

Digital Reference Services in Technical College (Institution) Libraries: An Overview

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ABSTRACT

Digital reference service (DRS) is a service by which library reference service is provided online and reference transaction is a computer-mediated communication. So, digital reference service is an emerging trend of traditional reference service. It has become one of the hallmark of library and information services. This paper highlights how the new face of traditional reference service is improving as a natural solution to cope up with the comprehensive technological environment. It discusses about concepts, historical background, objectives, advantages, disadvantages, limitations, elements of DRS, categorization in detail, evaluation of DRS, etc.

1. Introduction

Now-a-days information technology (IT) is improving rapidly. It changes library operations and services in this century. IT has changed the way of the libraries and information centres to serve their users and this change will continue in future also. The primary objectives of a library and information centre is to 'save the time of the user' as well as to provide specific information as quickly as possible to the users. This is called 'reference service' which is one to one service with user and the reference librarian and it is an important part of library and information centre. According to Dr. Ranganathan, the present 'electronic and communication environment' reference service is not only confined to the library service but also to remote users. So, in this technology age it is termed as 'e-reference service', 'digital reference service', 'virtual reference service'. Its main aim to provide pinpointed, exhaustive, expeditious service to its information seekers.[6]

In this fast-changing IT era, with the advent of internet with its services like as e-mail, www, bulletin board services have changed the notion of traditional library into digital library and traditional services are now called information services. With the emergence of digital library and influence of internet, the concept of traditional reference service has changed into 'virtual reference service'.

So, IT has brought out incredible changes in almost every aspect of information services. Modern libraries in abroad and in India specially, IITs and IIMs have a general reference desk where full time reference librarians are appointed to serve virtual reference services to the users. The reference librarian receives questions via e-mail or web interface, identifies the query and then takes decisions about appropriate course of action and at last serve the users.

2. Definition:

Linda Berube (2003) defines that Digital reference or virtual reference primarily refers to a network of expertise, intermediation and resources placed at the disposal of someone seeking answers in an online environment.[2]

According to R. D. Lankes (1998), "Digital reference service refer to the position of human-intermediated service over digital network." [7]

According to Wikipedia [12], "Digital reference service is a service by which library reference service is conducted online and reference transaction is a computer mediated communication".

Joann M Wasik (2003) defines "Digital reference and Ask A services are Internet-based question-and-answer services that connect users with experts in a variety of subject areas. In addition to answering questions, experts may also provide users with referrals to other online and print sources of information".[11]

So, the digital reference service links with the users with the reference librarian or information professionals and help them to get their required information irrespective their location and time. Simply, a digital reference service is online reference service which uses many virtual communication tools (software, service and protocol) for providing reference services.

3. Digital Reference Service: Historical Background:

1980s: The libraries in developed countries of the world began to provide cataloguing services on the web including FAQs that replied a standard predefined set of questioned followed by commercial services such as 'Google Answers', 'Lycos IQ', etc.

1995: The University of Michigan's School of Information and Library Studies launched the Internet Public Library (www.ipl.org). It offers a variety of online resources, related services, an extensive FAQ section of a web utility for asking reference questions.

1997: Christopher C. Brown, Reference and Govt. Documents Librarian at the University of Denver, USA produced the virtual reference desk (www.virtualref.com)

2000: Library of Congress and OCLC launched 'Question Point' (www.oclc.org/Question-Point).

2001: The CLEVENT consortium, Ohio launched 'Know It Now' (www.knowitnow.org). New Jersey's Q and ANJ (www.qandanj.org) was initiated. Librarian's Index to Internet (www.lii.org) was appeared.

2003: The National Library of Canada initiated a nationwide virtual reference service called virtual Reference Canada (www.collectioncanada.ca). Library of Congress started a collaborative service 'Virtual Reference Shelf'. [4]

Therefore, virtual reference service can be offered by a collaborative effort among many libraries or by a single library.

4. Objectives of Digital Reference Service:

Libraries and information centres of the present digital era have undergone a massive change. To achieve the goal of providing excellent service, reference librarian answers reference questions to the users. So, the digital reference service must have the following basic objectives:

- To provide and maintain an appropriate collection of reference resources, both print and electronic;
- To serve as a public relations representative;
- To help and assist in professional activities for professional development and growth;
- To help in referral process, forward the enquiry or provide the user with live links to authoritative websites; and finally;
- To educate users concerning resources and research techniques in order to help them to become information literate
- To provide individual assistance and instruction;
- To help in marketing reference and resources;
- To help in Online Searching;
- To assist users with locating the best sources of information. [1]

5. Scope and Advantages of Digital Reference Services:

- User convenience
- Service to remote users
- 24X7 modes of access
- Distributed services from anywhere at any time by any one
- Capability to reach more people
- Additional communication options
- Service beyond the four walls of libraries
- Meeting user expectations

6. Disadvantages of Digital Reference Services:

- Due to lack of face to face interaction, reference librarian do not able to get Clarification about his doubts arising in his mind after receiving the reference questions.
- 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
- Typing speed and errors occurring during typing text may cause difficulty in communicating proper message between user and the reference librarian.
- 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.
- In developing countries technology is at premature stage, therefore need of this service is yet to be recognized.

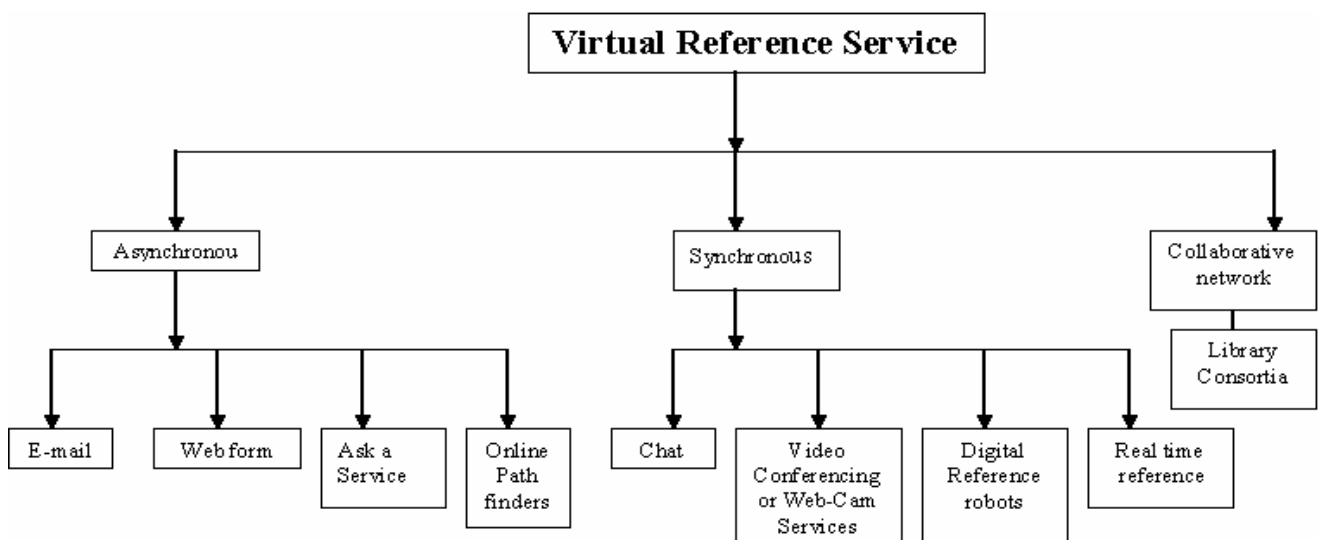
7. Elements of Digital Reference Service:

Linda Berube found four elements in digital reference services. These are as follows:

- The User
- The interface (web form; e- mail; chat; video etc.)
- Electronic resources (including electronic or CD – based resources; webresources; local digitized material etc.) as well as print resources
- The information professional. [3]

8. Categorization of Virtual or Digital Reference Services:

Reference transactions in virtual reference service are based on computer-mediated communication systems. These digital channels are called virtual communication tools. On the basis of receiving and answering the queries through these tools the virtual reference service can be broadly divided into three categories. [9]



8.1.Asynchronous: These forms involve communication between users and librarians with a time delay. These are not real-time communication process.

8.1.1.E-mail reference service: It is a cheap and simple service. The users send query to the concerned librarian via e-mail even if the library is closed. The librarian gives response by e-mail.

8.1.2.Reference service via web form: The web form has to be accessed from library website. The fields then have to fill in by the user and finally the form is sent back to the library through e-mails. Answers are usually provided by e-mail, phone or by post.

8.1.3.Ask A Service: Ask A Service refers to websites that provides services such 'Ask A Librarian', 'Ask an Expert', Ask a questions' and Ask ERIC in which users' questions are referred to and individually answered by people.

8.1.4.Online pathfinder: Pathfinders are guides designed to help users to find information on a particular topic (particularly in web).

8.1.5.Chatterbots: The chatter bots are generated by computer software which analyses the questions submitted by users for the keywords contained using linguistic programmes and mechanisms. These keywords are then linked to particular answers or documents in the knowledge base for providing reference service to the users.

8.2.Synchronous: This transactions allow real-time communication, i.e. the interaction between the users and reference librarian is live therefore it is also called Real-Time virtual reference service.

8.2.1.Chat

8.2.1.1. Simple Chat: Communication via chat enables the user and the reference librarian to exchange brief written messages in quick succession. This is a supplement to the e-mail reference service. Some SMS based virtual references are AIM Hack, Altarama's Reference by SMS and Google SMS.

8.2.1.2.Instant messaging: This is variant form of chat communication that has become increasingly popular. It is a type of online chat that offers real-time text transmission over the internet. Some instant messaging based virtual reference services are –

- Adium (<http://www.adiumx.com/>) – open source, multiple network
- Fire (<http://www.fire.sourceforge.net>) – open source, multiple network
- Gaim (<http://www.gaim.sourceforge.net>) – open source, multiple network
- Meebo(<http://www.meebo.com/>) –multiple network, web-based interface

8.2.1.3.Extended chat reference: Any communication via the chat can be combined with additional features, such as page pushing, escorting and co-browsing through the use of specific software that is often part of more extensive Web Content Centre software. Web contact Centre provide a variety of features. They allow communication via e-mail, web form and chat, but also enable more interactive collaboration between users and service providers.

8.2.2.Video conference or webcam services: It is introduced as a remedy to the communication problems inherent in text based services. This digital form include visual elements where user and librarian both can use text and speech transactions and they can and hear each other just similar to face to face interview. This service is useful in distance learning, research and reference applications, can be found in off-campus library services of University libraries.

8.2.3. Digital reference robots: In digital reference robots, an artificial intelligence is used to response the questions when the reference librarian is not available. Ask Jeeves is the most popular digital reference robots. The operation of this service involves use of software to search the database of questions and answers. [5]

8.2.4.Real time reference service: The libraries of IIMs and IITs are attempting to provide more and more in live reference. These are real time, interactive reference service in which user can talk to a real, live reference librarian at any time day or night, from any where in the world. Chat, technology enables users to communicate on the internet with others in real time. Also the instant messaging software product such as AOL instant messenger and ICQ allow libraries to communicate in real time with users through a series of messages sent back and forth. Video conferencing also becoming a popular mode of real time reference for big institutions.[10]

8.3.Collaborative networks: Many libraries and organizations have recognized the benefits of providing digital reference service through collaborative services. Some regional library consortia are offering member libraries the opportunity to share reference questions with each other using the internet and other technologies. The collaborative Digital Reference Service (CDRS), operated by the library of congress, is an international network of libraries, consortia, museums, Ask a services that uses a help desk system to route questions to appropriate institutions based on three main components - first, Member Profiles(contain information on strength and features of members); second, Request Manager (software for entering, routing and answering reference questions; third, Knowledge Base(a searchable database for questions and answers for future use. It supports reference efforts by combining the power of resources and manpower with diversity and availability of libraries and librarians anywhere. [3]

9. Some Major Digital Reference Services:

9.1. AllExperts(<http://www.allexperts.com>):It is free web based reference service where answers are provide with the help of subject experts like lawyers, doctors, engineers and scientists.

9.2. Ask a Question(<http://talonline.ca/askaquestion>): This service is hosted by Alberta Library. It is a cooperative venture of school libraries.

9.3. Ask ERIC (<http://askeric.org>): It provides educational resources. It is one of the most visible Ask A Service on internet for academic circles.

9.4. Ask Me (www.askme.com): It is a free service where a user simply asks a questions and get answers.

9.5. Britannica (www.britannica.com) : This is a free information service on the web that allows the user to search and retrieve information from Encyclopedia Britannica and other web resources.

9.6. Inforocket (<http://www.inforocket.com>): It is a fee based reference service where the user can ask questions which will be answered by the experts.

9.7. Library U (www.libraryu.org): It provides free web based training for professional libraries, supported cooperatively by two Illions state library.

9.8. Live Ref (www.public.iastate.edu): It is a registry of real time reference services.

10. Evaluation of Digital Reference Services:

To evaluate quality means to judge the standard of the virtual reference service that should be provided to the users. Library and Information Centers being non-profit organizations evaluate their services to know its significance for the user as well as to measure the user satisfaction. Additionally, evaluation also provide an opportunity to review the economic costs associated in providing the digital reference service as well as staffing and training issues and over all impact of the services on the reference department. Digital Reference Services should evaluate their services their policies and procedures on a regular basis to ensure reliability, quality and efficiency of theservice as well as user satisfaction with service as well. Lankes has laid down the following measures/components for assessing the quality of digital reference services rendered by the library or information centers or organization.

- Outcome Measures – to judge the quality of answers.
- Process Measures – to measure the effectiveness and efficiency of the process.
- Economic Measures – to ensure the costing and cost-effectiveness.
- User Satisfaction – to identify the degree of satisfaction of the users. [8]

11. Conclusion:

With the help of internet, a number of non-library and commercial library and information centers have started providing digital reference services, while some are free and others need fee-based. A good number of reference sources i.e. dictionaries, thesauri, encyclopedias, handbooks, directories and major abstracting services like Chemical Abstracts, Biological Abstracts etc. are available on the internet. Thus, in the future users will be more dependent on the online sources and services. They will get the required information at home by means of computer. At the same time the cost involved will be affordable for the users and will continue to get the information at the less cost from the library and information centres. There will be a great demand for accurate and specific information. So, expert reference librarians will be needed in the future. The future of reference service will be based on digital collections and communication links through web. Whatever shapes the new technology is going to take in the future library and information centers should turn their thought to compete in the new environment to provide real time reference services, specially developing countries like India needs to give a thought over it. The reference librarian and reference service in the future is going to act as a center of universe of information, if the library is well equipped with computer, internet and CD-ROM's. The librarians will perform the role of information generators rather than merely information conservations in future. Future library and information services will be designed in accordance with the principles of total quality management (TQM). Implementing TQM practices will enable libraries to obtain systematic feedback from users, and will ensure continuous improvement.

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