

*Future of Academic Reference  
in the 21<sup>st</sup> Century*

*By*

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We are living in a rapidly changing environment. With the appearance of advanced technologies in general and the advent of the Internet in particular Library and Information Science has been continuously changing. Reference services are part of that transition. They are under the significant impact of advancing technologies, changing user expectations, and the explicit move to providing online and distance service.

**Comment [K1]:** Nice focus in your introduction

Although reference service has existed for more than a century it is still not completely defined. In 1876 Samuel Green referred to it as “personal relations between librarians and readers?”. In the 21<sup>st</sup> century personal relations are turning rather into virtual relations as more and more reference services are provided now using instant messaging (IM), chat, e-mail, and cell phones. So what are the trends and issues in contemporary reference that academic libraries must address?

**Comment [K2]:** Source?

**Comment [K3]:** Excellent approach to discussing trends and issues (i.e., clear section headings)

**Transition to Electronic Sources.** One of the biggest challenges for contemporary reference managers is providing access to information sources. Beginning with Green’s time librarians used print sources to answer patrons’ questions. In order that librarians could provide excellent service and meet users’ needs libraries had to have the most up to date reference collection. Usually it was located close to the reference desk and it was not circulating so that patrons would have access at any time. Reference books were always placed on standing order so that a library had the newest edition right after it was published. The reference collection of large academic libraries could be so large as to be equal the size of a small public library.

**Comment [K4]:** Interesting and useful discussion of the historical roots of reference

The first electronic reference source appeared in the 1970s and the advantages of electronic tools became obvious as they were faster, better searchable and more up to date, but their usage was costly. In 1980s CD-ROM technology was invented that was quickly appreciated by librarians and users. Libraries could purchase different databases in this format and it was not an expensive part of their budget. The number of searches with the usage of these databases increased tremendously.

**Comment [K5]:** Awkward wording – perhaps, “better searching options”

Soon it became obvious that users preferred electronic sources to print ones. Thus, the process of replacing reference books with electronic sources has been started.

With the advent of the Internet in 1990s the sources of information used by librarians and users would change forever as the Internet became the first “place to search for almost every single reference query” (Tyckoson, p.272). Without direct cost to libraries the Internet provides high speed access to a huge amount of information. Thus, all libraries, other institutions or individuals using the Internet received access to the same information no matter where they are. The convenience, speed and ubiquity of the Internet quickly made print reference sources out of date causing a dramatic decrease in their use. Contemporary students like to use full-text searching of databases and consider print tools as cumbersome to use. Bossaller and Adkins mentioned the result from one of the latest surveys done among practitioners. According to this survey 55 percent of reference librarians preferred to use with patrons online subscription services, 24 percent of the librarians chose free Internet sources, and only 22 percent chose print sources (p.157). As a result many academic libraries are making their reference collections smaller shifting reference books to the circulation department in order to increase their use and reference funds are shifting from print to online reference sources at an increasingly rapid rate. “Today’s spare print reference collection is a response to an abundance of online resources and a shift in where our users are: less inside our walls, more outside” (Bosaller and Adkins p.153). Thus, managing the evolution of reference tools from the print to the electronic environment is one of the biggest trends in reference.

**Service Models.** Another trend is change in service models. Traditionally, reference service has been related with the reference desk where professional librarians answer all patrons’ questions. Now this desk-based service model is being rethought. New technologies allow the provision of digital reference services for distant patrons using chat, instant messaging, and other more sophisticated systems that allow cobrowsing and other kinds of application sharing. “The big trend

**Comment [K6]:** Excellent quote to emphasize your point

**Comment [K7]:** Some studies show that even if a print resource is a better option, users still prefer electronic.

**Comment [K8]:** ??

is using social-networking tools to move beyond the reference desk,” says Brian Mathews, a reference librarian from the Georgia Institute of Technology. “By putting ourselves in blogs and social networks, it opens up a door” (Carlson, p.27) to patrons. High-tech tools change the way reference librarians interact with students inside buildings. Librarians from Santa Rosa Junior College in California use “wireless paging devices, which can transmit voice communication from pager to pager and also receive transfers from phone calls” (Carlson, p.27). The trend to leave the traditional reference desk and enter the world of students is not purely high-tech. Many young librarians in academic libraries use chats, blogs, instant messaging, and Facebook for reference services, but they also take part in a service called “Librarian With a Latte” which means that a librarian takes a laptop and goes to a popular coffee-shop and invites students to ask for help. Students just love this idea as by the words of Eric Frierson, a librarian at the University of Michigan, dozens of them showed up for only one session. ““Going to where students are” seems to be a theme in social-networking discussions, and they mean virtually”, (Carlson, p.27) he said. It works especially for those who see the reference desk as a barrier that prevents them from approaching a librarian behind the desk. Thus, “offering reference services in more public areas may help break down the artificial barriers between librarians and the users” (O’Gorman, p.333).

**Comment [K9]:** Excellent discussion of the ways that a change in technology influences library buildings and practices

**Comment [K10]:** Very interesting example

**Staffing.** The information desk model seems to moving away from staffing the desk only with professional librarians. With the advent of the Internet, “traffic at the reference desks has dropped off considerably, as much as 48 percent since 1991, according to the Association of Research Libraries”, noted Carlson (p.26). Not only has the number of reference questions decreased at some libraries, but the bulk of those questions could also be answered by students or staff members with minimal training. For example, at Temple University during the 2005-2006 school year, the quantity of reference-desk questions was 15 percent less than the year before. Carlson gives the following numbers: “In September, one of the busiest months, the reference desk

**Comment [K11]:** Impressive statistic

fielded just over 4,400 questions. Of those, 243 involved extensive interaction and research, about 2,300 were simpler reference questions, and more than 1,800 were deemed “directional” – that is, pointing to the stacks, the computers, or the nearest toilet” (p.28). The ready reference questions are becoming less common as sites like Google and Wikipedia accomplish much of the ready-reference function. Therefore, pulling professional librarians off the reference desk and making them available by referral or appointment is no trivial move. Some librarians have established office hours in the academic departments where serve as liaisons. Students and professors are often seeking assistance with subject specific research questions. O’Gorman indicated that instead of “25 simple questions in an hour, academic reference desks may only have 4 or 5 complex, in-depth questions” (p.334), but answering them may exceed the time available and it’s not easy to do especially when other students are waiting.

**Electronic Tools.** Within the academic library the reference desk is traditionally seen as the heart of the institution where the reference service is provided through face-to-face interaction in which the user communicates with a librarian personally. With the development of advanced technologies there appeared new non-personal ways of communication. For example, by the 1990s e-mail was becoming a standard means of communication. It was very convenient, easy, instantaneous and free. Of course, librarians used it to create e-mail reference services for their users. Now any user could send his query to a reference specialist using this mode of communication. Reference staff checked the account regularly and responded as soon as possible. A big advantage of e-mail is that it permits the attachment of documents when it is necessary and the user can have them almost right away. Although e-mail is not an interactive technology and it makes a reference interview difficult in some academic libraries, it has become very popular. Other remote users preferred telephone reference as it allowed interactive communication in real time. Soon there appeared chat and instant messaging services that combined the speed of the delivery of

Comment [K12]: his or her

e-mail with the interactivity of the telephone. Using them librarians could communicate with users anywhere and at any time. There is an interesting example about Ms. Jacobs, a reference librarian who works at the University of California at Merced's library. There is no reference desk in this library. Ms. Jacobs receives questions through a text message and answers them from her cellphone wherever she is located. She also has her own page in Facebook where students can reach her too. She considers that she is much more effective using these new modes of communication as she can help almost twice as many students as when she sat on a reference desk. "I've had time to explore new and innovative things and get a grasp on what makes the latest generation work. They like this technology, and who am I to tell them that this is not the best way to communicate?" (Carlson, p.26). With more librarians like Ms. Jacobs using mobile technologies, the reference desk surely won't be what it used to be.

**Comment [K13]:** Columbia College is about to remodel its library and is planning a similar approach to reference

**Comment [K14]:** Or even exist!

It is important for reference managers to balance all these modes of communication as users still come to the library and expect to receive reference service in a traditional way too. They still call the library to ask questions and as Tyckoson noted "with today's proliferation of cell phones and mobile devices this aspect can only continue to grow." (p.268). It is evident that technologies will continue to develop and I think that soon there will be even more options than we know now so this becomes a continually growing challenge.

**Education.** One more important trend that is related to staffing is the education and training of the reference librarians and reference staff. To be effective the librarians and staff have to know how to identify the user's information need, where to find information that meets that need, how to search the resources, and how to communicate with the user during the process. The reference librarians in academic libraries should know how to promote their electronic collections and teach students how to make the best use of these collections. Students should be taught where to locate different types of information and how to use the various tools. A service model that uses staff other

than professional reference librarians in order to use professionals more efficiently requires a higher investment in training for those paraprofessionals. Reference is an area that requires continuous education as new reference sources appear every day and the librarian should know their content. It is especially true in a Web-based reference environment and this process is accelerated. Sources that librarians use one day may change dramatically – or disappear – the next. That is why source-based reference education is no longer useful. Instead of focusing on sources, reference training should concentrate on communication and searching skills. “The key to reference success is no longer the knowledge of as many sources as possible, but the ability to work with the users to figure out what information they really need – the reference interview – and the ability to search the Web and other sources to find material to meet that need” (Tyckoson, p.269). It’s also necessary to train the reference librarians and staff on how to interact with patrons effectively through various new modes of communication such as chat, text and instant messaging, telephone and e-mail. They should know how to effectively deal with these technological options. Reference librarians must realize how it is vital for them to remain up to date on the latest issues, sources, and technologies in reference services.

**Comment [K15]:** Good discussion of this new role for librarians

The reality demands the contemporary reference librarians should be taught how to deal with technology and to be adept at using technology. They should know how to use a variety of different word processing programs, to troubleshoot hardware and software, and to solve technological problems. It’s a necessary ability now as many reference librarians say that they spend much of their time helping patrons cope with programs and troubleshooting technology. “While this is not technically a part of reference work, the reality is that it is a major component of the job. Skilled and technologically agile librarians will become valuable contributors to their organization” (Bossaller and Adkins, p.161). Then they will be able to successfully teach users and be mediators between them and information. With huge amounts of information online somebody

needs to sort through the results of a search and retrieve the relevant materials. Gorman cited Jeff Arnold's words who said that "if the latest evolution of the Internet, Web 2.0, was about the consumer – meaning user-generated sites such as MySpace, Facebook and YouTube – then Web 3.0 will be about the editor" (p.328). The core of reference has always been about helping the user find the best information and the necessary skills will prove useful in the coming years if librarians are willing to take on this role.

**Future Scenario.** The authors predict big changes in reference services over the next 5 to 10 years. The most important thing for reference librarians to remember is to keep the values of our profession and modify the services. All of our decisions should be driven by our strong commitment to thoughtful service, to intellectual freedom, and to free access to information. It's possible to imagine a future with budget constraints and with fewer reference librarians. More and more paraprofessionals will be doing the work formerly done by librarians and the reference desk as a physical place could disappear. Likely changes include:

1. Reference librarians will try to find new ways to be necessary to users. They will be more flexible in providing their services whether by appointment personally, whether virtually, whether inside the library, or whether outside as in a coffee shop.
2. Reference librarians in academic institutions may try to expand their role by restoring readers' advisory services in order to reach out to their users in new ways. It will probably cause them to redefine what "reference work" means.
3. Librarians will work harder to promote the services offered to users. It's very important when the users do not know what kind of assistance librarians can give them in their information searches. If unknown, they will be unlikely to seek out any assistance from librarians.

**Comment [K16]:** Weak word choice

**Comment [K17]:** Awkward wording – using the word "necessary" sounds like librarians are grasping at straws to have a role. Isn't it more likely that librarians will try to create services and functions that assist and add value to the library experiences of users?



4. Decisions made in the areas of collection development, electronic purchasing, budget, and information technology will have a direct impact on the future provision of reference services in academic libraries.
5. Instant and text messaging, Internet chat, e-mail, cell phones and some other not yet invented tools will be in active use. Reference assistance using the above tools is now commonly offered in academic institutions and they are very popular. Using these new tools will be an extension of existing reference services, offering users a new service point at which to contact a librarian.
6. Librarians will work for a digital generation that never knew of subject encyclopedias, subject indexing, or many of a library's services so meeting their information needs will be a continuing challenge as "Young adults in Generation Y (age 19-29) are the heaviest users of libraries" states The Pew Research Center (Gorman, p.335).
7. A future with information less in silos and with easier access to it will result. Digital repositories may provide a less compartmentalized flow of information from its creators to users.
8. Fewer reference books will be published so reference e-books will be used much more – particularly in academic libraries.

**Comment [K18]:** Excellent summary of key pieces of your future scenario

Library science is a graying profession. Rubin says that "the median age of librarians is fifty years, with 60 percent forty-five or older" (p.113). Who are those young who will come? Maybe they will be digitally savvy librarians, aware of the history and culture of reference who will carefully keep the traditions of previous generations of librarians. Maybe they continue the work of quality professional service easily and naturally using still unimagined electronic reference tools. In any case they will be needed to deal with the massive growth of information.

**Conclusion.** The changes related to the advent of the Internet and the shift to electronic resources brings challenges to reference librarians that occur in all spheres of the profession – placing and staffing the reference desk, conducting the reference interview, purchasing reference materials, and providing reference services. The President of RUSA David Tyckoson noted, “What will our tools be like twenty-five years from now? Given that no one would have predicted today’s environment in 1983, it is impossible to know what we will be using in 2033”. He continues, “Today’s tools make yesterday’s look quaint. Tomorrow’s tools will make today’s look silly” (Gorman, p.337). It’s clear that reference librarians should reaffirm their commitment to the vital foundations of the profession: service to users, intellectual freedom, and an openness to change. It will mean the survival of reference librarianship in the 21<sup>st</sup> century.

**Comment [K19]:** Nice quote – it complements your summary well.

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Perspective. *Journal Of Library Administration*, 51(3), 259-278.

Elena,

An excellent paper – it's clear you conducted a thorough review of the literature on the topic to identify future directions for reference. You effectively synthesize the literature by highlighting key trends and preparing a future scenario with well-developed elements. Interesting and well written. I noted a few minor word usage problems.

Karen

GRADE: 40 pts.