VIRTUAL LIBRARY SERVICES: ISSUES AND CHALLENGES

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Abstract
The Developments in technology have changed the way librarians think about reference services and how to meet their users’ information needs. Today, the explosion of information available on the Internet has made it much easier for users to find information on their own. Many users view the Internet as a more convenient way to satisfy their information needs. As a result, today’s reference librarians are more likely to spend time providing guidance to users in choosing among and using available resources (digital and print). This paper discusses the significant change in reference librarianship in virtual library environment in academic libraries. It also examines Virtual Reference Service Model, advantages, disadvantages and required tools, challenges and preparation for virtual reference services.

Keywords
Virtual reference, Digital libraries, Traditional Libraries, Information services, Communication, Reference services, Librarian, Administration, Evaluation
Introduction
The traditional role of the library has always been an intermediary between the information producer (or publisher) and the user. For information producers, the library acted as a clearing house of products. Information producers would normally provide the library with their products, thus reducing the administrative problems and costs of providing the products directly to the users. For the user, the library was an efficient instrument to make available a limited set of relevant information sources out of the entire universe of publications. The library acted as a selective filter and quality instrument, making available to the user only those publications that were relevant and of good quality. The fundamental role of any library is to provide reference service, besides acquisitions, classification, cataloguing and physical planning. This service provides personalized assistance to the library users in accessing and using suitable information resources to meet their information needs. Libraries and information services have long been engaged in providing reference services to their users. With the advent of Internet and digital libraries, the nature of reference services has changed significantly.

Objectives
I. To understand significant change in reference librarianship
II. To examine required tools, challenges and preparation for Virtual Library

Concept
Unlike traditional reference, virtual reference services allow patrons to submit questions and receive answers via the Internet and other electronic means. The reference service is the ‘part of library administration that deals with the assistance given to the readers for use of resources of the library’. Communication channels used frequently in virtual reference include chat, videoconferencing, voice over-IP, cobrowsing, e-mail and instant messaging (IM).
Reference service in traditional libraries

Definition:
‘Reference service is the part of library administration which deals with the assistance given to readers in their use of resources of the library’.

Emergence of virtual reference service

Virtual reference service is nothing but an extension of a library’s existing reference service. The changes in user behavior and expectations have lead most libraries to implement a virtual presence. Second life such as e-mail, web forms, Facebook, chat, IM and virtual worlds have become popular ways for reference librarians and users to communicate. Thus, the physical reference desk is no longer necessarily the focal point of interaction between libraries and their patrons. Instead, reference services are increasingly provided ‘virtually’. Virtual reference is a service by which a library reference service is conducted online, and the reference transaction is a computer-mediated communication. It uses computers and communication technology to provide reference service to the users anytime and anywhere. It is an online tool that enables library patrons to ask reference questions through a library’s website. With the help of selected reference tools, the user can access selected databases from the website, at home, in office, at school or in a library.

Virtual reference service model

Virtual reference is reference service initiated electronically, often in real time, where patrons employ computers or other Internet technology to communicate with reference staff, without being physically present. Communication channels used frequently in virtual reference include chat, videoconferencing, voice over-IP, co-browsing, email and IM. Virtual reference queries are sometimes followed up with telephone, fax, in-person and regular mail interactions, even though these modes of communication are not considered virtual.

The virtual reference service models can be broadly divided into three categories. The following figure exhibits the various types of virtual reference services currently in practice.
Advantages

- No physical boundaries.
- Available round the clock in all days.
- Saves user’s time in locating information.
- Psychological barrier that stops shy user asking questions face-to-face is removed.
- Useful for the users who are poor in oral communication.
- Navigating from one reference source to other.
- Request for information in required formats.
• It does not require extra software and no extra training.
• No restrictions of working time, user can ask query any time.
• This mode of receiving and answering questions is cost-effective.
• This service can be offered any time (24/7 basis).
• Reference librarian can attend multiple users simultaneously.

Disadvantages
• Reference librarian may not be able to understand the exact requirement of user, since lack of face to face interaction.
• Clarification can’t be done about the doubts after receiving the query.
• Speed of receiving and answering questions depends on the volume of e-mail.
• Traffic and communications link over the Internet.
• It is difficult for reference librarian to judge the urgency of information.
• May be stressful for the user to wait for the answer every time.
• Reference librarian while busy answering several questions at a time, may not attend urgently needed questions.
• It is a labor-intensive service.

Tools required for virtual reference library
• Electronic databases including CD-ROM databases, institutional repositories and others
• Union catalogues
• Consortia
• E-books
• E-journals
• Print resources
• Interface (web form, AOL instant messenger and ICQ, e-mail, chat, Skype etc.)
• Committed library professional staff
• Social networks
Open source resources

Dictionaries for example alphadictionary.com and yourdictionary.com

Acronyms and abbreviations for example accronymfinder.com and abbreviations.com

Reference librarian for example refdesk.com

Encyclopaedia for example en.wikipedia.org

Statistics for example OFFSTATS: official statistics on the web

Theses for example NDLTS, shodhganga and krishiprabha

E-courses for example MIT open course ware, NPTEL and E-shiksha

Newspapers and general information for example ipl.org

E-books for example Bookyards.com, Project, Gutengerg.org, Free, Techbooks.com, ebooksdirectory.com and Free Science.info

Digital libraries for example Universal Digital Library and Indian Digital Library.

Challenges in virtual reference

The present virtual environment leads to sophisticated and challenging tasks to library and information science professionals. The following challenges are facing by the librarians in the twenty-first century.

- Changing formats environment of information material.
- Technological challenges.
- Changing role of librarians.
- Challenges in collection of virtual information.
- Archiving or preserving the virtual information.
- Challenges in accessing virtual information.
- Special skills needed for librarians to face the challenges in building a virtual library.

Preparation for virtual reference services
Virtual reference should be undertaken with a view to the long-term integration of the service with the rest of the institution’s reference services. Even at the planning or pilot phases, virtual reference should not be treated as an ad hoc service. The librarian should be aware of the staffing, start-up and maintenance costs involved in providing virtual reference and should be prepared for long-term provision of resources. Representative members of the administration and reference library staff should be involved in planning, training, implementation, promotion of virtual reference services and the selection of virtual reference software. Representative members of the target audience should be involved in planning and promotion of virtual reference. Relevant computing staff should be involved in the planning, implementation, maintenance of the infrastructure needed and in the software selection and purchase decision, particularly with regard to compatibility with existing library software and infrastructure. Virtual reference service should be a consideration in collection development decisions, selection of electronic reference sources, and especially licensing issues that might affect use of resources to serve off-site patrons.

Provision of service
The library should define the patron population and publicize this policy on the service’s website or other places where patrons may access it. Technical issues of patron authentication or proxy server login should be addressed as they apply to various groups within the patron population. If there are persons excluded from this service by institutional policy, enforcement should be uniform. Marketing of the service should clearly define the target audience.

Service parameters
The level of service to be provided should be defined and announced, so that staff and patrons will understand the mission of the service. Level of service includes the types of questions the service will answer (perhaps easier to define in the negative), as well as the patron population the service will serve. Before the service begins, it should be decided if document delivery will be included and whether patrons will be charged for document delivery. Internal and external links
to the virtual reference service should be designed to catch the attention of potential patrons and to clearly communicate the nature of the service.

Service behavior
Virtual reference service requires staff with the professional competencies essential for successful reference. Initial and on-going training should be offered to help staff learn and retain these effective online behaviors. Staff should treat patrons’ and colleagues’ online communication, including stored transcripts or records, as private and confidential.

Organisation of service
Virtual reference is an extension of an institution’s existing reference services. While staffing models and the location of the service may be different from face-to-face reference services, it should be accorded the same status and quality goals and be viewed as a part of the larger service of reference. Integration of virtual reference into the mainstream of reference services implies that all services (in-person, telephone and virtual) will be supported at a level to ensure quality service. Each library should examine staffing models to determine one that is appropriate for their organisation. A model should be chosen, which would support quality reference interactions via all modes of communication. Staff should be provided with space, furnishings, hardware and software to accomplish the mission agreed on by staff, administration and technological-support staff. Equipment, facilities and software should be updated to maintain efficiency. Planning should take into account the continuing evolution of technology. Awareness of the patrons’ infrastructure and capabilities should be taken into account when planning library capabilities and choosing virtual reference software. Technical set-up should take into consideration the use of the supporting software by patrons and reference staff with disabilities. Some options include choosing software that complies with section 508 of the Rehabilitation Act, software with non-text options such as voice over-IP, or providing text on the web site that directs screen readers to an email form or alternate contact information.
Finances
The library budget should include specific allocation of funds to cover the personnel, hardware, software, connectivity, furnishings, training, publicity and space to support this service. Planning should include ongoing budgeting even when the service is started as a pilot or with seed money from a grant. Whether the service is to be free to the patron or fee-based should be determined before the service begins and modified as needed.

Personnel
Virtual reference service responsibilities should be shared among staffs to ensure continuity of service. When possible, staff should be trained for all reference services (face-to-face and virtual) to provide greater depth of knowledge and flexibility for staffing. Library staff conducting virtual reference should be selected on the basis of ability, interest and availability. Staff should be provided time and resources for training and continuing education to ensure effective service.

Marketing of Reference Services
The success of reference services are depending on how much emphasis is given for promotional activities. A marketing plan should be developed and implemented as a part of the planning and ongoing operation of the service. A target audience or audiences for the virtual reference service should be determined and marketing should be appropriate to that audience. Members of the target audience should be included in the planning and evaluation of marketing. There should be a budget for marketing and marketing should be assigned as a responsibility to a staff member or members. Marketing should be routinely evaluated and updated to keep the message fresh and reach new audiences.

Evaluation and improvement
A virtual reference service should be analysed regularly, using input from staff and patrons, to evaluate its effectiveness and efficiency, with the goal of providing a high-quality service. Evaluation may encompass many methods such as the analysis of usage statistics, patron
feedback and reviewing transcripts. Evaluation of the virtual reference service should be equivalent to and part of a library’s regular evaluation of all its reference services. Evaluation should be used to improve the service as needed through adjustment of staffing, levels of staffing, service parameters, training or other improvements as indicated by evaluation and assessment results.

Privacy

Virtual reference communications between patrons and library staff should maintain privacy. Data gathered and maintained for the purpose of evaluation should protect patrons’ confidentiality. It is recommended that patrons’ personal identifiers, such as name, e-mail and others be stripped from transaction records. Stripped records may be maintained for statistical and evaluative purposes. Libraries need to develop retention schedules and privacy policies for their virtual reference transactions. Patrons should be advised whether a record of the transaction will be retained, and what, if any, personal information will be stored with the transaction log.

Licensed resources

The information providing from licensed resources has been a challenge. How much, if any, material from a licensed database or work can be sent via email or quoted in a chat message with a user who may or may not be part of your legal service population or community. It is required to look at on the copyright issues while providing information.

Copyright

The Librarian should be familiar with and comply with the relevant laws of copyright and cyber laws in terms of the use of electronic databases and journals by unauthorised users may violate the license agreed with the vendor. Careful review of existing licenses is essential to avoid violating the license agreement, and as a basis for future renegotiation of licenses. The legal position on copyright is complicated and uncertain. It varies from country to country according to the legislation in force.
Changing role of librarian
The role of librarian has become more crucial than it was in pre-digital era. They are compelled to be multitask specialists. What is needed is blending the skills of traditional librarianship with the skills of information technologist. Accessibility and affordability have revolutionised how technology is made available at our fingertips.

Discussion and conclusion
Rapid developments in technology have, however, changed the way librarians think about reference services and how to meet their users’ information needs. Today, the explosion of information available on the Internet has made it much easier for users to find information on their own. Many users view the Internet as a more convenient way to attempt to satisfy their information needs. As a result, today’s reference librarians are more likely to spend time providing guidance to users in choosing among and using available resources (digital and print) rather than serving as an intermediary between users and information. Virtual reference service is an advanced user oriented service, which is gaining momentum in present day fast moving society as the readers are not able to find time to visit library to locate required information for their study of interest. Moreover, most of the information is available in electronic form namely, databases, institutional repositories, mobile apps and others. Further, librarians must respond to the contemporary users’ values and expectations of immediacy, interactivity, personalisation and mobility, which in turn support growth and development of research in the country.

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Bio

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