

# Reference Services

## Library Resources Come to the Desktop

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Armed with an arsenal of encyclopedias, almanacs, dictionaries, handbooks, indexes, and databases that constitute the tools of the trade for the ready reference librarian, patrons can have their questions researched, sources identified, and answers provided via a visit to the reference desk at the local library. However, for distance learners and educators, alternative solutions are necessary. The purpose of this article is to identify two approaches to obtaining information traditionally the result of a trip to the library: the use

of live Ask A Librarian reference services and the use of Web-based free reference sources. The advantages and challenges associated with each will be discussed and online resources that are available to reference researchers-at-a-distance will be shared.

The two approaches are both viable and are not mutually exclusive. There is much to be gained from live interaction with a librarian, but the vast array of Internet reference sources should not be forgotten. And, in many cases, these online materials are those accessed by *live* librarians.

ways that patrons can ask questions (Maxey-Harris, 2003). Digital reference service is designed to remove the barriers of time and place, connecting patrons to librarians.

As O'Neill (1999) noted, "Libraries have traditionally responded to reference requests using the mail and later using technology including telephone, and, still later, fax, so e-mail is merely another vehicle to make services available" (para. 3). Real-time reference services are viewed as the next logical step in the integration of Internet or Web-based technologies. Lipow (1999) believed that, without the maintenance of reference services by librarians, "commercial interests like Microsoft [would] step in to fill the vacuum, furthering the privatization of library functions" (para. 6). Live chat brings the librarian to the user without having to disconnect from a telephone line being used for Internet access. In some libraries, patrons may risk losing their seat at a computer terminal if they physically go to the reference desk while in the library. Library patrons who are physically far removed from the library may find this definition of distance amusing. The capacity for real-time assistance online also enables distance learners to avoid long-distance telephone charges to call libraries without toll-free access numbers, to make reference services more inviting to young people and

### **SYNCHRONOUS, REAL-TIME REFERENCE SERVICES**

Synchronous, real-time reference is a hot topic in libraries (Kimmel & Heise, 2001). The process has many names, including real-time virtual reference service (VRS); or real-time, live-, or chat reference; and is also known as digital reference, online reference, electronic reference, and e-reference (Foley, 2002). Regardless of the name assigned to it, the purpose is the same: to extend service to patrons at the point of need and time of need (Trump & Tuttle, 2001). This is also another way to extend the variety of



others who enjoy chat, and to extend reference hours (Foley, 2002).

Two modes of delivery of real-time reference services tend to predominate. The first is the use of Internet chat using a chat client such as America Online or the purchase of Web-hosted venues such as LivePerson, DigiChat, or QuestionPoint. Subscription to QuestionPoint can be as much as \$2,000 for individual institutions or less for members of consortia (Quint, 2002).

Microsoft's Netmeeting has also been used minimally for live reference services; the necessity to download the (free) program and the requirement for matching versions makes this less than optimal. The easiest venue is to outsource the chat; the patron is unaware of the provider and only focuses on the service. There are many software venues for the delivery of live reference services. These include, but are not limited to, Convey Systems, LiveHelper, Live Assistance, InstantService, CS-LIVE, and LivePerson [formerly known as HumanClick] (Eichler & Halperin, 2000; Kimmel & Heise, 2002), as well as QuestionPoint (Maxey-Harris, 2003; Quint, 2002) and America Online Instant Messenger (Foley, 2002).

Ask A Librarian LIVE uses software developed by eGain Communications Corporation and is distributed by Library Systems and Services Virtual Reference Service (Patrick & Matthews, 2002). The concept of ask a reference librarian services has become increasingly popular, initially via e-mail or Web form (Haines & Grodzinski, 1999). Sensitivity to the pressure felt by librarians to provide exact answers rapidly is important (Foley, 2002).

Features vary, but can (and sometimes should) include the ability to *push* screens, documents, and PowerPoint instructional modules to users in real time (Patrick & Matthews, 2002). Connectivity to a live

librarian may be also enabled via a variety of technologies that can include CUSeeMe with video capability, a MOO (multi-user object oriented) environment (Trump & Tuttle, 2001), or chat technology for real-time interaction (Lipow, 1999). Connectivity choices may include the use of audio or video, slide shows, or form sharing (Trump & Tuttle, 2001).

Features are important in determining the advantages of live librarian products. These include the ability to chat, to push a page to the user and co-browse (real-time demonstration of searches or completion of a form), and application sharing (another way of escorting a patron through a process) (Kimmel & Heise, 2002). As with all online activities, issues related to connection speed/bandwidth take precedence over the types of interaction that are possible. Patrons (and librarians) must have speakers or headsets and a good microphone in order to participate with audio (voice) interaction. A Webcam is required for video and is subject to a frame rate that does not, at this time, permit smooth, full-motion video. The question can also be asked about the degree to which seeing a *talking head* adds to the experience; a photograph (.jpg file) of the librarian can serve, and perhaps more effectively.

The basic features of QuestionPoint include filing, tracking, and managing Web-delivered questions, as well as linking to library resources. Questions can be routed automatically to a particular subject area expert or to other libraries. As questions are answered, collection of these data enables development of a global knowledge base (Quint, 2002). While the Library of Congress was an early pioneer in the advent of live reference, they also have developed a strong structure to direct patrons to other means of getting information; due to what could

easily be a high volume of activity, the Library of Congress has thorough *front pages* that clearly state what this live chat can and cannot do—and providing answers to student assignments is not one of the services.

LivePerson allows for seamless outsourcing of the live reference platform. Helpful features include caller logs, the ability to survey users for evaluation of the service, a default to e-mail when the system is not available, automatic messages to users during wait time (such as, "Just a moment, please" or "Thank you for waiting; I'll be with you momentarily"), and the ability to transfer calls to another librarian (Eichler & Halperin, 2000). From the standpoint of the patron, the interface must be user-friendly. These features would include minimum browser requirements; a clean, clear, and easy-to-use interface; the ability to use the system without downloading software or plug-ins; notice of the availability of a librarian, and an e-mail alternative when the service is not available (Kimmel & Heise, 2002).

## **ONLINE REFERENCE SOURCES—DIRECT TO THE DESKTOP**

A remarkable number of ready reference resources are online and free to the public. One category of online references is meta-sites. These include RefDesk.com, Martindale's Reference Desk, the Conversion & Calculator Center, the Fugitive Fact File, and the Internet Public Library Ready Reference. Other categories include dictionaries, almanacs, encyclopedias, and U.S. government document sources. Examples of each category are listed here:

## METASITES

*RefDesk.com, "The Single Best Source For Facts"*

<http://www.refdesk.com/>

This online reference desk is a busy page; there are many features and types of information presentation here. Search resources include Google, Yahoo!, MSN, and the Refdesk itself. There is quick search access to the One Look dictionary as well as *Merriam-Webster's Dictionary and Thesaurus*. Other sections include Site of the Day, Thought of the Day, and Word of the Day; a Current Events Topic; a comprehensive list of Daily Diversions; and pictures and potpourri. Quick-find resources, reference resources, facts-at-a-glance, and a search engine for facts are but a few more of the many items on this site. The content can be overwhelming; this is a great site to spend some time with to familiarize oneself with its information and entertainment value and to concentrate on the search features that can prove especially helpful.

*Martindale's The Reference Desk*

<http://www.martindalecenter.com/>

This is a treasure trove of interesting information. Twenty-three categories include the Language Center, Science Tables, Education, Chemistry Center, Electronic Media, International Travel, and others. A "Virtual" Medical Center (for people and pets) is also found here. There are over 45,000 sites representing over 250 countries, territories, and principalities within Martindale's Health Science Guide; Martindale's "The Reference Desk" and its Centers, Sections, and Subsections. Need a calculator? More than 18,680 are listed. Users will benefit from taking some time to explore this site; it is not searchable but well-organized within the categories.

*Conversion & Calculator Center*

<http://www.convertit.com/Go/ConvertIt/>

A variety of tools are located here, including measurement conversion, currency exchange rates, world time zones, reference information, and a variety of calculators (finance, date and time, math, geography [driving distance, flying time] and others). Beyond conversion and calculators, you will find lists here that may be helpful (such as a list of the states, their abbreviations, capitals, land and water area, and total area).

*Fugitive Fact File*

[http://www.hclib.org/pub/search/fff\\_public.cfm](http://www.hclib.org/pub/search/fff_public.cfm)

A product of the Hennepin County (Minnesota) Library System, this database brings information from many files together to assist patrons in locating hard-to-find and elusive information. All of the data and resources collected here have been used by library staff to answer reference questions. Searching can be done by keyword or by browsing the database alphabetically. Note that the Fugitive Fact File will not supply the information itself, but will provide specific information about the source where the information may be found.

*Internet Public Library Ready Reference Section*

<http://www.ipl.org/> (choose Ready Reference link on the left menu)

From almanacs to trivia, this site offers a wonderful collection of references. It is fun to take some time to explore the references to Time & Weather. From Greenwich Mean Time to the official time in any U.S. time zone within one second, there are many wonderful resources to explore, including clocks, counters, and countdowns. There are links to the National Weather Service, River Watch, "Wild Weather," and other

information. The Internet Public Library is a public service organization and a teaching/learning environment at the University of Michigan School of Information. The Ready Reference section of the Internet Public Library is but one small facet of a major site.

## DICTIONARIES

*Merriam-Webster Collegiate Dictionary & Thesaurus Online*

<http://www.m-w.com/>

This easy-to-use interface has a space for you to type in the word of your choice. Search results for the dictionary include a list of related terms, the main entry word and variant(s) if present, a link to a sound file pronunciation, the function and etymology of the word, and definitions. The thesaurus search generates a list of synonyms, antonyms, contrasted words, idioms, and related words.

*Roget's International Thesaurus of English Words and Phrases*

<http://www.bartleby.com/110/>

Hosted by Bartleby, this site offers an updated version of *Roget's Thesaurus*, with 85,000 hyperlinked cross-references. Additionally, more than 2,900 proverbs and quotations from classic and modern authors illustrate the 1,000-plus entries. The Bartleby site is also handy for searching a variety of reference resources, including quotations.

## ALMANAC, YEARBOOKS, HANDBOOKS, & DIRECTORIES

*Information, Please (Infoplease)*

<http://www.infoplease.com/>

Infoplease uses a variety of sources, including *TIME* magazine's Information Please Almanac. The site includes an atlas with maps and profiles of all 192 countries and the 50 United States. A dictionary is

available with a pronunciation guide, as is the sixth edition of the *Columbia Encyclopedia* (with 57,000 articles, from astrophysics to Zimbabwe). Infoplease is searchable, with a separate search available for biographies. Other interesting tools include the Periodic Table, a conversion tool, a perpetual calendar, and a history resource called Year by Year. There is a daily almanac with facts about "today" in history, birthdays, and the Word of the Day. Editor's favorites reflect current news or events, such as the Olympics in August 2004. All in all, a visit to this site for "all the knowledge you need" is a pleasant experience.

*The Internet Movie Database* (IMDb)  
<http://imdb.com/>

This searchable site for the film enthusiast is the perfect place to find a list of Glenn Close films (as an actress, there are 51 listings in her filmography), to see the name of characters portrayed, and the list of the complete cast, plot synopsis, and more. The site also has information about current movies, upcoming DVD releases, and lists such as the IMDb Top 250 Films. Trivia and a Movie/TV Quote of the Day are also featured. For any and all questions related to movies, this site has the answers and according to the site is "visited by over 20 million movie lovers every month!"

Other resources in this category include RxList (<http://www.rxlist.com/>), the Statistical Abstract of the United States (<http://www.census.gov/statab/www/>), the Thomas Register of companies and products manufactured in North America (<http://www.thomasregister.com/>), and the CIA World Factbook (<http://www.cia.gov/cia/publications/factbook/>).

## ENCYCLOPEDIAS

*World Book Encyclopedia*  
<http://www.worldbookonline.com/wb/Home>

Easy to search, this online version of *World Book Encyclopedia* generates a list of articles related to the keyword. After selecting the appropriate article related to the search topic, the user can view the article about the keyword, a link to related photo(s), and a list of linked "see also" references. All words in the article are clickable and bring up a *World Book Dictionary* entry. The full article may be printed, e-mailed, or saved, and the entry includes a suggested format for bibliographic citation of the article. *World Book* also provides a Spanish encyclopedia and an online intermediate *Student Discovery Encyclopedia*.

*Encyclopedia Britannica*  
<http://www.britannica.com/>

While paid membership is encouraged, there is much that is free from this site. An easy-to-use keyword search will yield two versions of articles, one free and one for members. The free article has good content, but is an abridged version of the complete article. However, each free article provides three citation strategies for referencing the content: MLA, APA and "Britannica style." Online features include the index, the ability to browse alphabetically and by subject, a world atlas, dictionary, and link to timelines. There are also *classic articles* from earlier editions; an article about conjuring, by Harry Houdini for the thirteenth edition (1926), is interesting (and free) reading.

Other encyclopedias are online; these include the *New Advent Catholic Encyclopedia*, the *Encyclopedia of Psychology* from the Oxford University Press, and the *Columbia Encyclo-*

*pedia*. A quick Google search will locate the Web sites.

## U.S. GOVERNMENT DOCUMENT SOURCES

*United States Census Bureau*  
<http://www.census.gov/>

Noting that the Census Bureau has been online for 10 years, there is much to explore and research on this site. Census 2000 is summarized and tabulated. Categories of data on this site include People, Business, Geography, Newsroom, At the Bureau, and "Special Topics" that include the 1930 Census and resources that are designed for teachers. The American Fact Finder section of the site includes a U.S. population clock and a link to real-time population clocks. Census data sets are available for download. A Kids' Corner provides fun facts about states and a quiz with choice of level (easy or hard).

*THOMAS: Legislative Information on the Internet*  
<http://thomas.loc.gov/>

THOMAS was created in 1995 to make Federal legislative information freely available to the public. There are several databases available. These include: House Floor This Week, House Floor Now, and Quick Search of Text Bills. In terms of legislation, bill summaries and status, bill text, public laws by law number, and votes (including roll call results) are available. THOMAS is also the online home of the Congressional Record. You will find the most recent issue online, as well as previous editions dating from 1989. An index is provided, and there are Days-In-Session Calendars dating from 1978; calendars are browsable but not searchable. Additionally, THOMAS provides committee information, including reports, home pages, and listings of both House and Senate committees.

There is also a House and Senate Directory with comprehensive information about room assignments, telephone numbers, and committee assignments. The list of Senators has each name linked to his or her home page with directory information as well as other information from the Senator. Other items on this site include information about the legislative process, a summary of legislative activity, and a collection of historical documents, mainly from 1774 to 1789 (including background and descriptions). The Declaration of Independence and the Constitution are online here. For anyone seeking information about legislation, THOMAS fits the bill.

*Uniform Crime Reports*  
<http://www.fbi.gov/ucr/ucr.htm>

The Uniform Crime Reporting (UCR) program has been maintained by the Federal Bureau of Investigation (FBI) since 1930. Data are provided by nearly 17,000 law enforcement agencies throughout the United States. Several annual publications are published here: *Crime in the United States*, *Hate Crime Statistics*, *Law Enforcement Officers Killed and Assaulted*, and other special studies, reports, and monographs. Most documents are in PDF (Portable Document Format); tables are in Microsoft Excel format. Information is also provided about the *National Incident-Based Reporting System*, and there is a Frequently Asked Questions section. These comprehensive materials are but one segment of the FBI site that includes the "Most Wanted" list.

While it is certainly easier to have someone look things up for us, there is satisfaction to be gained from hands-on reference research. One advantage to seeking information independently is that it lets one explore information discovered throughout the process and to reshape a query both in terms of its

focus and scope. Being able to independently locate information can save time that may be required when asking a librarian to assist. Many of the resources have interesting and fun features that would otherwise be missed, thus making self-service reference searching a serendipitous experience.

A key disadvantage is that developing a sense of the types of resources that are online requires development of skills in searching and exploration. Experience is required in order to become familiar with the various resources. However, dictionaries, encyclopedias, calculators, and glossaries can be identified by using a search tool such as Google. Some reference sites contain so many resources that they can overwhelm rather than focus. Being able to identify an appropriate source can be challenging, but this skill can develop over time, especially for persons seeking consistent categories of information such as labor statistics. And, as with all searching, the use of appropriate keywords is crucial in order to generate a well-focused list of results.

## SUMMARY

Live library reference service online will thrive when it is impossible to ignore—so "in your face" that to not click to access a librarian will be a conscious choice (Lipow, 1999). The use of virtual reference strategies brings patrons and librarians to libraries without walls ("Live Chat," 2002). The ever-increasing number of high-quality reference sources online that are available to librarians and patrons alike can personalize the reference experience and make searching for information an increasingly independent process. Choices abound but, as Munro and Zeidman-Karplinski (2003) wrote, "It's not the years in your life that count so much as the life in your

years" (p. 2). The use of virtual reference is yet another way to bring patrons (life) into reference work, adding a new dimension to distance library services and access to the Internet can make such assistance self-service, at the desktop.

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