The Possibilities of Reference in our Information-filled, Technologically Advancing Future

Sadie Davenport

School of information, San Jose State University

INFO 210-10: Reference Information Services

Professor Rosanne Macek

December 10, 2021

INTRODUCTION

A few weeks ago, my coworker Sonja (a former costume designer) told me:

> "I am an expert at finding anything on eBay. It's all about using the exact right keywords, like the right brand names for older clothing, and fabric types and articles of clothing. With the right search, I can find anything! No matter how rare!"

Sonja and I work at a museum together, and she said this in response to my question regarding the source of her costume materials. We discussed her eBay finds at length and I too was in awe of her eBay knowledge. This was a funny conversation, since at the time, Sonja didn't know that I also work in a library teaching students these same search skills. But that is also what makes Sonja's statement a librarian's dream to hear.

As I thought about Sonja's eBay literacy skills, I realized that her points resonated with me because they correspond with my vision for the future of reference. Below, I will explain the changes I anticipate reference services experiencing in the future: first, that the applications of reference are expanding; second, that reference will serve a broader patron base; third, that reference will work in conjunction with other technological tools and sites; and fourth, that reference will prove purposeful in different types of activities. Overall, I anticipate that in the future, as we observe changes in the ways we seek and interpret information, patrons will continue to value the skills they learn in reference services.

LITERATURE SURROUNDING FUTURE REFERENCE SERVICE

When preparing a vision of the future of reference, it is important to consult existing literature. Scholars have a wide range of perspectives on the future of reference: Johnson (2018) and Cox (2020) are quick to paint a picture of reference's bleak future, which they argue is due to

the availability of free-access information online. Albanese & Kenney (2016) and Daly (2020) argue that reference has a steady future, which still depends on reference expanding into automated service and changing to stay relevant in an increasingly virtual and technologically advanced future. The recurring theme across this literature is that without significant and dramatic change, reference services in the future may not be able to overcome the challenges they face, including: irrelevance, change beyond recognition, downsizing, and competition from other technological tools. I disagree with this common theme, and instead argue that reference has potential solutions to offer in overcoming these possible negative consequences. Further, the potentially positive changes facing reference today indicate that reference services are vital to our information-filled, technologically-focused future.

BROADER APPLICATIONS OF REFERENCE

Reference services offer library patrons clearer paths toward their needed information, and now the world of information is expanding. As the amount of content on the Internet continues to grow, so do the Internet's weaknesses, including: "lack of quality control, fake news, lack of overview, suboptimal results, no guarantee of full-text [literature], spotty coverage of historical material, and volatility" (Macek, lecture 3 pt. 2). These weaknesses are real and can be difficult to discern from reliable, helpful information. Additionally, the growth of online content has led to competition between journalists, advertising agents, and media platforms; the user's attention, time, and money have become the commodities in question. This has made seeking information a harder process to manage. Leetaru (2019) argues that users should avoid the potentially harmful areas of the internet with improved information literacy skills, specifically.

The growth of the web, of information and of technology has not clouded reference, but instead strengthens the need for reference services that can keep up with technological advancement. As a result, the purpose of reference is broadening to incorporate an increasing range of information requests. Regarding the breadth of reference service and of content available online, Suzanne Bell (2007) states: "a finite number of concepts, techniques, and strategies for searching premium content databases and the Web can make all the difference between aimlessly groping around and actually retrieving useful material." Bell effectively illustrates how reference can bring sense, organization and direction to users confronted with a wealth of information on an expanding number of concepts and platforms.

Librarians working in reference are trained to help patrons gain the tools and skills necessary to discern between beneficial and unreliable or wrong information. Reference services are not something a patron should just use once. Reference services can and should be revisited in order to strengthen information literacy skills as one would exercise a muscle. Cassell and Hiremath summarize this sentiment nicely by stating: "reference services are at once a life raft, map, and compass to those who feel adrift" (*Reference and Information Services: An Introduction.* Ch 1, para. 1).

RECIPIENTS OF FUTURE REFERENCE SERVICE

There is a shift occurring in the general population that is creating an increased need for reference services: internet users are developing research strategies of their own, whether they are doing so deliberately or unknowingly. Selecting websites and clicking through webpages is a quick but habitual information filtering process (Babich, 2020). As a result, the number of people seeking and evaluating information is growing. The general population is more experienced with

information searching now more than ever, but may lack the words or concepts that explain their habits in a clear way (Babich 2020).

In my personal experiences working at a museum and in a library, I've seen a number of different people with different expertises display a common need for reference service. At the museum, my coworker Sonja (the former costume designer) is a self-proclaimed resistor of technology, including the register used to purchase visitor tickets for our museum, but was able to grasp the reference skills necessary to find the information she needed on eBay. Also, patrons at our museum are quick to share the information they've found regarding the museum's history, with various levels of accuracy, but often find our clarifications more interesting. And at the library, I regularly help professors, who are experts in their field and very familiar with digital technology, strengthen similar reference skills for research and instruction. I have assisted patrons at the museum who don't speak English, have blindness or deafness, and cannot walk stairs or the full perimeter; just as I assist these visitors to ensure they can interpret the museum's content, reference service should serve patrons needing similar assistance interpreting information. Inclusive web design is not universally required, and so reference service should expand to assist users for whom web design may not accommodate. The information literacy skills discussed in this course, as well as the reference interview process used in our early assignments, appear to be independent of a person's normal skillset. Each person stands to struggle with and triumph over developing research skills. Fallows (2020) argues that after the pandemic, digital resources have become a bigger component of everyday life in the library and surrounding communities; this means information literacy skills learned through reference are also becoming more essential to navigating daily life.

RELATIONSHIP BETWEEN REFERENCE, TECHNOLOGY, AND PATRONS

Now that we have discussed changes occurring in the world of information and in reference patrons, it is important to reevaluate the relationship between reference, technology and patrons; this way, more informed predictions of the future of reference can be made. Because technology today has helped the general population gain access to an endless amount of information online, it makes sense for reference to tackle online material as well. However, this does not make reference service another digital resource. Digital resources and reference services both help internet users find information they need, but are ultimately different from one another. Digital resources include community question boards, social media platforms, publicly available search engines, and tutoring sites. In comparison, reference is a method of questioning, assistance and instruction that can help patrons navigate these digital services. There are two reasons why digital resources do not fully substitute reference service: first, those using digital resources are developing their own research skills, whether intentionally or unknowingly; second, reference service in the future will remain personalized and interactive, while digital resources are more often intended for independent use.

First, concepts including information architecture, information scent and mind models help explain how simple, mindless web usage can lead users to develop research habits (Babich, 2020). "Information architecture" refers to the way websites are structured and how structure affects the ways people interpret website information. "Information scent" is the concept that internet users follow links appearing to share the most information. And the concept of "mind models" indicates that internet users are evaluating information in ways they may not realize just by clicking links, watching a video or leaving a webpage. Internet users can benefit from

reference service because they already go through the motions of research. This puts internet users in an excellent position: by making online navigation a deliberate and conscious process, internet users can ensure they are obtaining reliable, relevant and helpful information for their personal needs.

Because people are able to do some research independently, the kinds of questions reference patrons are asking is changing. Cassell and Hiremath identify two types of reference questions, ready reference and research questions, the latter involving materials like bibliographies, databases (*Reference and Information Services: An Introduction, Ch 1, "Kinds of Information Service"*). The internet allows users to answer ready-reference questions on their own, which creates opportunities for new, or originally more in-depth, reference services. Rikvah Sass summarizes this point directly: "While some of us got to answer real reference questions once upon a time, we need to be glad that people can do it themselves now…That gives us time to develop new services that matter in our changing world" (Albanese & Kenney, 2016). Sass does not consider change to be bad, but when she states that "new services" will replace ready reference, I would argue instead that in-depth reference will replace ready reference.

Second, reference is personalized and interactive, while many of the technological tools used to discover information or to find answers are designed to be self-taught, and rely on users already having the digital and information literacy skills to navigate them. Kenney states that "while 'traditional' reference questions have all but disappeared from the library, innovative new programming has led to a sharp increase in the use of the library building…[also] the imposing reference desks of the past, where librarians once sat as gatekeepers, are being retired, and the space is being refashioned for learning and collaboration" (Albanese & Kenney, 2016).

For me, working in an academic library, students have responded most to a personalized, interactive approach to reference. At my library, reference consists of walk-up or scheduled tutoring appointments, where I help students use digital resources like our databases, Google Scholar, Pubmed and the US Census more effectively. I help students through their online searches by conducting a reference interview to determine the students' goals, then asking probing questions that help them reflect on their work at important points in the research process. At the end, we discuss what we found, and break down the research process into doable steps for them to remember. This personalized, collaborative tutoring is what I consider to be the future of reference. I have done this out of necessity, since our small, three-person library has very few physical books and instead has invested in online resources. Still, this tutoring style helps students improve their own research skills.

And lastly, because more information is available online for free access than ever before, information seekers are asking research questions regarding multiple areas of life, including: work, academics, hobbies and leisure. My coworker Sonja's in-depth keyword search for costume materials is an example of this. As a result, research strategies previously reserved for academics are seeping into the public realm. This marks an important change in reference: the disappearance of ready-reference questions and the emergence of in-depth reference assistance.

POTENTIAL CHALLENGES TO THE FUTURE OF REFERENCE

When discussing the transition from ready-reference questions to research questions in the library, one main potential challenge arises: reaching patrons at the right moment. One advantage of a reference interview is that librarians initiate it at the beginning of a patron's

question, an early point in a patron's personal research. If patrons are increasingly answering ready-reference questions on their own, when does the rest of reference happen?

To resolve this potential challenge, I would suggest updating library websites to a layout that makes good research habits more intuitive. This will help acclimate the general public to an interactive research experience, as well as reference librarians and services. One potential way to improve library websites is to include (helpful, not annoying) pop-up messages that appear at particular points in a patron's search. I learned in Dean's HTML and CSS course: animations or interactive elements like messages that appear when a certain button is clicked, or when a particular webpage is reached, can be inserted to a webpage easily using javascript. Potential applications include: when a patron searches for something in a library website and zero results appear, a button appears saying "No results? Ask a librarian to help you find what you're looking for!" Or after a patron has clicked "search" four times, a message appears saying "have you tried using the keyword connectors on the left, like and/or/not?" Also, open-ended questions that appear as a patron scrolls through an article webpage could help patrons confirm whether a source is relevant or trustworthy. Small animations and interactive elements can help a user feel like a self-guided research process is interactive. If successful, a pseudo-interactive experience like this can familiarize a patron with good research techniques that they can internalize as their natural, subconscious research habits. Further, interactive experiences online can familiarize patrons with interactive library experiences in general, and then they will be more likely to ask a librarian for help in the library, either through chat or in-person.

I started working with javascript and interactive elements this semester, and have seen their potential firsthand. I worked with small animations in my HTML course, and in this course,

I embedded some interactive elements into a webpage, including: a database menu with a filter (you can select 'articles,' 'books,' or 'multimedia' to see which databases provides which materials), and with a hover element (users can read a description of each database by hovering over different database icons). There is so much more potential here to improve libraries and reference services. I want to gain more experience creating web pages like this to make this solution as effective as possible, so I am taking javascript and PHP next semester. Other students in this program, and librarians in the field today could also benefit from learning more about computers, information architecture, and coding programs.

CONCLUSION: A CONTINUED NEED FOR REFERENCE

In the future, reference services and librarians will tackle increasingly difficult research questions, on a larger number of topics, and with a wider range of patrons. Also, I expect reference to remain important in navigating information, as well as external tools and applications aiming to serve a similar purpose. Reference service will remain important because it is interactive and personalized, while external tools and applications are not. Additionally, there are ways to improve virtual reference services and to encourage more people to use reference services through web design.

Cassell and Hiremath make an interesting distinction regarding the future of reference: "Although [reference and information] services' mission and goals remain steady, the way they are provided is constantly changing" (*Reference and Information Services: An Introduction.* Chapter 1, para. 1). My coworker's pride over her newfound skill is an example of this; her enthusiasm shows that in this age of new technology, reference skills and services can still give

patrons a new perspective on their research, whatever the purpose may be. As the world of information changes, what has remained consistent is the need for reference service in libraries.

Regarding change within libraries, scholars agree that recent changes due to Covid-19 have improved librarianship in some ways. Cox and Butler (2020) argue that "the library is uniquely positioned to champion a common portal as a natural outgrowth of the learning commons movement, defined by common spaces and collaborative services" ("Vision #1"). Recent changes in current events, with school, work and friendships moving to virtual platforms, have pushed libraries to become creative, change quickly, and prove their place in the virtual world. Although reference also faces potential negative changes, the possible positive changes deserve recognition, belief and celebration. By exploring how these positive changes can happen, it is easier to make those changes a reality. Reference is an important service with a purpose that has stood the test of time.

REFERENCES

Albanese, A.R. & Kenney, B. (2016, Aug. 26). "The changing world of library reference."

Publishers Weekly.

Babich, N. (2020, November 4). The Beginner's Guide to Information Architecture in UX.

Adobe. https://xd.adobe.com/ideas/process/information-architecture/information

-ux-architect/

Bell, S. (2007, Sept./Oct.). "Tools every researcher should know and use." *Online Magazine*

31(5), 22-27.

Cassell, K. A., & Hiremath, U. (2018). "Reference and information services: An introduction."

(4th ed.). Chicago: ALA Neal-Schuman.

Cox, C. & Butler, E. (2020, Dec. 16). "Visions of Success: Academic Libraries in a post

COVID-19 world." *Library Journal.*

Daly, D. (2020). "The heart of the matter: Academic and public libraries adapt to pandemics

through time and technology. *Public Services Quarterly*, 16(3), 200-205.

Dowd, R. (1990, January 5). "I want to find out how to freebase cocaine or yet another

unobtrusive test of reference performance." *The Reference Librarian* (11), 483-493.

Fallows, D. (2020, May 12). "The post-pandemic future of libraries." *The Atlantic*.

Johnson, A.M. (2018, Winter). "Connections, conversations, and visibility: How the work of

academic reference and liaison librarians is evolving." *Reference & User Services*

Quarterly 58(2), 91-102.

Leetaru, K. (2019, July 7). "A reminder that 'fake news' is an information literacy problem - not

a technology problem. *Forbes.*

Macek, R. (2021). "Unit 2: Using the Internet as a Search Tool." Lecture.