Digital reference services: an overview

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Abstract

Technological development in the world has brought many changes to libraries and their service deliveries. Many Libraries are trying to improve on their services by moving from face to face interaction to a digital environment. In this era of information explosion, many people rely on the internet for information and less people approach the Reference desks for assistance, hence the need for Reference librarians to take initiatives on how to bridge the gap. New technologies give reference services the opportunity to conduct reference transactions over the web and answer reference questions simultaneously with the support of the telephone and other tools. It highlights the characteristics of digital reference and the benefits to patrons. The skills needed by Reference Librarians to perform to their best were also discussed. The different stages involved in building and maintaining a good digital reference were also highlighted. The need for specialized training for Librarians and collaborative services were proposed to ensure high quality service. The need to train students and create more awareness for the service is also mentioned.

Keywords: digital libraries, digital reference service, information service, reference service, libraries

Introduction

Libraries have been thought of as being expert at collecting and organizing published information. Libraries are no longer warehouses. According to World Book (2012), a library is an organized collection of books and other materials. The materials may include magazines, newspapers, maps, films, compact discs and DVD's, online databases and other print, electronic, and multimedia resources. The library's status is no longer defined by the collection it housed; it is extended to include online and flawless access to information resources. Today, modern libraries are increasingly being redefined as places to get unrestricted access to information in diverse formats and from many sources. Libraries are extending services beyond the physical walls of a building, by providing materials accessible by electronic means and by proving the assistance of librarians in navigating and analyzing very large amounts of information with a variety of digital tools.

One major objective of the Library is to bring patrons closer to the materials needed and also saving the time of the users by providing right and specific information. Reference service is providing personalized information services to the users. It is a bridge between the library resources and patrons. Often time, users are directed to some information sources or guided by a librarian to locate information resources. This method provides personal attention to readers by meeting their specific information needs. Reference services have taken a central place in Library and Information services. According to Sloan (2002), there are two types of reference services:

- Ready Range Reference Service/Short Range Reference Service
- Long Range Reference Service.

Bunge (1999) categorized reference services into three broad groups, namely:

1. Information services that involve either finding the required information on behalf of the users or assisting users in finding information.
2. Instruction in the use of Library resources and services (broadly defined as information literacy skills); and
3. User guidance, in which users are guided in selecting the most appropriate information sources and services.

With the advent of internet as a powerful medium of providing information, as more people rely on the internet for information and less people approach the Reference desks at their local libraries for assistance (Tenopir 2001,), the concept of traditional reference service has transformed into Digital Reference service. Digital reference service is an improvement on the traditional reference service to meet the information needs of users in a changing technological environment. Basically, the librarian's goal has not changed, but the areas in which he must apply the goal have expanded and will continue to expand. Sitting behind a desk may no longer be the best way to provide quality reference service, and while we maintain the traditional goal, that doesn't mean we have to maintain the traditional methods. Rather, the best method will be to leave the old reference desk behind and move on with the changing technology.

Digital reference service

The terms digital and virtual are applied to the use of computer-based technology. Library professionals use both terms, and everyone agrees that digital/virtual reference is a new type of service based on the same question-and-answer type of assistance provided in traditional in-person reference. Sloan (2002) maintained that ''online or virtual or digital reference services, i.e., the provision of reference services, [involves] collaboration between library user and librarian, in a computer-based medium. These services can utilize various media, including e-mail, Web forms, chat, video, Web customer call center software, Voice over Internet Protocol

(VoIP), etc". (p. 23).

Digital/virtual reference services are Internet-based question-and-answer services that connect users with experts and subject expertise. Digital reference services use the Internet to connect people with people who can answer questions and support the development of skills (Sloan, 2002).

Berube (2003) refers to digital reference services as a network of expertise intermediation and resource placed at the disposal of someone seeking answers in an online environment. Digital reference can provide support for users who find online tools and resources unfamiliar, difficult to learn, or insufficient to answer their information needs. It can provide valuable user feedback to collection builders so that they may better tailor their resources and maximize their investment in content creation.

Digital reference is one of the fastest growing and innovative services developed in the Libraries. A digital reference transaction occurs when a question is received electronically and responded to electronically by a Librarian (Bertot, McClure & Ryan 2000). Digital reference service is a way of increasing access to library services in a manner that is not dependent on physical visits to the Library. It allows librarians to help patron's access information in a virtual environment, using various methods such as e-mail or chat. Although digital reference lacks the face-to-face communication that is an integral part of reference service, the reference techniques used and the scope of the librarian's role have remained the same. Digital reference service has evolved naturally from the traditional reference service and does not exist in isolation. At the reference desk, the staff answers questions received either traditionally such as face-to-face or via the phone and also digitally by e-mail or chat via the internet. Digital reference service is an improvement on the traditional reference service.

Benefits of digital reference services
Digital reference services provide many benefits for libraries. According to Sloan (2012), the benefits include:
• To provide individual assistance and instruction.
• To provide and maintain an appropriate collection of reference resources, both print and electronic form.
• To assist users locate the best sources of information.
• To help in marketing reference resources.
• To serve as a public relations representative.
• To help in Online Searching.
• To help and assist in professional activities for development and growth
• To help in referral process, forward the enquiry or provide the user with live links to

authoritative websites
•   To educate users concerning and research techniques

Elements of digital reference service

According to Berube (2003), digital reference service comprises of four elements. They are namely:

- The User of the service on site or remote users
- The interface, in the form of an e-mail, a web form, a video conference, chats etc.
- A librarian or information professional
- Information resources, print or electronic

Roles for information professionals

McClennen and Memmott (2003) recommended the following four different roles. They are namely:

- **Filterer**: Filterer can be useful. They handle repeated and trivial questions.
- **Answerers**: They concentrate on questions that require intellectual effort to answer.
- **Administrator**: He ensures the smooth running of the service. He can add answers to frequently ask questions (FAQs). He creates user accounts and performs other technical tasks.
- **Coordinator**: He is dedicated to defining and implementing policies and procedures. He takes initiatives for the improvement of the service.

Mode of digital reference services

User behavior is changing and information provision has to follow new modes of delivery. Hence, there are new modes of delivery in digital reference services. According to Francoeur (2002), the mode for digital reference services can be divided into two broad categories. They are namely:

- Asynchronous transactions – e-mail, web forms, Ask A services etc.
- Synchronous transactions – chat reference using simple technologies, chat reference using web contact software, video conferencing or web camera services, and digital reference robots.
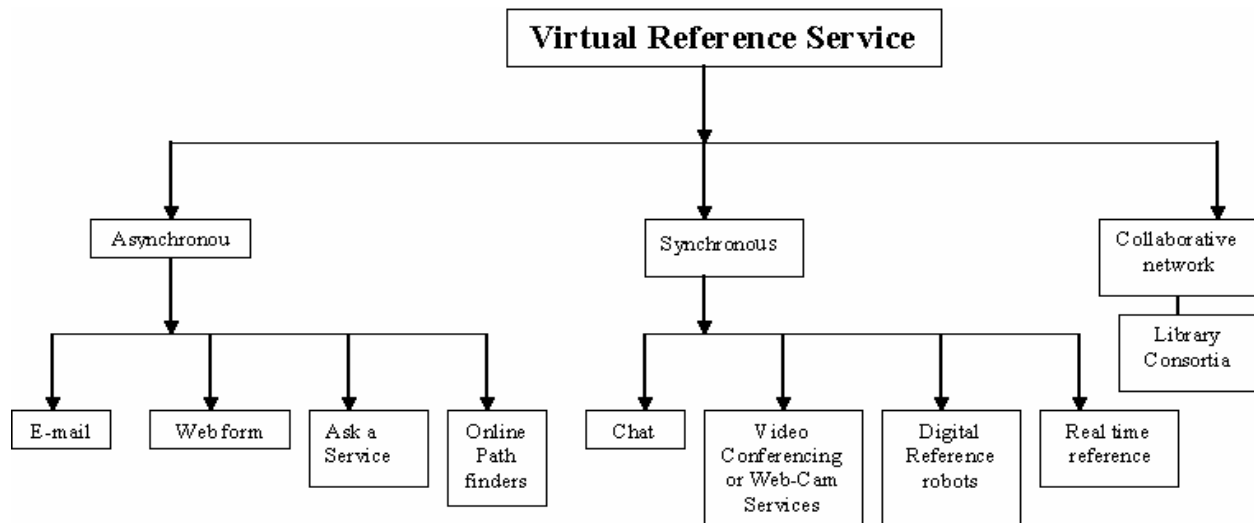
Fig.-1: Topology of Digital Reference Service

Source: Maharana and Panda (2005, p.3)

E-mail: The electronic mail is the first tool to be used for digital reference service. The user sends an e-mail with a reference question to the Library. The Librarian will reply by providing adequate answer to the user.

Disadvantages of E-mail

E-mail reference services suffer from a number of drawbacks:

- E-mail does not offer the instantaneous response and immediate gratification that patrons have come to expect from the Web;
- It's difficult to conduct any kind of an effective reference interview using e-mail: if a question needs clarification, it may take three or four exchanges over several days just to figure out what the patron really wants;
- E-mail reference places most of the burden of answering the question on the librarian: at the reference desk the reference librarian works with the patron to help him find the answer instead of doing all the work for him.

Web forms – This is a form on the web that a user fills to ask some specific questions. The field has to be filled by the user for the Librarian on the desk to respond. The Web form can be accessed through Library home page or Reference web page. This document will help the Librarian to locate exactly what the patron is asking for. Web form creation requires careful design to capture all the necessary fields.

Required Fields in Web form:

- A return email address to send the answer to the question

- The type of question
- What sources have been consulted by the patron
- How the patron is planning to use the information
- Location of the patron
- A name to personalize the interaction
- A date by which the information is needed
- The type of information resources requested

Chat using instant messaging (IM)

Instant messaging otherwise called Online Chat is a real time conversation that utilizes typed text instead of language. It allows the user to contact the Library from any location via the Internet. On-site and remote library users can use Instant Messaging (IM).

Advantages of using chat for online reference:

- It feels like a live reference interaction; you can chat directly with the patron;
- You can conduct a reference interview by exchanging series of short messages to get a better and clear idea of what's asked for;
- It eliminates problems of misconception of what is said;
- It is helpful for those with hearing or speaking impediment;
- The chat session can be saved for future reference.

Disadvantages:

- It's only chat, so you can talk" back and forth with the patron and tell her to go to a specific address on the Web to find information, but you can't actually take her there, or walk her through a database search;
- It is time consuming than regular voice communication because you have to type everything out – with spelling and typing errors that can creep in;
- Most basic chat software packages do not allow to queue and route questions easily, nor do they offer scripted messages to handle routine functions and requests;
- The user may not have the same level of patience with the librarian's efforts to help - users expect everything to be instant, convenient, and efficient;
- If the user logs off prematurely, it may not be immediately apparent to the librarian, especially if the librarian is busy looking something up in a book or on a computer for the user.

Video conference or web-cam services

This form of digital reference includes the visual element, which is an antidote to the

communications problems in the text-based services. Librarians and users use both text and speech for reference transactions. There is a window in which librarians and users can see each other while conducting a face-to-face interview. This technology provides distance learning, as well as research and reference applications. Challenges with this service are staffing, training, time to implement the service, lack of mobility for staff involved with the service and cost.

Collaborative network reference

In this service, two or more libraries come together to offer reference service using any of the online formats. The user would send his or her request to a member library, 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.

How digital reference works

Digital reference uses the Internet to allow people to connect with a librarian. Libraries are using different types of digital reference services e.g. e-mail and chat. Librarians must do an interview to understand what the user really needs.

When conducting in-person interviews, librarians rely on many clues from the users. With digital reference, neither the librarian nor the user has access to these important clues, thus doing a thorough reference interview is critical in helping the user. The service virtual users receive must be comparable to that of in-person users.

The Reference and User Services Association (RUSA) (RASD, 1996) has developed five steps to follow when helping in-person users:

- **Approachability**: The librarian should be approachable. He/she should acknowledge the user by sending a short message and indicate the possible time to wait.
- **Interest**: The Librarian should show interest by sending messages to the user and keeping him/her informed of what he/she is doing concerning his/her request.
- **Listening/Inquiring**: The Librarian should listen attentively to understand the needs of the user. The librarian should ask questions and, at the same time, make sure that what she/he understands is what the patron needs.
- **Searching**: The librarian should provide a variety of accessible information to the user and then ask the patron if his/her question was answered.
- **Follow-up**: The follow-up question allows the librarian to verify that the user is satisfied with the material provided, and possibly to refer the patron to a library subject specialist.

Steps for a successful digital reference service

The following six steps process that libraries can follow to offer a strategic and successful digital reference service. They are namely:

1. **Informing** – Be informed about the existing services within the library.
2. **Planning** – Develop procedures, methods and policies that will reflect the overall goal of the organization.
3. **Training** – Make adequate preparation to train the staff. There is need to develop a training plan for staff to render the service. A training plan includes training materials, tools and activities for successful training.
4. **Prototyping** – Run a preliminary test of the service before its implementation. Make sure the services are pilot tested to avoid premature failure.
5. **Contributing** – Ensure publicity and awareness program to support the service.
6. **Evaluating** – Ensure regular and proper evaluation of the service, so as to improve on the services. Ensure regular evaluation for quality product and to gather data for continued support from the organization.

Requirements for the implementation of digital reference service

The following points are intended to serve as a starting discussion point for planning and for incorporating the new technologies into digital reference services:

- A clearly communicated purpose for incorporating this technology into our services.

- Guidelines for how and when it might be offered or suggested to patrons.

- Development of a pilot program to inform the staff involved in the program.

- Comprehensive training for staff that would be providing the service.

- Documentation for installing or accessing the appropriate technology both staff and patrons.

- Technical support for the installation and troubleshooting of technology on staff workstations.

- Publicity, sensitization and marketing for new the service.

Recommendations

- Establish clearly defined policies and guidelines for the implementation.
- The Internet bandwidth of the Library should be increased to give room for effective services.
- The University management should budget reasonable amount of money to enable the library to acquire relevant and up-to-date reference and information resources.
- The staff in the Reference section should be trained to meet the required standard to

function effectively.

- Adequate publicity and awareness of this service should be made available through the University website and the Library website.
- There should be an interface for Digital reference service on the University and Library website e.g. Ask-a-Librarian. The interface should allow users to place queries electronically.
- Students should be properly trained on the importance of this service in the library through information literacy. This will help to change the attitude of students to the resources in the library.
- Provision of adequate computer system in the Reference section.
- Adequate online databases, books and journals should be provided to answer user's queries.
- Dedicated staff should be assigned to this duty for effectiveness.
- Uninterrupted power supply in the library for efficiency should be provided.

Conclusion

Digital reference service is an improved method of delivering reference service to users in this technological age where users prefer digital resources to print resources. Information technology has affected the trend of activities in the world, so also in the Library. The digital reference service is not to eradicate traditional reference but to complement it. The goal of digital reference service is to meet the needs of a larger number of users and to go beyond the four walls of the library.

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