

Virtual Reference on a Budget: Case Studies

By Teresa Dalston and Michael Pullin

The challenge: develop and implement a virtual reference service in your library media center to meet the needs of a particular population group. The catch: you have no budget for software or additional hardware, your three other team members reside hundreds of miles away, and the online service must be operational in eight weeks. On your mark, get set, go.

This was the assignment presented to 20 doctoral students from the School of Library and Information Sciences at the University of North Texas who met in the summer of 2005 to complete a seminar and online course on "Online Information Services." These students, not only practicing librarians but also aspiring library and information science faculty members, rose to the challenge. They were suited to the task because they not only love the theoretical foundations that underpin our profession, but also are not afraid to roll up their sleeves and get their hands dirty.

Today's library and information science faculty must live in both worlds—the academic world of analysis and research and the hands-on, knee-deep practical world of information use and service. The library science professor of by-gone eras that stood at the front of the class and said, "In the beginning, there was Ranganathan, and then his word became law..." but then glossed over the how and why of insights into user-centered information services is dead. If the library science academic is not in the real world of information needs, he is about as useful as a gardener without soil and water. This class was about growing the garden, planting seeds in the earthly realm of real libraries, and watching them grow with a scientific eye as sharp as Mendel's.

The class offered the perfect research settings with 10 practicing school librarians and 10 practitioners from other areas of the library world. Each team recorded their experiences in developing a virtual reference service or in exploring a particular challenge in offering virtual reference services, such as evaluation and training needs, all on a limited budget. Of course, there were theoretical discussions and explorations of issues in offering online services, but the bulk of the team projects addressed practical aspects and benefits of offering user-focused online services, with emphasis on how Virtual Reference (VR) has affected the traditional role of reference librarians and the technology, tasks, and skill set associated with this online service.

After these projects were submitted, the class wanted to share their experiences and learning with others that have felt the pinch of tight schedules and the restrictions of tied purse-strings, but have a desire to explore virtual reference services to meet the information needs of their patrons. Linworth Publishing generously offered to record these case studies in our book *Virtual Reference on a Budget: Case Studies* (2007) completely intact with some preliminary discussion of a model process of implementing a virtual reference service. The class dedicated all royalties from the book sales to a scholarship fund for other aspiring library and information science students. The book is not only of interest to practicing information professionals that are considering providing virtual reference service with limited time and resources, but a labor of love for the real-world, hands-on learning process. Each case study is unique not only because of the populations that the groups chose, but because of the unique solutions each team proposed to best meet the information needs of their target populations.

IMPLEMENTING VIRTUAL REFERENCE ON A BUDGET

"...we must become pivotally involved in providing point-of-need reference service to information seekers at the place where they are when they have a question."

— Anne Lipow (2007)

The common thread for all virtual reference implementations in the book was that all teams

would explore economical Instant Messaging (IM) solutions to offering Virtual Reference Services (VRS). Though the team had strict budget limitations that disallowed hardware and software purchases, the consensus was that real-world institutions would have some staff resources to implement and manage a freeware solution. So, each team was tasked with assessing the potential for a public IM software for addressing the VRS needs of a particular user group and recording the process of planning, testing, and implementing the service—all within 7 to 10 weeks. As the case studies developed, a logical model for beginning to investigate decision points in implementing virtual reference with limited time and resources emerged. This article provides an overview of the decision process each team experienced in implementing a virtual reference service on a (non-existent) budget interspersed with highlights of the unique aspects of each case study.

DECISION POINTS

Keeping this model for implementing a VRS in mind helps the practitioner make informed decisions and simplifies the process of creating a viable service. The decision points are not necessarily linear—many of the factors in one category will affect implementation decisions in other categories. Also, users' needs and preferences, the institution's resource limitations, and the technology's availability and functionality must be weighed concurrently. The decision categories are introduced here, but are addressed in more detail in the book. Operationalizing the case studies in

WHY CHOSE AN INSTANT MESSAGING SOLUTION?

The short, logical answer is that the technology for an online service must be readily adopted by the potential user group and affordable for the institution. The decision for the class was informed by further exploration of the data and statistics, which pointed at the explosive popularity and potential for Instant Messaging. The Pew Internet & American Life Project study on the use of IM in the United States influenced the groups' commitment to use IM technology. This seminal study of the use of IM by Americans established that over half of online adults exchange instant messages and 24% actually use IM more frequently than email. The study provided evidence of the stronghold of the technology and the widespread use in both the business environment and home/recreational use. Approximately 53 million American adults and approximately 75% of online teenagers use IM (Shiu & Lenhart, 2004). With these overwhelming statistics, IM seemed a logical choice. IM use is expected to increase worldwide; current projections indicate that the installed base of public IM accounts will increase from 933 million in 2006, to 1,474 million accounts worldwide in 2010 (Radicati Group, 2006).

participants' institutions offers concrete examples that will help you gain insight for your own implementation decisions.

NEEDS ASSESSMENT

Identifying the need for enhancing current reference services or the potential interest of individual user groups within a particular patron base is the first task in deciding whether to implement a VRS. Virtual Reference Needs Assessment (VRNA) requires the identification and involvement of different stakeholders and is a consultative process. Needs assessment provides the rationale for the formulation of goals and objectives and identifies areas for potential improvements in current reference services. In addition to a user-focused assessment, consideration must be given to current VRS trends. These considerations, as well as administration of surveys on available technology and investigation of the current services administered by the staff, will drive the planning and implementation.

RESOURCE ALLOCATION

"The request to do more with less is nothing new to practicing librarians and the open-source

"Software changes often, so when you begin your selection process it is important to get the latest information on features, functionality, and availability."

software model has become a viable solution for increasing online services to library patrons with limited time and resources."

– Roy Tennant (2003)

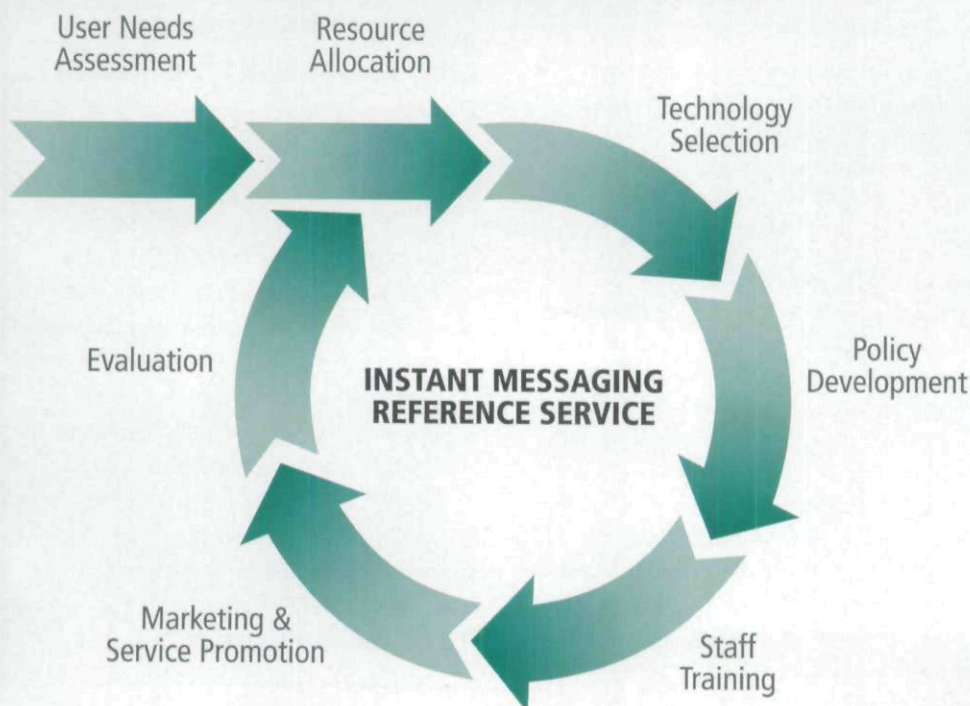
Careful management of staffing and financial resources entails defining the scope and limits of a new online service. In VR strategic planning, resource allocation entails goal-driven planning that outlines the allocation decisions for using available resources to achieve service objectives and project implementation. Projects in the classroom setting were based on teams of four randomly selected members, and the implementation timeline was dictated by the limits of the classroom calendar. In a library setting, a work group would include members

from all affected departments and the service could be rolled out in a longer timeframe. The work group would explore available software solutions and define the goals and priorities for implementing the services, as was the case in the classroom setting. Ideally, the work group would have at least one member with the expertise and authority to define budget and staffing resource limitations, knowledge of administrative policy considerations, and an awareness of any systems administration and Internet usage restrictions. In most implementations, work groups must investigate these restrictions by asking authorized personnel within their institutions.

TECHNOLOGY SELECTION

Software changes often, so when you begin your selection process it is important to get the latest information on features, functionality,

VIRTUAL REFERENCE IMPLEMENTATION DECISION POINTS



REFERENCE SERVICES FOR DEAF STUDENTS

Creating Virtual Reference Services for Deaf Students, created by Vivian Cisneros, David Scott, Joyce Valenza, and Mary Jo Venetis, explores the viability of using open source software to create a Web-interface and Instant Messaging (IM) gateway to enhance school library service to deaf students. The authors examine the needs of deaf students in hearing learning environments and existing reference and advisory services. Librarians who serve small deaf populations should be able to customize their template to meet the needs of their own deaf populations.

and availability. Several online resources are available to inform your decisions. The Wikipedia community has a very helpful resource that provides a table of comparison of IM clients (http://en.wikipedia.org/wiki/Comparison_of_instant_messaging_clients) and the Instant Messaging Planet, a commercial news site just on IM has a Public IM Trends and Product Watch section (www.instantmessagingplanet.com/public/). Kolabora, also a commercial news source, provides detailed updates on online collaboration, Web conferencing, and live presentation technology, including regular updates on IM developments and reviews of IM software, www.kolabora.com/news/2006/09/28/instant_messaging_tools_and_technology.htm. Information Week has regular articles on various aspects of messaging. (At www.informationweek.com search for "messaging.") Networking with peer libraries currently using IM is a good way to keep current on IM software developments and IM VRS issues. A list of libraries that have implemented IM VRS is available at Library Success: A Best Practices Wiki (www.libsuccess.org/index.php?title=Libraries_Using_IM_Reference).

Also, as a supplement to this textbook and to facilitate networking, a Google Group called "Virtual Reference on a Budget" is available online. To access the group, register for a free Google e-mail account. After registering your account, access this Web resource at <http://groups.google.com/> under "Virtual Reference on a Budget."

To assist with informing readers of technology updates, please visit our Google Group "Virtual Reference on a Budget" at <http://groups.google.com/>.

POLICY DEVELOPMENT

"Concern for man himself and his fate must always form the chief interest of all technical endeavors."

— Albert Einstein,
in an address at Cal Tech, 1931

Policies are written principles or rules that guide all decisions and direct the present and future course of conduct for the institution. For this reason, the VRS policy should be aligned with the mission of the institution and all other policies developed by the library. Policies provide boundaries that protect both the user and the information profession. They facilitate trust and confidence in the service because the expectations for the user's conduct and the information professional and institution's responsibilities are made transparent.

STAFF TRAINING

Not all reference staff will embrace IM VRS. Whenever an employer imposes the "Additional Duties as Required" clause in the job description, there is some resistance. For this reason, it is important to get staff support early. Reference staff involvement along each step of the implementation is essential. Some important decisions are deciding who will staff the IM VRS desk, how and when it will be staffed, and how best to train the individuals responsible for IM VRS.

Ideally, staff will be recruited based on interest and aptitude. Most will find the service a natural transition from e-mail and phone reference services. There are some unknowns that require staff and administrators to maintain flexibility, but the IM VRS training materials should prepare staff for what can be expected. As with all library professional development, IM VRS training should be provided on an ongoing basis to continually hone staff member's online reference skills.

MARKETING AND SERVICE PROMOTION

Promoting a new service is a challenging process, but if the previous implementation decision points have been completed successfully, the marketing campaign will be primarily about getting the word out within the community and educating the users about the service. By understanding the motivations and needs of specific user groups and targeting the implementation around those needs and expectations, the marketing is largely a matter of letting patrons know we are committed to serving them.

EVALUATION

"Libri utendi. Omni libro lector. Omni lectori liber. Otium lectoris servandum. Floreat bibliotheca."

— Translation of Raganathan's Five Laws by
Peter Binkley (Quædam cuiusdam
Weblog, February 10th, 2006)

Measuring the costs and benefits of reference services has traditionally been a difficult task, but virtual reference does lend itself to some measurable outcomes. The scope of evaluation that is possible will depend on whether the library will keep the log files and transcripts of online virtual reference sessions. Many libraries are still relying on paper-based counts of reference interaction recorded at the point of service. The transcripts can be manually saved each time and stored as separate files that can be reviewed during evaluation, but this demands more time and discipline on the information professional. The

functionality and process to capture log files and data to tally usage statistics varies among the IM software. University of North Carolina provides an online tutorial for generating usage statistics using GAIM IM and Windows platform (www.lib.unc.edu/reference/eref/gaim/stats.html). All levels of evaluation, from simple question counts to surveys and detailed analysis of transcripts, can inform practitioners of the success of the implementation. The purpose of evaluation is to enable a cycle of continual improvement.

LAKEVIEW HIGH SCHOOL

VIRTUAL REFERENCE SERVICE IN LAKEVIEW HIGH SCHOOL, developed by Doug Achterman, Brian Kenney, Cheryl Lawson, and Margaret "Gigi" Lincoln, sets forth a plan for a VRS at Lakeview High School Library in Battle Creek, Michigan. A new building was to open in 2006 with an up-to-date technology infrastructure that would allow implementation of this service. The plan examines the existing literature of VRS, especially in relation to K-12 users, and provides information specific to the Lakeview community. The rationale and design of the service is reviewed as well as the methodology and software for implementation. A policy is proposed as well as plans for training and marketing. Finally, evaluation methods for the service are presented.

VIRTUAL REFERENCE SERVICE

VIRTUAL REFERENCE SERVICE IN A MIDDLE-SCHOOL SETTING CASE STUDY, developed by Gayle Bogel, Shannon Bomar, Stacy Creel, and Linda Swarlis, investigates implementing a VRS in a middle school setting. Currently, most district and school policies do not allow open chat or IM because of security fears and current controversy over cyberbullying and computer harassment. For that reason, a model was created that would function within a school network during school hours and then provide a connection to the public library virtual reference after school hours using a mirror-image Web page design.

CONCLUSION

In the course seminar from which the case studies originated, students grappled with not only the logistics of coordinating an IM VRS project using distance education collaborative software, but

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TRAINING AND PROMOTION OF VIRTUAL REFERENCE SERVICES

Introducing a VRS that utilizes open source instant messaging (IM) software is an opportunity to reach many potential patrons of library services that are not necessarily current users. In order to have a successful IM VRS, good planning is essential. This project, conducted by Ric Hasenyager, Sara Jones, Michael Stephens, and Erin Wyatt, discusses developing a strong staff training component before introducing the service, doing a user assessment, creating a marketing and promotion campaign that informs potential users about the service, and establishing evaluation in order to assess and refocus the IM VRS.

EVALUATING VIRTUAL REFERENCE

EVALUATING VIRTUAL REFERENCE IN AN ACADEMIC LIBRARY, a study written by Toby Faber, Jeanne Holba-Puacz, Rowena Li, and Wendy Stephens, investigates the usage patterns and service effectiveness of VRS in a large academic library. Complete transcripts of both live chat and email reference questions are analyzed and considered qualitatively by examining the process of the reference interview, the correctness and completeness of the response, the authority of sources cited and recommended and the inclusion of follow-up inquiries. The results of an online survey asking patrons' experience with VRS are also analyzed. This study can provide insight into patrons' information-seeking behavior and information needs for VRS and proposes service improvement to better meet patron information needs in response to this study's findings.

also theoretical and ethical issues in the online reference environment. Students wrestled with the elusive idea of defining the full breadth of the concept of a question, identifying all that is lost and gained when reference goes virtual, delimiting needed standards and best practices governing online information retrieval, considering ethical and legal considerations governing the virtual reference experience, and divinizing the future of virtual 3D reference after interacting as avatars in a 3D virtual environment. The course projects provided enlightenment and a reality check on where digital reference is today and how practical hands-on learning can inform these discussions. They demonstrate that designing a virtual reference service is a challenging, but not an insurmountable task, and practical experience is the best means to inform and prioritize the virtual reference research agenda. By embracing IM VRS, information professionals are realizing Ranganathan's Five Laws of Library Science and keeping the information user at the center of the equation. Ranganathan's visionary concept of the library as a "growing organism" that constantly adapts and changes aligns well with the trend to use the Web to reach beyond the physical limits of the library. IM VRS is simply a tool that allows us, as information professionals, to serve the information needs of our patrons at the point of need. Each implementation experience is a learning process and, when shared, these can contribute to the composite knowledge of the IM VRS community. As more libraries explore IM and share their lessons learned, the IM VRS community—practitioners, researchers, software developers, and even users—can help increase the likelihood of success of the service. ■■

For blog postings on IM and related topics see Michael Stephens' *Tame the Web*, which includes an IM, Meebo & Chat Reference category at <http://tametheweb.com/category/instant-messaging-chat/>

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