

## Off the Shelf: Trends in the Purchase and Use of Electronic Reference Books

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## Introduction

Librarians should not be surprised that e-books are a hot topic: they have been on the news and in the headlines for the last several years. The most recent conference of the North American Serials Interest Group (NASIG) included two full sessions concerning the transition e-books have made, from being relatively static PDF documents to having journal-like granularity, thereby making them much more accessible to users. At the “Electronic Resources in Libraries” conference in Atlanta in March 2008, four sessions were devoted to the topic of how to integrate e-books into an already full palette of electronic resources.

Although most librarians will intuitively understand the phrase “electronic reference books,” for our purposes it is helpful to define what types of materials we see as being most representative of “electronic reference,” hereafter called simply “e-Ref.” A large number of what once were print reference materials have made the transformation to e-format by becoming online databases. Some examples of these materials are directories (e.g., from Who’s Who), large multi-volume encyclopedia sets (e.g., from Britannica), dictionaries (e.g., from Oxford), and sets of handbooks (e.g., from CRC Press). The case could easily be made that these items are still only e-books, but we have chosen to classify them as online databases instead, based on the simple accounting reality that they are subscriptions, rather than something we own outright. In contrast, other titles are purchased outright from the vendor and owned just like a print version, and these are considered e-Ref books. Some examples of these include the *Handbooks of Economics* series from Elsevier, the *Business Plans Handbooks* series from Gale, and the various reference encyclopedias from IGI Reference.

E-books have travelled a varied and obstructed path towards achieving full acceptance by libraries and their users. This is by no means to say they have arrived, but they are making

progress towards that end. Publisher-imposed obstructions--such as confusing proprietary platforms, required plug-ins, unrealistic subscription models, costly purchasing plans and pricing--have driven off potential library customers, thus forcing publishers to take a hard look at their marketing decisions. Publishers have re-evaluated the way that they market and package e-books for libraries and modified the platforms to be more user-friendly. Due to lackluster sales and ample community feedback, publishers now realize that some books are simply not marketable in e-format, whereas other types of information are well-suited to existing partially or completely in electronic format. The ability to go beyond full-text searching to pull up results at the chapter and article-heading level have made e-Ref materials some of the most useful resources in libraries.

Interest in comparing local e-Ref book purchase, usage, and policy to that of the larger library world prompted the development and distribution of the survey presented in this paper. Currently at Sam Houston State University, the library supports approximately 50,000 e-Ref titles. While occasional titles are selected by subject bibliographers, the majority have been acquired through large consortial purchases or database subscriptions. Patron access is provided through MARC records in the OPAC and direct links to databases from the library website. The library's current collection development and acquisition policies do not yet address the recent development of e-Ref books. Thus, from the outset, one goal of this survey has been to collect information to contribute to the formulating of specific e-Ref book policies.

When embarking on this study, the researchers held several expectations. These included the ideas that many libraries were embracing e-Ref; that the Sam Houston State University library was purchasing e-Ref books at a rate comparable to that of other academic libraries; that

physical space savings was a major factor influencing e-Ref purchasing; and that many libraries were beginning to address e-Ref materials in their written policies.

### **Literature Review**

E-Ref books constitute the latest addition to the repertoire of resources available to libraries, librarians and the patrons they serve. E-Ref books join traditional print, CD-Rom, and other online sources that provide information for library patrons/clientele.

Though e-Ref books in their current state are relative newcomers to the reference scene, a type of e-Ref “book” was created in the mid-1970’s when the Learning Research Group at Xerox Palo Alto Research Center began developing the *Dynabook*. Creators of the *Dynabook* envisioned it as “a portable package the size and shape of an ordinary notebook...” with “...enough capacity to store for later retrieval thousands of page-equivalents of *reference materials* (italics added), poems, letters, recipes...and anything else you would like to remember and change.”<sup>1</sup> Though the *Dynabook* didn’t materialize as originally imagined, its legacy of being “[able to] respond to queries...so that the messages may involve the learner in a two-way conversation” is reflected in the searchability of today’s e-Ref books.<sup>2</sup>

By the mid-1980’s, other projects were underway. In 1984 the vice president of creative services for Grolier Electronic Publishing described the development of a *Multi-Component Electronic Encyclopedia* which was intended to “combine videodisc and videotext technology.”<sup>3</sup> Among the advantages of the electronic encyclopedia, the author noted more frequent updates, “essentially unlimited capacity for growth,” the capability to “respond directly to user needs,” and to reflect areas of strong current interest.”<sup>4</sup> A year later Weyer and Borning wrote of their work on developing “a prototype electronic encyclopedia implemented on a powerful personal

computer, in which user interface, media presentation, and knowledge representation techniques are applied to improving access to a knowledge resource.”<sup>5</sup>

With the advent of the Internet/World Wide Web, new online resources debuted. A 1994 survey of e-Ref in academic libraries showed that, “[n]ot surprisingly, the Internet sector of e-Ref services exhibited explosive growth: from merely 0% in 1991 to 77% in 1994.”<sup>6</sup> Electronic books were increasingly part of the Internet sector, and among those books were specific reference sources. At the same time, increased interest in and availability of distance education courses sparked demand in academic libraries for reference sources that could be accessed by off-campus students.

By the beginning of the 21<sup>st</sup> century, publisher offerings of electronic versions of reference titles previously available in print became increasingly common.<sup>7</sup> This new format for reference sources prompted several lines of discussion in the library literature. Articles in *Against the Grain* and *American Libraries* focused on the transition from print to electronic sources, while a second cluster of studies explored aspects of collection development related to e-Ref books.<sup>8</sup>

A third line of inquiry explored the impact of e-Ref books on users. In 2007 Ritchie and Genoni presented the results of a study conducted at the Northern Territory Library (Australia) which examined sources used to answer reference questions. One of the implications noted was the education and training needs of librarians who would be dealing not only with e-Ref books, but also print resources not yet, or not readily available, online.<sup>9</sup> In 2008, ebrary released the results of an international survey of students, which asked students about their awareness and use of electronic resources; some questions specifically focused on e-Ref books.<sup>10</sup>

The study reported in the paper surveyed librarians in the United States and included questions not only on the use of e-Ref books and the perceived advantages/disadvantages, but also on selection, and marketing/fostering awareness of e-Ref books. Questions about policies related to collection and acquisition of e-Ref books were asked as well. Thus, the work reported here makes a distinct contribution to the on-going discussion of e-Ref books.

### **Methodology**

Research was conducted via an electronic survey that was constructed and hosted at SurveyMonkey.com. An invitation to participate in the survey was distributed to a selection of librarian email lists, with the goal of reaching a large and diverse audience.<sup>11</sup> All recipients were encouraged to take the survey or to forward it to interested colleagues. The original survey announcement was distributed on July 8, 2008; a reminder was sent approximately two weeks later, and then the survey was officially closed on August 1, 2008.

The survey consisted of 35 questions, but not all questions required responses. The survey first requested demographic information about the individual respondent and the respondent's affiliated library. Further questions, grouped into sections, investigated: the library's current e-Ref book collection and trends in purchasing e-Ref; collection development and acquisition policies for electronic resources; selection and acquisition methods for e-Ref books; use and perception of e-Ref books; and marketing and discovery of e-Ref books.

Several limitations to this study's method should be acknowledged. To begin with, the email lists to which the survey was distributed were deliberately selected by the researchers. The recipients of the survey announcement were then able to self-select themselves to participate in the survey, a factor which further decreased the randomness of the sample. Some survey

questions were optional rather than required, and—especially in the case of several questions concerning the respondent’s geographic location—this may result in some demographic statistics being less representative of the total respondent pool. Finally, some technical errors on the researchers’ part were discovered during the first days of the survey’s release. Some respondents may have deselected themselves as participants after running into a technical error on a question, and this may have affected the initial responses.

### **Demographics of Survey Respondents**

#### **Library Type**

Academic librarians comprised about 77% of the total survey responses. Of the 251 survey respondents, almost half (46.6%) were from four-year public academic institutions. Another 30.6% were from two-year public academic institutions or private academic institutions (four-year or two-year). Public libraries accounted for 10%, corporate libraries 3.6%, and school libraries just 0.8% of the survey respondents. An additional 8.4% of the respondents, identified their library type as “other.” One respondent even acknowledged himself to be an e-content vendor rather than a librarian.

#### **Library Location**

Questions concerning library locations were optional, so statistics concerning location may not represent the entire survey population of 251 respondents. 134 respondents identified their libraries as rural, suburban, or urban. Of these, urban libraries accounted for 45.5%, while suburban libraries made up almost 33% and rural libraries comprised nearly 22%. 122 respondents indicated the geographic region of the United States in which their libraries were located; these responses seem to represent a relatively even distribution throughout the

geographical regions of the United States. The northeast, comprising 30% of the geographically-identified responses, had a slightly higher level of representation than other U. S. geographical regions. Libraries throughout the south, southwest, and southeast together made up about 41% of the geographically-identified responses. In addition to American responses, the survey also received at least fifteen responses from international libraries: many were Canadian, but there were also responses from Morocco, Australia, and Denmark.

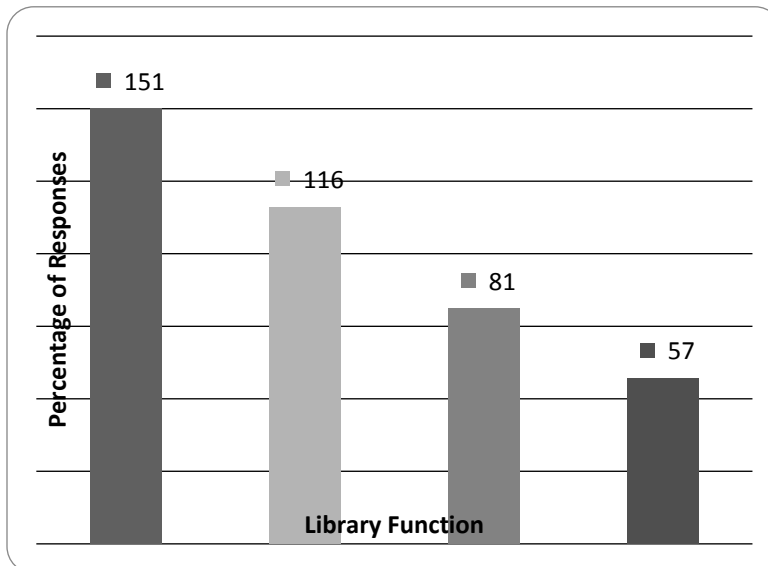
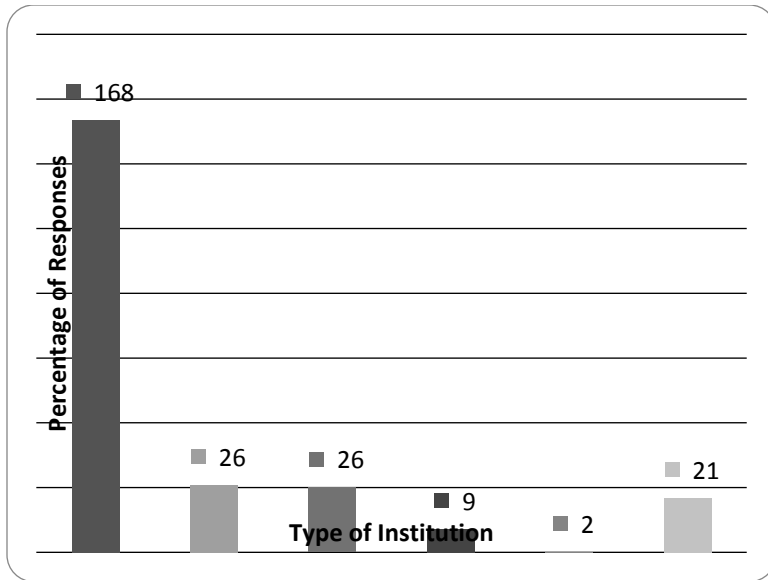
#### Size of Population Served

Almost 30% of the respondents were affiliated with institutions serving populations of more than 20,000 users (the largest population choice available). Another 28% of respondents served populations of 1,000 – 5,000 users. Institutions serving populations in one of several ranges between 5,000 and 20,000 users comprised 38.6% of responses. Only 3.2%, just 8 respondents, served a population of less than 1,000 (the smallest population choice available).

#### Respondent Background

A little over 60% of the survey respondents identified their main library function as “Reference / Subject Bibliography.” About 46% worked with Electronic Resources; 32% in Technical Services; and 23% in Administration. Experienced library professionals made up the majority of the respondents: over 62% had more than ten years of experience “working in a library in a professional capacity,” and another 31% had more than two years of experience.





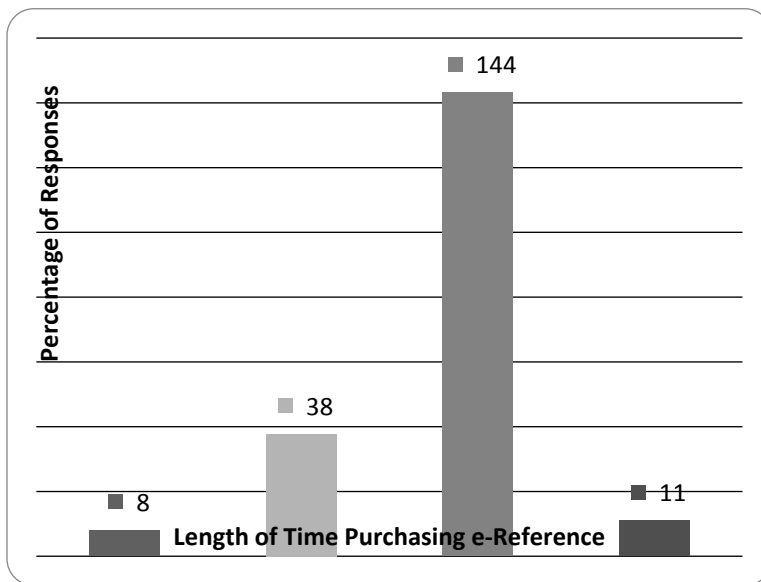
## Results

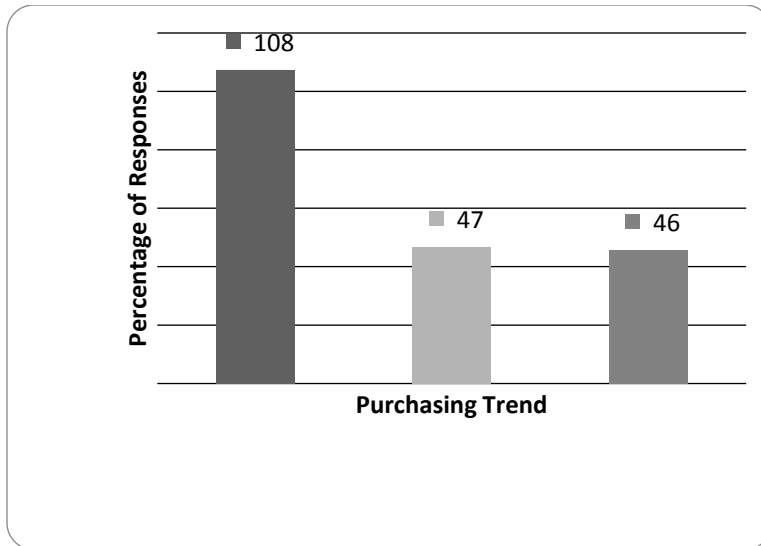
What do libraries currently own?

In asking questions about what libraries own, we distinguished between e-Ref books and e-Ref packages. The number of e-Ref books libraries currently own varied: 50% of libraries have

100 or more titles. Most libraries have less than 10 e-Ref packages, with more than half having five or fewer packages.

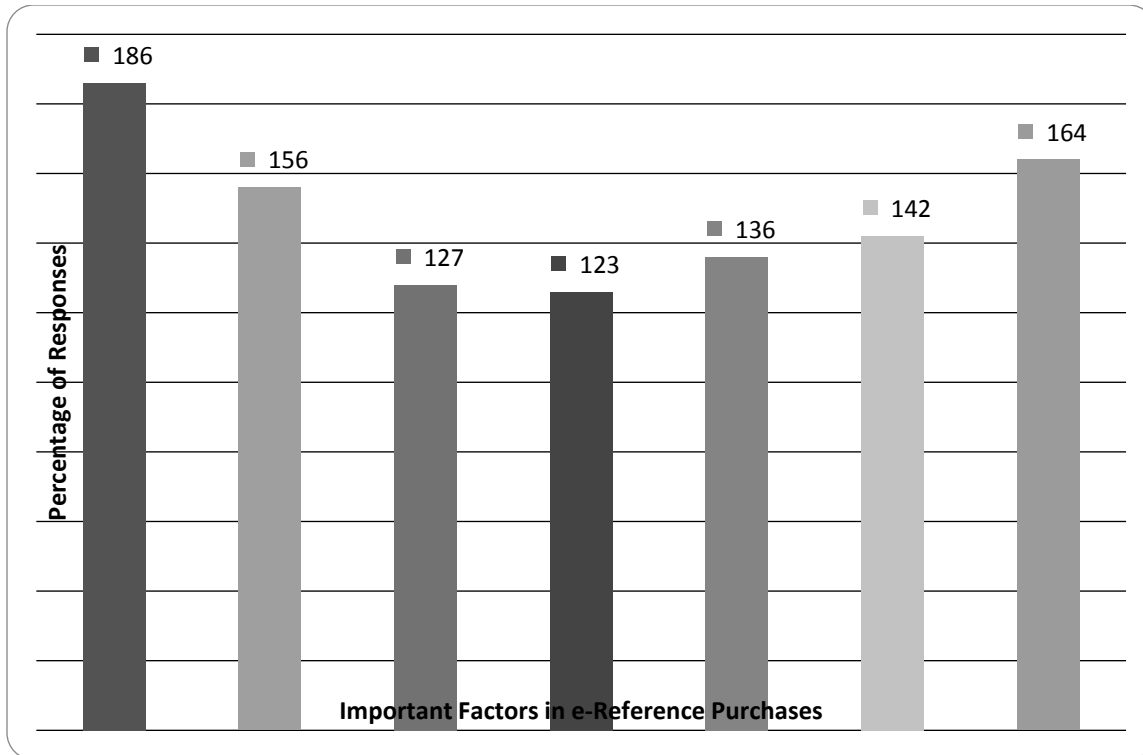
Seventy-two percent of institutions indicated that they have been purchasing e-Ref books for more than two years; 75% of respondents indicated a desire to buy materials in online only versions. More than 53% of respondents indicated that the trend in their library is to acquire reference materials in electronic rather than print versions. Twenty-three percent of respondents believe their library plans to purchase electronic and print versions equally while 22.9% indicated that they would purchase more print material.



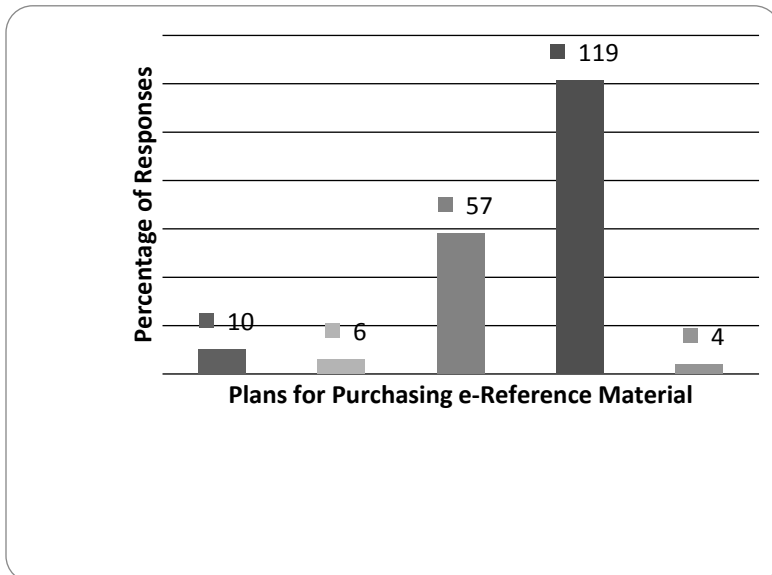
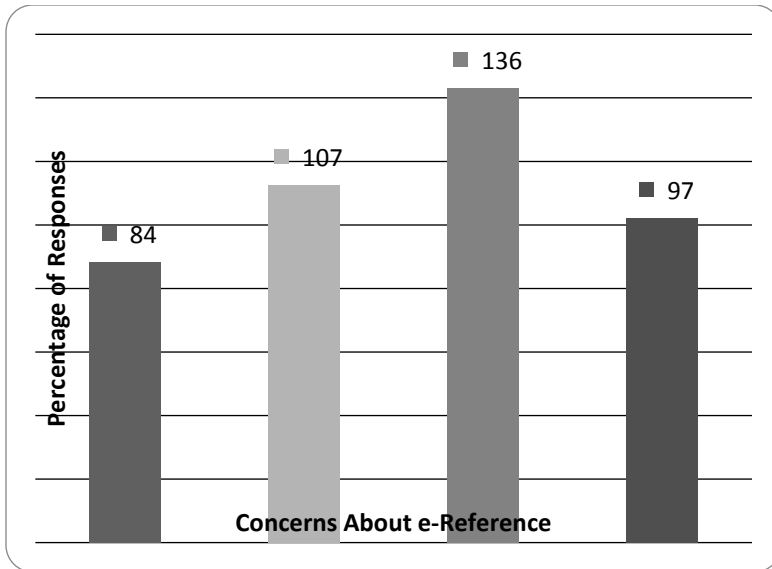


### Why are libraries purchasing e-Ref books?

There are a number of reasons that respondents listed for why their library is purchasing material: meeting the needs of patrons (93%), distance education students (78%), more frequent or rapid updates (82%), enhanced functionality (71%), statistical measure of use (68%) and cost savings (63%). Physical space savings was very important to 64% of survey takers.



Concerns about e-Ref materials were also collected through the survey. The most important factors indicated by respondents were cost (cited by 71.6% of respondents) and questions about what happens if a subscription is discontinued as the most important factors. Approximately half of respondents were also concerned with licensing agreements, while technology issues with access were seen as a concern by 42% of respondents. Even with these concerns, more than 60% indicated that their library plans to actively add new e-Ref titles.



What types of plans and policies are in place?

Although many libraries have plans to purchase material, most institutions do not have policies in place. While almost 49% of libraries have collection policies for electronic resources, only 12% of respondents are aware of a policy related to e-Ref books. This trend extends to acquisitions. Thirty five percent of respondents indicated awareness of an acquisitions policy for

electronic resources, while only 12.5% indicated that an acquisitions policy exists specific to e-Ref books.

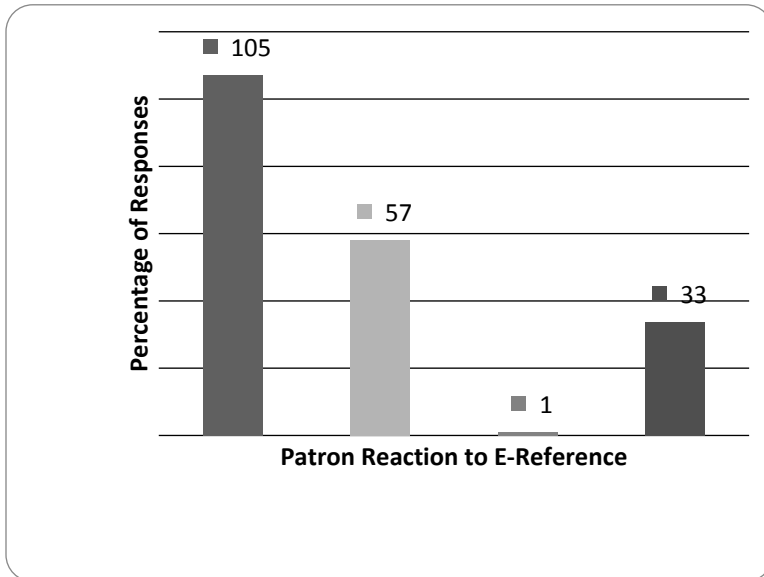
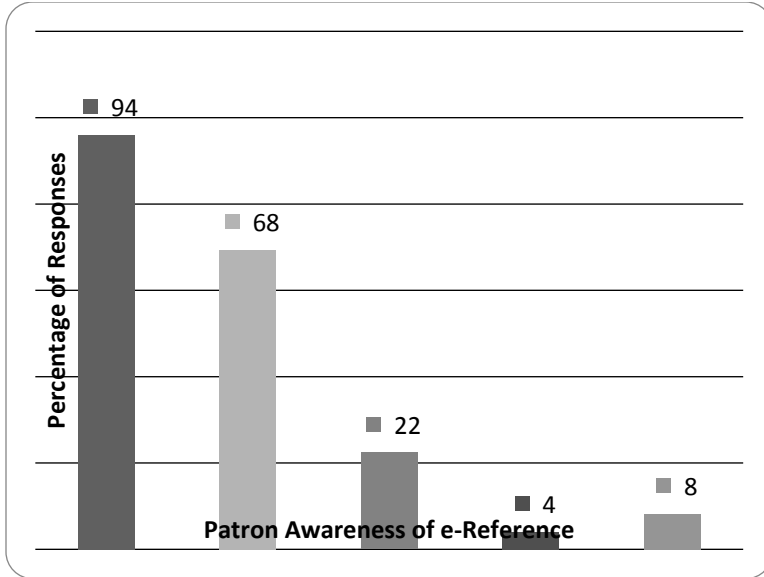
The survey also collected data on how e-Ref books are handled in the budget. Approximately 37% of respondents indicated that they were handled in the general reference budget while 31% stated that they were part of the general institutional budget. An additional 15% said that there were specific budget lines in their respective institutions for the purchase of e-Ref books.

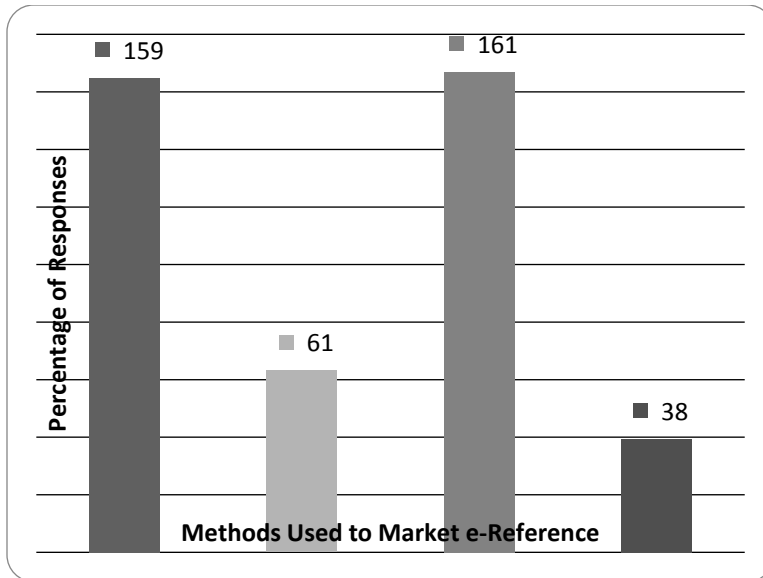
#### How are materials found and marketed?

While almost half of survey takers indicated that awareness of e-Ref was low, another 35% believe it is the same as other resources. Patron reactions towards e-Ref books, although varied, were positive according to 53.6% of respondents.

In addition to catalog searches, respondents reported that e-Ref books are being integrated into subject guides and databases. More than 42% also indicated that their institution has a separate page on their library website for e-Ref material.

E-Ref materials are being marketed in a number of ways to patrons. These include the library site and related wikis and blogs, fliers and other library literature and library instruction sessions. Instruction sessions were thought to be the most frequently reported venue in marketing e-Ref material.





### Discussion

Comparison of these results to the local situation showed that many other institutions are facing the same concerns and challenges as the Sam Houston State University library.

While many respondents cited cost as their biggest concern in making e-Ref purchasing decisions, there were also a significant number of respondents who indicated that cost savings serve as an important or very important factor in making these same purchasing decisions. Almost paradoxically, two distinct demographic groups—private academic institutions with populations under 5,000 and public academic institutions with populations over 20,000—comprised the majority of responses to both these questions.

Why would these same distinct groups seemingly contradict themselves in observing both the worrisome cost and the beneficial cost savings of e-Ref? In part, this may be due simply to the immaturity of the e-Ref market. The electronic edition of a book often costs more than the print version and has additional maintenance costs. One factor confounding this issue is that, until recently, publishers have been bundling their electronic books in large multi-subject



packages in an effort to get the most profitable sale. A library desiring only a few titles from a publisher has had no other option but to purchase sometimes hundreds of books marketed under the dubious metric of “spending more to save more.” Often that larger purchase would be justified with the belief that someone might use the books sooner or later. Only very recently has the market matured to the point that some publishers and vendors are starting to offer a la carte (buy whatever you want, whenever you want) and mini-bundle (10, 20, etc.) packages.

Although more than half of the survey respondents did indicate physical space savings as an important or very important factor in e-Ref purchasing, it still appeared to be a lower-ranked concern than other issues, such as patron desires, distance student needs, and even usage statistics features. Much of librarianship literature in recent years has addressed the space crisis in libraries, therefore it was a surprise that this was not even more prominent in the minds of more librarians. E-books are thought to save long-term costs of storage and preservation, unless the publisher requires hefty annual maintenance fees or only offers free hosting for the life of the specific edition of the book purchased. Future editions will need to be purchased as they replace the older version on the publisher website and access to the older version is removed. A book purchased in print will continue to sit on the shelf once a new edition comes out and not disappear into the ether. It is not hard to see why many librarians may be unsure whether the “cost of” e-Ref is a benefit or a concern. Furthermore, the survey results reflect a widespread lack of collection development and acquisition policies that address e-Ref. In the absence of such guiding policies, when each purchasing decision is made by individuals on a case-by-case basis, the pool of librarian responses becomes susceptible to these apparent contradictions in understanding.

The expectations of the researchers were more or less met by the 77% of respondents whose libraries are buying more e-Ref than print reference or equal amounts of electronic and print reference. More interesting were the other 23% of librarians who reported buying more print reference than e-Ref. When the demographics were analyzed, these respondents were revealed to be overwhelmingly from academic libraries, especially those serving small populations. This group, when divided even further, consists of twice as many public as private academic libraries. Demographically, the reported trend of purchasing more print than e-Ref seems more logical. Public institutions serving small populations may have more restrictive budgets for electronic books and possibly a different level of demand when considering factors such as distance student needs.

Although over 90% of librarians reported patron desire as the most important factor in their e-Ref purchasing decisions, only 53% of those same librarians indicated a positive user reaction to e-Ref. This seems to indicate that there is room for product improvement, and investigating the levels and causes of user satisfaction with e-Ref could lead to better satisfaction, better use, and ultimately more library purchasing.

### **Future Research**

Issues raised in the Discussion Section warrant further investigation, thus serving as areas to explore through future research. Cost/benefit studies of e-Ref books and their use exemplifies one such area: when direct and indirect costs are factored in, are e-Ref books “less expensive” than their print counterparts? The issue of space-saving related to cost also merits further exploration. More generally, the effect that concerns about space-saving have on reference collection development decisions provides another research focus.

User satisfaction with e-Ref books constitutes another arena for future inquiry. The study reported here gathered responses only from library professionals, and so reflects their perceptions of patron/user/customer reaction. Soliciting reaction from those users themselves might corroborate the results presented here or reveal an entirely different or diverse range of reactions. Questions concerning access, use, and what end-users look for or value in reference sources, for example: currency; depth of coverage; ease of access/use could be asked. General questions about user awareness of e-Ref resources available to them might also be included. Insights gleaned from responses to such questions ideally would contribute to more knowledgeable expenditure of library resources and more effective user education.

Further investigation of those libraries who reported buying more print than e-Ref books would also prove enlightening. Is the print or e-Ref books decision related to budget, perceived or documented user needs (including distance learning students/programs), policy determined by local library professionals/administrators, other factors, or a combination of some or all of these?

In conclusion, research in the areas just described, along with related topics, would benefit library professionals and the people they serve. Results of such studies would contribute not only to the on-going discussion of e-Ref books, but would also serve to inform solid decision-making when e-Ref books are being considered as additions to local collections.

## References and Notes

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<sup>1</sup> Alan Kay and A. Goldberg, "Personal Dynamic Media," *Computer*, March 1977: 31, <http://www.computer.org/> (accessed November 18, 2008).

<sup>2</sup> Kay and Goldberg, 31.

<sup>3</sup> Peter R. Cook, "Electronic Encyclopedias," *Byte* 9 (1984): 151, <http://vnweb.hwwilsonweb.com/> (accessed November 18, 2008).

<sup>4</sup> Cook, 158.

<sup>5</sup> Stephen A. Weyer and Alan H. Borning, "A Prototype Electronic Encyclopedia," *ACM Transactions on Information Systems* 3, no. 1 (1985): 63, <http://portal.acm.org/> (accessed November 18, 2008).

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<sup>6</sup> Carol Tenopir, "Electronic Reference in Academic Libraries in the 1990's," *Annual review of OCLC research* (1995): 2, <http://worldcat.org/arcviewer/1/OCC/2003/03/18/0000002651/viewer/file111.html> (accessed November 18, 2008).

<sup>7</sup> See Paula J. Hane, "xrefer Launches xreferplus Digital Reference Service for Libraries," *Information Today* 19, no. 2 (2002): 3-4, <http://search.ebscohost.com/> (accessed November 18, 2008); David Swarbrick, "Oxford Puts its Reference Works Online," *Ariadne*, no. 31 (2002), <http://www.ariadne.ac.uk/issue31/oxford-reference-collection/intro.html> (accessed November 18, 2008); Joseph Yue, "How Familiar is it Any More? Barlett's Familiar Quotations Goes Digital," *Reference and User Services Quarterly* 42, no. 1 (Fall 2002): 26-29, <http://vnweb.hwwilsonweb.com/> (accessed November 18, 2008).

<sup>8</sup> See Sam Brooks, "Integration of Information Resources and Collection Development Strategy," *Journal of Academic Librarianship* 27, no. 4 (2001): 316-19, <http://search.ebscohost.com/> (accessed November 18, 2008); Sue Polenka, "Options for the E-reference Collection," *Booklist* 103, no.5 (2006): 93-95, <http://search.ebscohost.com/> (accessed November 18, 2008); Sue Polenka, "Options for the E-reference Collection," *Booklist* 104, no.5 (2007): 84-85, <http://search.ebscohost.com/> (accessed November 18, 2008); Bethany R. Levraut, "Integration in Academic Reference Departments: From Print to Digital Resources," *Acquisitions Librarian* 18, no. 35/36 (2006): 21-36, <http://search.ebscohost.com/> (accessed November 18, 2008); Chris Jones, "Development Strategies for Library Collections in a Digital Environment," *Australasian Public Libraries and Information Services* 14, no. 1 (2001): 101-107, <http://search.ebscohost.com/> (accessed November 18, 2008).

<sup>9</sup> Ann Ritchie and Paul Genoni, "Print v. Electronic Reference Sources: Implications of an Australian Study," *Electronic Library* 25, no. 4 (2007): 450, <http://search.ebscohost.com/> (accessed November 18, 2008).

<sup>10</sup> ebrary, *2008 global student e-book survey sponsored by ebrary* (ebrary, 2008): 9-14, [http://www.surveymonkey.com/s.aspx?sm=ySja6xkRr8rC3jwtkTNNNoQ\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=ySja6xkRr8rC3jwtkTNNNoQ_3d_3d) (accessed November 18, 2008).

<sup>11</sup> The survey was distributed to the following email lists: BUSLIB-L; TLA Reference Roundtable; E-Smart; CULD; NASIG-L; ERIL-L; ACQnet-L; colldv-l. The survey was not restricted to specific users, so additional distribution between groups and colleagues may have occurred.