The State of Reference Collections

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Abstract

SAGE conducted research that shows that the introduction of new technologies, the pervasive nature of free internet sources, and tightened budgets have caused librarians to conceive of and purchase reference differently. Reference service, whether it is provided at a service desk or via research consultations, remains necessary because patrons are overwhelmed by the abundance of information, leaving librarians to serve as research guides who may point patrons to reference resources without ever referring to them as "reference."

Future changes in the nature of reference are anticipated as librarians begin to expect reference to look and feel like any other information resource, rather than feeling like a print-based, stagnant, and protected resource. This white paper addresses each of these areas as they relate to public, academic, government, medical, health, and corporate libraries in Asia, Europe, South America, and North America.

Keywords: libraries, budgets, collection development, collection management, reference, information seeking behavior

Introduction

This white paper presents information on how reference resources are being collected and used in today's academic, public, and special libraries (including legal, governmental, hospital, and corporate libraries) across the globe. It provides insights on the areas such as

- what influences use and development of libraries' collections,
- how librarians are redefining what is considered reference sources,
- what librarians perceive to be the level of awareness of reference sources among patrons and how satisfied they are with that level of awareness,
- how much fee and free reference sources are used and promoted,
- what the state of library budgets is for reference,
- what factors influence the purchase of reference products,
- is there a preference for electronic or print reference, and
- what challenges librarians then see facing reference publishers.

Based on data from focus groups, interviews, and an international survey, the results of this research illustrate that with the advent of new technologies, with competing budgetary demands, and with fresh ways of researching and learning, the reference landscape has undergone significant change in the last five years. Librarians use reference sources differently now than they did in the past and expect the use of traditional reference sources to decrease because of a shift in information-seeking behavior. Indeed, the use of the term reference seems irrelevant to many librarians. Because of this and because of compressed budgets, budgets for reference have declined in the last five years, a trend that librarians expect to continue for the next five years. With the change in users' information-seeking behavior and the increase in service to distance users, there is an overwhelming preference for e-reference sources in most libraries.

This landscape leads librarians to believe that the biggest challenges for reference publishers are decreasing library budgets, free web content, and open access.

Despite these challenges, librarians are committed to providing access to both free and fee-based resources that help their patrons find authoritative answers. The easier it is for patrons to find and use information, the closer both librarians and reference publishers come to serving the mission they share: the dissemination of information. This research illustrates the necessity of making the discovery of e-reference content the newest challenge we face together.

Background

The research outlined in this white paper was sponsored and conducted by SAGE. The research included the use of quantitative and qualitative methods, employing a survey, focus groups, and interviews. For the survey, participants completed a 32-item online questionnaire. Many of the items used a 5-point Likert scale, with each item of the scale textually represented. For more exploratory topics, open-ended questions were included with comment boxes, allowing participants to provide their own answers and comments.

Invitations to complete the survey were sent in June 2013 to various electronic mailing services, including LIBREF, MEDLIB, PubLib, CollDev, and ACQNET, and international Special Library Association chapter lists. Additionally, e-mail invitations were sent to 800 reference, collection development, and acquisition librarians from around the world. Participants who completed and returned surveys before June 21, 2013, were eligible to win an iPad mini.

Four hundred eighty-two people took the survey, and 74% of participants chose to provide answers to the demographics questions. North America accounted for 90% of the respondents, 6% were from Asia Pacific, 2% were from Europe, 1% were from South America, and 0.5% were from Africa.

Of participants, 74% also responded to a question about type of library in which he or she was employed: 58% of these respondents worked in academic libraries, 37% worked in special libraries (13%

worked in corporate libraries, 12% worked in medical libraries, 12% worked in government or military libraries), 4% worked in public libraries, and 1% worked in school libraries.

In addition to the survey, focus groups were held at the 2013 Charleston Conference and were augmented by virtual focus groups and interviews. Because the response rates among the survey respondents were lowest for public and special libraries, these librarians were given a greater representation in the recruitment for the interviews and the focus groups.

Results

This section summarizes the findings of the research through the themes of reference resources, perceptions of reference, and collection management and development. To the extent possible, survey results are presented for academic, special, and public libraries. Representative comments provided by participants are presented to illuminate the quantitative findings.

Reference Resources

What types of resources are considered reference is a topic that is still taught in Introduction to Reference classes in graduate programs for information and library science, yet the proliferation of online sources has altered what information is available, how researchers seek information, and what types of sources practicing librarians consider to be reference resources. The survey posed questions about the types of sources considered reference, what types of reference sources are most useful, how aware patrons are of reference, and how satisfied librarians are with that awareness.

What Is a Reference Resource?

Librarians were asked if they considered a wide range of information sources to be reference (abstracting and indexing resources, almanacs, bibliographies, chronologies, article databases, video databases,

Table 1 What Is a Reference Resource, and Which Are the Most Useful?		
Type	Is Reference (*n* = 474)	Considered a most useful reference sources for patrons (*n* = 474)
Abstracting & indexing resources	78%	42%
Almanacs	84%	9%
Bibliographies	71%	15%
Chronologies	64%	8%
Article databases	56%	75%
Video databases	44%	22%
Image databases	47%	27%
Statistical databases	63%	51%
Directories	88%	38%
Encyclopedias	89%	21%
Glossaries	73%	38%
Handbooks	66%	8%
Major works	26%	34%
Primary-source archives	42%	19%

image databases, statistical databases, directories, encyclopedias, glossaries, handbooks, and major works). Overall, all the sources listed are generally considered to be reference sources (see Table 1). However, although 56% of respondents consider article databases to be a reference source, 75% consider article databases to be one of the most useful reference sources. The difference in seeing a resource as a "reference resource" or as a "useful reference resource" seems to be based on how a resource is used rather than on from what fund it is purchased. As one librarian stated, "While I don't consider 'article databases' to be traditional reference resources, I do frequently use them or direct customers to them in response to 'reference' questions." For some librarians, the traditional definition of a reference resource holds, with databases classified as research tools and primary-source resources seen as part of special collections. For example, one librarian wrote, "I don't consider databases reference, I consider them basic research tools. Also I am a law library and we do not use those particular types of databases frequently if ever."

In addition to the list of reference sources provided in the survey, librarians mentioned other core reference sources. These included major technical codes, specifications and standards, legal reference sources, news sources, biographical sources, concordances, style guides, and patents. For some librarians, making the distinction between sources is complicated by having different types of patrons. The reference source most useful for a musician is not the same type of source most useful for an engineer.

Overall, the reference sources seen as most useful were articles databases, statistical databases, abstracting and indexing resources, encyclopedias, dictionaries, primary source archives, handbooks, and major works. The sources perceived to be most useful differ by library type, as shown in Table 2.

The utility of the resource can be linked directly to the information needs of the population served, as illustrated in the following comment from a participant: "I deal mostly with scientists and engineers; they want article access as their primary resources. Other areas can be helpful, but article databases top the list." The usefulness of the resource is judged not only by preferred format but also in terms of which resource seems most appropriate for the audience. This sometimes relates to how well a source can provide quick answers, but it can also relate to how well the librarian thinks a patron would be able to use the resource, as noted in one participant's comment: "I've noticed [college] students' researching skills are extremely poor, probably worse than that of a high schooler and that is why I only checked off article databases." Adding to the already present complexity is that perhaps it is necessary for users to know what they are using, as their goal is to have their questions answered, not simply to use a particular type of resource. One academic library director wrote that "differentiating 'reference' material in the digital age from other content resources or information assets has blurred beyond recognition. A good source of information, reference or not, is one that answers the question, period."

Perceptions of Awareness of Reference and Perceptions of Shifts in Information-Seeking Behavior

Many participants had a perception that patrons need help knowing how and why to use reference, whereas for other participants, the need for knowing how and why to use reference is not apparent. The

Table 2 Top Five Most Useful Reference Resources, by Library Type		
Academic (*n* = 192)	**Public** (*n* = 20)	**Special** (*n* = 117)
1. Article databases	1. Article databases	1. Article databases
2. Statistical databases	2. Encyclopedias	2. Statistical databases
3. Encyclopedias	3. Dictionaries	3. Abstracting & indexing resources
4. Abstracting & indexing resources	4. Primary-source archives	4. Handbooks
5. Dictionaries	5. Statistical databases and Abstracting & indexing resources (tie)	5. Major works, primary-source archives

latter view is partly caused by a growing number of sources that are now freely available and partly because patrons' research preferences have changed, especially as they turn to article databases for research.

At the same time, technology is a force that librarians think will continue to shape the future of information-seeking behavior and a force that libraries need to keep pace with because of its impact on the devices used to access information and on the situations in which a patron may be accessing information.

The use for technology can create an environment of have and have-nots; a medical librarian commented, "I have been told by several physicians that an iPad mini fits in a lab coat pocket. Our residents all have smart phones, and just about all the physicians under 60 do. The residents even have an online system to answer treatment questions in morning report. We are a hospital not a university, so we are behind them in technology uses."

Additional representative comments include the following:

> Dictionaries and almanacs are quick reference sources that patrons now easily access from reliable online sources. (librarian, governmental library, United States)

> Print resources rarely used except in some disciplines. Students want full-text research databases. Abstract databases not highly used. Students don't understand the concept of reference as opposed to reserve so we consider merging the two and putting the rest into circulation. (library director, academic library, United States)

> Reference sources do not need to be in a unique section of the library nor does it seem that patrons expect there to be a "reference" section, nor will they browse in it. (reference librarian, academic library, United States)

> Patrons often need guidance from librarians on how to get to the databases. Most patrons are fairly ignorant of reference/research items in a collection as they chose not to make it a priority. (reference librarian, governmental library, United States)

> We have tried to use the term [reference] less since today's students do not identify with the term. I also find for my business students that encyclopedias, handbooks and the like are not necessary items. They need industry report, market report types of resources. They use the article databases, but frankly they can find so much on the open web, that even those article databases are only half as valuable as they once were. (business librarian, academic library, United States)

For most of the respondents, use of *free resources* is as prevalent as use of fee-based resources, as is illustrated in Figure 1. For academic librarians, this is in part because they wish to promote lifelong learning, one of the basic tenants of information literacy, as is evident in the following comment from a participant: "I feel that it is important for students to learn tools they will still have access to after graduating, so I make a point to show them both subscription-based and free resources." For medical librarians, PubMed is a core and free resource, so their responses to the general use of free resources were slightly higher than the overall response rate for this item in the survey. For other librarians, free resources are used for background terms or general information, but they instruct patrons "that higher-quality material usually requires a fee-level service." For libraries with limited resources, free resources provide a welcome means of meeting patron needs.

Awareness of reference resources is perceived to be relatively low by the respondents, but for many librarians (36%), this awareness leaves them neither satisfied nor dissatisfied (Figure 2).

Academic librarians are the most dissatisfied (44%), public librarians are the most neutral (55% were neither satisfied nor dissatisfied). Special librarians were almost equally dissatisfied (32%) and neutral (36%).

Additionally, awareness of subject-specific reference resources was perceived as being low across all types of libraries, as illustrated in Table 3. Perceived awareness was highest in special libraries, where 20% of the respondents believed that 51%-70% of patrons were aware of subject-specific reference resources.

Figure 1 Frequency of Use of Free and Fee-Based Reference Resources, across all Library Types (*n* = 472)
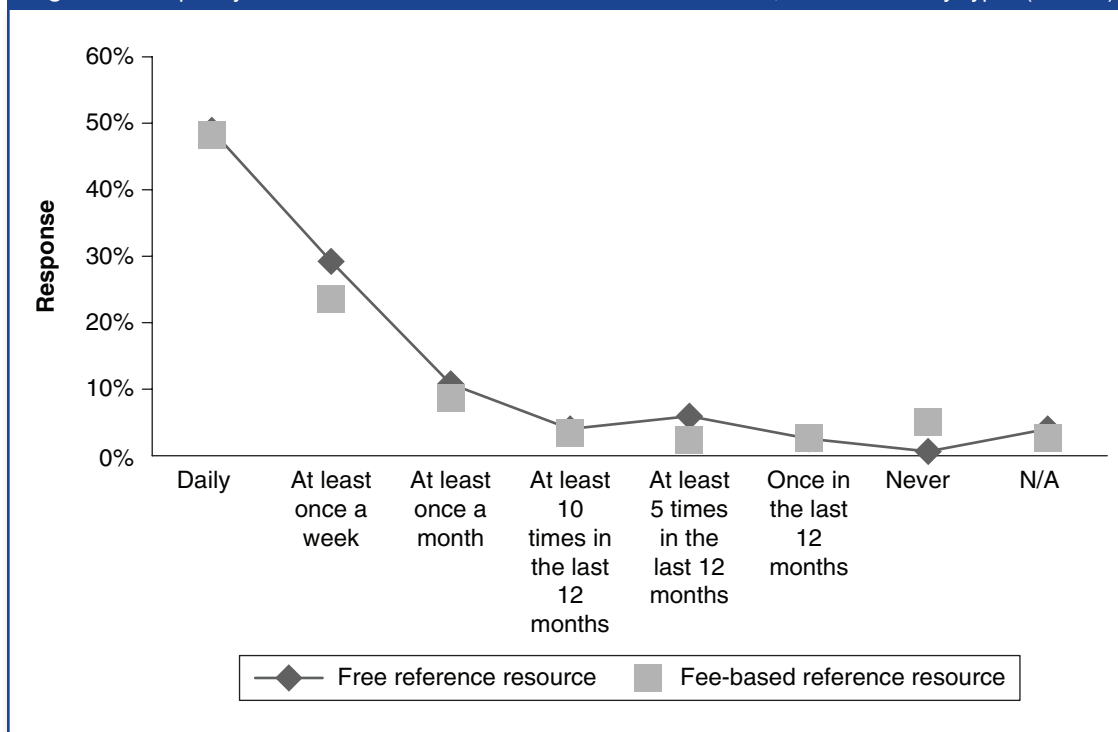
Librarians, when spending money to acquire reference sources, clearly want patrons to use them, but most do not need their patrons to be aware that the resource they are using would be called a "reference" or for patrons initiate the use of a reference source without the help of a librarian. For librarians who see value in reference as a distinct type of resource, the value can be more directly for the librarian rather than for the patron. For example, one librarian wrote, "In many cases, such as almanacs or chronologies, the kind of source is quite helpful to the librarian helping the patron. The patron himself might not ever see the item."

At the far end of the spectrum is a small, core group of librarians who still teach students about research processes that includes using reference sources. For these librarians, raising awareness of reference is of paramount interest. As one librarian wrote, "I believe in the benefits of a good reference collection—and am shocked when . . . students don't know how to use [them], so I try to instruct on their benefits."

Also, participants' comments indicate that librarians who still teach patrons to use reference are dismayed that their coworkers are ostensibly as unaware of the benefits of reference as their patrons are. For many of these librarians, this is an indicator of how differently reference is being taught in library curricula and of how reference is introduced to new librarians when they begin in the profession than when these librarians were library science students and new librarians.

Collection Development

The ways in which patrons use reference sources and the pressures on a library's larger collection budget has had an impact on the state of the reference budget. In the survey, questions about who within the library makes decisions about reference purchases, the state of the reference budget over the last five years, projections about the budget in the next five years, what platforms are preferred, whether print or electronic formats are preferred, what factors impact purchases, and who is involved in collection development for reference were posed.

Figure 2 Librarian Satisfaction with Patron Awareness of Reference Resources

How satisfied are you with your patrons' awareness of the library's reference resources?
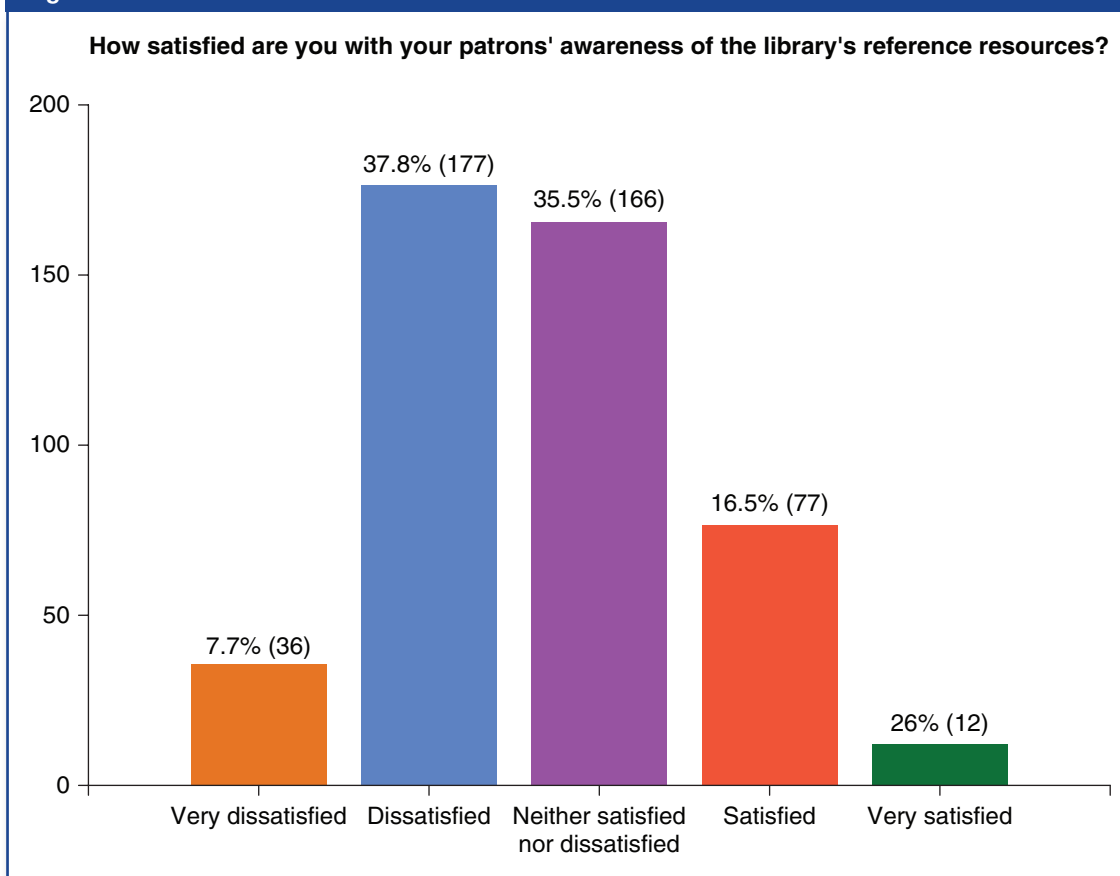
Who Is Involved in Collection Development?

Those involved in collection development vary by individual library as well as by type of library (see Table 4). The process can be initiated by a diverse group, including the library director, the head of reference, the collection development librarian, the adult services or youth services librarian, the acquisitions librarian, or the subject librarian. Once the process has been started, it is influenced not only by many of the same people but also by the electronic resources librarian and the assistant director

Table 3	Responses to "Roughly What Percentage of Your Patrons Do You Think Are Aware You Have Subject-Specific Reference Resources in your Collection?" by Library Type		
	Academic (*n* = 190)	**Public** (*n* = 20)	**Special** (*n* = 117)
Less than 10%	16%	15%	9%
10%–30%	42%	55%	19%
31%–50%	23%	10%	27%
51%–70%	13%	15%	20%
More than 71%	6%	5%	24%
Not applicable	0	0%	2%

Note: Some columns sum to more than 100% due to rounding.

Table 4	Participants in the Collection-Development Process, by Library Type		
	Academic	**Public**	**Special**
Initiator	Head of reference, reference librarian, library director, collection development librarian	Adult services, children/youth services, head of branch library, library director, reference librarian, subject librarian	Acquisitions, collection development, director, reference, subject librarian
Influencer	Electronic resources librarian, Head of reference, Reference librarian	All involved as initiators plus the assistant director for public services	Head of reference, Reference librarian, library director
Decider	Head of reference, library director, collection development librarian	Collection development librarian, adult services librarian, reference librarian, and head of reference	Library director, head of reference

for public services. Acquisition decisions for reference resources are typically made by the head of reference, the library director, the collection development librarian, the adult services librarian, or the reference librarian.

Budgets for Reference

Few librarians reported that their budgets for reference increased in the last five years and only slightly more reported their budgets had remained the same. Of those working in public libraries, 65% reported the budget had decreased, and in academic and special libraries, 59% reported their budgets had decreased in the last five years (see Table 5).

In some libraries, the decrease has been caused by a general economic downturn that has had an impact on the entire organization, even leading to some campus or departmental closures. The economic climate has had a global impact, with reference budgets decreasing by greater than 50% in all regions except Asia Pacific (see Table 6).

Additionally, the shift from print to electronic has moved reference purchases to the monographs, serials, or electronic resources budget, sometimes with an accompanying decrease in the purchase of traditional reference sources. An example was provided by an academic librarian:

> We have a shared fund for purchases of online resources—many of which are [abstracting and indexing] databases and thus "reference." But they are not charged to our "reference" fund. Our "reference" fund is only for print material. So our online reference buying is increasing each year. Our print reference buying is holding steady or decreasing.

The shift from print to electronic is often accompanied by releasing reference materials from a non-circulating reference collection into the circulating collection. One librarian wrote,

Table 5	Reference Budgets over the Last Five Years, by Library Type		
Last 5 years	**Academic**	**Public**	**Special**
Increased	10%	15%	13%
Stayed the same	34%	15%	29%
Decreased	49%	65%	49%
Don't know	7%	5%	9%

The big change is that they are not in "protected reference collections" today as we have migrated from print to online and if the product is in print it now circulates. Our reference collection budgets are practically nil and we do not really maintain such a collection. Our monograph or serials or eResources budgets cover these products. (bibliographer, academic library, United States)

For other participants, the need to address the library as place has reduced the available space and the budget for reference. For example, in one library, a merge with a computing center reduced size of the reference collection and future reference spending. For other libraries, the reference collection has been integrated into the circulating collection, with the budget for reference integrated into the general collections budget. This seems to have contributed to the perception some librarians have that reference is an old-fashioned construct. One academic library director commented, "We've not had a specific 'reference' collection in over a decade making this question, at least at this institution, one from the last millennium."

There was clear frustration with rising prices and flat or decreased budgets. A special librarian wrote, "Being continually told to cut my budget each year and vendors raising prices 7%–10% annually, you do the math. It's not a pretty picture." This was echoed in many comments, which also included warnings that publishers are creating an unsustainable environment, leading librarians to have to choose between highly used resources (typically serials) over lesser-used resources such as traditional reference, so that even when the librarians want to purchase reference, they cannot afford to do so.

For example, in many academic libraries, there has been a large shift in the collections budget to cover journal subscriptions and purchases, which has caused a decrease in the reference budget and sometimes in overall reference spending. In some academic libraries, onetime funding has been used to offset budget cuts or flat budgets, as explained by one participant: "We've seen fluctuations in our reference purchasing because, though we have definitely seen cuts in the amount of monies we spend, we've also been the beneficiaries of one-time money which has then been used to purchase all sorts of materials, including reference materials. This has had the overall effect of off-setting cuts in the budget."

Unfortunately, for many libraries, the future does not look brighter. In the next five years, survey respondents report that reference budgets are expected to decrease in 54% of the academic libraries, 50% of the public libraries, and 44% of the special libraries. This is true for every region except for the Asia-Pacific region, where the future does indeed look brighter (see Table 7).

In both public and special libraries, an expected increase in spending for e-reference has had an impact on librarians' views of the future, even with a corresponding expectation that spending for print reference will decrease (Table 8). Their expectation is also that publishers' prices will continue to rise, so even if the collections budget for reference is flat, the number of reference sources that can be purchased will be reduced. One special librarian in Australia wrote, "I expect to gradually decrease spending in reference, as more resources are now available online. It depends on whether the online resources are equivalent or cheaper of course, e.g. online dictionaries are more expensive than print copies. However there is an organization-level drive to use more online services than paper ones, so this has to be factored into the budget." Last, in some special libraries, the library itself is new, so the forecast is for increased spending as the library begins to build its collection.

Table 6 Global Perspective on Reference Budgets over the Last Five Years					
In the last 5 years	Africa	Asia-Pacific	Europe	North America	South America
It has increased	0%	23%	0%	11%	0%
It has stayed the same	0%	23%	40%	31%	33%
It has decreased	100%	45%	60%	50%	67%
I don't know	0%	9%	0%	7%	0%

Factors having an impact on the expectations for future reference spending in academic libraries are very similar to what had an impact on reference budgets in the past five years (primarily tight budgets, inflationary costs for other materials, and the cost of journals). Another factor seen as having an impact on future reference spending is an increase in e-resource spending, including spending for video and for other types of e-media.

Academic librarians expecting to increase reference spending cited a drive to purchase more e-reference as well as an overall increase in the collections budget. Increases in collections budgets may not indicate a healthy economic climate for these libraries, because at least one librarian advocated for an increase and received it, despite the odds against it:

> The approved FY2014 budget includes an increase for all library services resources. Our budget has increased each year over the past five years and will again next year. I've presented a strong business case and produce a strong product that is often given kudos by many players on the College executive team, and included in College Board conversations (in a very positive light). We've been able to show great use/increased use with declining enrollment. (library director, academic library, United States)

Factors Influencing Reference Purchases

The most influential factors for reference purchases are pricing, pricing options, requests from multiple faculty members, the subject covered by the work, the subject of the work, the publisher's reputation, and regularly updated content (Table 9). The least influential factor is the front cover. The ranking of what is important does change, however, when the type of library is considered.

Influential Factors and Type of Library

For librarians, the most influential factors when making a reference purchase vary by library type (see Table 10). For academic librarians, the top three are requests from multiple faculty, the subject or topic of the work, and regularly updated content. For public librarians, the most influential factors are pricing (there is a great need for the resources to be affordable), regularly updated content, and pricing options. For special librarians, the most influential factors are the subject or topic of the work, pricing, and regularly updated content. Pricing is addressed in more depth in the "Pricing Model Preferences" section.

The Shift from Print Reference to Electronic Reference

As mentioned earlier, librarians' preferences for e-reference are shifting. Predominately, the librarians reported either a preference for online reference (68% of academic librarians and 50% of special librarians) or no preference (60% of public librarians and 31% of special librarians). Only 5% of the respondents expressed a preference for print reference, and even fewer bought only print reference (0.5% of academic librarians, 0% of public librarians, and 3% of special librarians; see Table 11).

Table 7 Global Forecast	Africa	Asia-Pacific	Europe	North America	South America
It will increase	0%	5%	0%	14%	0%
It will remain the same	0%	48%	50%	33%	0%
It will decrease	100%	38%	50%	50%	100%
We do not spend on reference material now	0%	10%	0%	2%	0%
We will eliminate reference spending in the future	0%	0%	0%	1%	0%

Table 8 Forecast by Library Type			
In the next 5 years . . .	**Academic**	**Public**	**Special**
Increase	10%	6%	18%
Stay the same	34%	44%	32%
Decrease	54%	50%	44%
Don't spend now	1%	0%	5%
Eliminated	0.6%	0%	0.9%

Table 9 Factors Influencing Print and/or Online Reference Purchases, All Library Types						
	No opinion	**Not at all influential**	**Not influential**	**Neutral**	**Influential**	**Very influential**
Editor's reputation	9%	8%	7%	27%	42%	5%
Front cover (print)	9%	31%	22%	28%	7%	1%
Marketing materials from publisher	5%	7%	15%	39%	30%	1%
Pricing	1%	0%	0%	6%	47%	46%
Pricing options	2%	0%	0%	6%	49%	41%
Publisher's reputation	2%	0%	1%	9%	63%	24%
Requests from public	9%	14%	14%	20%	30%	10%
Request from single faculty member or researcher	4%	1%	3%	12%	59%	19%
Recommendation of a medical professional	21%	11%	6%	13%	16%	5%
Requests from multiple faculty members	10%	2%	1%	3%	22%	58%
Requests from students (postgrad)	19%	4%	3%	14%	42%	12%
Requests from students (undergrad)	17%	6%	5%	19%	37%	12%
Review in an industry magazine	4%	3%	9%	24%	52%	7%
Awards	6%	6%	11%	28%	38%	8%
Subject or topic covered by the work	1%	0%	1%	2%	47%	48%
Tools	7%	2%	5%	29%	45%	8%
Multimedia	5%	4%	9%	37%	36%	4%
Special features, like chronologies	6%	5%	9%	41%	32%	3%
Signed entries	8%	11%	13%	33%	25%	7%
Regularly updated content	1%	1%	1%	11%	46%	35%
Annual editions	6%	5%	9%	41%	30%	5%

Note: Because participants could select multiple answers, rows do not sum to 100%.

Table 10	Top Three Factors Influencing Reference Purchase, by Library Type		
	Academic (*n* = 183)	Public (*n* = 20)	Special (*n* = 110)
#1	Requests from multiple faculty members	Pricing	Subject or topic of work
#2	Subject or topic of work	Regularly updated content	Pricing
#3	Regularly updated content	Pricing options	Regularly updated content

For some librarians, format is a secondary consideration; the decision is made by comparing features and functionalities of both print and electronic and then choosing the format that best matches the needs of the library and its patrons. For many libraries, as long as the electronic version is affordable, the electronic is preferred. This is attributed to a need to serve populations preferring electronic versions or populations unwilling and/or unable to come into the library to use print versions. Librarians who reported a print preference commented on serving populations preferring print and on print's affordability.

Preferences for Online Platforms

Librarians preferring online reference do so because it serves their patrons better and because discovery services have made finding e-reference easier.

Librarians purchasing e-reference must decide if they will purchase via a publisher, an aggregator, or both. Academic and public librarians had a slight preference for aggregators, and special librarians tended to not to have a preference. For librarians preferring aggregators, the most common reason was that it provides a single platform, which is seen as easier for patrons. Other reasons included a better search and more functionality (see Table 12).

For librarians preferring publishers, the most common reason was the perpetual access to content. Other reasons included a seamless experience for patrons who are accustomed to using the publishers' other products and cross-linking publishers' other products.

For librarians having no preference, the main determination was discoverability, followed by a desire for impartiality. One librarian wrote, "I like there to be some balance. Aggregators get too greedy and cocky—nice to have one interface but service and quality are usually lost." For other librarians, both aggregator and publisher platforms were viewed as having drawbacks that have to be weighed against the sum of the whole, including pricing models, content, and functionality.

Table 11	Preference for Print or Online Reference, by Library Type		
	Academic	Public	Special
Print only	0.5%	0%	3%
Print preferred	4%	5%	6%
Online only	7%	0%	11%
Online preferred	68%	35%	50%
No preference	22%	60%	31%
No longer purchase reference	1%	0%	5%

Note: Columns do not sum to 100% because of rounding.

Table 12 Preference for Online Platform, by Library Type	Academic	Public	Special
Through an aggregator	41%	40%	22%
Through a publisher	20%	5%	29%
No preference	39%	55%	49%

Table 13 Pricing Model Preferences, by Library Type	Academic (n = 182)	Public (n = 19)	Special (n = 111)
Perpetual access + hosting fee	42%	21%	21%
Annual license to static content	3%	0%	0%
Annual license to updated content	32%	37%	62%
No preference	23%	42%	17%

Pricing Model Preferences

There was no commonality in the preferred pricing model for e-reference. For academic librarians, the preference was for perpetual access; for public librarians, there was no preference (participants' comments revealed that this is because the main deciding point is whichever model is most price effective), and for special libraries, the preference was for an annual license to static content (see Table 13).

Librarians preferring perpetual access wanted to ensure that they would not lose access to content but preferred there being caps on hosting fees or the elimination of hosting fees. For some librarians, the hosting fee can become burdensome, and they wished it could be built into the purchase price. Because hosting fees accrue each year, they can feel like a serial cost.

Librarians do not always have easy means for obtaining the materials they want. A special librarian noted, "The legal resources market is a bit different here—we purchase mid- to long-term contracts that provide access to proprietary and aggregated content hosted elsewhere. Dropping a contract drops access."

Features Used to Evaluate Reference Resources

Nearly all platform features were rated as important or very important, but as one participant wrote, "Features are nice, but content is king." In general, however, the respondents wanted simple, intuitive, easy-to-use interfaces for both themselves and their patrons.

For academic librarians, although features may be considered when evaluating a resource, they were unlikely to be a major, standalone reason for these librarians' choosing or deciding against a reference resource. One exception is that some libraries are required to ensure American Disabilities Act (ADA) compliance, so features that assist with ADA compliance, such as audio, are viewed as essential.

For public librarians, ease of use was paramount. One librarian wrote, "I know I am harping on it, but it MUST be easy to use and intuitive without a lot of instructions needed and the information current or neither the patron nor staff will use it more than a couple of times." Participants' additional comments pointed to a desire for concurrent licenses, perpetual or durable URLs, in-depth content, current content, visual content, authoritative sources, an ability to use interconnected reference services on one platform, and sophisticated search options.

For special librarians, the features receiving comment were wide ranging and included easy accessibility, an intuitive interface, relevant content tailored to the industry, few clicks to get from the search result to the content, current content, active links to full-text content, unlimited access by IP address, clearly

marked access options, good usage statistics, the ability to use interconnected reference services on one platform, citation tools, digital rights management–free PDFs, and content discoverable by Google.

Encyclopedias in Libraries

Although the most requested item in libraries is encyclopedias (followed by databases, books, dictionaries, articles, and textbooks), not all libraries are buying many encyclopedias (see Table 14). Special librarians reported the least purchasing activity for encyclopedias, with 85% stating they did not purchase any print encyclopedias last year and 59% stating that they did not purchase any online encyclopedias last year. Purchasing encyclopedias is highest in academic libraries, where online encyclopedias are purchased more than print encyclopedias. In public libraries, print encyclopedias were purchased more than were online encyclopedias, but the volume of purchases was low, generally fewer than five purchased in the last year.

The most important criteria librarians used to evaluate encyclopedias were in-depth content in focused subject areas, authoritative content across a wide topical landscape, and a reading level intended for the target population (see Table 15).

Words of Wisdom for Reference Publishers

What Librarians Wished Publishers Provided

What librarians wished existed more than anything is a discovery service for reference. Additional items on the wish list were more statistical reference resources, a competitor to Wikipedia, a critically reviewed directory of scholarly journals and publishers, image databases, better international legal reference resources, and video reference products.

What Librarians Were Surprised Reference Publishers Still Publish

What surprised librarians the most is that reference publishers still publish any print reference. More specifically, they were surprised that publishers still publish directories (especially print directories), abstract and indexing sources (especially when there is no corresponding full text), print textbooks, multivolume print encyclopedias (some librarians referred to these as coffee-table reference), almanacs, handbooks, supplier catalogs, government publications that are freely available online, DVDs, CD-ROMs, gazetteers, biographical sources such as *Who's Who*, and anything that is not current. The most complete explanation about the disinterest in older information was expressed by one participant: "I

Table 14	Number of Encyclopedias Purchased in Libraries in the Last Year (librarians could select all that apply)					
	Academic (*n* = 187)		Public (*n* = 18)		Special (*n* = 110)	
	Print encyclopedias	Online encyclopedias	Print encyclopedias	Online encyclopedias	Print encyclopedias	Online encyclopedias
None	25%	17%	17%	22%	85%	59%
1–5	30%	22%	61%	44%	8%	24%
6–25	11%	16%	5%	0	0	0
26–100	5%	13%	0	0	0	<1%
100+	1%	3%	0	0	0	0
I don't know	23%	23%	11%	17%	5%	5%

Note: Because participants could select multiple answers, columns do not sum to 100%.

Table 15	Factors Influencing Encyclopedia Purchase, by Library Type		
	Academic	**Public**	**Special**
1	In depth coverage in focused subject areas	Authoritative content across wide topical landscape	In depth coverage in focused subject areas
2	Authoritative content across wide topical landscape	In depth coverage in focused subject areas	Authoritative content across wide topical landscape
3	Reading level intended for undergraduates	Reading level intended for high school students	Reading level intended for researchers and faculty

do think [publishers] need to be much more cognizant of the age of materials they want libraries to purchase; it used to be that materials 3–5 years old were fine; today 1 year is about it when looking at the age of the material in a database. Older material along with new is fine, but putting an old book online will not cause me to buy it."

Implications for Publishers

Librarians mentioned many challenges that they think will have an impact reference publishing, many of which lie outside of higher education or scholarly publishing. For some librarians, Google is positioned to take over as the sole source of information, as is illustrated by one participant who commented tat "Google will take over all knowledge" and referenced "more self-service by users who have grown up with online search engines (such as Google and Bing) and don't see the need to consult with a trained information professional in their quest to solve an information need."

Library budgets are the area that received the most votes as the top challenge (followed by free web content and open access; see Table 16), and the state of library budgets received the most comments throughout the survey. For some librarians, there is a feeling that publishers have not resolved how to provide reasonably priced reference sources at a time when many libraries are cutting their collections budgets and are spending less on reference. This concern was represented in part by a special librarian in Asia-Pacific region, who stated, "I think one of the big issues is that publishers seem to be raising the cost of materials to make up for less sales. While I understand why they would do this, they are pricing libraries out of the range. As a smaller library we find it really hard to afford reference materials."

Major Findings

In short, several unique findings emerged from this research: defining reference does not seem important to most librarians, patrons are not introduced to reference resources as an integral step in their research process, funding for reference has changed as library budgets have been restructured, there is a shift from buying print reference to buying e-reference, and there is an expectation that publishers will address budgetary challenges in their approach to reference publishing exists.

1. **There is a new definition for reference resources.** Many librarians reported that they no longer make a distinction between the types of resources their libraries provide. In part this is because reference is no longer defined as a print book that is part of a protected and separate collection. Classifying a resource as reference may then seem like an artificial exercise, especially for those librarians for whom traditional reference sources are now part of the circulating collection or are purchased with funds from the nonreference budget. In addition, for many librarians the point of a reference service is to answer patron questions, and thus, any source that helps answer a question can be considered a valuable reference resource, including articles, video, and statistical databases— all products that might not have been considered reference sources ten to fifteen years ago. All these points made in the survey illustrate that the definition of a reference source is broader than ever before. As one librarian wrote, "This points out to me how differently I use 'reference' now, as

Table 16 Top Three Challenges for Library Budgets, by Library Type			
	Academic	**Public**	**Special**
1	Reduced library budgets for reference (38%)	Reduced library budgets for reference (47%)	Reduced library budgets for reference (44%)
2	Free web content (31%)	Free web content (28%)	Free web content (29%)
3	Open access (20%)	Open access (27%)	Open access (21%)

Note: Not all participants indicated three options; because rounding, columns do not sum to 100%.

opposed to the mid-1990s when I completed my LIS degree. Now I think of 'search' or 'research,' 'background' information vs. books vs. research or news articles; many print books that I would have placed in the reference collection in 1999, I now put in the circulating collection."

2. **Librarians do not expect patrons to know about reference resources.** Because many patrons are now turning to free Internet resources or to article databases, reference librarians seem to expect fewer patrons to know about traditional reference sources and to use those sources. Although not all librarians believe that using traditional reference resources is necessary, for those who do, using reference resources is a passionate cause.

3. **Funding for reference has changed**. Reference budgets are not as well funded as they were five years ago, and funding may decrease in the next five years. That reference budgets are smaller than five years ago is partially due to the shift in what are called reference resources, as well as the preference for purchasing e-reference sources. This has resulted in purchases shifting from what was once a reference budget to purchases made from a larger e-resources budget that fund resources that librarians now consider to be reference, such as article, statistical, and video databases, as well as large e-reference collections. Similarly, subject-specific resources have shifted from the reference budget, being moving, instead, to subject funds.

4. **There is a shift from print to electronic reference**. Most libraries now prefer purchasing e-reference rather than print reference. This is attributed to a desire to provide access to populations that may not come to the library, as well as to provide patrons the additional functionality that exists with online platforms. For some libraries, however, print is still preferred. This is because print is more affordable and because some patrons have a print preference.

5. **Challenges for reference publishers are focused on what libraries can afford.** Librarians believe the biggest challenges for reference publishers are decreasing library budgets, free web content, and open access. As more information is readily and freely available online, and as libraries deliberate on what products they can afford, many decisions librarians make require them to choose between multiple products they wish they could purchase. However, when the value proposition for reference products is linked to the value of reference services and when the products publishers provide have clear value for the money paid, only then will reference products succeed.

Conclusion

The future of reference is far from grim, despite competition from Google, Wikipedia, and other resources and despite budgetary constraints. Librarians are still interested in resources that make research easier for their patrons and will buy those resources when there is a clear use case for them. This includes integrating into reference the notion that the types of resources that now define reference include article, statistical, and video databases. Librarians see utility in any resource that helps patrons find an answer to their research question, especially in an age with an increased number of both free and fee-based sources of information, and this is how they see reference, whether they are referring to *reference* as a product type or as a service:

I try not to engage in prognosticating, especially over something that could evolve in so many different ways. Having said that, I do think that information overload will continue to be something important and that I think that in the future—as is the case now—reference sources will help both professionals and lay people navigate the ever-increasing glut of available information.

The problem faced by many patrons who do not know where to start or what answer they can rely on remains as a challenge for librarians and one they hope can continue to be answered by reference sources. Publishers should continue to pursue innovative ways to bring information together to help librarians and their patrons, despite the fact that sometimes an idea arrives in the market before its time. The right reference products at the right price will continue to find an audience—at least for the next five years.