

VIRTUAL REFERENCE SERVICE OF IIM'S AND IISC/IISER LIBRARIES IN INDIA: A STUDY

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Abstract

The paper highlights on Virtual Reference Service, how the new face of service is evolving as a natural solution to keep pace with the multifaceted technological environment. Virtual Reference Service is providing current trend of their service. The paper is highlighted on the role of Virtual Reference Service. It is specially focused on forms of Virtual reference service provided by the IIM's and IISc/ IISER libraries in India.

Keywords: Reference Service, Virtual Reference Service, IIM's and IISc/ IISER Academic Libraries in India.

INTRODUCTION

Technological developments have created new opportunities and challenges for libraries in creation, promotion, dissemination and storage of information. The library is one of the many institutions undergoing change in the face of technological advances. This, in turn, has led to the generation of new services, hitherto non-existent, as well as modification of existing library services and their deliverables, as well as the move towards new communication paradigms and the shift from face to face human contact to human machine interaction, from paper to electronic delivery, from text centered mode to multimedia and from physical presence to virtual presence.¹

Technological developments have affected not only the format and sources of the information that libraries use to provide reference service, but also where we provide reference service. Libraries and their resources have partially moved to the virtual world of the Internet. As a result, library patrons can access our resources from outside of the physical library. In an effort to reach patrons accessing the library via their computers, many libraries

and library consortia are extending their reference service to include virtual reference. Technology now allows users to submit their queries to the library at any time from any place in the world. Virtual reference is responsive to patrons' need for convenient access to reference service.²

Providing virtual reference services to users poses a myriad of challenges. Virtual reference transactions, whether through e-mail, instant messaging or chat, or text messaging, more often than not require an entirely different approach than does an in-person transaction.³

In an increasingly networked world, more and more libraries are providing virtual reference services (VRS) as information resources become more web-based and more actively used by patrons over the internet. Virtual reference can deliver a reference service by electronic means, from asynchronous via e-mail and web forms to real-time via chat, web push, etc. An ideal VRS should provide professional reference service to patrons anywhere, anytime.⁴

DEFINITIONAL ANALYSIS

REFERENCE SERVICE:

"Reference service is the establishing of contact between reader and book by personal service."⁵

"Reference work includes the direct, personal aid within a library to persons in search of information for whatever purpose, and also various library activities especially aimed at making information as easily available as possible."⁶

VIRTUAL:

According to the Merriam -Webster "virtual" is something that is not physical but is made real with the aid of a computer, while "digital" involves the use of computer technology in capturing, storing and providing information. Both DRS and VRS make use of the computer to provide information.⁷

VIRTUAL REFERENCE:

According to Lipow defines virtual reference (VR) as synchronous, point-of-need reference via chat or voice software⁸.

According to an online dictionary, "the terms virtual reference, digital reference, e-reference, internet information service and Ask A service are used interchangeably to describe reference service that utilize computer technology in some way"⁹.

Virtual Reference is reference service initiated electronically where patrons employ computers or other technology to communicate with public services staff without being

physically present. Communication channels used frequently in virtual reference include Chat, Video-conferencing, Voice-over-IP, Co-browsing, E-mail, and Instant Messaging¹⁰.

VIRTUAL SERVICE:

Virtual services as a means of connecting the library to the public via an electronic network. While it might be easier to simply say "through the Internet," there is a wide range of electronic networks, from Local Area Networks (LAN) connecting workstations and printers, to wide area networks linking organizations around the globe¹¹.

VIRTUAL REFERENCE SERVICE:

Virtual Reference Service is also an Internet based reference service where a user can ask a question online, where the user and the librarian communicate in real time⁷. It uses computers and communication technology to provide reference service to users anytime and anywhere.¹²

Virtual Reference Service is an online reference service that enables library patrons to ask reference questions through a library's website. The user may be at home, in office, at school, or in a library. Some Virtual Reference Services also place answers to frequently asked questions (FAQs), selected reference tools, and access to selected databases on the website¹³. The question answering service using Internet technology is the essential component, without which the use of the name "Virtual Reference" is misleading.

VRS is defined as the provision of real-time personal assistance to patrons via web-based interactive software. To meet the user at his or her "point of need" and to satisfy the patron's information need, the librarian can use a "Chat" component of the software to answer a fairly specific or simple question, possibly deliver slideshows, 'push' web sources to the patron, and provide online bibliographic instruction. The "point of need" 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.¹⁴

SCOPE & LIMITATION OF THE STUDY

The scope of the study is limited to IIM and IISc/ IISER Institutional libraries in India. The study is confined to librarians of IIT and IISc/IISER how they provide virtual reference service to their library users and which forms of VRS they used to provide VRS. This is the limitation of the study.

RELATED STUDIES

The literature on virtual reference services in general, more literature on virtual reference services consists of descriptive studies of individual virtual reference services and their constituents. Until recently, almost all the published research on virtual reference services has been observational in nature.

Abels (1996)¹⁵ has pointed out when e-mail is used to communicate, an interchange of questions and answers to clarify the question can result in substantial delays in providing the answer. This is a disadvantage particularly for the actual reference process. A question that arrives during office hours, for example may be answered shortly, but late-night queries are not answered until the next morning. Additionally, questions cannot be answered immediately if no library staffs are available.

Ryan (1996)¹⁶ has examined previous technological innovations in reference work, specifically mail, telephone and teletype. She concluded that these technologies were quickly and effectively adapted and adopted, that policies and limitations to those services soon followed, and that librarians used them not only to extend the reach of their work but also to communicate with each other.

Lankes (1998)¹⁷ has point out A number of virtual reference services, such as the Internet Public Library and Ask ERIC also emerged in the 1990s; these organizations offer only electronic reference services. The year 2000 brought the advent of live reference in academic libraries with the use of chat or commercial call centre software to communicate with users in real time.

Sloan (1998)¹⁸ has described a number of experiments with extending reference services into the networked world. Examples of this are e-mail reference, live chat reference, instant messaging, desktop videoconferencing, and so on.

Goetsch (1999)¹⁹ has reported that 48% of ARL libraries responding to a survey conducted in 1999 provided a link to their reference services “at the top level of their libraries’ web pages”.

Goetsch & et, al. (1999)²⁰ have concentrated on survey throughout the 1990s e-mail reference became increasingly important. By the early 1990s, Ask-A Librarian e-mail reference services were common. By the mid-1990s, at least 75 % of 122 ARL (Association Research Libraries) member libraries and 45 % of academic libraries offered digital reference service via electronic mail or a web form.

Janes et al (1999a)²¹ have surveyed 150 academic library web sites to investigate the levels of digital reference services on offer. They found that slightly less than half of the institutions provided such a service, and that these were limited to completing a web form or e-mailing the query to the library. None of the libraries used real-time chat, ICQ or video-conferencing.

OBJECTIVES OF THE STUDY

The primary objective of the present study is to investigate and identify the current status of virtual reference service offered in the libraries of IIMs and IISc in India. The Aims & objectives of the present investigation can be summarized as follows:

- 1) To uncover the present status of virtual reference service (VRS) being provided in the libraries under study.
- 2) To systematically identify the strength existing reference service available in the libraries of IIMs and IISc/ IISER in India.
- 3) To find out the various components and modes of VRS at the libraries of IIMs and IISc/ IISER in India.
- 4) To compare VRS provided by libraries and ranking these libraries based on study parameters.

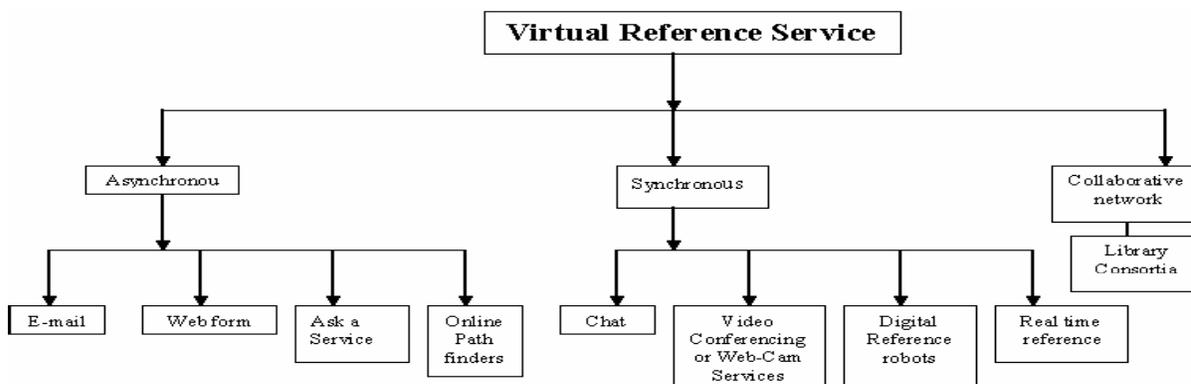
RESEARCH METHODOLOGY

The present study is based on investigative and survey method.

1. IIMs and IISc/ IISER institutional Libraries in India are selected for the study.
2. The websites of all the IIMs and IISc/ IISER libraries are explored to identify and assess the present status of virtual reference services provided in the libraries of the above premier academic institutions in India.
3. A Checklist/ questionnaire and personal visit were used for collecting pertinent data from the respective libraries under study and for user survey also.
4. Virtual Reference Services in IIMs and IISc/ IISER libraries in India were compared.
5. The data thus obtained has been analyzed, tabulated and interpreted for a systematic evaluation of the strength and weakness of VRS in the libraries included in the study.
6. The hypotheses of the present study were tested.

MODES OF VIRTUAL REFERENCE SERVICE

The Virtual Reference Service models can be broadly divided into three categories. The following figure exhibits the various types of Virtual Reference Service currently in practice¹¹.



[Source: <http://eprints.rclis.org/copyright> (Last Accessed (on 27/6/2011))]

Asynchronous Transaction

The Asynchronous transaction involves a time delay between the question and answer¹². Following are the examples of asynchronous transaction.

- E-mail based,
- Web-form or Ask a service,
- Virtual Reference Desk (VRD) service,
- Question Point,
- Online Pathfinders, etc.

Synchronous Transactions

The synchronous transaction, on the other hand takes place in 'real time' with an immediate response to the query¹³, the examples of synchronous transaction are

- Chat-based services,
- Video Conferencing or web cam services,
- Digital Reference Robots,
- Real-time Reference services (Live Ref, 24/7 Ref), etc.

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)¹⁴, 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 member profile.

DATA ANALYSIS

The analysis of data is basically based on the research activities carried out through structured questionnaires covering different areas and most of the respondents belong to various levels. The data is analysed in view to the objectives mentioned in the study as follows:

SEX RATIO**Table 1: Sex Ratio**

Sr. No.	Name of Institute	Respondent Librarians	Gender			
			Male	%	Female	%
2	IIMs	8	7	87.50%	1	12.50%
3	IISc/IISER	4	3	75%	1	25%
Total		12 (100%)	10	83.33%	2	16.66%

It is confirmed that the present study have out of 12 respondents librarian 10 (83.33%) were male and 2 were female.

AGE GROUP**Table 2: Age group of the respondents**

The respondents are classified into five age groups, viz., below 25 years, between 26-35, between 36-45, between 46-55 and above 56 years to get the opinion of different age groups. It is reliable to have the opinion of different age groups on this research work because attitude of the community may be different according to age.

Sr.No.	Name of Institute	Respondent Librarians	Age group of the respondents				
			Below 25	26 - 35	36 - 45	46 - 55	56 and Above
2	IIMs	8	--	1 (12.50%)	3 (37.50%)	4 (50%)	--
3	IISc/IISER	4	--	--	2 (50%)	2 (50%)	--
Total		12 (100%)	--	1 (8.33%)	5 (41.66%)	6 (50%)	--

While analyzing the table 2, it was revealed that, the majority of age group in between 46-55 are 6 & 2 (50%) of librarians in IIMs and IISc/IISER Libraries and between 36-45 age group 2 (50%) of librarians in IISc/IISER libraries and 3 (37.50%) of IIMs libraries. There are only 1 (12.50%) of IIM library having 26-35 age group of librarian.

REFERENCE SERVICE**Table 3: Analysis of Reference Services Provided by IIMs and IISc/ IISER institutional Libraries in India**

	Name of the Institute	Bib. Comp.	Ref. Desk	Lib. Tour	CAS	SDI	ILL/ DDS	Ind. & Abst.	Exhi./ Dis.	RAS/ Ref.	Reading Guides	Lib. Bro.	User Edu.
1	IIMA	√	√	√	√	x	√	√	√	√	x	√	√
2	IIMC	√	√	√	x	x	√	x	x	√	x	√	√
3	IIMB	√	√	√	√	√	√	√	√	√	√	√	√
4	IIML	√	√	√	√	√	√	√	√	√	√	√	√
5	IIMKZD	x	√	√	√	√	√	√	√	√	√	√	x
6	IIMI	√	√	√	√	√	√	√	√	√	x	x	√
7	IIMT	x	x	√	√	√	√	x	√	√	√	x	√
8	IIMKSP	x	√	√	√	√	√	x	√	√	√	√	√
9	IISCB	√	√	x	√	√	√	√	√	x	x	x	√
10	IISCRP	√	√	√	√	x	x	x	√	√	x	x	√
11	IISERM	x	√	√	√	√	√	√	√	x	√	√	√
12	IISERk	√	√	√	√	√	√	x	√	√	√	x	√
Total		8 (66.66%)	11 (91.66%)	11 (91.66%)	11 (91.66%)	9 (75%)	11 (91.66%)	7 (58.33%)	11 (91.66%)	10 (62.50%)	7 (58.33%)	7 (58.33%)	11 (91.66%)

Table 3 represents that, 11 (91.66%) of libraries provides Reference Desk, Library Tour, CAS and Inter library loan/ Document delivery services, Exhibition/ Book Display and User Education to its users. 10 (62.50%) of libraries providing Readers advisory Service/ Referral service. 9 (75%) of libraries provide SDI Service, 8 (66.66%) of libraries provides Bibliographic Compilation. There are 7 (58.33%) of libraries Indexing and abstracting service, Preparation of reading guides and Preparation of library brochures and leaflets service. The Majority of 8 (100%) of IIM libraries that provides Library tour, Inter library loan/ Document Delivery Service and Readers advisory service/ Referral Service and 4 (100%) of IISc/ IISER libraries provides Reference Desk, CAS, Exhibition or display and User Education.

TYPE OF REFERENCE SERVICE

Table 4: Type of Reference Services provided by IIMs and IISc/ IISER institutional Libraries in India

Sr. No.	Name of the Institute	In-Person		Remote			Electronic	
		Face-to-face at reference desk	telephone	Voicemail	Email	Letter	Real Time Chat	Web-form
1	IIMA	√	√	x	√	√	x	√
2	IIMC	√	√	x	√	√	x	x
3	IIMB	√	√	x	√	√	x	√
4	IIML	√	√	x	√	√	x	√
5	IIMKZD	√	√	x	√	√	x	√
6	IIMI	√	√	x	√	√	x	√
7	IIMT	√	√	x	√	√	x	x
8	IIMKSP	√	√	x	√	√	x	√
9	IISCB	√	√	√	√	√	x	√
10	IISERP	√	√	x	√	x	x	x
11	IISERM	√	√	x	√	√	x	√
12	IISERK	√	√	x	√	x	x	x
Total		12 (100%)	12 (100%)	1 (8.33%)	12 (100%)	10 (83.33%)	—	8 (66.66%)

The table 4 reveals that, 12 (100%) of libraries provide Face-to-face reference service, Telephone, E-mail service. 10 (83.333%) of libraries provide Letter form service, 8 (66.66%) of libraries provide web form reference service to its users and only 1 (8.33%) of libraries provide voice mail service. The majority 8 (100%) of IIM libraries that provides Face-to-face reference service, Telephone, E-mail and Letter form service. 4 (100%) of IISc/ IISER Libraries provides Face-to-face at reference desk service, Telephone and E-mail reference services.

VIRTUAL REFERENCE SERVICE

Table 5: Types of Virtual Reference Services by IIMs and IISc/ IISER institutional Libraries in India

Sr. No.	Name of the Institute	E-mail Reference	Web-Forms	Ask-A Librarian	VRD	Online Chat Reference OR Web-camera Services	Digital Reference Robots	Video-conferencing	Collaborative Digital Reference	Real time Reference Service	Online Path-finders
1	IIMA	✓	x	✓	x	x	x	x	x	x	x
2	IIMC	✓	x	✓	x	x	x	x	x	x	x
3	IIMB	✓	✓	x	x	x	x	x	x	x	x
4	IIML	✓	✓	x	x	x	x	x	x	x	x
5	IIMKZD	✓	✓	✓	x	x	x	x	x	x	x
6	IIMI	✓	✓	x	x	x	x	x	x	x	x
7	IIMT	x	x	x	x	x	x	x	x	x	x
8	IIMKSP	✓	✓	x	x	x	x	x	x	x	x
9	IISCB	✓	✓	x	✓	x	x	x	x	x	x
10	IISERP	✓	✓	x	x	x	x	x	x	x	x
11	IISERM	✓	✓	x	x	x	x	x	x	x	x
12	IISERK	✓	x	x	x	x	x	x	x	x	x
Total		11 (91.66%)	8 (66.66%)	3 (25%)	1 (8.33%)	—	—	—	—	—	—

Table 5 highlighted that, highest 11 (91.66%) of libraries providing E-mail reference service, 8 (66.66%) of libraries providing web form service, 3 (25%) of libraries provides ask a librarian service and only 1 (8.33%) of libraries provides VRD. The highest 4 (100%) of IISc/ IISER libraries provide e-mail service followed by 7 (58.33%) of IIM libraries.

USING WEB TO ANSWER REFERENCE QUESTION

Table 6: Using Web to answer Reference Question by IIMs and IISc/ IISER institutional Libraries in India

Sr. No.	Name of Institution	Respondent librarians	Frequency of Using Web to Answer Ref. Question					
			Daily	Weekly	Monthly	Rarely	Never	No Resp.
2	IIM	8	2 (25%)	5 (62.50%)	--	--	--	1 (12.50%)
3	IISc/IISER	4	2 (50%)	1 (25%)	--	1 (25%)	--	--
Total		12 (100%)	4 (33.33%)	6 (50%)	--	1 (8.33%)	--	1 (8.33%)

The Table 6 represents that, the use of web to answer reference questions there are 6 (50%) of libraries Weekly use of web to answer reference questions. 4 (33.33%) of libraries Daily

use of web to answer reference questions, 1 (8.33%) of library Rarely use of web for answer reference question and only 1 (8.33%) of library that not clearly mentioned. The highest 5 (62.50%) of IIM libraries that weekly use web to answer reference question followed by 2 (50%) of IISc/ IISER libraries daily using web to answer reference questions.

FINDINGS

- The observation of all respondents Male is the maximum respondents.
- Most of the respondent's librarians age in between 46-55.
- Most of the IIM'S and IISc/ IISER libraries provides Library Tour, Current Awareness Service (CAS) and Inter library loan/ Document delivery services to its users other than other services of the library likes Reference desk, and User education and Book exhibition/ display service.
- 100% of IIM's libraries that provides Library tour, Inter library loan/ Document Delivery Service and Readers advisory service/ Referral Service and
- 100% of IISc/ IISER libraries provide Reference Desk, CAS, Exhibition or display and User Education.
- Most of the 100% IIM's and IISc/ IISER libraries in India provide Face-to-face reference service, Telephone as well as E-mail reference service and Letter form service.
- It is found that highest 11 (91.66%) of libraries providing E-mail reference service.
- 4 (100%) of IISc/ IISER libraries that provides of e-mail reference service.
- It is observed that the highest 5 (62.50%) of IIM libraries that weekly use web to answer reference question followed by 2 (50%) of IISc/ IISER libraries daily using web to answer reference questions.

CONCLUSIONS

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. VRS are increasingly incorporating instruction because of the growing need to teach patrons how to use the exploding electronic resources in libraries. Virtual reference is here to stay. As new technologies are developed the ways in which virtual reference is provided will continue to evolve. This study is an important first step towards better understanding how digital library services can be successfully integrated into existing library and information services.

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