virtual service location (server space; Internet Service Provider etc)
- Training in advanced web skills, reference interview and procedure
- Programming and web expertise (web design skills; database management etc.)
- Management and co-ordination of the service (who does what when)
- Completion time for transactions (questions will be answered in a day/two days/a week etc.)
- Quality control (basic standard for researching questions; types of sources used; structured response; referrals to other resources or services etc.)
- Service population (whether service is available for local library users or anyone)
- Data collection for evaluation
- Promotion of the service
- Hardware and software (PC/Workstation; printer; scanner; mail client; web-form; chat software; authentication software; etc.)
- Additional equipment (web cam; video equipment etc.)
- Furniture

The staff necessary to run such a service includes:
- Researchers (librarians; library assistants) to gather the information to answer questions
- A co-ordinator to assign questions and to monitor answers; to schedule staff
- IT support for running networks, maintaining web pages and scripts
- Data entry staff to input and send responses.

3.1   Social Inclusion: email-based and especially chat-based reference extends library services to those users with physical challenges. Not only can those users access information, but can receive real-time guidance from librarians, thus facilitating the 'human interaction' so important in reference transactions

3.2   E-government/modernizing government: The use of real-time technology increases accessibility to all types of government services. Libraries, experts in information delivery technologies, can provide the model in local authorities for reaching out to diverse user groups

3.3   NOF Training Expected Outcomes 2-8: Services, such as Ask A Librarian and chat reference, provide excellent training for staff in simple Internet searching to more complex user interaction with state-of-the art technologies. All staff, from professional to clerical, have the opportunity to become conversant in different types of technologies while delivering real-time service.

4.   DELIVERY METHODS OF DIGITAL REFERENCE

Digital reference services can be made through e-mail or chat. Libraries are also using a couple of different means of running an e-mail reference service: using basic e-mail or web forms. There are also a few

different ways of operating a chat reference service: using simple chat software, web-based chat rooms, and web contact center software. Below is a quick preview of each of the delivery methods with more detail.

4.1 E-mail

User sends the library an e-mail with a reference query, supplying whatever information he or she feels is necessary. The library may reply by e-mail, phone, fax, letter, etc. Now days the Web Pages of Libraries are coming with "Ask a Librarian" option.

4.2 Web forms

Here usually the user fills out an online form on the library's web site. The form asks the user to answer clarifying questions that will help the reference librarian responding to the query. The user sends the completed form to the library and the library may reply by e-mail, phone, fax, letter, etc. While e-mail reference allows the user to write down the query in his or her own words, a web form structures the user's request somewhat, prodding the user to supply additional information that will specify the request.

4.3 Chat reference using simple technologies

In this method, user exchanges short, text messages back and forth with the librarian, in a chatting environment. This way doesn't allow for all the fancy interactivity that web contact center software allows, but it does allow for rapid, basic communication. There are three ways of running this kind of a service: with free, instant messaging software (such as AOL Instant Messenger), with a web-based chat room, or with chat software purchased by the library. With most of these services, the user types in an opening query or greeting to get the attention of the librarian staffing the chat reference service. The user and librarian may exchange a series of short messages to get to the heart of the user's request. This exchange of messages is live (it takes place in real time) and allows for negotiation of the user's query.

4.4 Chat reference using web based contact software

Borrowing technology from online customer service, software for web contact centers not allow for instant messaging, but they also offer give the librarian power to control the user's browser. A librarian can actually make the user's browser display a recommended web page, such as a search engine (with a suggested query typed in by the librarian!) or the main page for the library's online catalog. As the librarian pushes pages onto the user's browser, the chat window can also appear on both user and librarian's screen, allowing them to have a typed conversation about the web pages being sent to the user.

4.5 Collaborative networks for reference

In this model, two or more libraries team up to offer reference service using any of the above online formats. The user would send to a member library his or her request, which would be forwarded to the library best able to answer the question. A library may get a question routed to it because it has particular strengths in its collection that match the needs of the user. Or a member library might get a question routed to it because it happens to be open when the user makes his or her request. For example, a user in New York who tries logging on at 3 a.m. Eastern time to the chat reference service of a member library in Boston could be automatically routed to a member library in Hawaii or Australia that, thanks to a time zone difference, is open.

4.6 Knowledgebase

Knowledge bases are used to retain questions and answers for reuse, in searchable database or archive. The use of previous answers to respond to new questions, knowledge bases reduce question response time and duplicated effort. If users search for and find prospective answers to their questions, knowledge bases allow libraries to meet users at their point of need. Knowledge base records will have high quality of information that users may not find on the Web. An effective knowledge base amounts to a peer-reviewed institutional memory, if only we add authoritative and reliable questions & answers to it. This is a typical way of the traditional reference service to keep all the reference questions and answers in files, through which the a "long range reference" becomes a "ready reference".

5.   FACETS OF QUALITY FOR DIGITAL REFERENCE SERVICES

The 1997 Virtual Reference Desk Expert Panel has identified eleven characteristics and features (referred to as facets of quality) for building a digital reference service for the educational community and its fifth version is published in June 2003 [Virtual Reference Desk Expert Panel, 2003]. The facets are divided into two main categories: *user transaction* and *service development/management*. The user transaction category includes those components that occur during the question-answering process (i.e., accessibility, prompt turnaround, clear response policy, interactive, and instructive); these features are generally visible to the user. The service development/management category involves decisions made in creating and maintaining the service that affect overall quality and user satisfaction (i.e., authoritative, trained experts, private, reviewed, provides access to related information, and publicized).

5.1   User Transaction

Accessible: Digital reference services should be easily reachable and navigable by any Internet user regardless of equipment sophistication, physical disability or language barrier.

Prompt Turnaround: Questions should be addressed as quickly as possible. Actual turnaround time depends on a service's question-answer policy and available resources (e.g., staffing, funds, technology, etc.).

Clear Response Policy: Clear communication should occur either before or at the start of every digital reference transaction in order to reduce opportunities for user confusion and inappropriate inquiries.

Interactive: Digital reference services should provide opportunities for an effective reference interview, so that users can communicate necessary information to experts and to clarify vague user questions.

Instructive: Digital reference services provide access to current information and expertise. Quality digital reference services offer more to users than straight, factual answers; they guide them in how to formulate questions, subject knowledge, and information literacy.

5.2   Service Development and Management

Authoritative: Experts of a digital reference service should have the necessary knowledge and educational background in the service's given subject area or skill in order to qualify as an expert. Specific levels of knowledge, skill and experience are determined by each service and its related discipline or field.

Trained Experts: Services should offer effective orientation or training processes to prepare experts to respond to inquiries using clear and effective language and following service response policies and procedures. Training of information specialists is one of the most important aspects of planning and operating a digital reference service.

Private: All communications between users and experts should be held in complete privacy.

Reviewed: Digital reference services should regularly evaluate their processes and services. Ongoing review and assessment help ensure quality, efficiency, and reliability of transactions as well as overall user satisfaction.

Provides access to related information: Besides offering direct response to user questions, digital reference services should offer access to supporting resources and information. Services can reuse results from question-answer exchanges in resources such as archives and frequently-asked questions (FAQs).

Publicize: Services should inform potential users of the value that can be gained from use of the service. A well-defined public relations plan can ensure that services are well-publicized and promoted on a regular basis. Publicity should not create more demand than the service has capacity to handle.

6. CONCLUSION

Real-time online reference holds enormous potential for revolutionizing the way users find and use reference services. By adding interactive help to their online information services, libraries can reach users who may never have sought out the traditional reference desk. Moving from the desk to the desktop, however, can be a daunting prospect. In fact, the Internet skills are becoming very important for all library professionals as more and more library operations can be performed more effectively by using the Internet. Therefore libraries, particularly in developing countries, need to look into this matter and should make concerted efforts for enhancing the Internet skills of their professionals. In India several libraries have started online reference services using e-mail and "Ask A Librarian" services, but real online reference services should be the focus of us to reach out to the millions of users out side the library walls and serve the community at large.

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