

Shaping the Future Realities of Virtual Reference

Sponsored by the Special Interest Group on Library Technologies (SIG-LT)

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Overview

This panel addresses some of the gaps in VRS research. Results from two major research projects, one a state-wide, the other an international evaluation of VRS are discussed in the context of addressing the needs defined by Pomerantz (2005). Pomerantz calls for a “shift [in] the literature on chat-based reference services beyond the current spate of case studies and discussions of emerging standards and best practices in providing chat-based reference, to a higher level of discussion on the creation and discussion of theoretical frameworks to unite these standards and practices” (p. 1288). He outlines a research agenda and provided the foundation for the development of a coherent, holistic conceptual framework for VRS (see also Lankes, 2004).

Beyond sporadic, usually quantitative data, little is known about the users of VRS: how they determine service excellence and rate satisfaction, how and why they choose to use VRS, and what their use patterns are. Mon (2006) found that users will indicate that they are “very satisfied” in often used pop-up surveys when they actually have additional lingering questions or need more help. Little is also known about the librarians who staff these services, their satisfaction with their performance, and how they determine success and satisfaction. Even less, indeed a negligible amount is known about non-users and the reasons they do not choose VRS. What data do exist on these topics is from case studies and evaluations of individual services; there have been no efforts at meta-analysis across services.

Complementary analyses from two research projects, in the light of the conceptual framework proposed by Pomerantz (2005) are presented in this panel. Scholars and providers of VRS benefit from this discussion which reveals a wide range of insights into the reality of user needs in today’s digital information-seeking environment. In addition, the need for development of strong theoretical frameworks is explored.

This panel shall be an interactive discussion with a substantial audience participation component. It is hoped that the audience for this session will consist of both researchers and practitioners of reference, in both virtual and traditional environments, as well as those interested in servicing the digital library user. This discussion is guided by the following questions:

1. What should be the relationship of VRS to other modes of reference service delivery (e.g., phone, email, etc.) in meeting user needs?
2. What functionality should VRS ideally provide?
3. How can diverse user communities be best served by VRS?
4. How can VRS function best in an environment in which differing resources are available to users?

Seeking Sustainability and Singularity: Evaluating Virtual Reference from User, Non-User, and Librarian Perspectives

Marie L. Radford and Lynn Silipigni Connaway

Web-based library reference services have emerged in growing numbers as vital alternatives to the traditional face-to-face (FtF) reference encounter. Synchronous, (live chat reference or “Ask-a-Librarian” services) and asynchronous (email) virtual reference services (VRS) have become common features of library home pages, growing in numbers since their initial appearance in the late 1990’s with the increasing use of digital libraries and the demand for remotely accessed academic library services (Mon, 2006). Existing research on this relatively new type of library service is fragmented and limited in scope (Lankes, 2004), but there is a growing body of research (e.g., see Arnold & Kaske, 2005; Nilsen, 2004, Radford, 2006), that includes recent doctoral dissertations (e.g., see Ford, 2003; Mon, 2006; Ozkaraman, 2005). Urgency for more research is partially driven by issues of sustainability as many VR services, initially supported by grant money, must now seek new funding sources. Sustainability has become one of the critical issues for VRS in these times of extremely tight budgets, rapidly changing technologies, widely available web browsers and sources, and continually evolving service models. Another pressing issue is how to build a stronger user-base. Services seeking to reach non-users have little information about them, the reasons they do not choose VRS, or how they might be encouraged to become users.

This international research project, funded by the Institute of Museum and Library Services, Rutgers, The State University of New Jersey, and OCLC Online Computer Library Center, Inc., is a study of librarians, users, and non-users of VRS. The factors that influence selection and use, as well as the non-selection and non-use of synchronous VRS are being investigated. Transcript analysis, online surveys, focus group and individual interviews with users, non-users, and librarians are utilized to identify why users select and use VRS, why non-users opt to use other means, and how interpersonal dimensions of VRS determine perceptions of satisfaction and success. Questions address:

- how users determine service excellence
- how users rate satisfaction
- how and why users choose to use VRS
- patterns of user behavior
- librarians’ satisfaction with their own performance
- how librarians determine success and satisfaction

In the initial phase of this grant, a series of seven focus group interviews have been conducted with librarians, users, non-users of VRS and an overview of preliminary results are discussed below. Focus groups with VRS librarians reveal that they are enthusiastic about VR, but concerned about sustainability. Comfortable in the virtual environment, they believe that rewarding interpersonal relationships with the users are often developed. They also perceive that VRS makes service more accessible to users in large academic institutions, enables them to reach people who normally do not use the library or FtF reference, and expands library collections to outside and/or remote users. Technology problems are cited as one of their biggest frustrations.

The users of VRS are equally enthusiastic. They especially value the convenience of round-the-clock access and the transcript that is generated and emailed to them after each session. They often prefer VRS to FtF reference assistance because of the convenience and anonymity of live chat. They enjoy being able to multi-task while chatting, and enjoy the immediacy of chat versus email which they perceive to have slow response time. They value the professionalism of the VRS librarians and their ability to find quality information. They too are frustrated by technology problems, including slow system response time and difficulties with co-browsing functions.

Graduate student non-users of VRS frequently use library websites and databases, Google Scholar and other search engines, and also asked colleagues when they have academic-related information needs. The majority prefers FtF reference interactions because they value instruction as well as obtaining the needed information, and are unsure of the reliability of VRS interactions. They usually require assistance from a librarian during “crunch time” and believe that the response time for VRS will be longer than FtF. Those who have a preference for email believe it is convenient and saves travel time. These graduate students have not used VRS because of technology concerns. They do not want to annoy the librarians or place more strain on the librarians’

time. Not knowing if a librarian is available at odd hours is another deterrent. They also expressed a fear of appearing stupid, not presenting an intelligent query, or being negatively evaluated by the librarian. Privacy was a concern since they feared that the conversation would be saved and perhaps shown to their professors. They would be more apt to use VRS if they knew that librarians really wanted users and suggested a promotional campaign on campus that encouraged student use. They also need to have more confidence in the system and would like information available on the web site that explained the speed and hours of the service.

Additional focus groups with non-users were conducted with 12-17 year-olds, termed "screenagers" because of their affinity to computer, phone, and video-game screens (Rushkoff, 1996). Like the graduate student non-users, these screenagers also use Google, browse the web, or ask their friends for help, while some prefer to find information on their own. The majority prefer FtF interactions with the librarian to any other form of communication with a librarian. They highly value the interpersonal interaction they have with the librarians and are not sure that VRS librarians would understand their information needs, or would care about them as individuals. The screenagers are apprehensive about using VRS because they worry that chat situations may be unsafe since they do not know the librarians. Some trust their ability to evaluate web-based resources above that of the librarian, although others understand that librarians know where to find the best information. A concern for the accuracy of the answers is another drawback to using VRS. They like the idea of round-the-clock service, but doubt they will try VRS in the near future.

As can be seen in the above, preliminary results, much insight is gained by focus group interviews with these cohort groups. Additional focus groups are in process and will be followed by 300 phone interviews and 600 online surveys of an international sample including proportional numbers of librarians, users, and non-users. Results are discussed in relation to gaps in the literature to be filled and implications for theory development and testing.

The Return on Investment of Collaborative Virtual Reference Service

Jeffrey Pomerantz

The past few years have seen an upswing in interest in cost-benefit studies for libraries. Most of these studies are from the perspective of the library user: they investigate the benefits realized by library users from the use of libraries, and the value to users of libraries providing particular services. Several studies conducted in North America have investigated these benefits at a statewide and nationwide level. McClure and colleagues (1998, 2000) found that public libraries in Pennsylvania and Florida benefit the local community and the state in a variety of ways, though they did not place a dollar value on those benefits. Fitch and Warner (1999) found similar benefits for public libraries in Canada. Two other studies employed methods of economic valuation to actually place a dollar value on the benefits provided by public libraries, and have found impressive returns on investment: Griffiths, King, Tomer, Lynch, and Harrington (2004) found that the Return on Investment (ROI) for public libraries in the state of Florida is \$6.54 returned for every \$1.00 invested, and Barron, Williams, Bajjaly, Ams, and Wilson (2005) found that the ROI for public libraries in South Carolina is \$4.48 returned for every \$1.00 invested. These studies address the very large-scale issue of the value of the existence of libraries in a community.

To find studies of the cost-effectiveness of library reference services, one must go back thirty years. The late 1960s to mid-1970s was a period when especially tight budget situations in libraries created a need for libraries to justify the services they provide, and thus created a demand for ROI studies. Today, similar budget situations in libraries are one cause of the current interest in ROI studies. These studies from the 1970s were not from the perspective of the library user, however, but from the perspective of the library itself. A number of studies in the late 1960s and 1970s arrived at surprisingly high cost-per-transaction figures (Murfin, 1993). Virtual reference service (VRS) providers must add to these expenses the cost of licensing software, the cost of maintaining servers to host the software, and the cost of training librarians to use these applications.

This study quantifies the ROI associated with the implementation of a collaborative VRS. This study has collected data from libraries participating in the NCKnows service, a statewide chat-based reference service in North Carolina, coordinated by the State Library of North Carolina (www.ncknows.org). This study has identified the impact that participating in this service has had on these libraries, in terms of the costs and savings incurred by individual libraries and by the entire statewide collaborative. This effort seeks to answer the following research questions:

1. What monetary and non-monetary costs and savings are incurred by libraries participating in a collaborative VRS?

2. What factors impact the ROI associated with participating in a collaborative VRS?
3. What impact do the characteristics of the library (e.g., size of collection, total budget expenditures) have on these factors?

Two types of costs are considered in this study: overhead and operational costs. Overhead costs are defined for this study somewhat differently than they are usually defined. Overhead costs are generally taken to be those necessary to the functioning of an organization: for libraries and most organizations this includes such costs as lighting, heating, air conditioning, etc. For this study, overhead costs are taken to be those costs necessary to the functioning of the VRS, even if those costs are not necessary to the operation of the library as a whole: for example, staff salaries, computers, internet access, the virtual reference software application, etc. Operational costs are those that are not necessary to the functioning of the service, but that provide added value either to the librarians in or the users of the service: for example, database subscriptions, other network applications, and reimbursements for internet access to librarians who staff the service at home.

Conclusion

The above two research projects are linked in their ultimate goal to explore issues of sustainability for VRS. In conducting focus groups with VRS users, non-users, and librarians, Radford and Connaway seek to identify issues that attract VRS users and encourage them to return for multiple visits as well as to identify features and improve practice to make librarians more effective as well as more comfortable in this environment. Their project's focus groups also seek to identify key problems within the VRS environment and system enhancements that will provide opportunities to solve these problems. Pomerantz addresses sustainability issues from the viewpoint of return on investment (ROI). His study examines overhead and operational costs that include human as well as system costs. His research emphasizes the value of consortial solutions in times of limited fiscal resources and staff shortages accompanied by rapid technological advances and increased user expectations and demands for library services. As recommended by Pomerantz (2005) these investigations are gathering empirical evidence to increase sustainability of VRS from two complimentary viewpoints and, as such, will provide a significant contribution to the literature and further the VRS research agenda.

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Jeffrey Pomerantz is Assistant Professor, School of Information and Library Science, University of North Carolina at Chapel Hill. Much of his work has been in the arena of virtual reference services, and the integration of virtual reference services into digital library contexts. His recent research includes evaluation and curriculum development. He recently completed a program evaluation of NCknows, the State Library of North Carolina's chat-based reference service, and he is currently involved in developing curriculum materials for teaching digital library-related topics in common across library and information science, and computer science programs.

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