

Chapter XLII

Reference Services in Digital Environment

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ABSTRACT

Information and communication technologies have been used to assist in various functions of library and information units. Digital reference services that is becoming widely available especially in academic libraries and public libraries around the world provide assistance to remote users especially through e-mail format. This chapter clarifies the concept, format and background of digital reference services. It also focuses on issues, trends and challenges in digital reference services, besides discussing on technological developments in digital reference services. The benefits and limitations of the services are also highlighted in this chapter.

INTRODUCTION

Reference service plays a vital role in terms of providing personalized assistance to library users in accessing and using suitable information resources to meet their information needs. Rapid development in information and communication technologies (ICTs) in the past three decades have significantly influenced both the way libraries provide information services to their users and the way they choose to access information. Digital

reference service is gaining popularity especially in academic and public libraries.

THE CONCEPT OF DIGITAL REFERENCE SERVICES

The term digital reference service is also known as virtual reference service, online reference, Web-based reference service, and electronic reference service.

Lankes (1998) defines digital reference as Internet-based question and answer services that connect users with individuals who possess specialized subject or skill expertise. Janes, Carter, and Memmott (1999) define digital reference as a mechanism by which people can submit their questions and have them answered by a library staff member through some electronic means (e-mail, Web forms, chat, and so on) not in person or over the phone.

In general, a digital reference service has four elements as follows:

1. The user of the service,
2. The interface (e-mail, Web form, chat, videoconference, and so on),
3. The information professional, and
4. Electronic resources (including electronic or CD-based resources, Web resources, local digitized material, and so on), as well as print resources (Berube, 2003, p. 1)

BACKGROUND OF REFERENCE SERVICES

Reference services have been constantly developing from the traditional, to automated, to hybrid, and now to digital.

Technological innovation has played a key role in reference librarianship in the second half of the twentieth century. Telephone service began to appear alongside traditional face-to-face and postal reference services early in the twentieth century (Bopp, 1995). In the 1960s, libraries began to explore new technologies such as microfilm and microfiche, tapes and sound recordings. The 1970s and 1980s brought about significant changes with the emergence of full-text databases and electronic card catalogs in many academic, public, and special libraries (Grohs, Reed, & Allan, 2003).

Eventually the electronic catalogue databases became the online public access catalogues (OPACs) providing local as well as remote access.

With OPACs, the users can specify their queries as asset of keywords linked by logical operators AND, OR and NOT. Another major change in the process of storage, retrieval and dissemination of information was brought by the invention of CD-ROMs. By the late 1990s, many libraries moved from CD-ROM to providing databases through the Internet. The Internet introduced new possibilities and interactive technologies such as e-mail, chat, and instant messaging to the reference desk (Penka, 2003).

According to Kasowitz (2001), many libraries and organizations have responded to an increased need for formal methods of remote communication between information seekers and information professionals by providing reference service via the Internet, or digital reference service, to their users. Wasik (2003) traced the origins of digital reference services to the library field, where libraries sought to augment traditional services by providing reference assistance in an electronic environment. Lankes (2000) gives five reasons for moving to electronic reference services:

1. Increasing access to resources beyond the library
2. Lack of geographic constrains for users
3. The need to differentiate services to different populations of users in the face of shrinking budgets
4. Increases in complexity of information resources and the need for specialized knowledge
5. New options for answering reference questions (Lankes, p. 187)

Academic libraries were the first to provide digital reference services in the early 1980s (Gross, McClure, & Lankes, 2001). One of the first services to go online was the Electronic Access to Reference Services (EARS) launched by the University of Maryland Health Services Library in Baltimore in 1984 (Wasik, 2003; quoted from Weise and Bergendale, 1986). EARS allowed

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