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OLA Quarterly

Knowledge Sharing & the Reference Experience

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World of Bots

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Vol./No.	Theme	Deadline	Pub. Date	Guest Editor
Vol 10 • No 4 Winter 2004	Best of OLAQ	October 15, 2004	December 15, 2004	Pam North Sherwood Public Library
Vol 11 • No 1 Spring 2005	Humor us: Librarians and Laughter	January 15, 2005	March 15, 2005	Barbara Butler Oregon Institute of Marine Biology

We must head for there ... Where reason likes to be in danger.

-Gaston Bachelard

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Knowledge Sharing @ Our Libraries!

hese days reference librarians must sift through a "tsunami of information" to meet the needs of their patrons in a challenging mix of interview settings: face-to-face, phone, computer screens. In order to meet the varied information needs of our patrons within the ever more constrained budgetary condition of Oregon libraries, the keys to success will be found in our capacity to creatively change our means of delivering reference service as well as in our ability to transfer knowledge to one another internally—in other words, to value informal conversations about our work as we build our relationships in the library profession.

In this issue, Kevin Barclay examines the reference-staffing model and finds that by examining the types of questions asked at the reference desk, managers can significantly change the number of FTEs needed to deliver quality service at the reference desk by using trained library assistants to field specific types of questions. This variation of tiered reference service can potentially create a more dynamic and interactive staff.

Portland State University's Interlibrary Loan staff and Rose Jackson, the Urban Studies Librarian, explore the ramifications of the lack of internal cross communication when searching for grey literature and other hard to find resources requested by library patrons. They hope to stir interest in their study and encourage *OLA Quarterly* readers to take part in their Web survey about better access to grey literature in Oregon libraries. The article identifies the need for reference cross training between library

departments, thus delineating Interlibrary Loan as an unique point of reference service.

Under the canopy of reference services, virtual reference is now considered a core service. Caleb Tucker-Raymond, Oregon's L-Net coordinator, shares impressive statistics from the Pew Foundation's recent report on the Internet that shows the next generation of Internet users as wired and fired-up in their use of instant messaging as their main medium for electronic communications.

AskColorado fielded 20,000 questions during their first year of virtual reference service. Brenda Bailey-Hainer, Director of Networking and Resource Sharing at the Colorado State Library, describes in detail the marketing plan that launched such a successful virtual reference service across a broad playing field.

Sean Scott explores ways that one can feel rewarded from providing serendipitous, spontaneous reference service by tapping into tacit knowledge as a conduit to creative, explicit information sharing. Sean writes about the importance of casual conversation at the "water cooler," and how we can transfer knowledge as well as communal support by embracing the importance of relationship building among the library staff.

Multnomah County Central Library continues to lead by experimenting with new ideas from the implementation of team management to their current, innovative challenge of redefining reference service. Jane Salisbury reflects upon the changes in reference service over the past twenty years then describes the new generalist model now being implemented at Multnomah Central.

Finally, the future is upon us. I attended a presentation about "Bots" at the Virtual Reference Conference 2003 in San Antonio and brought this information back to my Eref partner at Portland State, Arthur Hendricks, who was intrigued by the University of San Diego Legal Research Center's PowerPoint. (Williams, 2003) Arthur's thorough and amusing investigation about intelligent agents can shed some light on how we can use an electronic, reference knowledge base to build a virtual support Bot that can deliver hard facts for the sciences, business, and law.

Oregon's libraries are vital, lifelong learning, and community organizations that cannot be taken for granted as we witness bonds that do not pass with or without a super majority, and severe budget cuts to the Oregon University System executed by our legislature in Salem (not to mention the austere condition of our public school libraries). Finding new ways to recognize everyone's contributions to the sustenance of our library culture is paramount.

Reference

Williams, Brian. *Bots/Librarians/Coal Mines*. Presentation at VRD 2003 Digital Reference Conference. November 17–18, 2003, San Antonio, TX.

> —Kimberly Willson-St.Clair Millar Library, Portland State Lake Oswego Public Library Guest Editor

Public Library Reference Desk:

Less is More

by Kevin Barclay Reference Manager Deschutes Public Library oes your reference desk have cobwebs? Is the dust an inch thick on your ready-reference shelves? No! Circulation statistics and reference statistics are climbing. Who is it that keeps saying reference statistics are stagnant? What planet are they on? Look at our statewide public library statistics, reference transactions per capita parallel increases in circulation. Libraries are thriving. Unfortunately, staffing is not.

How do we remedy the push-me-pull-you affect of growing demands, new technology, new programming, and decreasing staffing levels? The last few years have been simply remarkable for public libraries. We have created more and more ways for people to access our services, and we provide more resources in less time. And yet, we haven't given anything up. How is this possible? Librarians are working 60-hour weeks instead of 40. Stop! Your family, dog and cat miss you.

For several years now we have embraced many of the new trends in reference service without altering how we provide traditional reference services. The reference desk is our security blanket. Although we will consider or implement new approaches to reference services; yet till the day Hell freezes over, we will continue staffing the reference desk as usual with professional librarians every hour the library is open.

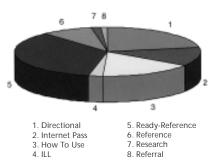
The traditional reference desk, as it has been for the last hundred years, should not be our sole priority. We need to provide less traditional reference services in order to provide more.

OK, you're interested but how do we convince our manager, our public, ourselves? Measure. Measure. Measure. In order to apply a measuring for results approach, we need to look at actual duties at the reference desk, library priorities, task difficulty, and staffing.

Measuring Reference Desk Transactions

First, throw away the clicker. Consultant

Jeanne Goodrich introduced me to a reference desk measuring system implemented by the Baltimore Public Library. Instead of daily statistics they measured quarterly. Baltimore also measured the types of transactions; for example, ready-reference, directional, and Internet help. A year and a half ago I implemented this type of measurement system at Deschutes Public Library System (DPLS). Every quarter we measured reference services at each branch for a week. The results were an awakening. The pie chart below represents a one-week study at the Bend Branch.



Simple directional questions (1) made up 22 percent of the transactions, (2) issuing guest passes for the Internet was 12 percent, and (3) providing instruction on how to use equipment (copiers, microfilm readers, not catalogs or databases) made up 17 percent. In other words, over half (51 percent) of all transactions at the reference desk could have been handled by well trained volunteers. ILL (4) and ready-reference (5) transactions accounted for 3 percent and 35 percent, respectively. Work actually requiring a professional librarian consisted of 11 percent of all transactions with almost 10 percent of these referred to other libraries or branches. The results above are typical for the Bend Branch. Branches in Redmond, La Pine, Sisters and Sunriver see an even smaller percentage of transactions that require a librarian.

Measuring Library Priorities, Task Difficulty and Staffing

The books Managing for Results and Staffing



for Results are excellent resources for measuring library priorities, tasks, and appropriate staffing. The most meaningful workform for me was measuring the estimate of the cost/value of library activities (workform S16 from Managing for Results). This workform incorporates each task's level of difficulty, importance to the library, and the percent of time spent on the activity by staff. Once again the results can be enlightening. The cost/value of staffing the reference desk is tremendous; all other activities are a mere drop in the bucket. No wonder adult programming, collection development, proactive/anticipatory reference services, communication, and other staff activities may be suffering or are not even explored. We undervalue everything else we do to make sure we have bodies and back up bodies for the reference desk.

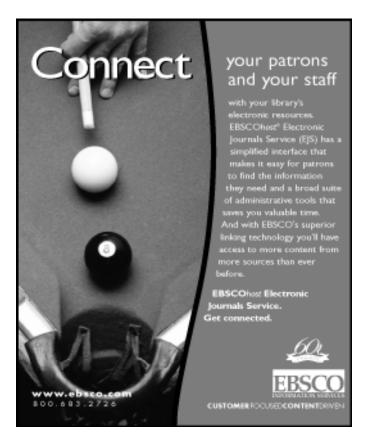
Change, Change, Change

My goal after looking at the measurements cited above was to cut reference librarians' desk duties in half. We are open seven days and 59 hours a week for a conservative total of 118 reference librarian hours/week. If you consider question follow-up, breaks, set up, and closing, the actual number of hours spent by librarians at the reference desk is far greater. Furthermore, there is no additional funding for personnel.

Our first response to these measurements at DPLS was to restructure the reference department. The Bend reference desk serves the whole county and had typically been staffed by two reference librarians. Librarians were also responsible for teaching public computer classes, CONIN/digital reference, adult collection development, staff training and other programming. Obviously, many of these duties suffered, as well as reference service, since librarians were expected to work four or five hours at the desk each day. The restructure eliminated a vacant librarian position and one page position at the Bend branch. I replaced these positions with 1.5

FTE of library assistants and a .25 FTE substitute librarian. We currently have library assistants (1.5 FTE) to process interlibrary loans for the district and handle other clerical duties for the department.

The second response was to develop a ready-reference training program for library assistants. The goal was to have library assistants working the reference desk and capable of handling up to 90 percent of all reference transactions. The remaining "hard" questions could be triaged to the librarian on duty or another librarian off desk. DPLS reference librarian Martha Pyle led the project and developed a detailed and impressive training program. As soon as the new library assistants and substitute librarians were on board we started the training program. Within a month they were shadowing librarians at the desk. The next month they were scheduled at the reference desk with a





librarian. Their training continued for a total of three months, and we are now looking at continuing education projects. All of our library assistants have become very skilled reference staff.

Computer classes were the next area we explored. DPLS reference librarian Liisa Sjoblom developed detailed course objectives, outlines and provided train-the-trainer training. We now have librarians, library assistants and volunteers teaching public computer classes at all of our branches.

There are still some concerns about the implementation. Even with a librarian at the desk every open hour, we are not convinced that the best triage always occurs. We are looking at better ways to communicate with each other at the desk. We are also looking at ways to continually measure successful reference transactions and class instruction. Peer evaluation is an approach we are currently investigating. However, I think overall we view the restructure and training a tremendous success. Reference librarians now have more time to provide professional services to our community, and our library assistants have exciting educational and career opportunities. We have also implemented a MLS tuition program as well as a reference librarian internship.

Conclusion

Proactive/anticipatory reference services such as digital reference, computer classes, marketing, and adult programming may be suffering due to our over-commitment to traditional reference services. Many libraries cannot even envision implementing such programs because of their inability to keep up with an increasing demand at the desk. The situation can seem dire. It seems a bit like talking to a person with water up to their eyeballs about advanced hydrology.

However, we owe it to staff, patrons, and ourselves to explore more effective

and efficient methods of getting the job done. Taking a snapshot of where you are now and examining priorities, staffing, and tasks is a start.

Digital reference, computer classes, and library online services are not perfect but they are a step in the right direction. These services focus on two things:

- 1. Teaching patrons to fish rather than feeding them the catch of the day.
- Anticipating their information needs with professional resources when and where they need them.

By focusing on these two points, more patrons will benefit from our services and less will require the reference desk.

Ultimately, even those scheduled to a shift on the reference desk will be more proactive and spend most of their shift on the floor. Off the desk, professional librarians will spend less time performing Kinko's clerical duties and more time engaged in fulfilling work. Finally, the esteem of our profession will grow as more librarians, and library staff, are given the time and the opportunity to demonstrate their full potential. If you are not convinced, ask a reference librarian.

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Can Cooperative Service Solve the Grey Literature Challenge?

by Sherry Buchanan

Interlibrary Loan Specialist Millar Library, Portland State University

Rose M. Jackson

Urban & Public Affairs Librarian Millar Library, Portland State University

and by Cyril Oberlander

Head of Interlibrary Loan Millar Library, Portland State University

Introduction

Recent articles have documented the surge of student and faculty reliance on the Internet and search engines like Google as sources for bibliographies, and many articles have explored how the Internet has impacted students' views of librarianmediated reference techniques. (Harley et al, 2001) Researchers find Web bibliographies and bring them to the reference desk expecting the library to hold the items. Ouite often these bibliographies are very specific and relevant to a particular area of research; however, a casual glance and a few catalog searches elicit that the majority of the cited materials are not locally held. In many cases, the reference librarian's first response is to refer patrons to interlibrary loan, but perhaps more instruction could occur before the referral. In this article, we explore the interplay between reference and interlibrary loan services in light of post-modern research styles, and how reference and interlibrary loan (distinct service points) can seamlessly address grey literature research needs.

What is grey literature? In the broad sense, grey literature is material that is not readily available through normal channels. Other libraries, wholesalers, or distributors cannot supply it. It is often produced by government agencies, educational institutions, corporations, professional associations, organizations, societies, and research centers. It takes the form of conference presentations, limited publications, dissertations, pamphlets, reports, and Web pages; each has limited distribution, availability, audiences, and life cycles. (Alberani, 1990; Auger, 1994)

PSU Interlibrary Loan and Grey Literature: A Case Study

At Portland State University, an average interlibrary loan request takes less than a minute to send. A staff member spends as long as thirty minutes attempting to send one request for a piece of grey literature. It

is interesting to assess how quickly Portland State University's Interlibrary Loan department fills different requests. It is particularly useful to look at how different requests call into question policies and relationships between library services. In the following example, we see how a request for grey literature is handled, and we learn how the user's requests for similar materials are addressed by the staff.

Portland State's Interlibrary Loan (PSU ILL) receives an article request for "O.W.L. Farm, Oregon by Osa in *Maize #*9, published in Minneapolis, Summer 1986." (http://www-lib.usc.edu/~retter/teehouses.html) The citation lacks formality—bibliographic information typically seen in a complete scholarly citation is not there; it does not include the author's first name or initials, nor page numbers. ILL processing starts...

- The first task is to search OCLC Passport, knowing that single word titles can be difficult to find. In fact, if we do a title search alone for *Maize* in OCLC, there are 5,391 hits. To narrow down results and obtain an ISSN, JAKE at http://jake.lib.sfu.ca/, a great bibliographic verification tool is used; however, in this case, the search yields no results.
- The citation is reanalyzed. Subjectspecific databases, such as Sociological Abstracts, or print indexes, such as *Access* or the *Alternative Press Index* are checked.
- In OCLC Passport, common search strategies are used, including keyword searching and qualifier limits; however, there are still too many serial titles to determine the correct one.

- Next, Google is used to try to locate a cross-reference, and the Web bibliography (http://wwwlib.usc.edu/%7Eretter/ teehouses.html) from which our patron has extracted her citation is found. (http://www-lib.usc.edu/ ~retter/teehouses.html) This is confirmed later, when we learn that our user has submitted eleven other requests from the same source. The reference comes from Little Houses on Women's Lands, a piece of grey literature, presented at the first Northwest Gay and Lesbian History Conference, Tacoma, Washington, October 23-25, 1998.
- The patron has accurately copied the citation from the bibliography, and with no additional information, we are still unable to locate a lending library. At that point, we might have given up, but experience tells us that we can use Google to our advantage. We search for keywords, "Maize," "Minneapolis," and "lesbian," hoping to locate more information about the serial. We find the University of Oregon's Feminist and Lesbian Periodical Collection, a Web site that identifies Preston Hollow as the publisher. (http:// libweb.uoregon.edu/speccoll/ exhibits/lesbianper/index.html)
- Now, we go back to OCLC Passport and search for the title, *Maize*, and the publisher location, "Hollow," and bingo: one search, one record! We send the request to three potential lenders.
- In about eight days, the request is cancelled because none of the potential suppliers has the issue.

 We notify the user that no sources

exist, and we recommend that the user contact the author or the subject specialist for additional assistance.

Of the thirty-six citations listed in the bibliography (http://www-lib.usc.edu/%7Eretter/teehouses.html), our patron submitted twelve requests to Portland State University's Interlibrary Loan department, five of which were obtained with ease. Seven of the twelve requests were for grey literature, and of those, none were obtained even though we could locate holders of *Maize*. Of the seven grey literature requests, four were article requests from the journal *Maize*, and the other three were loan requests, for which no OCLC records or non-OCLC sources could be found.

PSU ILL cancels 2.5 percent of its requests, and most of that percentage represents requests for grey literature. Although 2.5 percent appears low, in this case study, our fill rate for seven requests was zero percent. As the number of requests for grey literature increases, the inability to fill these requests will negatively impact user satisfaction with the library and the overall borrowing fill rate, which is currently about 85 percent (69.29 percent filled by other libraries and 16 percent considered "filled" because items were available in-house or through Summit, a union catalog for Oregon, Washington and Idaho academic libraries).

Cancelling Grey Literature Requests at PSU Interlibrary Loan

Between January 1, 2003 and June 1, 2004, PSU ILL cancelled 672 requests; about 2.5 percent of those were unfilled because there were no suppliers.

PSU ILL cancels requests if:

No OCLC supplier exists.



- No alternative sources can be found.
- No back-issues are available from the publisher.

Our response to hard to fill requests, some of which include grey literature, varies with the difficulty level of the request. We may:

- Decide to contact a user for a copy of the original citation.
- Confer with a subject specialist for additional help.
- Review grey literature pathfinders.
 (Auger, 1994; Mathews, 2004; University of Texas, 2004)
- Contact an outside source, such as the article author or publisher.
- Suggest other titles or refer the patron to a subject specialist for a reference interview.
- Suggest the user attend a bibliographic instruction session to learn new research stategies.

Our current e-mail cancellation notice recommends that the user contact the author and/or library subject specialist, and if possible, we include the author's e-mail address. However, we find ourselves asking these questions:

- When does ILL's job end? Should PSU ILL see authors as "lenders" and send them requests, or should we cancel requests and promote communication between researchers and authors?
- How does our cancellation of requests impact student learning and satisfaction with the library?

 How and at what point should subject specialists be involved?

Synthesis: A Call for Collaborative Library Services and Cross-training

Handling grey literature requests invites us to take opportunities to teach users by promoting good research strategies. Many users could benefit from instruction on evaluating sources, obtaining information from other researchers, and using library databases to locate alternative titles by the same author.

With the rise of Web bibliography usage, we expect to see increases in cancelled ILL requests. Most alarming is the fact that when a user's research question relies almost entirely upon grey literature sources, the library's resources and services appear inadequate. For the user in our case study, our success rate was approximately 42 percent (we filled five of twelve requests).

What can we do to improve how we handle grey literature requests? With increased numbers of requests for grey literature, reliance on a central bibliographic resource such as OCLC becomes problematic. There is a need for an integrative approach to handling grey literature requests. We find that collaborative library services are the optimum solution rather than letting users get lost between interlibrary loan and reference. Short of an integrated service point, a level of process integration and staff cross training may be achieved by creating a feedback loop for handling grey literature requests.

Fundamentally, achieving any level of library service integration requires cross training, shared service philosophies, and knowledge management. A dialogue about the experiences within libraries is a good



Sisyphus by David Ross, copyright 1998-2004.

starting point. One of the most important aspects of library feedback loops is that time is of the essence. Delays between service points can be problematic; on the other hand, parallel processing of requests can be confusing.

One idea is to further involve reference staff (both subject specialists and reference technicians) in the process. We can also invite participation by copying subject specialists on e-mail cancellation notices, so that a feedback loop is created. Subject specialists can then recommend alternative titles, or ask the user if they need further assistance or consultation. Additionally, the subject specialist can develop specific recommendations for the

reference staff to incorporate more refined bibliographic evaluation skills into the reference interview.

Implementing a feedback loop is a systemic process that can lead to improved service, particularly with respect to grey literature. At this point, we can suggest a few ways to improve how libraries handle requests for grey literature:

- Encourage the philosophy that research and service are collaborative processes.
- Suggest that patrons take initiative to contact authors to break down the imaginary boundary between researcher and author.

- Empower users to evaluate sources for usefulness and quality.
- Suggest alternative titles by the same author within a date range. Presentations normally undergo some conversion for publication.
- Suggest alternative sources on the same subject.
- Make an effort to collect any scholarly grey literature that is produced by your home institution, organization, or areas of strength and articulate the effort in your collection development policy. (Siegel, 2004)

This exploratory paper is attempting to raise awareness about the impact of grey literature upon student research and library services such as reference and interlibrary loan. By discussing with OLA readers how PSU responds to requests for grey literature, we hope to open a dialogue to learn how other libraries are responding to similar requests, and ultimately to examine how departments can improve service through cooperation. To continue this discussion, we ask for your feedback.

Please take a few minutes to complete our survey at:

http://www.lib.pdx.edu/services/ill/projects/grey.htm

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The Next Wave for Virtual Reference

by Caleb Tucker-Raymond

L-Net Oregon Virtual Reference Coordinator Multnomah County Library



ast month, I visited a book store and noticed the clerk reshelving a book and stating, "I'll have to look up the names of the Seven Seas on the Internet..." Proud of my profession, I sprang into action, "Why not ask a librarian?" The bookseller replied with a stare, and then challenged me, "Librarians would know the names of the seven seas?" He had a point, but I was determined. "Maybe not, but they know where to look it up efficiently and authoritatively." This time, his look was quizzical, and I went back to browsing.

I was presumptuous. Finding out the names of the Seven Seas is the kind of ready-reference question that most people can answer without the help of a librarian. In this case, the Library of Congress has a great page on the subject (www.loc.gov/rr/scitech/mysteries/seas.html), but most Internet searches are not as authoritative as a librarian. However, Internet searches are just as fast as librarians, and often faster, and have the added advantage of being available almost everywhere you go.

The Internet also has an advantage because it is knowable. Google presents search results in concise and compact sets of ten resources, each with a title and brief description, sorted by relevancy. With this frame, the Internet is easy to grasp and manipulate. For the purposes of day-to-day use and ready reference, most library patrons, like the bookseller, have mastered it. If only our libraries were this simple.

We can't compete with instant gratification, but libraries are certainly knowable (given some time), and we can make ourselves available online through chat reference services such as our L-net (www.oregonlibraries.net). As it turns out, instant messaging and chat software are also technologies that many patrons have

mastered, and some may even know more about these than they do libraries.

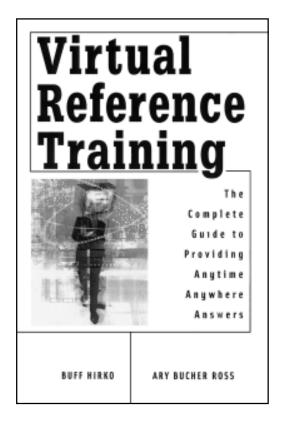
The Pew Internet & American Life Project reports that 63 percent of American adults go online and that 42 percent of these send instant messages. (*Pew Tracking Survey,* 2004) Pew's study of college students' internet behavior gives us even more impressive results, finding that three-fourths of college students have used instant messaging or chat. (*The Internet Goes to College,* 2002)

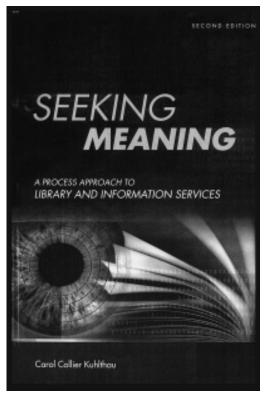
Of course, just because patrons know how to chat and that we offer a statewide chat reference service, patrons aren't suddenly going to forget how to use Google and need our help more often. Yet they will still need help sometimes, and chat reference services offer them a tool to get it... anytime anywhere. As they become comfortable with the service, they will be more willing to ask for help again. The next time they are in a library, some of them may even want to talk to a librarian.

References

Pew Internet & American Life Project (September 15, 2002). *The Internet Goes to College: How Students are Living in the Future with Today's Technologies.* Available at http://www.pewinternet.org/pdfs/PIP_College_Report.pdf

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Buff Hirko and Mary Bucher Ross. (2004) Virtual Reference Training: the Complete Guide to Providing Anytime Anywhere Answers. Chicago: American Library Association.

ISBN: 0838908764

In a training program that promises to make any library staff member-regardless of education or experience-comfortable and proficient in providing virtual reference, expert educator-librarians Hirko and Ross detail the core competencies librarians need in order to deliver consistent service online. The authors also offer a variety of hands-on learning activities, exercises and assessment tools.

From the nuts-and-bolts consideration of online communication and Internet searching skills to actual feedback from librarians who have used it, *Virtual Reference Training* provides the guidance for building a program that will help all librarians develop confidence and finesse at the virtual desk. (ALA, 2004)

Carol Collier Kuhlthau. (2004) Seeking Meaning: A Process Approach to Library and Information Services. Westport, Connecticut: Libraries Unlimited.

ISBN: 1591580943

First published in 1993, the second edition of Kuhlthau's *Seeking Meaning* presents an expanded and more in-depth framework for the process approach to library and information services ("the interpretation of information and ideas within sources"). The book places a special emphasis on the cognitive emotional stages the user experiences when engaged in the research process with a librarian. From stage one (task initiation) through stage six (search closure), Kuhlthau provides a detailed description of the Information Search Process (ISP).

Marketing Virtual Reference Services:

The AskColorado Experience

by Brenda Bailey-Hainer
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Colorado State Library



It was really cool being online with a live librarian, better than searching the internet alone.

thanks for helping me i love this site besause you get to talk to real people about your question and they can help you find tons of sources and answers to it

Thank you for being there 24/7. It's 9:15 Sunday night, the paper is due tomorrow morning and I had nowhere else to turn. Thank you for saving my grade!

Awesome service! First time I used it, but certianly worth it. Is this gov't sponsored? If it is, it's certianly something I like to see my tax \$\$ going to.

hese statements represent just a few of the comments made by users of AskColorado, a statewide 24/7 virtual reference service provided collaboratively by Colorado librarians. Although only in its tenth month of service, AskColorado has already attracted a strong base of repeat customers, answered 20,200 questions, and gained a coveted spot on the Colorado state government Web site.

The success of the service can be attributed directly to an aggressive marketing campaign targeted at key audiences throughout the state. This article will describe the AskColorado marketing communications strategy, the branding concepts used, the actual marketing of the service, and the results.

Project Background

AskColorado was formed through a process involving open discussion forums that included librarians from throughout the state. Over the course of several months, a number of different options were discussed for providing virtual reference service, but a Colorado-based collaborative effort made up of staff from all types of libraries emerged as the clear choice. This process of decision making was key in building support among libraries in the state and gaining their participation in providing and marketing the service.

The Colorado Library Advisory Board (CoLAB) approved LSTA funding for AskColorado, and set several specific requirements that influenced how the marketing of the project took place, and what evaluation targets for success were established. Four key points CoLAB made were 1) the service must be available to all residents of the state, not just the patrons of participating libraries, 2) significant use by rural as well as urban residents must be demonstrated, 3) K12 students and educators should be targeted as well as the general population and the higher education community, and 4) the service must move toward self-sustainability rather than relying on LSTA funding in future years.

These key points meant that AskColorado had two significant marketing challenges. The first was to ensure that Coloradans of all ages from both rural and urban areas heard about the service and used it. The second was to market the idea of a collaborative virtual reference service to decision makers throughout the state, so that libraries would share the service costs in future years and legislators would deem the service so valuable that some state funding would be provided as well.

When the grant funding was released, the Marketing Committee already had a draft of the Marketing Communications Plan to work with (see Figure 1) and a general marketing strategy that involved several key points:

- Effectively brand the service so it becomes widely recognized as a quality service offered by Colorado libraries 24/7.
- Leverage the collective marketing power of all Colorado libraries.
- Leverage the State Library's placement in the state's Department of Education to reach K12 students and educators.
- Use multiple marketing channels so that current library users as well as Internet savvy non-users are reached.



AskColorado Marketing Communications Strategy and Plan

Situation	 The purpose of AskColorado is to provide an online reference service to residents of Colorado, 24/7 via online chat. AskColorado is scheduled for release on September 2, 2003. AskColorado must gain momentum toward self-sustainability.
Marketing Objectives	 Identify the brand characteristics necessary to communicate a consistent message. Create multiple campaigns to support the introduction, release, and on-going use of AskColorado.
Project Objectives	 Qualitative: Within the first year of the service, provide services that are perceived as "valuable" or "beneficial" to users as measured by online surveys. Quantitative: 75 percent of library card holders from all participating libraries will have received information about AskColorado. AskColorado will receive over 10,000 questions between September 2, 2003 and August 31, 2004. Between September 2, 2003 and August 31, 2004, 20 percent of questions received by AskColorado will come from users in rural parts of the state. During the first year of service, 85 percent of AskColorado users will express satisfaction with the answers they received.
Purpose	 Initially, to create excitement or buzz about AskColorado. Ultimately, to establish a consistent user base among Colorado residents and libraries, who are regular return users.
Target Audiences	 Target the following audiences with our marketing messages: Patrons—who will be essential in determining the value of the service. Library Management—who will need to understand the benefits AskColorado can provide to their patrons and staff. Library Reference Staff—who will be using AskColorado to provide service to their patrons. Local Decision Makers—who determine the levels of funding for local libraries. State Legislators and State Employees—who influence funding at the state level. K12 Students and Educators—who will need to understand the value of services that libraries can provide to students

Current Market Position	 Some awareness of the project within library community (per informal communications with various groups).
Communications Strategy	 Use multiple channels, including print, television, radio, live presentations, e-mail, information on library Web sites, and giveaways. Make effective use of AskColorado's branding (name, logo, taglines).
V M (V h fit-)	
Key Message (Key benefits)	 AskColorado provides information and assistance 24/7—anytime you need it.
	AskColorado is staffed by Colorado librarians, who provide quality service.
	 Together through AskColorado, Colorado libraries provide a valuable service to residents of all ages.
Statement of Benefit	Patrons—"AskColorado provides the information I need at any time of the day or night."
	• Patrons—"My local library is an active part of the statewide group that provides this service."
	 Library Management—"This service helps my library provide virtual reference service more cost effectively than we could as an individual library"
	 Library Reference Staff—"I am part of a whole group of staff from many different libraries that is providing services to my local patrons and residents throughout the state."
	 Local Decision Makers—"AskColorado is a worthwhile service to our residents, which our library helps provide."
	 State Legislators and State Employees—"Libraries around the state are an important part of providing information to Colorado residents and potential residents and visitors"
	 K12 Students and Educators—"Through AskColorado, libraries are providing services that help K12 students."
Campaigns	CAMPAIGN 1: SERVICE INTRODUCTION
	Set campaign launch approximately one month after service launch
	Promotional materials distributed to libraries
	 Sample press releases and marketing materials available for download by libraries
	State Board of Education (SBE) Media Event to kick off service
	 Presentations at Department of Education sponsored events (e.g. Superintendents and Principals meetings, English Language Learners staff conference, etc.)
	• Press releases to all SBE contacts (approximately 377)
	Local libraries customize generic press release for local media
	AskColorado added as option in toolbar of Colorado Virtual Library

Branding

Probably the most critical part of implementing any marketing communications plan is the branding process, i.e. selection of the service name, the tagline, and the creation of the logo. The Marketing Committee undertook this piece first.

AskColorado has been selected as the name for several reasons:

- 1) The word "ask" indicated that this was a service people could use to ask questions.
- 2) The word "Colorado" was included to indicate it was a statewide service to all Coloradans and to evoke the idea that "Colorado" was offering the service and answering the questions.
- 3) The name was short, catchy, and memorable.
- 4) The domain "askcolorado.org" was available and "AskColorado" was still trademarkable.

One of the challenges in selecting a short, catchy name is that it is almost impossible to include all of the desired characteristics. Two elements that the Committee had hoped to include were missing: the idea of an online interactive service and the concept that it was available 24/7. A tagline was developed to add the 24/7 concept: "AskColorado-Anytime!" The online chat concept was tougher to achieve, but was added through a marketing phrase that also linked the service name with libraries: "Chat with an information professional from Colorado's libraries." This phrase was used to grab the attention of the Internet savvy individual and convey the online aspect.

A professional graphic artist created the eye-catching logo. The logo includes a variation of Colorado's state flag. The blue and white stripes from the flag are used as a slightly skewed rectangle background, with the dot on the bottom of the question mark playing off of the traditional flag's yellow C surrounding a red circle. Mountains complete the Colorado picture. Again, this evokes the statewide nature of the service, and the fact that libraries throughout the state are providing it.

Target Markets and Marketing Channels

Now that the branding had been established, the Marketing Committee's next step was to determine who should be targeted and how they could be reached. The residents of Colorado were broken down into several target markets. This included current library users, non-library users who are Web savvy Internet users, and K12 students and educators. Several different approaches were needed in order to reach all of these markets.

Current library users were reached by marketing through their libraries. Each participating library was required to add the AskColorado logo and link to their library Web site, and all other libraries were encouraged to do so as well. In addition, many of the participating libraries included information on the service in their print and online newsletters and customized the press releases we provided for their local newspapers. Since the initial set of giveaway items (e.g. bookmarks, refrigerator magnets, etc.) was funded by the grant and available at no charge, libraries could request them as needed and felt free to distribute them widely.

The Colorado Department of Education was the primary marketing tool used to reach both non-library users who are Web savvy and K12 students and educators. The State Board of Education, which oversees the Colorado Department of Education (CDE), agreed to do a media event to help launch the service. Over 370 press releases were distributed on the CDE letterhead to announce the event. By using CDE's name recognition, this resulted in coverage by three television

stations and articles in several newspapers that are distributed statewide.

The press release for the media event paid off later by generating an invitation in December for an interview on a locally produced Colorado Public Radio program called "Colorado Matters." The program is aired on 12 stations statewide, and the interview was archived online, providing later listening opportunities.

It was also useful to do live presentations at meetings sponsored by CDE staff, such as the English Language Learners Conference and meetings involving school superintendents and principals. State Library staff, as part of CDE, had access to the calendars announcing these meetings and was able to secure a place on the agenda and/or the ability to distribute marketing materials at them.

The State Library was able to take advantage of its position as a central communications hub for all types of libraries in the state. A monthly mailing to all public, academic, institutional libraries, and district level school media coordinators is prepared by the State Library. Twice a year, this monthly mailing includes all school buildings as well. AskColorado staff timed the initial marketing campaign to coincide with the fall mailing to all libraries and school buildings. Marketing kits were created and distributed in the State Library's mailing. These kits included sample press releases for different audiences, sample marketing giveaways, instructions for downloading the logo and link, and a form for ordering marketing giveaways funded through the grant. All of this information was added to the project Web site so that libraries could adapt materials for their own use.

Promotions to the library community included activities at the annual Colorado Association of Libraries conference. The State Library purchased four-color ads in the inside and outside back covers of the conference program promoting the service, an AskColorado bookmark was inserted in

every conference attendee's packet, and AskColorado participants demonstrated both the staff and patron side of the service during a conference session and at the State Library exhibit booth. All virtual reference desk staff and any interested libraries were invited to a discussion session. A list of participating libraries is included whenever space allows it, e.g. on the Web site and on the back page conference program ad. Gifts, such as mugs and lapel pins, were given to the library staff and directors at institutions that are providing the service.

State library staff often are invited to speak at various meetings around the state, and were able to include AskColorado presentations at numerous regional library system membership meetings and institutes.

The sample press release in various forms appeared in numerous local newspapers and campus student newsletters around the state. A number of professional organizations added notices to their publications or added a link to the service on their Web sites, such as the Colorado Business Council and the Colorado Association of School Executives. Individual libraries took creative advantage of local events to promote AskColorado, such as the annual Apple Days Festival in Penrose where the librarian passed out AskColorado giveaways.

Budget

The total marketing budget was modest given our wide audience. The graphic design work for the logo and the Web site cost \$1,515. Around \$13,400 was spent on giveaways including bookmarks and business cards in English and Spanish, refrigerator magnets, stickers, temporary tattoos, mugs and lapel pins. CAL conference program ads ran \$550. All told, a total of \$16,300 was spent on marketing.

This money was leveraged, however, through the use of "opportunistic" marketing—seizing any opportunity to piggyback onto other marketing efforts for free. This included an @yourlibrary advocacy campaign sponsored by the Colorado Association of

Libraries in which AskColorado was included as one of several services promoted to the public. This same @yourlibrary campaign was leveraged a second time when the State Library took advantage of being a unit of state government by buying an ad promoting libraries and library services—including AskColorado—on the back of all state employees' pay vouchers. Another opportunity included an insert focused on K12 education in the Rocky Mountain News and Denver Post that was paid for by the Department of Education. Although AskColorado was given only one paragraph in a 20+ page insert, it included a description of the service, the logo, and the URL for accessing the service, and reached hundreds of thousands of readers throughout the state.

Results

Was the AskColorado marketing campaign successful? The results say it all. The target for the first 12 months of service was 10,000 questions. After just ten months, AskColorado has already answered over 20,200 questions. Over 30 percent of these questions have consistently come from rural areas, far exceeding our set target of 20 percent. Although a specific target wasn't set for K12, their usage averages around 55 percent of AskColorado's total use, a significant amount by anyone's standards. But best of all, the state's Office of Innovation and Technology—one of the decision makers in the funding process for state government technology—was so impressed with the service that they contacted the state's Webmaster to request that AskColorado be included on the state government portal. (www.colorado.gov)

Future Marketing Efforts

Marketing any service is a continuous process. At this time, the renewal of AskColorado participating libraries' commitment to the service is in process and some changes are being made to ensure

continued and expanded participation. For example, separate academic, general public and K12 queues will be established in fall 2004 to help pre-sort questions so that librarians answer questions for the constituencies with whom they feel most comfortable. A new online homework help service, provided by the same service provider used for virtual reference software (tutor.com), is being added so that young users who need more than just a quick answer to a question can be helped more thoroughly, thus reducing the waiting time for other users. This new service will be released in mid-August 2004 and promoted as part of the AskColorado service. This will give us new opportunities to promote AskColorado to K12 students, educators and parents.

As a letter of invitation goes out to each participating library or potential partner, the project Steering Committee includes samples of comments that end

Oregon Authors Bibliography Ad to go here

users have made about the service; statistics by county, and statistics by type of question. In addition, there is information about how AskColorado benefits the library and library staff directly in ways such as providing a cost effective way to provide virtual reference service, training for their staff in a cutting edge service, and providing service to their patrons beyond the library's regular service hours. This information helps library directors make better-informed decisions as to whether or not to participate in AskColorado.

The most extensive marketing push to end users for fall 2004, however, is a campaign specifically to reach Spanish speakers. During July 2004, ads promoting library services to Spanish speakers will be appearing in a number of different print sources. The campaign also includes live interviews on Univision (a Spanish language television service) and Spanish radio stations. In addition, a number of libraries have hired outreach librarians specializing in services to Spanish speakers. Working with these contacts will allow us to reach deeper into the community.

With these more extensive marketing efforts, AskColorado hopes to report a year from now that we've doubled everything—usage by the public, participation by libraries, and funding by state government. AskColorado a year from now and find out!

To access the AskColorado service, go to www.askcolorado.org. Information for library staff interested in AskColorado can be found at www.aclin.org/reference. Information on implementation, contact Sharon Morris, AskColorado Coordinator, morris_s@cde.state.co.us.

Useful Virtual Reference Marketing Resources

Virtual Reference Services: Marketing Guidelines. King County Library System and University of Washington. Available at http://www.secstate.wa.gov/library/ libraries/projects/virtualRef/textdocs/ MarketingGuidelines.pdf

10 Tips for Marketing Virtual Reference Services. Presentation by Linda Wallace and Peggy Barber of Library Communication Strategies. Available at http:// www.librarycomm.com

On Marketing Virtual Reference Services. Sponsored by LSSI at the ALA Annual Conference—June 15, 2002. Available as a printable PDF file from the Library Media and PR Web site at http://ssdesign.com/librarypr/content/p070802a.shtml

AskColorado Marketing Resources. Available at http://www.aclin.org/reference/marketing/index.html

Morris S., *Results of a Survey on Marketing Virtual Reference by Academic Librarian*. Available at http://www.aclin.org/reference/marketing/academic_marketing.htm

Marketing Guidelines for Virtual Reference Services. OCLC QuestionPoint. Available at http://questionpoint.org/support/promote/ promote_qp.html

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Worthington Libraries Online Marketing Plan, 2001. Unpublished handout from ALA Annual Conference, June 23, 2003.

Marketing Digital Reference services. Presentation by Mary-Carol Lindbloom, June 23, 2003, ALA. Alliance Library System, Illinois.



Process, Practice, and Psychic Stress at the Reference Desk

by Sean Cunnison Scott, M.L.I.S.

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Practical Magic

In *The Social Life of Information*, John Seely Brown and Paul Duguid make the distinction between "process" and "practice." Process, crudely put, is what you're supposed to do: breaking a task down into its parts, following standard approved methods. If you can fit it into a flowchart or present it in Microsoft Powerpoint, it's probably process. Practice, on the other hand, is what we really do, especially when process breaks down and life throws a curveball that the technical writers did not anticipate. For Brown and Duguid, practice is Xerox technicians meeting before and after official working hours to shoot the bull and share all the unofficial knowledge they've gained through trial and error:

Though only a fraction may involve directly informing others about explicit business matters, this talk is valuable. Chat continuously but almost imperceptibly adjusts a group's collective knowledge and individual member's awareness of each other. (Brown, Duiguid, 2000)

In reference work, process is what you learn in library school: conduct a thorough reference interview; use plenty of openended questions; refine the topic until you can identify the one resource that will have exactly the right information. Measure twice, cut once and all that. These are powerful tools, and allow us to successfully research topics of which we have little or no previous knowledge. Powerful tools have limits, however. If you're designing or building a car, you will want sophisticated 3-D modeling programs and robotics. If you eventually lock your keys in said car, all that technology will not help you as much as a wire coat hanger.

Similarly, I find that a significant proportion of my reference work falls into the gaps that the orthodox reference "process" does not cover, leaving me to

improvise a form of "practice" that owes more to intuition, environmental scanning, networks (both social and neural), and sheer luck rather than to the theories of Dewey and Ranganathan. A basic tenet of my "practice" is best expressed by the ALA "Read" poster featuring the characters from Lemony Snicket's *A Series of Unfortunate Events*: "Read Everything — Just in Case."

Random Access Memory

I call this the Cliff Clavin method of knowledge management, after the loquacious mailman from the show *Cheers*. Go through life filling one's head with seemingly "useless" trivia, then disgorge this information whenever it seems relevant. My mind works a little bit like the system that Google uses to place relevant ads beside Web searches, newspaper articles, and in their new Gmail service. While the conscious part of my mind pays attention to what a patron is saying, and goes through the standard operating procedures, my unconscious (I'll call him Harvey) runs through the back corridors of my mind, through all sorts of dusty old objects that seemed too good to throw away, even though there was no obvious use for them at the time. Then Harvey finds a longignored fact that somehow relates to the topic at hand, which I never would have come up with by the normal means, or at least not so quickly.

Attention to the Devil in the Details

Once, a patron asked if he could find out if a book he had requested was in transit yet. I punched in his number and saw two items on his holds list: *Driven to Distraction* and *You Mean I'm not Lazy, Stupid, or Crazy?*

As a connoisseur of the psychiatry section (616.8...) I recognized both of these titles as popular works on attention deficit disorder. I wouldn't normally comment on someone's choices, especially on a potentially sensitive subject. I told him

Driven to Distraction was in transit, and he asked me when I thought it would arrive. The current screen didn't show the date the book was sent into transit, so I had to go back to the main search page and look up the title. None of the copies of the book showed as being in transit. I went back to the title list and saw the ADD book by Hallowell and Ratey, and the audio version. There was also a video with the same name; not a documentary at all, but a BBC mystery miniseries. Indeed, the mystery video was the one he had put on hold. While there is no reason why someone might not simultaneously want one leading book on ADD and a movie that happened to have the title of another primary source, it seemed like a coincidence that would have made J. K. Rowling blush.

At this point I thought it worthwhile to bring up the subject of his research, and ask if indeed he wanted a mystery that happened to have the same title as one of the most popular books on the subject of his other research. He laughed and said, no, he didn't want a movie, and I placed a hold on the correct item. It was a simple mistake, the kind of thing people do every day, but it seemed especially easy for someone placing a hold on a book about ADD.

This is the kind of service that I can provide, thanks to the wide variety of arcana that sticks to my brain like flypaper. It also makes me feel a little better about the useful things I don't remember, because I can say that even though I forgot to change my oil or pick up soy milk at the store, the factoid that displaced a more pragmatic detail did come in handy.

Certainly, my stream of consciousness doesn't always buoy up just the right bit of flotsam to solve the problem of the moment. At these times, one falls back on the standard operating procedures of reference service, which allow us to research subjects we know little or nothing about. I know that other people will be able to call on different sources of tacit

knowledge that they have gathered throughout their lives, even if their internal databases might not seem like quite as much of a crazyquilt as mine.

Death and the Maiden

In their book *Information Ecologies: Using Technology with Heart*, Bonnie Nardi and Vicki O'Day present their concept of the reference librarian as "information therapist":

One of the most valuable (and unheralded) services librarians provide is to help clients understand their own needs—a kind of information therapy. Interacting with a reference librarian can be very much like going to a good psychotherapist who, through skillful questioning, gets you to talk about what's really bothering you. (Nardi, O'Day, 1999)

I agree with Nardi and O'Day. Especially in today's increasingly fragmented and alienating world, sometimes our patrons need the sense that a human being is listening, as much as they need the kind of faceless, context-free facts, which they could get from Ask Jeeves. My experience as a journalist has been invaluable when it comes to finding just the right questions to draw forth what someone needs to say, and has served me well on many occasions.

This is not the story of one of those occasions.

A tall, laconic woman came up to the desk. In retrospect, I realize that she was developmentally disabled, though it was not obvious at first. She asked a question that must rank among the most baffling ever faced by a reference librarian:

"Do you have anything on that gal who died?"

My mind raced. I stifled a scream. Who could she mean? I couldn't think of any recent celebrity deaths. The tragedy of the space shuttle Columbia had recently taken



Caprichos Plate 43: *The Sleep of Reason Produces Monsters*—Francisco Goya (1746—1828)

place. Was there a woman on board, one like the teacher, Krista McCauliffe, who touched our hearts when she flew on the Challenger back in 1986? My mind went into spin cycle as I considered the enormity of this question. A bit more than half of humanity could be reasonably classified under the rubric of "gals." With the exception of those still alive, all of them have died. Who could she mean? Marie Curie? Marie Antoinette? Mary Magdalene? Typhoid Mary? Selena? Messalina? Madame de Stäel? Karen Silkwood? Nina Simone?

All this frenzied cogitation flashed by in an instant; my mind is never quite so sprightly as when it calculates the hopelessness of a difficult situation. I know that the official way to proceed in this situation is to ask open-ended questions that will help the reader focus the scope of the information need. With a question this broad, not to mention a patron who thought the question reasonable, it would be a challenge to get into the right county, let alone the right ballpark. Perhaps she needed an information therapist. I know I needed a therapist at that moment, or perhaps a mild sedative.

I'm not normally a praying man, but I sent a silent shout-out to any higher power that might be listening. Please, please, let her give me something to work with. Jesus, Allah, Ahura Mazda, Cthulu... I was willing to take a hint from anywhere I could get one. What happened next may have been the result of a deus ex machina, or just the normal workings of the patron's own random access memory. She opened her mouth and said...

"Anne Frank."

Ah! That gal who died! How could I have missed it? I thanked whatever deity, demon or demiurge moved her to speak, and went about the straightforward business of finding something about Anne Frank.

At the time, it was one of those benignly maddening situations that made me feel as though I was working not in a library, but in a James Thurber story. In retrospect, I see that this event highlighted Duguid and Brown's trifecta of practice: collaboration, narration, and improvisation. (Brown, Duiguid, 2000)

I told several of my coworkers about this in the back room. It was the kind of story that begged to be repeated, and also the sort of encounter that must be converted into narrative to take away its stress-inducing power. Didn't Karl Marx say that reference service repeats itself, the first time as tragedy and the second time as farce? (He should have known, considering how much time he spent in London's National Museum.)

The next day, I got a lesson in the value of information sharing, and realized that my act of narration had also been a kind of collaboration. A colleague told me about her visit from one of our regulars,

whom I will call Nadine. Nadine topped out at just under five feet, but her energy and enthusiasm ensured that she would never go unnoticed—the sort of boundlessly cheery developmentally disabled adult who always keeps things, um, interesting. She came up to the counter and asked my co-worker, "Do you have anything about that gal who died?"

Dawn didn't miss a beat. Like a jazz musician who has the right riff for any occasion burned into her muscle memory —jazz as the apotheosis of tacit knowledge could be a study in itself—she was able to improvise the perfect response:

"You mean Anne Frank?"

"Yeah, that's her," the patron replied, as though she had asked a completely normal, one-answer question, something like "Who's the secretary of defense?" or "What's the latest Left Behind book?"

Shortly thereafter, I saw my "gal who died" patron hanging around with Nadine, and I knew that they had been doing some collaboration of their own.

This episode demonstrates the overlapping roles that even a single communication act can play in the workplace. I shared a funny story with my co-workers. And even this motive was mixed: While I did wish to bring pleasure to other people by making them laugh, I also wanted the ego-boost of knowing that I had the power to make people laugh. By converting the event into a kind of joke with a punchline, I was able to purge the stress that I had felt while it was happening. My selfcentered and colleague-centered motives also had a benefit for the patron. I would never have predicted that my co-worker would face the same impenetrable question just one day after I did, but my intuition compelled me to share a story, and it proved to be useful knowledge.

Georg Von Krogh, Kazuo Ichijo, and Ikujro Nonaka write that "effective knowledge creation depends on an enabling

context." (Von Krogh, Ichijo, Nonaka, 2000) This is a powerful reason for organizations to foster a positive, collegial environment. While my co-workers and I could have performed our basic duties in the absence of an "enabling context" that encouraged us to blend reasonable socializing into the workday, this incident shows how we can augment the service we provide with the casual discourse we share on the job.

Punctuating my Equilibrium

Occasionally, my intuition delivers up an answer so quickly that I even impress myself—though sometimes I'm the only one impressed. In The Hidden Intelligence: Innovation through Intuition, Sandra Weintraub writes:

Some theorists believe that when this occurs, the intuitor actually does think logically, but it happens so quickly that the logic is understood only on a subconscious level and is processed instantaneously to reveal a solution. The intuitor frequently gets the answer first and then explains the logic of it, working backwards from the solution, whereas the logical thinker begins with the facts and builds on them to deduce the logical answer. (Weintraub, 1998)

I remember one time when this cognitive process was just slow enough for me to follow its convolutions. A young man approached the counter with a call slip and asked my coworker, "Where would I find 291.175 G698r?" I was feeling frisky. He was holding a book by Stephen Jay Gould, and my mind raced. He's reading Gould, and he wants a book in the religion section by an author whose name begins with G. Someone reading one Gould book might want another, and I was sure that one, and only one, of his books was cataloged in religion.

"Were you looking for *Rock of Ages?*" "Yeah."



Just "yeah." Nothing else. Not a raised eyebrow, not a chuckle, not a "how did you know that?" Just "yeah." I knew I had been showing off, but I expected to receive at least token acknowledgement. I wanted to say, "You told me a Dewey number and, without even touching the computer, I instantly told you the title of the book—purely off the cuff! Is this something that happens to you every day?"

But this experience just drives home another important thing to remember in the reference process. The degree to which a patron is impressed by the service we provide bears little or no relation to the amount of work we put into it. Better yet, it bears little relation to how much we impress ourselves. One day I might expend a Herculean effort on behalf of a patron, and not get so much as a thank you. The next day someone calls me a genius because I was able to name the third Harry Potter book off the top of my head. Those of us with a service orientation are not immune to the need for praise and the desire to impress others. We are not free from vanity. A significant part of the desire to help people is the desire to feel appreciated by the people we help.

Is this so wrong? If indeed "knowledge is closely attached to human emotions, aspirations, hopes, and intentions" (Von Krogh, Ichijo, Nonaka, 2000), then it would be foolish to try to rid ourselves of our pride in our work and our desire for others to regard us as talented in an attempt to turn reference work into a purely logical endeavor. We should take pride not just in the quality of the service we provide, but in the very pride that benefits the people we serve as we strive for the burst of dopamine that comes when our efforts are acknowledged. Because intuition, pride, and even a craving for ego-reward are powerful tools in the quest for knowledge that Google and Jeeves will never bring to the reference desk.

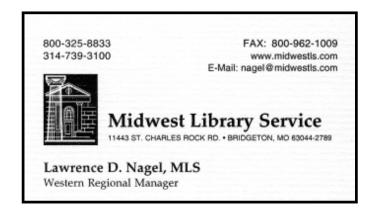
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Reference Redesign @ **Multnomah Central Library**

by Jane Salisbury

Librarian, Science and Business Multnomah County Central Library

hat does it mean to be a specialist in a large public library? In the era of Google and a plenitude of databases on every desktop, can reference librarians confine themselves to a circumscribed subject specialty? Does a passionate interest in a subject make you an expert? And do librarians need to be subject experts, or just dogged snoops?

And what does it mean to be a generalist? Is a generalist a jack-of-all-trades and master of none? Does reference service suffer because the librarian is flailing in unfamiliar waters? Or does the wider knowledge of the generalist serve the patron with better referrals and a broader frame of reference?

These are not new questions. But at Multnomah County Library, we decided to try to answer some of them in the last two years, experimenting with a new design for reference services at our Central Library.

Twenty years ago, each MCL reference librarian had a home section, but was trained to work in other sections. In 1984, a typical reference librarian might work primarily on the Literature and History desk, but also in telephone reference, Science and Business and Government Documents.

Librarians knew a little something about everything, and consulted their more knowledgeable colleagues when needed.

Our staff was full of fanatically curious people who were encyclopedic in their knowledge of everything from opera to Oregon history. Library assistants worked on the reference desks then too, adding another layer of knowledge and experience. Formal specialization was confined to two areas: government documents and music; subjects deemed complex enough to warrant hiring specialists.

Philosophies come and go, as the pendulum swings. By 2000, the subject sections were separated almost completely, working independently of each other, relying more on their internal resources and less on the collective knowledge of the whole staff. Librarians came to see their subject areas more as specialties, and the mixed approach withered away. Library assistants were taken off Central Library subject reference desks, and reorganized into a separate workgroup, staffing the telephone reference service and branch reference desks. Opportunities for collaboration dwindled.

At the same time, technology was changing our world at a head-spinning pace. In 1984, when I came to Multnomah County Library, there was one reference computer in the building, sitting on a little metal desk in the middle of a vast corral of card catalogs. A patron told me one day that she could tell who the librarians were by how they slammed the drawers in with either authority or panache.

We all know how dramatically the picture has changed: Web and database access on every desktop, climbing expectations from the public as the Web becomes more commonly used, and declining dependence on reference librarians and print library resources. The atmosphere of order and control has slowly disappeared. Librarians don't have the drawer-slamming certainty of their position, when it is not so clear to the public what we do. And since every desktop in the building has the same array of resources on it, how can we continue to refer our patrons all over the building for information that is electronically available? Isn't it reasonable on the part of our patrons to expect that we can use all the tools in our toolbox? Might becoming better generalists help us meet these expectations?

When reference managers at Multnomah County Library looked at these changes and an austere budget, we proposed a change in the way that we staff reference desks, based on a model that



incorporates more rotation among desks for all librarians, and that harks back to that earlier way of working. We also wanted to make better use of our deep and surprisingly wide-ranging periodicals collection. Periodicals have been isolated in a section defined only by format at Central. We wanted our subject reference staff to use the rich periodical resources, and periodicals librarians to expand their knowledge of other sources.

Here began what became known (in polite circles) as "Reference Redesign." Some of the Multnomah Central managers began to talk more seriously about ideas that had been tossed around for years, all aimed at integrating the sections at Central and moving towards generalism. We planned cross-training for all librarians. Perhaps the most jarring change for longtime staff was a common schedule with a common set of scheduling norms. We planned to designate several librarians as generalists, to work on all reference desks and on interdisciplinary projects. We kept returning to this set of purposes:

- To move our librarian staff towards a more versatile generalism.
- To use librarians more efficiently by cross-training.
- To provide better referrals and more informed public service, especially across sections.
- To enhance the breadth of knowledge of librarians, and the variety of their work.
- Integration of the use of periodical resources with subject sections.
- To be better stewards of our resources by using staff flexibly instead of always hiring substitutes.

The plan was put into place, beginning with a round of training for all librarians in Periodicals. Discussions, sometimes heated, were held with all reference staff as the redesign was rolled out.

Two generalist positions were developed, then three; now there are four librarians who do not belong to a subject section, but who function as a team. They work in all of the subject sections, and on cross-sectional projects such as an in-house database of staff expertise, training and special grant projects. One of them is writing a new collection policy, and they are working together on a new Web guide, *The Librarian's Guide to Portland.*

Perhaps these seem like modest reforms, but they certainly are not. To a significant number of our librarians, who are seriously devoted to the culture and collections of their subject sections, these ideas are more like Jonathan Swift's *Modest Proposal*, and have been greeted with horror. Some librarians think the generalist plan promotes poor service to our patrons, and wastes the talents of experienced staff. Others enjoy the variation and the challenge of learning to do reference in unfamiliar subjects.

MCL's new approach has not been evaluated yet; it will be when enough time has passed to make a fruitful assessment. For our librarians, much remains the same: reliance on the wide knowledge of colleagues, skillful use of the wonderful collection of the Central Library, and great loyalty to Multnomah County Library as an institution. But what remains to be seen is whether the specialist tendency of the past can easily be wedded to a new emphasis on generalism. We hope to create something that offers the best of each approach to our patrons.

World of Bots

by Arthur Hendricks

Reference Librarian Millar Library, Portland State University He suspects that the Librarian may be pulling his leg, playing him for a fool. But he knows that the Librarian, however convincingly rendered he may be, is just a piece of software and cannot actually do such things.

(Stephenson, 1993)

n Neal Stephenson's novel Snow Crash, the protagonist uses a virtual librarian in "The Library" located in his virtual home to answer reference questions and retrieve information for him. While this is in the realm of science fiction, technology is getting closer to such a reality in the form of bots. The word "bot" is derived from "robot." Whereas a robot is a physical machine, a bot is defined as "a computer application mimicking or embodying elements of human intellect." (Smith, 2002) There are a number of different types of bots, such as search bots, tracking bots, shopping bots, etc. A chatterbot consists of a textbox for user input. The bot always gives a text response and sometimes a synthesized vocal response. Many of the chatterbots use animation to appear more life-like.

Bots represent a branch of research in Artificial Intelligence (AI). An early attempt to mimic intelligence is ELIZA. (Weizenbaum, 1966) It was designed to act as a virtual therapist, and ELIZA is now considered an archaic "chatterbot." There are several Web-based versions of ELIZA and one such incarnation is http://www-ai.ijs.si/eliza/eliza.html.

It seems more primitive compared to the other chatterbots. A downloadable version called Elizabeth is also freely available for educational use at http://www.etext.leeds.ac.uk/elizabeth/. A program like this would be a better choice for experimentation on just a desktop computer.

In the context of the library, the types of bots used are known as "knowledge agents," software that sifts through data to retrieve answers to questions. (Moore, 2004) A few libraries have used these bots to help answer the types of questions often asked in libraries such as directions and hours. For example, the National Library of Medicine has had success with a bot named "Cosmo," which provides answers to patron's basic questions. Cosmo is a type of a chatterbot.

Available 24/7 Cosmo (http://wwwns.nlm.nih.gov/) consists of a textbox and "Enter" button.



Asking a question gives a response and usually some hyperlinks to click. If you ask it about hours, it gives you three links for schedules and hours. If you ask it where the bathroom is, it tells you that it is designed to answer questions about the library and to see its job description. If you ask it who made it, it tells you:

Adam Glazer is a librarian at the National Library of Medicine. He's the one who led the effort to create my scripts and make me the vRep I am today. You can contact him by e-mail to the Library at custserv@nlm.nih.gov.

Unlike some of the other bots, there is no animated character and no speech generated.



Similar to Cosmo, Cybelle (http://www.agentland.com) is a chatterbot in that you can enter text and get a text response.

However, Cybelle is animated and moves when it is "speaking." Unlike Cosmo, this agent tries to be entertaining. I asked it to tell me a story. It replied, "Generic story: Situation... characters... crisis... resolution." The Web site is a little bit difficult to navigate, and unlike Cosmo, Cybelle does not give you URLs to click when searching for items.



ALICE (Artificial Intelligence Foundation—http://www.alicebot.org/) is another chatterbot that is animated, and, unlike the others just discussed, it can speak in a synthesized voice.

If you become a registered member (there is a fee) you can get chat with a speaking (audio) bot. The intended use seems to be for ESL students to practice conversational English. You can see a vocal iteration of ALICE at http://www.pandorabots.com/pandora/talk?botid=f6d4afd83e34564d.

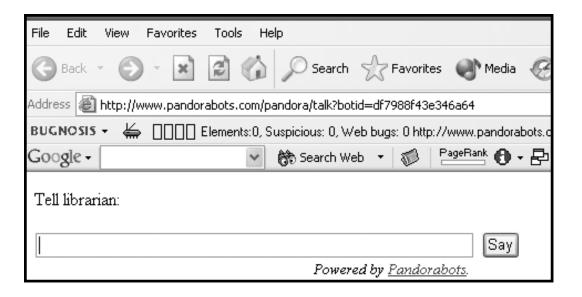
The free version of ALICE is silent. It uses the Macromedia Flash plug-in to enable the animation. It can sense where your mouse pointer is pointing and moves its head and eyes to track the movement. The ALICE Foundation makes its code available freely on the Web so that others can develop their own chatterbots. The markup language they use is called AIML. According to their Web site, AIML (Artificial Intelligence Markup Language) is an XML-compliant language that's easy to learn, and makes it possible for you to begin customizing an ALICE bot or to create one from scratch within minutes. (http://www.alicebot.org/aiml.html)

Many of the chatterbots that you'll encounter are powered by Artificial Intelligence Foundation's software. An easy way to tell is to say, "aiml," to a chatterbot and see if it responds with an explanation as to what AIML is.

Unfortunately, the software has very obscure names, such as Program D. Program D is the ALICE bot written in Java. Program E is written in PHP and works with a SQL database. Program P is the same AIML interpreter written in PASCAL. Program V is written in Perl but it requires mod_perl to work. Furthermore, one would need to know programming to implement any of these programs on his/her own Web site. Also, the download page is not very user friendly to navigate.

I asked ALICE to tell me a story. It replied,

The relationship between Author Jessica Mitford and John Barrymore became increasingly strained. John Barrymore felt something was missing, and Author Jessica Mitford felt the relationship was flawed. John Barrymore became more and more depressed, but Author Jessica Mitford just got angry and left.



Another chatterbot is called Librarian. (http://www.pandorabots.com/pandora/talk?botid=df7988f43e346a64)

If the following conversation is any indication, we have a long way to go before we are replaced by machines:

Human: Where is the library? **Librarian:** The library? Where is it?

Human: Help me.

Librarian: How can I help you?

Human: What is full text?

Librarian: Too much recursion in aiml.

Human: How can I find a book? **Librarian:** Should not be judged by its cover.

Finally, a good list of articles about bots in libraries can be found at http://www.aaai.org/AITopics/html/library.html. Google Directory also has a list of various Web sites dealing with agents at http://directory.google.com/Top/Computers/Artificial_Intelligence/Agents/Directories/. A sample from that list is http://agents.umbc.edu/. A long A to Z list of chatterbots can be found at http://

www.angelfire.com/trek/amanda/botlist.htm. Another popular portal is BotSpot at http://www.botspot.com/.

While computers are nowhere near ready to replace humans, they can help make our jobs easier. By the time computers are smart enough to answer reference questions as well as people can, humanity will have bigger problems than losing jobs to robots.

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