

2008 Global Student E-book Survey

Sponsored by ebrary

INTRODUCTION

In Spring 2008, ebrary collaborated with more than 150 college and university librarians throughout the world to develop an informal survey to better understand students' usage, needs, and perceptions with regard to e-books. A partial listing of librarians who contributed to the survey is provided on page 2.

Colleges and university libraries of all types, worldwide, were encouraged to invite their students to participate in the survey. ebrary did not promote the survey directly to students.

The survey was promoted primarily through ebrary's newsletter distribution list, which includes more than 12,000 college and university librarians, representing approximately 2,100 individual institutions. Approximately half of these institutions are located in North America, the other half in the rest of the world.

Participating students were entered into a drawing to win a free iPod of their choice, and every 25 respondents will receive a free ebrary T-shirt. Participating colleges and universities will be provided with institution-specific survey results upon request. Librarians were also invited to participate in a "cloned" student survey to see how their responses differ from those of students. You may register to receive a copy of the "cloned" report, available later this summer, at www.surveymonkey.com/s.aspx?sm=EQsGMKpGjexPPCixSYsSQg_3d_3d.

The survey was created using an online tool called SurveyMonkey.com and was available for approximately one month.

ebrary is pleased to announce that a total of 6,492 students completed the survey, representing nearly 400 individual institutions, from approximately 75 countries.

We truly appreciate the tremendous support from the library community, as well as their students, in making this survey a success. ebrary would especially like to thank Susan Gibbons, Vice Provost, Andrew H. & Janet Dayton Neilly Dean, River Campus Libraries, University of Rochester and Allen McKiel, Dean of Library and Media Services, Western Oregon University, who served as project advisors throughout the survey process. Allen has also provided an insightful analysis, which is included with the survey results.

We hope that you find the *2008 Global Student E-book Survey* useful and interesting. Please email marketing@ebrary.com with any questions or comments.

Sincerely,
The ebrary Team

CONTRIBUTING LIBRARIANS AND INFORMATION PROFESSIONALS (PARTIAL LIST)

Afaf Abdulrahman, Library Director, Petra University Library	Priscilla Coulter, Online Librarian, American Public University System	Caroline Geer, Coordinator of Information Resources, LeTourneau University	Linda Jones, Law and Criminology Librarian, University of Portsmouth
Jill Althage, Reference Librarian/Social Sciences Bibliographer, Northeastern Illinois University	Catherine Davidson, Associate University Librarian, Collections, York University	Susan Gibbons, Vice Provost and Dean, University of Rochester	Linda Keiter, Reference Librarian, University of Utah
Steve Bahnaman, Reference and Electronic Resources Librarian, North Carolina Wesleyan College	Sonia Davila, Library Director, University of Puerto Rico at Cayey	Timothy Greig, Assistant Librarian, Victoria University of Wellington	Kaarina Kemppainen, Librarian, Joensuu University
Susan Berteaux, Library Director, Massachusetts Maritime Academy	Kate Dingley, Principal Lecturer, University of Portsmouth	Matt Hall, Acting Director, Worcester Polytechnic Institute	Bujar Kocana, University Library Director, Universiteti i Elbasanit
Carol Brown, Library Director, Western Wyoming College, Hay Library	Fred Diulus, CEO and Founder, Global Academy Online, Inc.	Pamela Harris, Instruction & Outreach Librarian, Swarthmore College Library	Clara Latham, University Librarian, Midwestern State University
Robin Canham, Librarian, Saskatchewan Institute of Applied Science and Technology (SIAST)	Arta Dobbs, Collection Management Librarian, University of Connecticut Health Center - L.M. Stowe Library	Glenn Haya, Librarian - E-resources, Stockholm University	Vickie Lepore, Coordinator, Library Research, Lake City Community College
Charles Castle, Librarian, Texas College of Traditional Chinese Medicine	Kathy Dobda, Acting Assistant Director for Public Services, Cleveland State University	Suzanne Haynes, Librarian, Tulsa Community College	John Lewis, Electronic Resources Librarian, Salve Regina University
Christopher Cerrudo, Instructional Technologist, North Central Michigan College	Candy Dyson, Outreach Services Librarian, Tyler Junior College	Lia Hemphill, Director of Collection Development, Nova Southeastern University	Emmett Lombard, Electronic Services, Gannon University
Janet Chelliah, Datasets Co-ordinator, University of Technology Sydney Library	Paula Eggert, Librarian/Information Technologist, Tulsa Community College	Janet Henderson, Electronic Resources Manager, University of Cumbria	James MacKenzie, Information Services Librarian, University of New Brunswick
Jasmine Cieszynski, Instructional Services Librarian, Olivet Nazarene University	Elizabeth Evans, Library Director, Point Park University	Gloria Selene Hinojosa, Collection Development Librarian, Texas State University-San Marcos	Stephanie Mathson, Instruction/Reference Librarian, Central Michigan University
Pamela Contakos, Librarian for Digital Collections & Electronic Resources, SIT Graduate Institute	Jennifer Ewing, Seminary Librarian, San Diego Christian College (Southern California Seminary)	Louis Houle, Associate Director, Client Services, Sciences, Health and Engineering, McGill University	Heidi McCann, Reference & Instructional Services Librarian, Mt. Wachusett Community College
	Tony Ferguson, University Librarian, University of Hong Kong	Debbie Iverson, Library Director, Sheridan College	Gisele McDaniel, Reference Librarian, Tulsa Community College
		Paul Jenkins, Director of Library Services, College of Mount St. Joseph	Allen W. McKiel, Ph.D., Dean of Library and Media Services, Western Oregon University

CONTRIBUTING LIBRARIANS AND INFORMATION PROFESSIONALS (PARTIAL LIST, CONTINUED)

Jo Menzies, Library Officer, Central Gippsland Institute of TAFE	Emma Ransley, Team Leader - Learning Resource Advisors, Yeovil College	Julie Shen, Librarian, California State Polytechnic University, Pomona	Victor Manuel Valdelamar Garcia, Library Technological Consultant, Fundacion Universitaria Tecnologico Comfenalco
Kari Mikkonen, Information Specialist, Hame Polytechnic, Hamk Library	Barbara Ray, Associate Professor, Northeastern State University	Jonathan Sparks, Director of Libraries, Southwestern Oklahoma State University	Bob Verbesey, Director, Ave Maria University
Dennis Miles, Systems Librarian, Southeastern Oklahoma State University	Anne Reeve Osborne, Asst. Library Director for Distance Learning, Tusculum College	Barbara Strauss, Head, Technical Services, Cleveland State University	Susan von Daum Tholl, Director, Emmanuel College
Melanie Mills, Electronic Collections Librarian, Victoria University of Wellington	Carol Reid, Librarian, Free Will Baptist Bible College	Chaweewan Swasdee, Librarian, Mahidol University	Carol West, Electronic Resources Librarian, Southern New Hampshire University
Judy Montgomery, Associate Librarian, Bowdoin College	Yvonne Rezek, Collection Development Librarian, Grant MacEwan College	Susan Swogger, Collections Development Librarian, University of North Carolina - Chapel Hill	Peggy White, Interim Associate University Librarian for Client Services, University of Calgary
Barbara Moore, Library Coordinator, Chattahoochee Technical College	Ronald Root, Reference Librarian, Tulsa Community College	Laraine Tapak, Library Director, Confederation College	Benjamin Williams, Assistant Vice Chancellor, Library System, Keiser University
Pauline Nicholas, Electronic Reference Librarian, University of the West Indies (Mona)	Tracy Scharn, Public Services Librarian, Columbia Gorge Community College	Wong Thiam Ming, Librarian, Universiti Tunku Abdul Rahman	Carol Zsulya, Head, Collection Management, Cleveland State University
Sarah Pearson, E-Resources & Serials Coordinator, University of Birmingham	Jane Schmidt, Manager, Collection Services Team, Ryerson University Library	Liselotte Thornell, Head of Acquisition, Linköpings Universitetsbibliotek	
Helen Prosser, Coordinator, Library Services, Northern Lakes College	Corey Seeman, Library Director, University of Michigan - Business	Clare Tittel, Principal Manager Information Access, University of Southern Queensland	

ADDITIONAL EBRARY SURVEYS

2007 Global Faculty E-book Survey completed by more than 900 faculty members –
Please register at www.surveymonkey.com/s.aspx?sm=apAGASSfudxvl7nw9gMW0w_3d_3d.

2007 Global Librarian E-book Survey completed by more than 580 librarians –
Please register at www.surveymonkey.com/s.aspx?sm=9lzM6Kf5SqZs7x4hqAp5Tg_3d_3d.

CONTENTS

Survey Results, 5

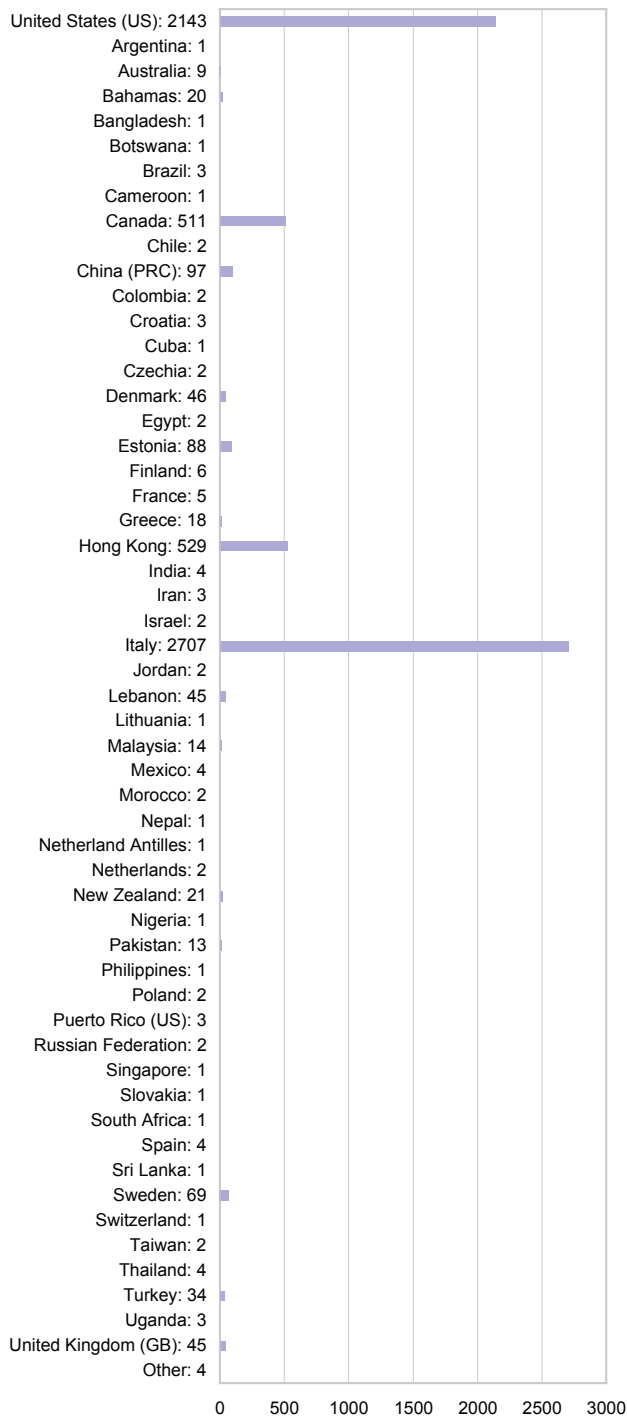
1. Participating Countries, U.S. and non-U.S. states, 5
2. Primary Subject (or Major) of Study, 5
3. Level, 6
4. How would you describe your level of awareness of electronic resources at your college or university library?, 6
5. Does your library have e-books (electronic books)?, 7
6. How often do you use e-books that your library provides?, 7
7. If never, why?, 8
8. What types of resources are you using and for what purpose?, 9
9. What types of resources do you consider trustworthy (accurate and reliable) for research and class assignments?, 12
10. How do you determine if a source of information is trustworthy?, 15
11. When you have the option of using either the electronic or print version of a book, how often do you opt to use the electronic version?, 16
12. Please indicate if the following statements are true for e-books, print books or both., 16
13. How important are the following features to e-books?, 18
14. What do you feel would make e-book usage more suitable for use in your area of study?, 29
15. How do you usually find and access e-books (i.e. what is your starting point)?, 30
16. How important is instruction or training in finding and using information resources to your research and learning?, 30
17. How did you learn about e-books?, 31
18. What do you think are the most effective support and training tools for learning how to find and use e-books?, 31

Survey Analysis by Allen McKiel, Dean of Library and Media Services, Western Oregon University, 32

Contact ebrary, 40

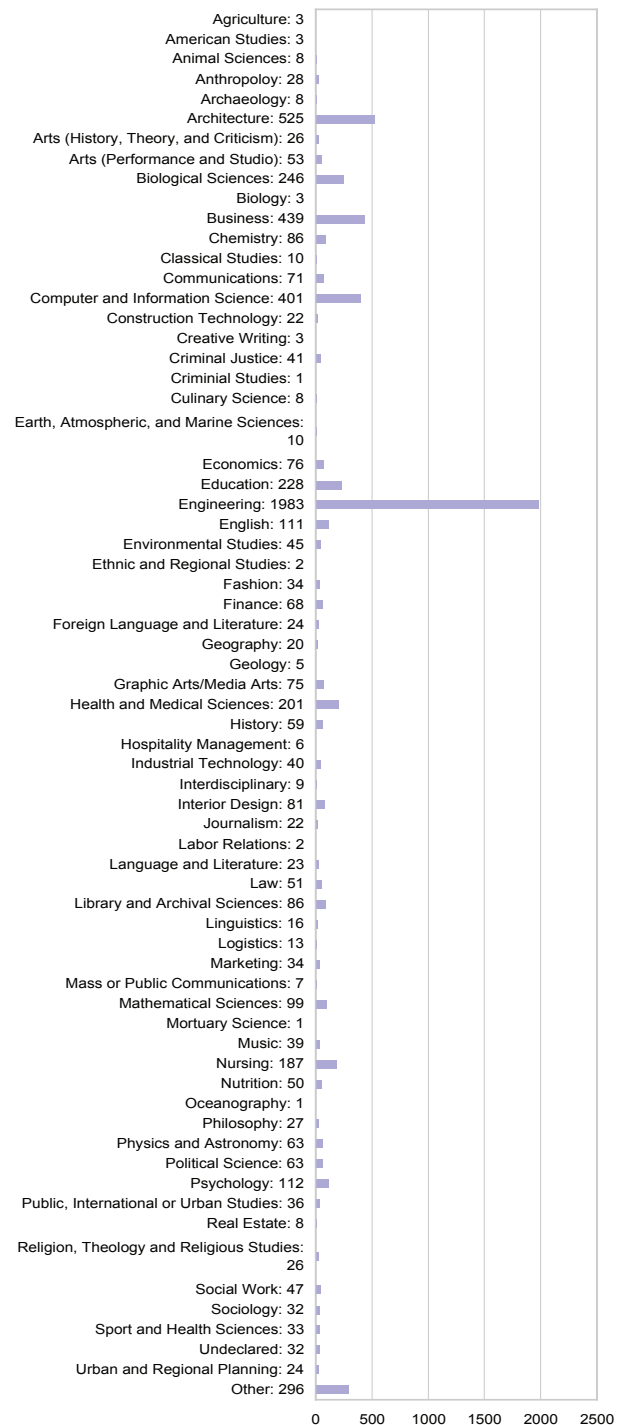
Survey Results

1. Participating Countries, U.S. and non-U.S. states



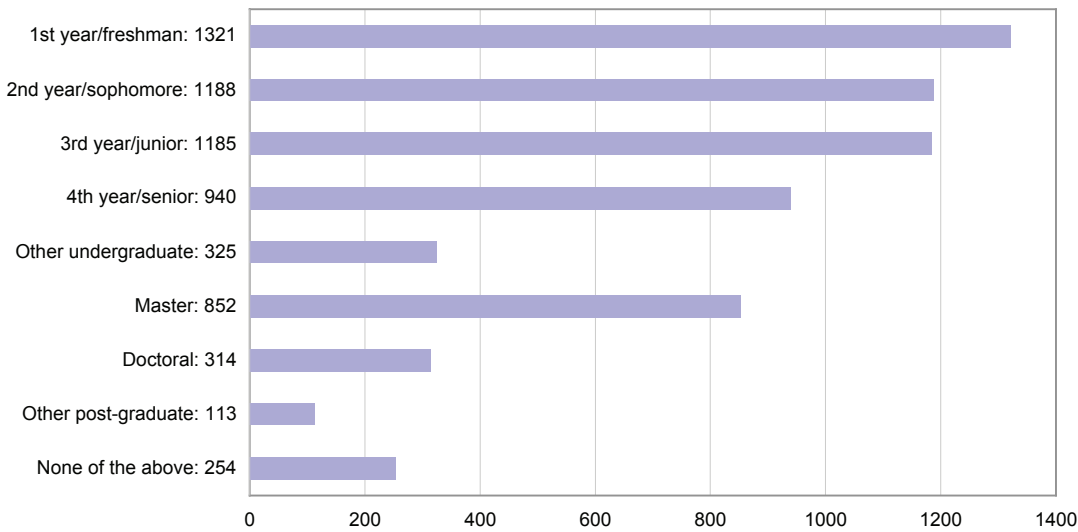
Number of respondents: 6492

2. Primary Subject (or Major) of Study



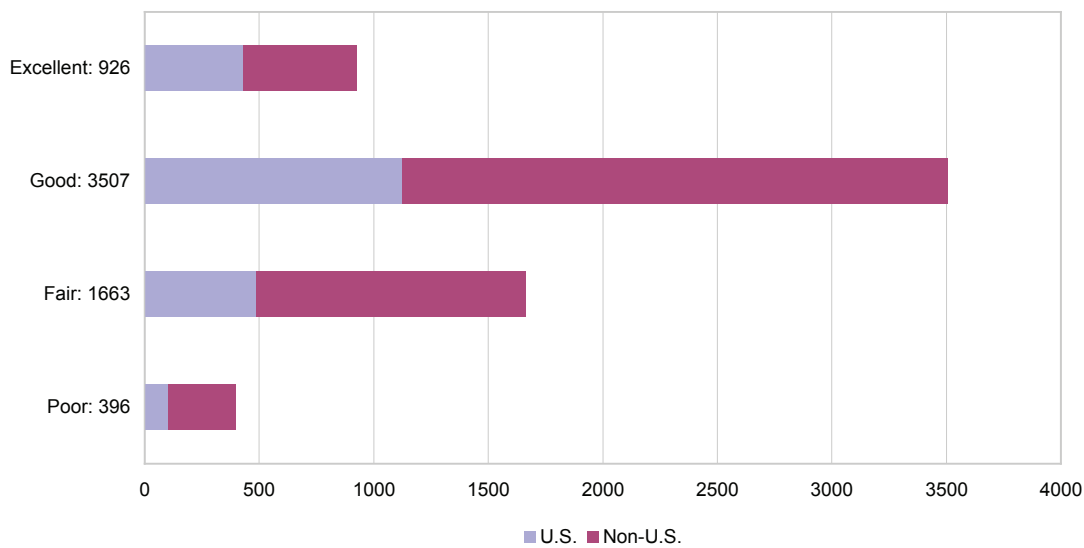
Number of respondents: 6492

3. Level



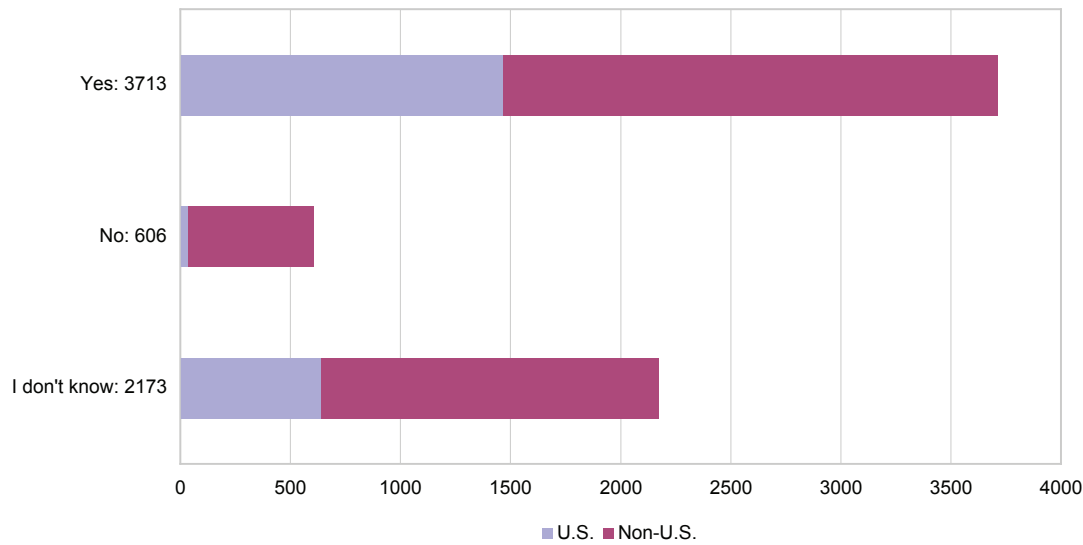
Number of respondents: 6492

4. How would you describe your level of awareness of electronic resources at your college or university library?



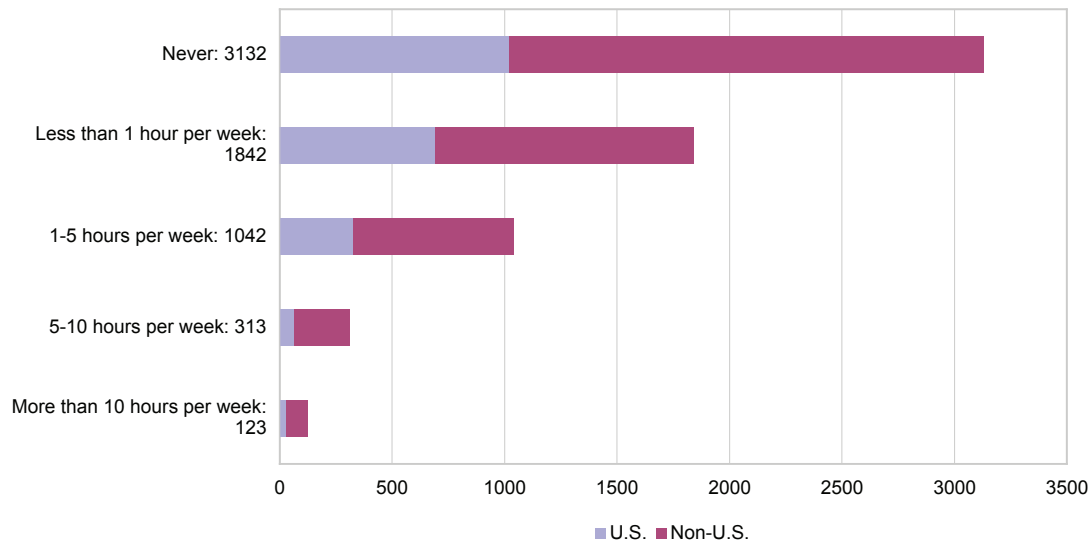
Number of respondents: 6492

5. Does your library have e-books (electronic books)?



Number of respondents: 6492

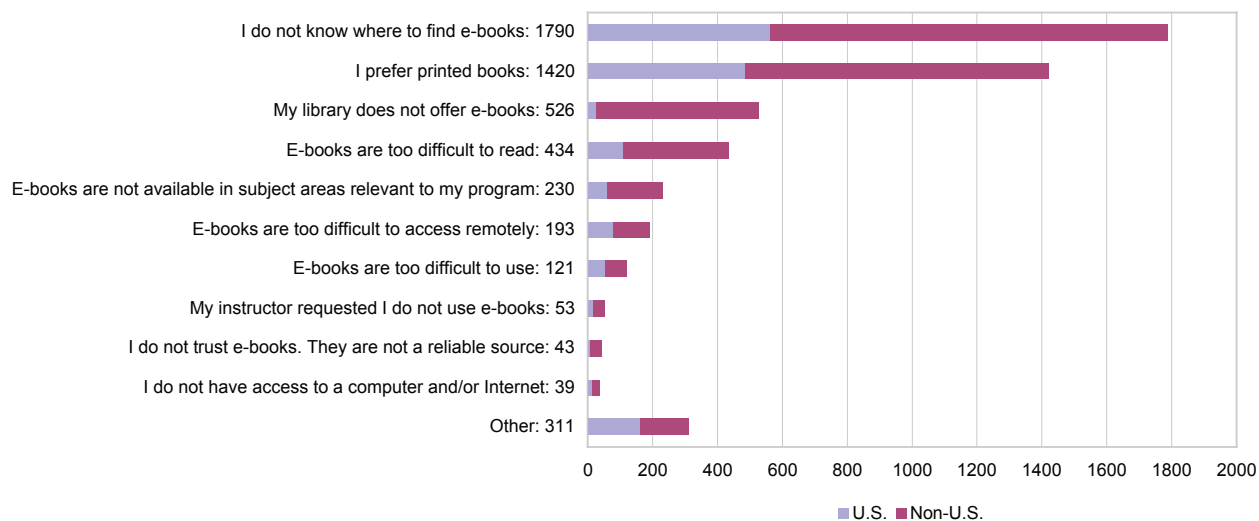
6. How often do you use e-books that your library provides?



Number of respondents: 6452

Students who indicated in Question 6 that they never used e-books were directed to Question 7, then the end of the survey. Other respondents were directed to Question 8 to continue the survey.

7. If never, why?



Number of respondents: 3125

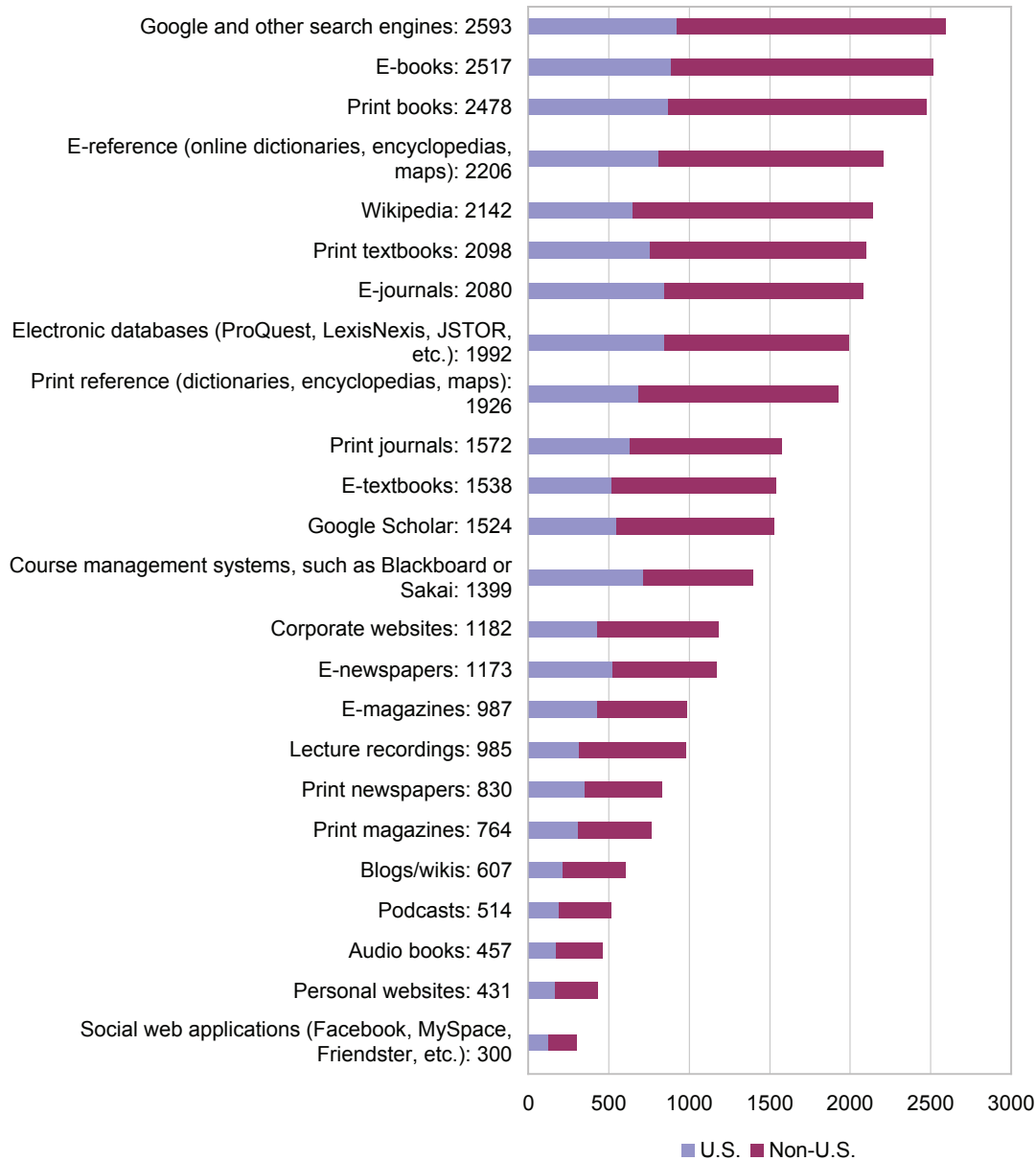
Respondents selected all items that apply.

“Other” responses included the following:

- I have not had a need for e-books.
- I do not know how to use e-books.
- E-books have not been required by my professors as part of my program.
- I cannot print, annotate, highlight, or underline text in e-books.
- E-books are not portable.
- I primarily use journals as a main source of information.

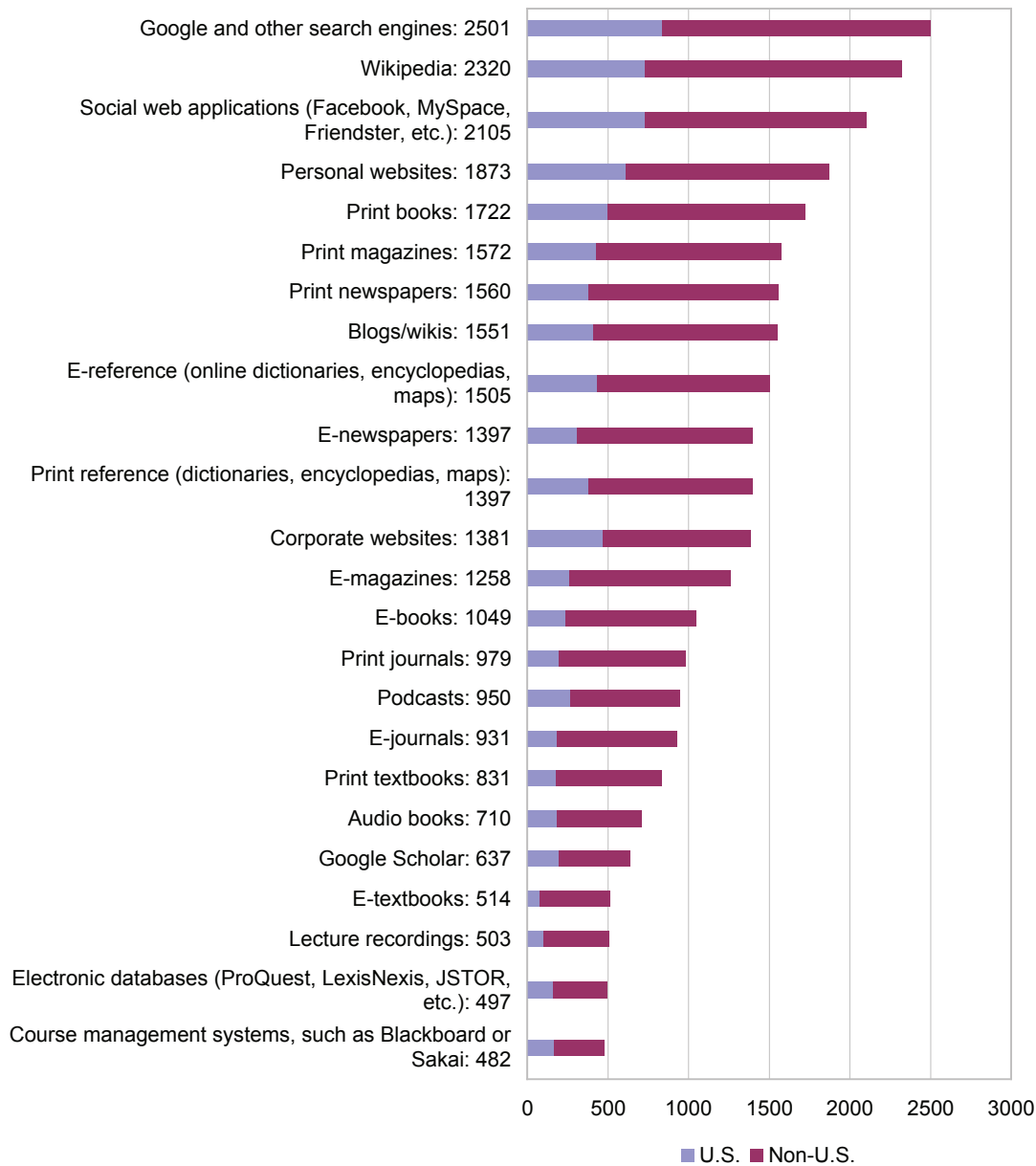
8. What types of resources are you using and for what purpose?

Research/class assignments

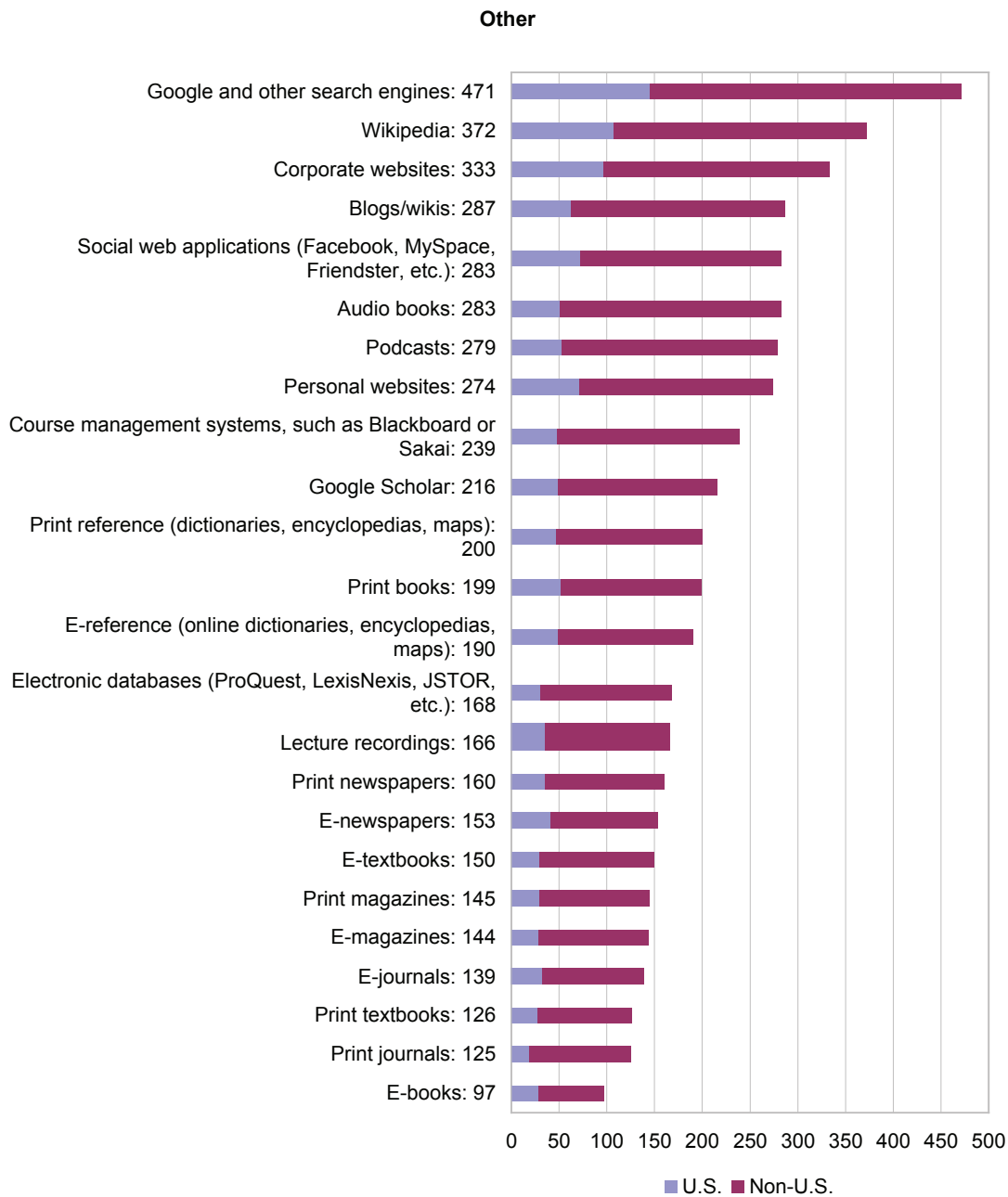


8. What types of resources are you using and for what purpose? (continued)

Personal use



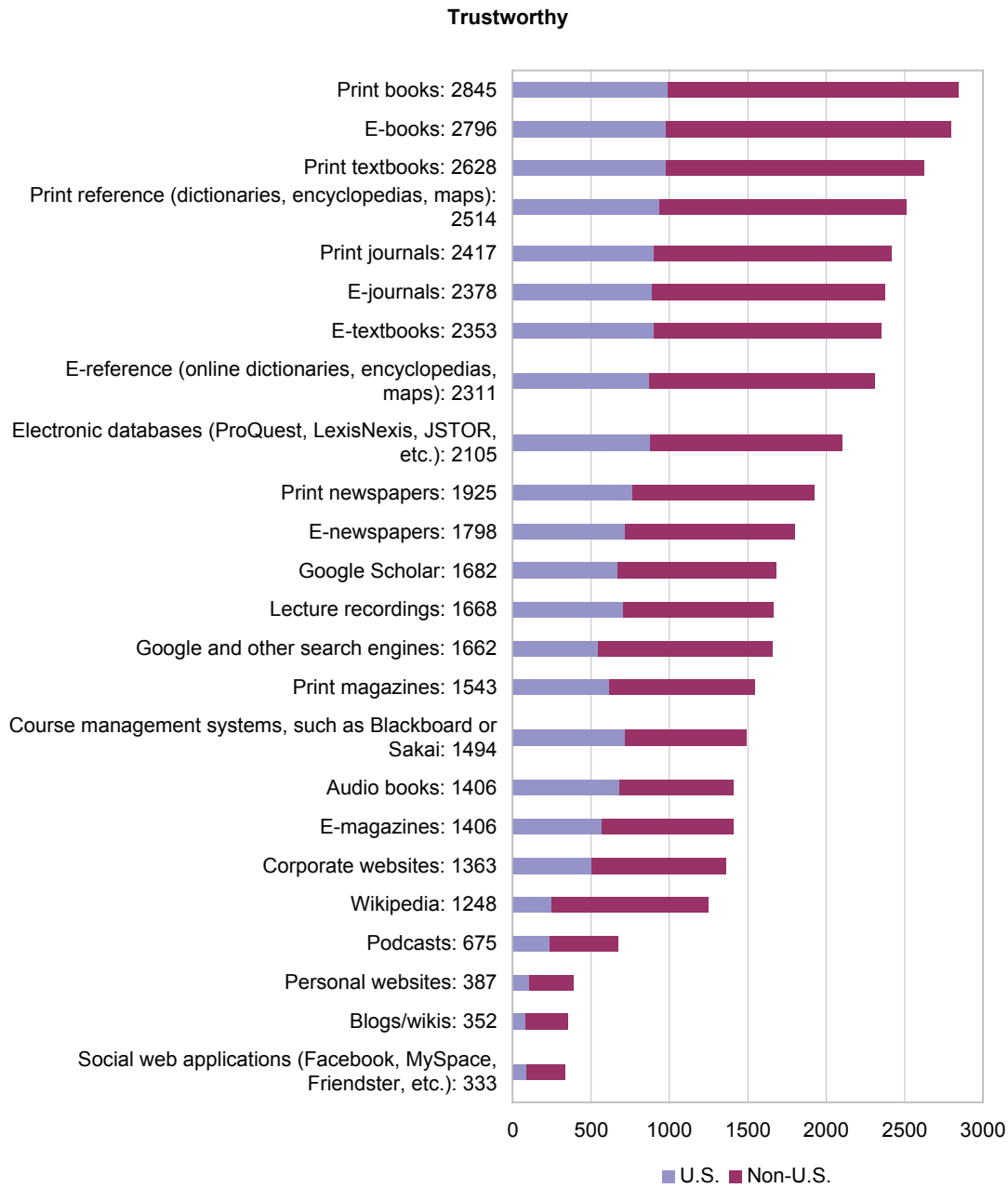
8. What types of resources are you using and for what purpose? (continued)



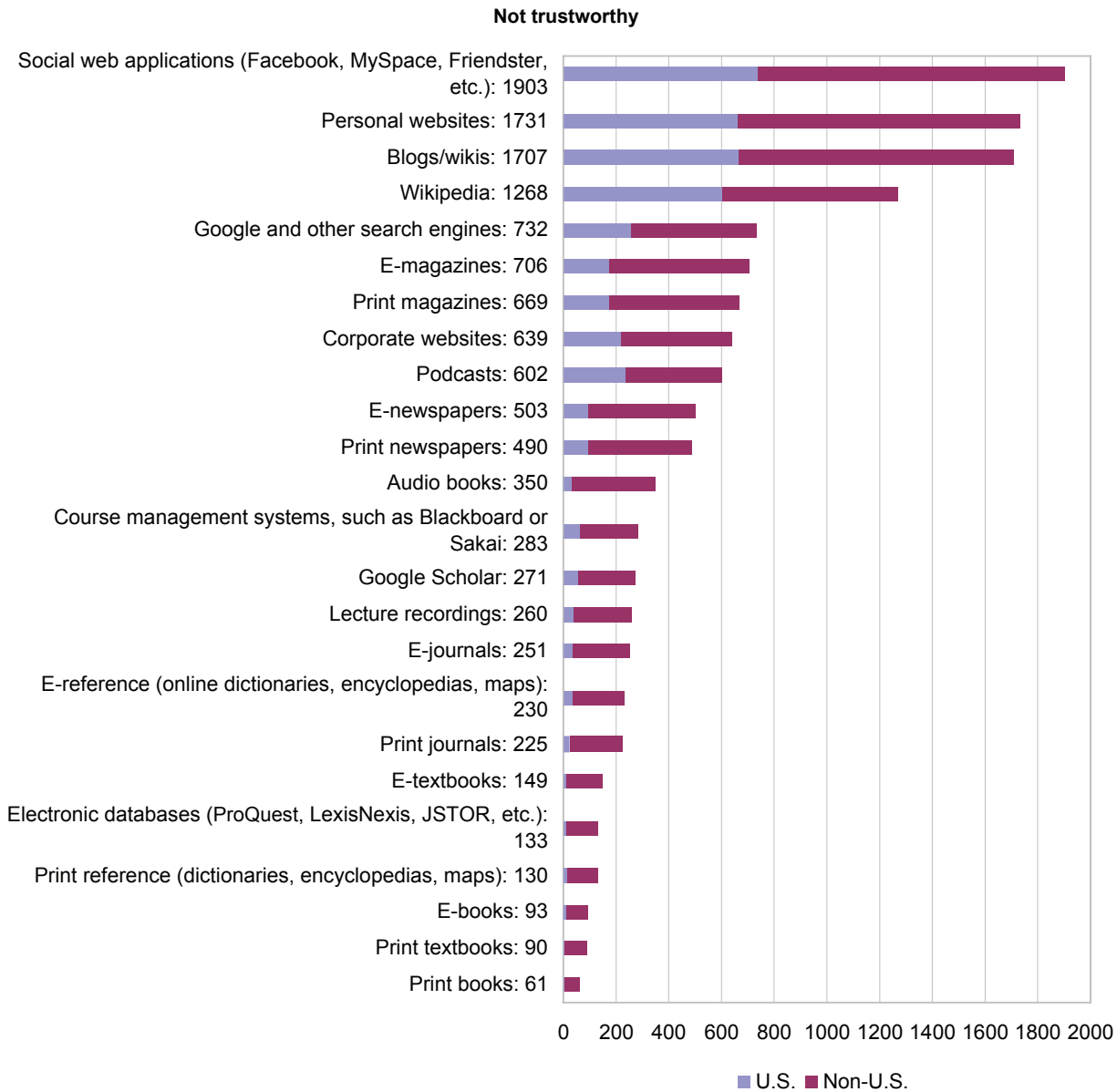
Number of respondents: 3208

Respondents selected all that apply – “research/class assignments,” “personal use,” and “other” – for each item.

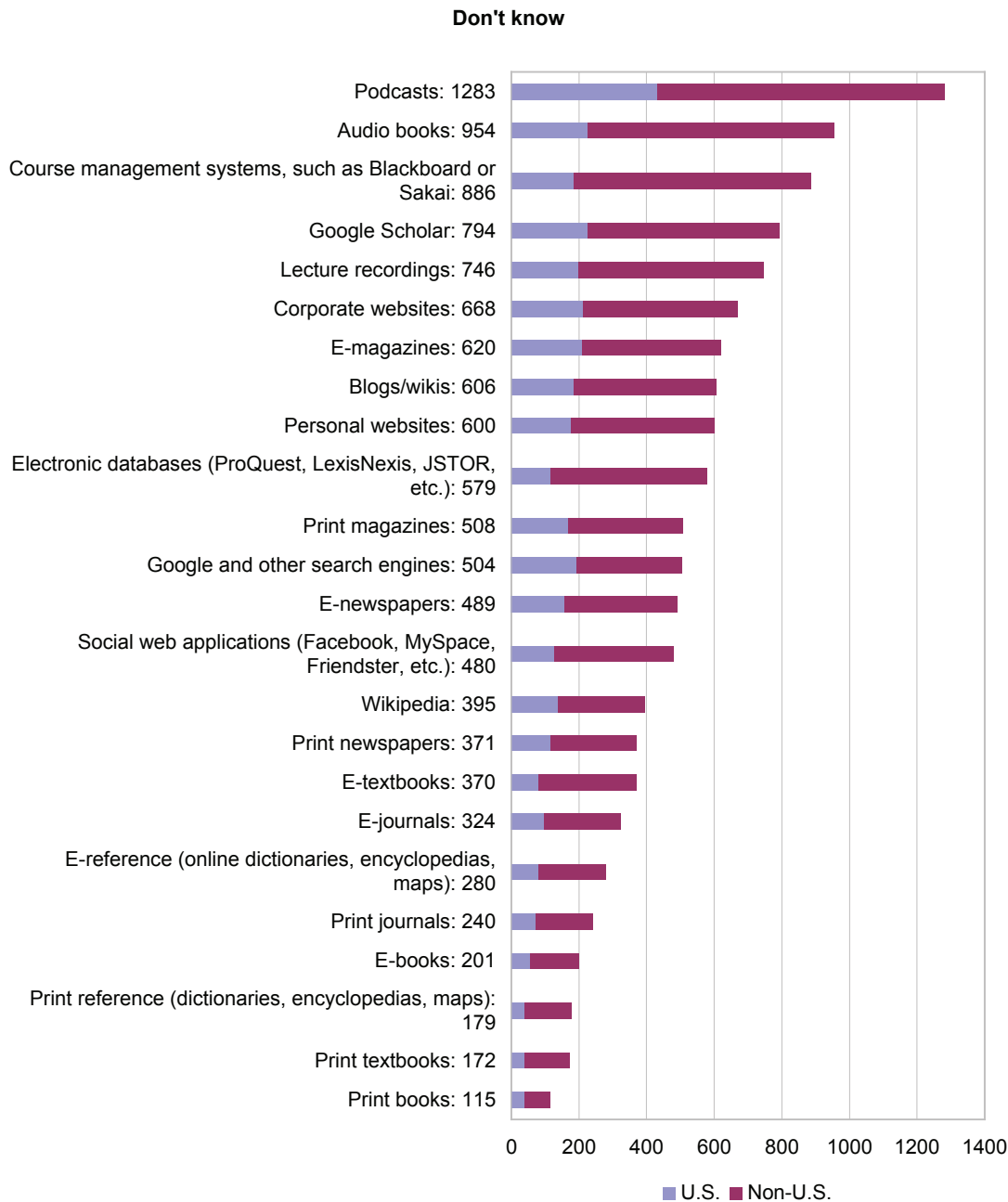
9. What types of resources do you consider trustworthy (accurate and reliable) for research and class assignments?



9. What types of resources do you consider trustworthy (accurate and reliable) for research and class assignments? (continued)



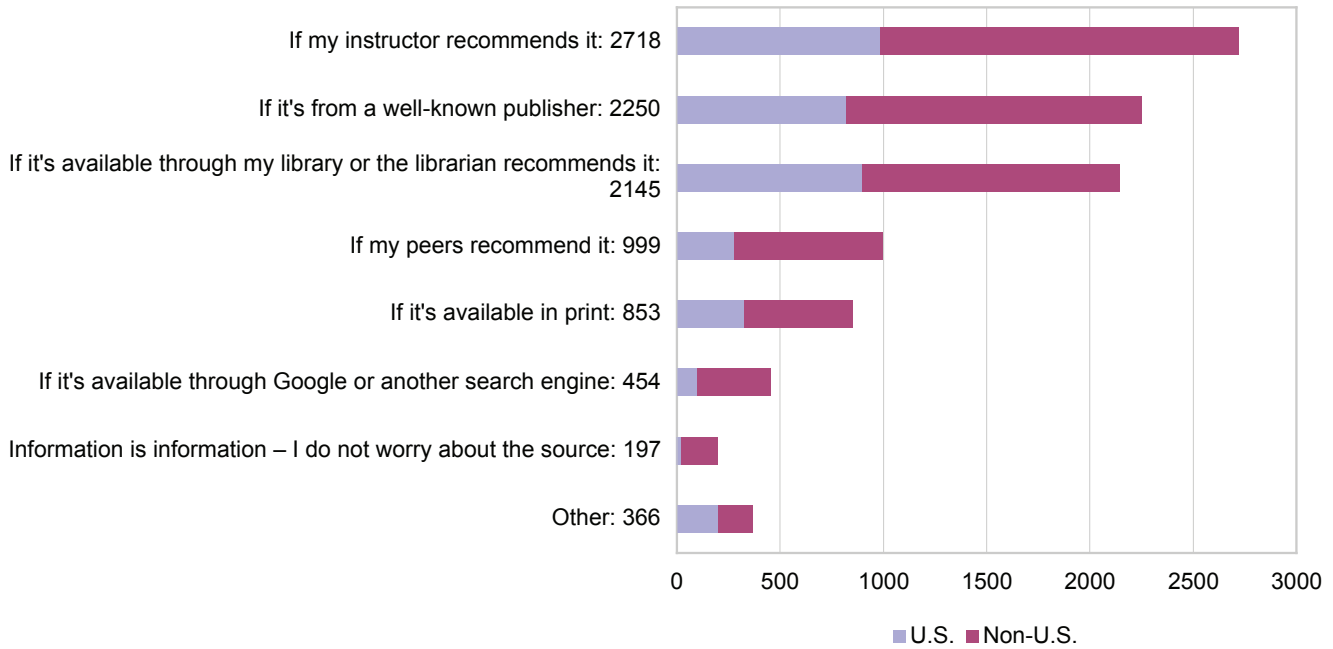
9. What types of resources do you consider trustworthy (accurate and reliable) for research and class assignments? (continued)



Total number of respondents: 3163

Respondents selected either "trustworthy," "not trustworthy," or "don't know" for each item.

10. How do you determine if a source of information is trustworthy?



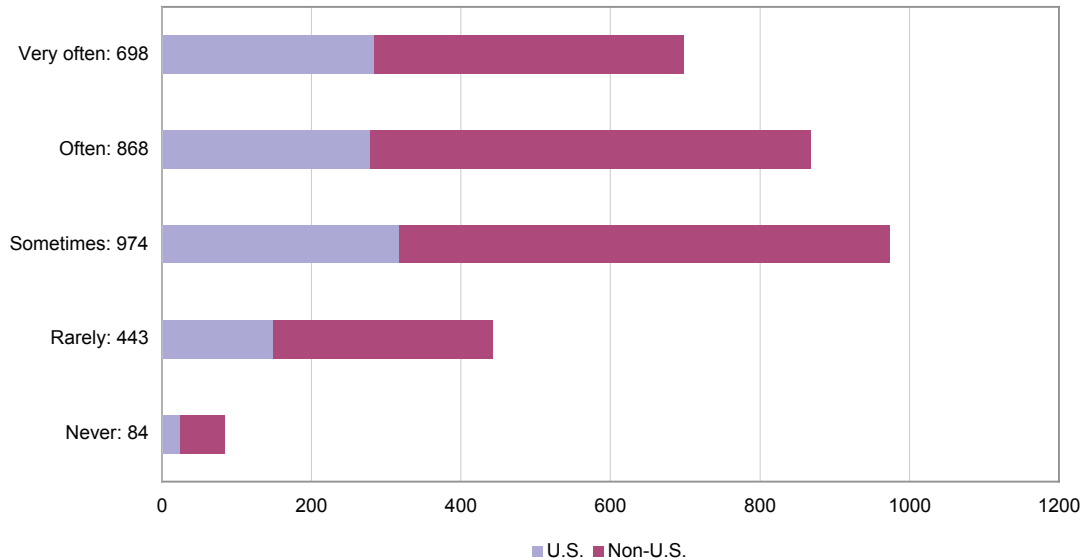
Total number of respondents: 3186

Respondents selected all that apply.

“Other” responses included the following:

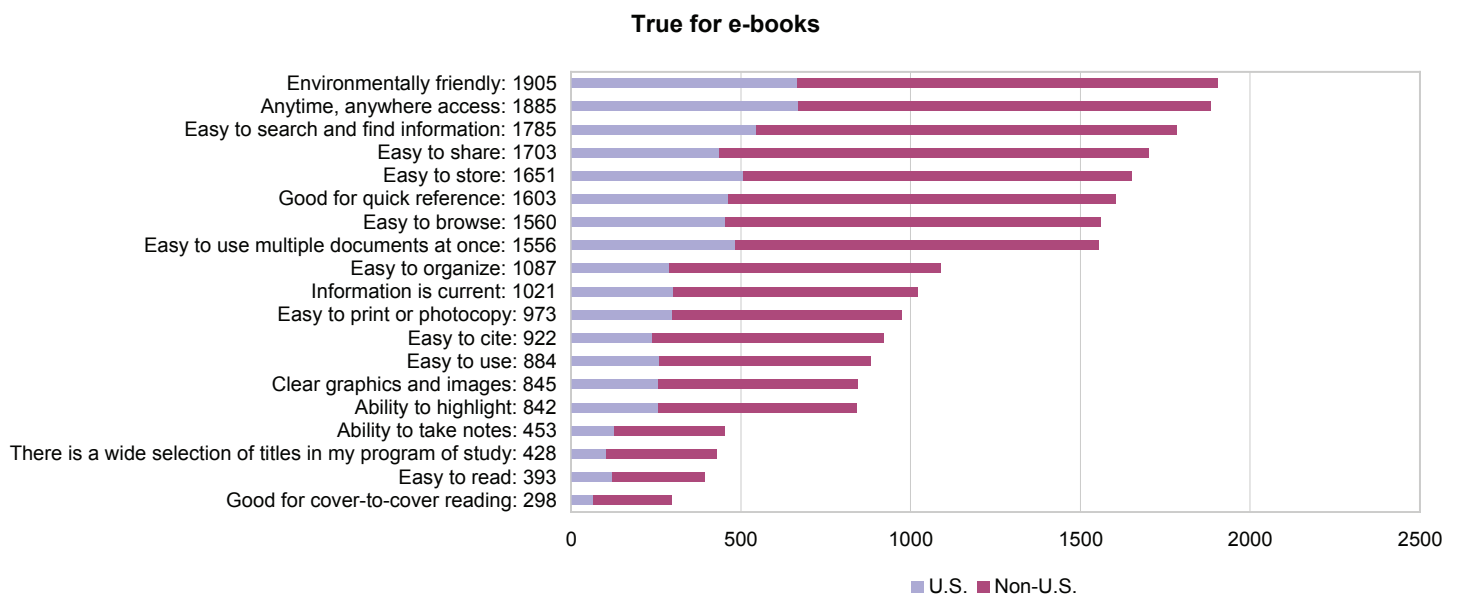
- If it's peer reviewed.
- If the information can be verified by more than one source.
- If the URL ends in .edu, .edu, or .org.
- If it has a list of citations and references.
- If the author is well-known.
- If the content is current.

11. When you have the option of using either the electronic or print version of a book, how often do you opt to use the electronic version?

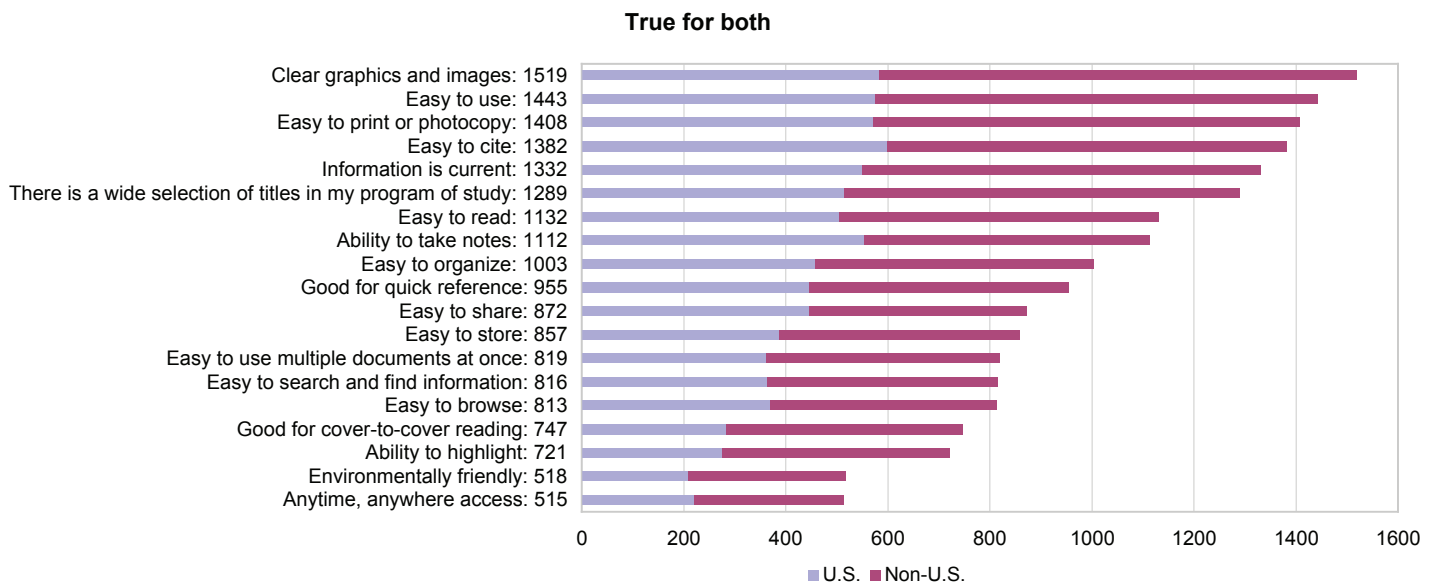
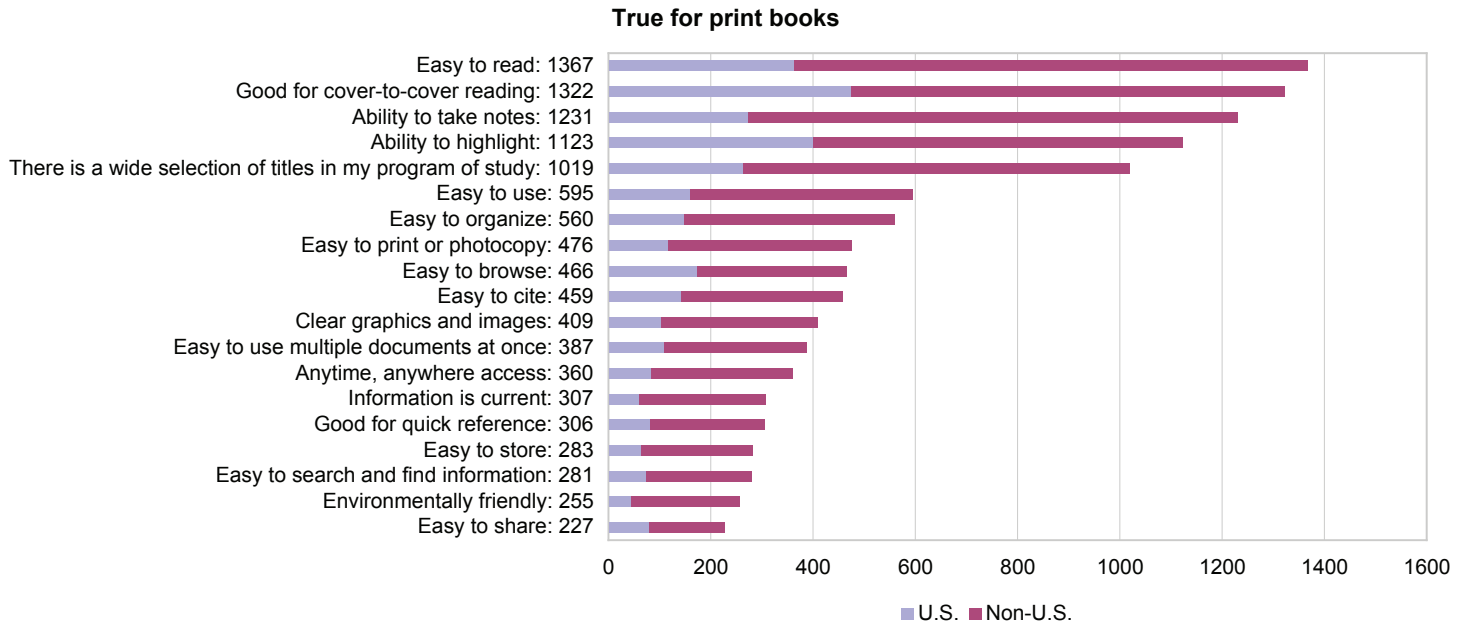


Total number of respondents: 3067

12. Please indicate if the following statements are true for e-books, print books or both.



12. Please indicate if the following statements are true for e-books, print books or both. (continued)

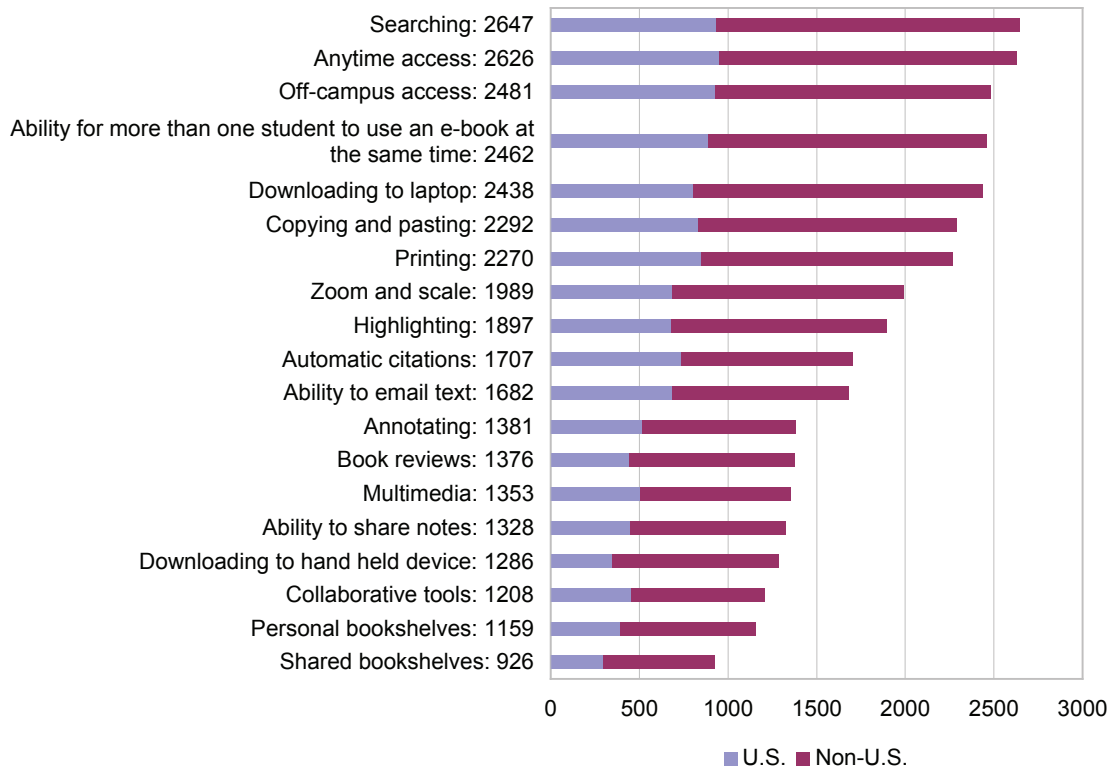


Total number of respondents: 3051

Respondents selected "true for e-books," "true for print books," "true for both," or "don't know" for each item.

13. How important are the following features to e-books?

Very important



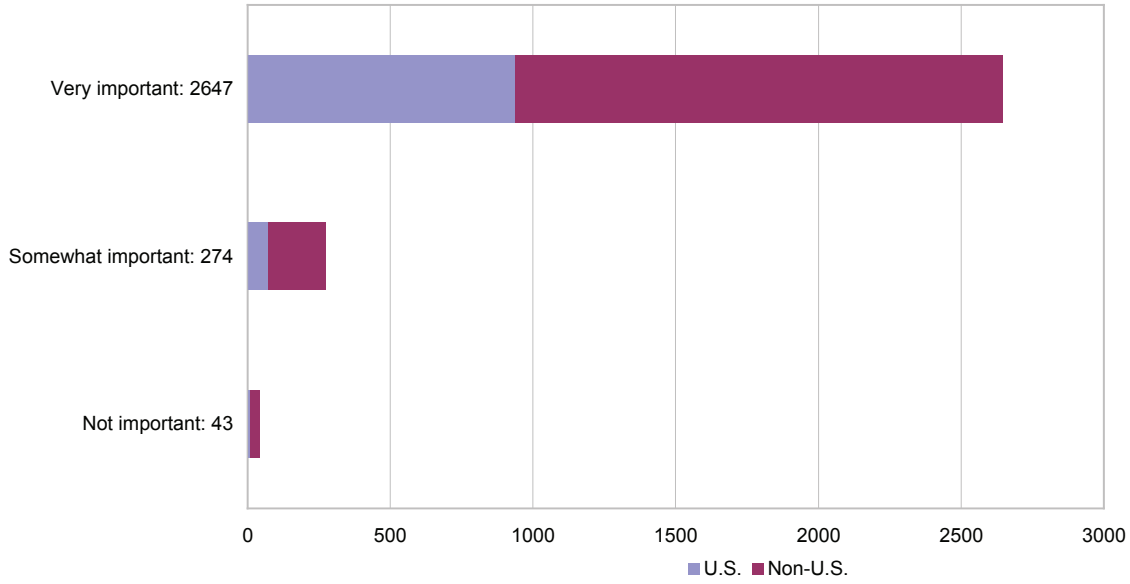
Total number of respondents: 3039

Respondents selected “very important,” “somewhat important,” or “not important” for each item.

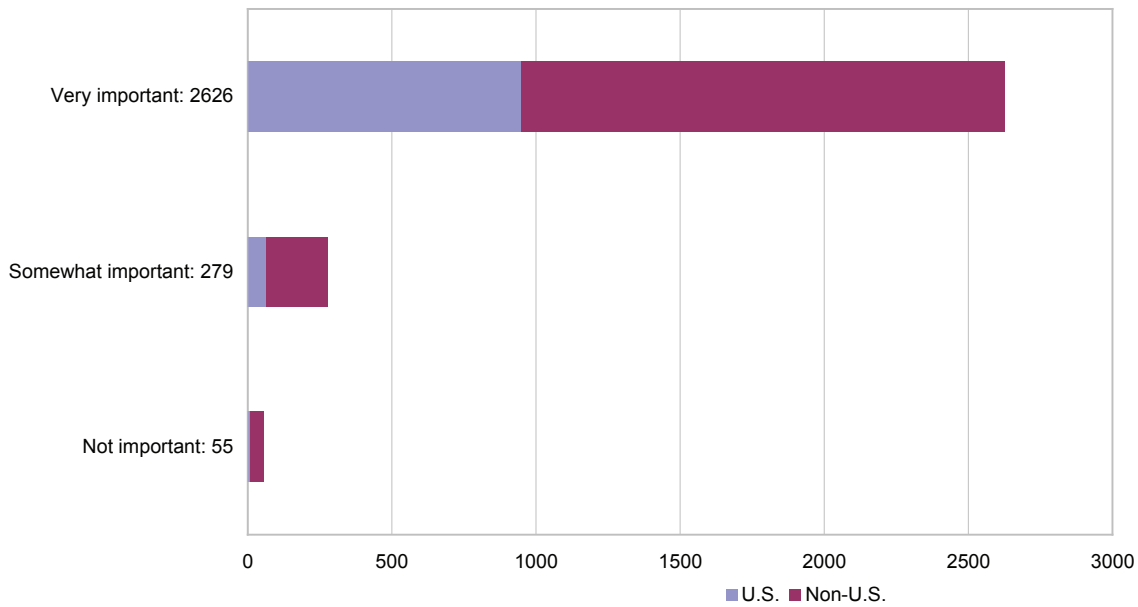
Note that this chart shows total “very important” responses. The following charts illustrate level of importance indicated for each specific item.

13. How important are the following features to e-books? (continued)

Searching

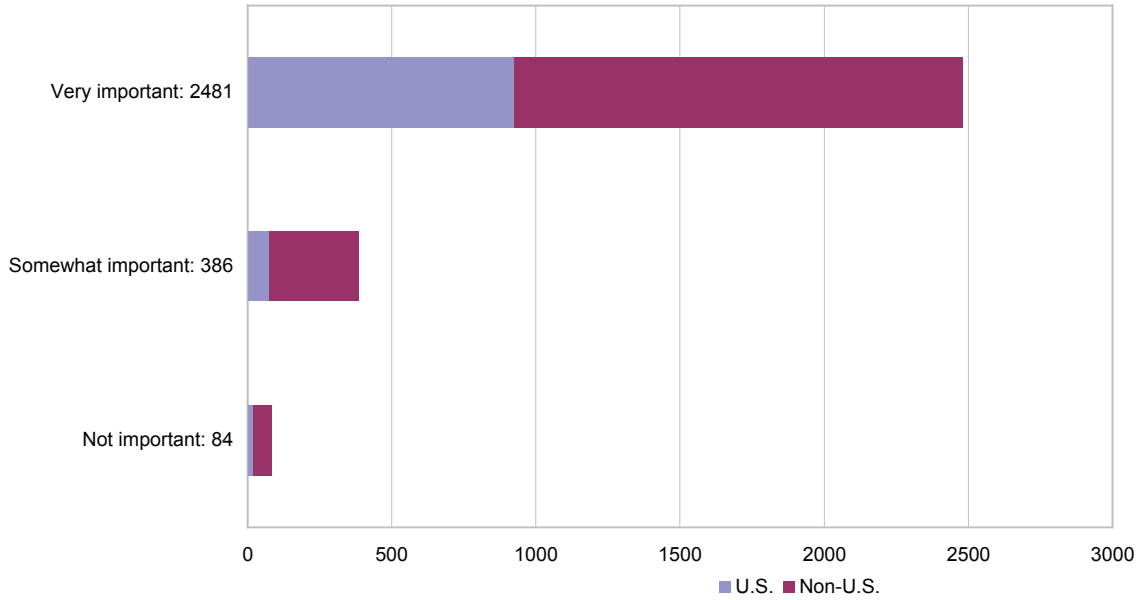


Anytime access

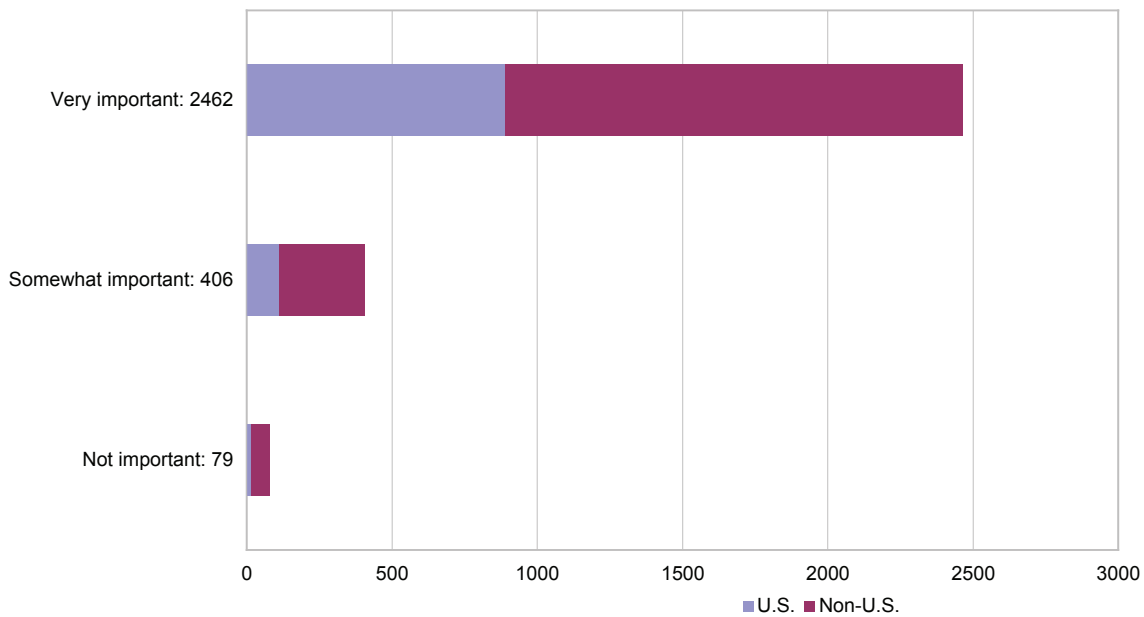


13. How important are the following features to e-books? (continued)

Off-campus access

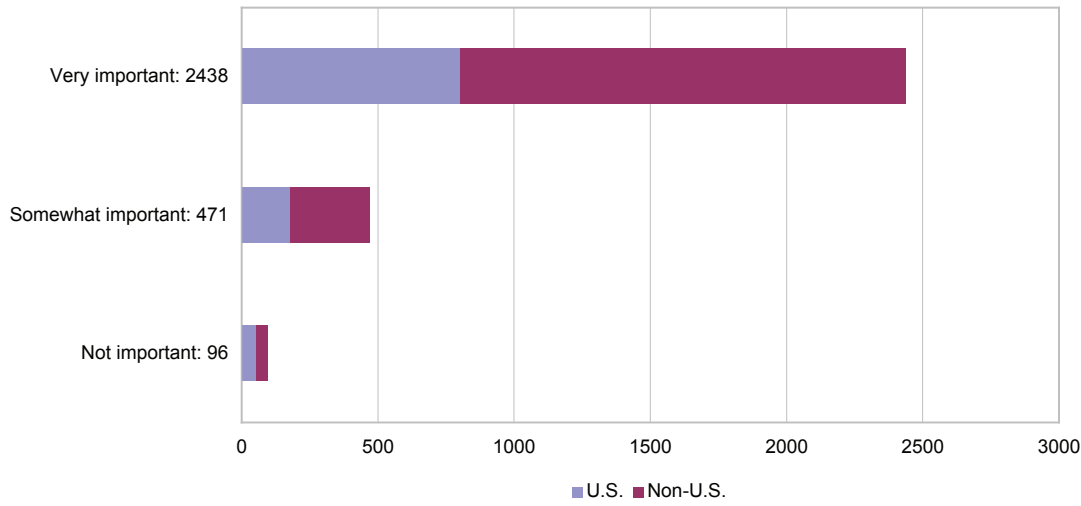


Ability for more than one student to use an e-book at a time

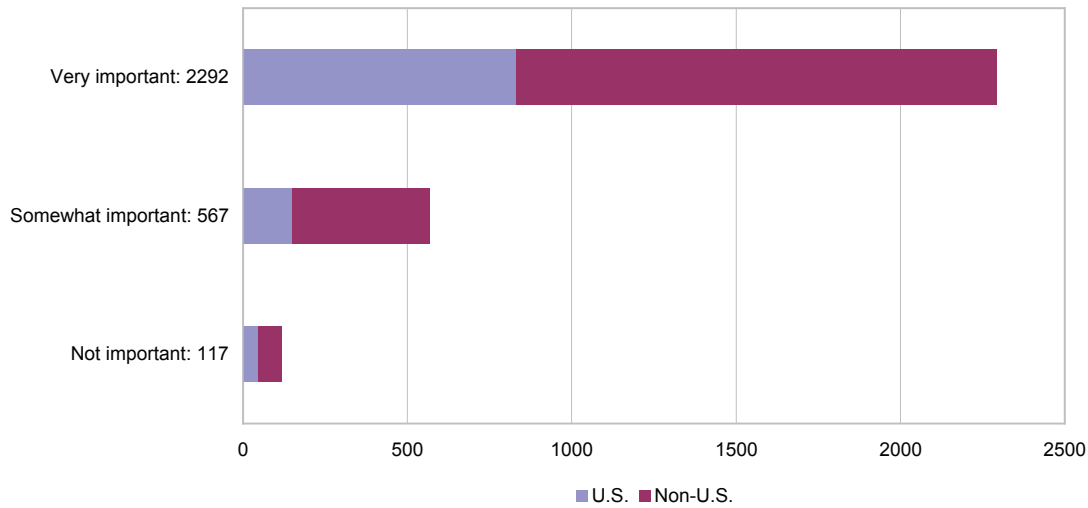


13. How important are the following features to e-books? (continued)

Downloading to laptop

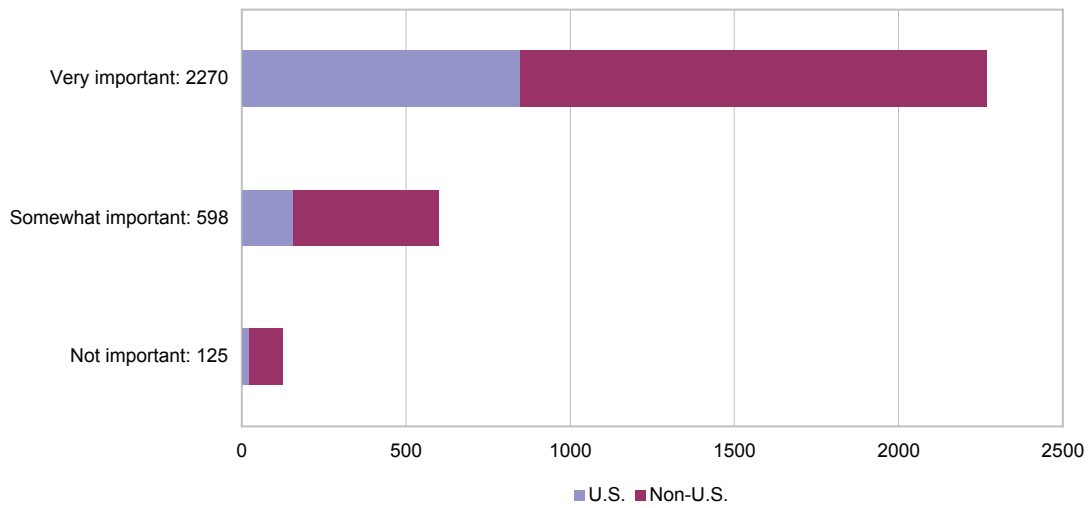


Copying and pasting

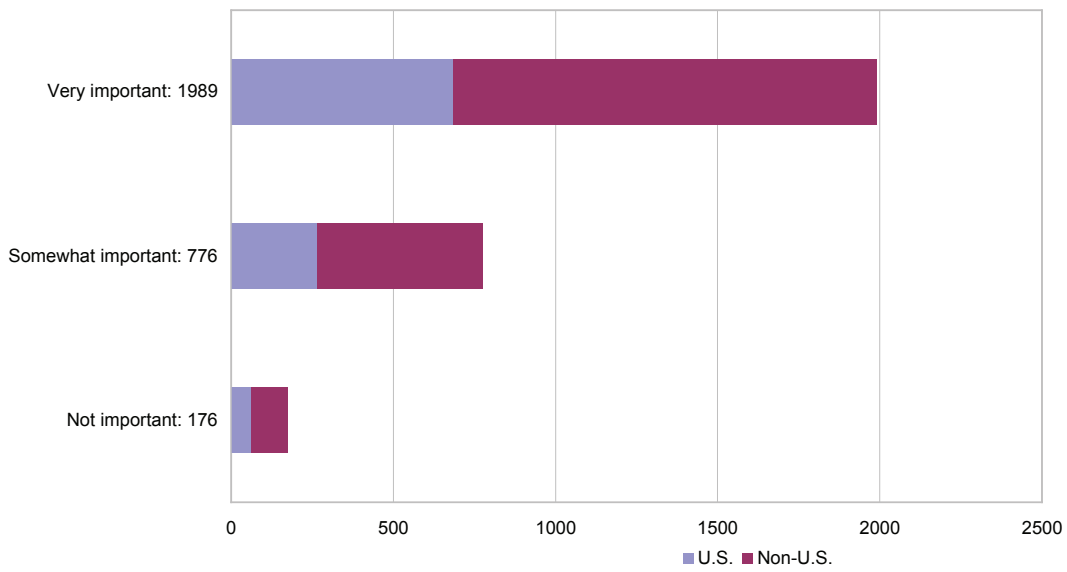


13. How important are the following features to e-books? (continued)

Printing

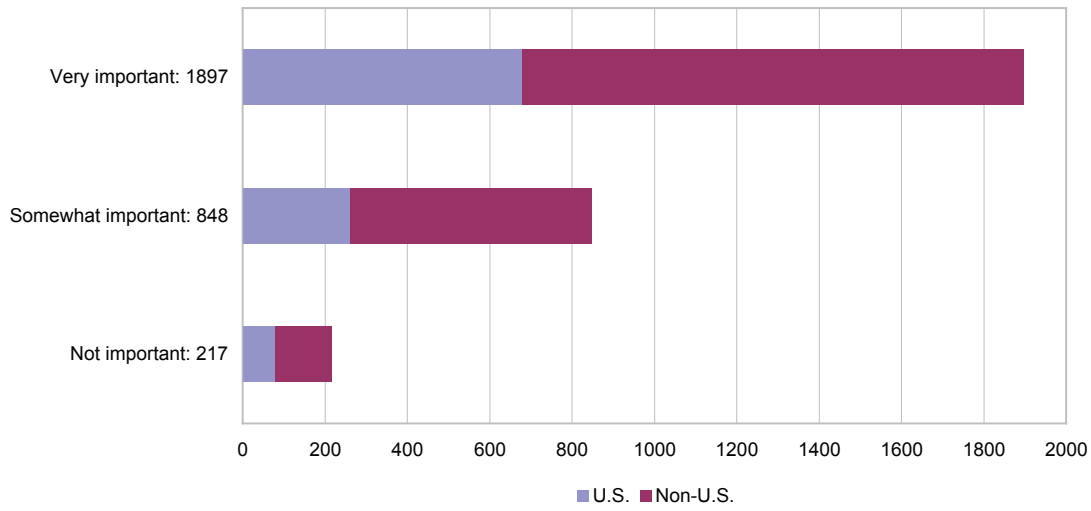


Zoom and scale

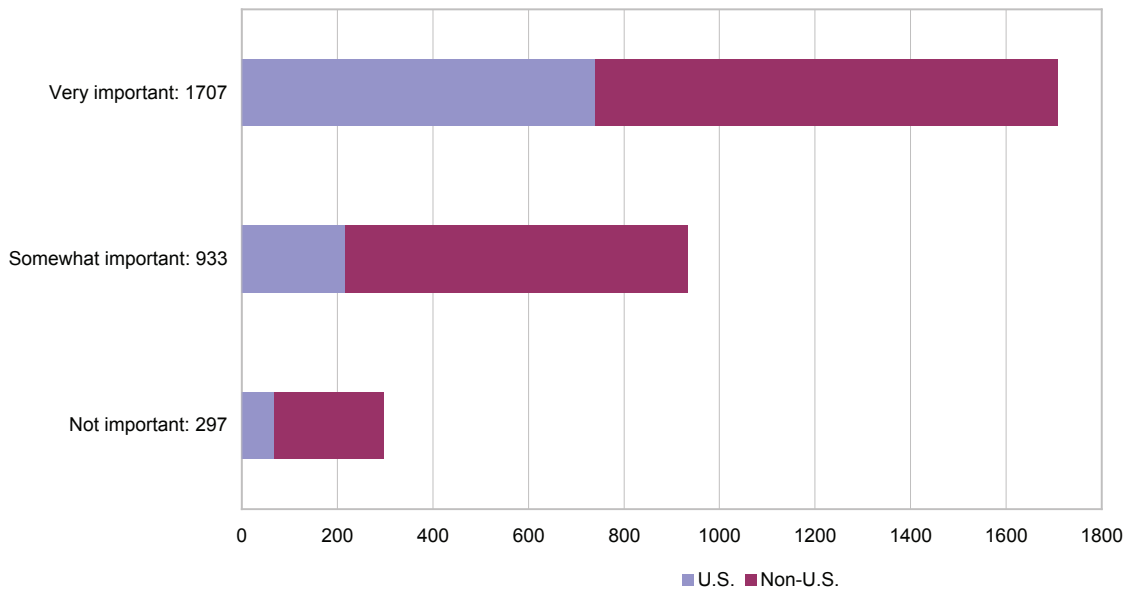


13. How important are the following features to e-books? (continued)

Highlighting

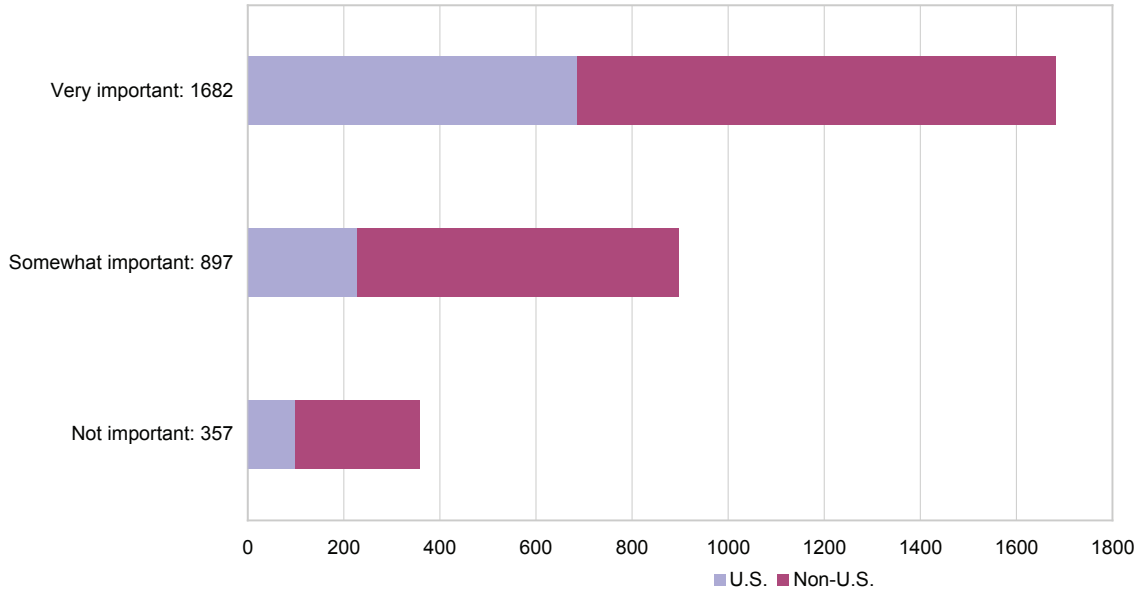


Automatic citations

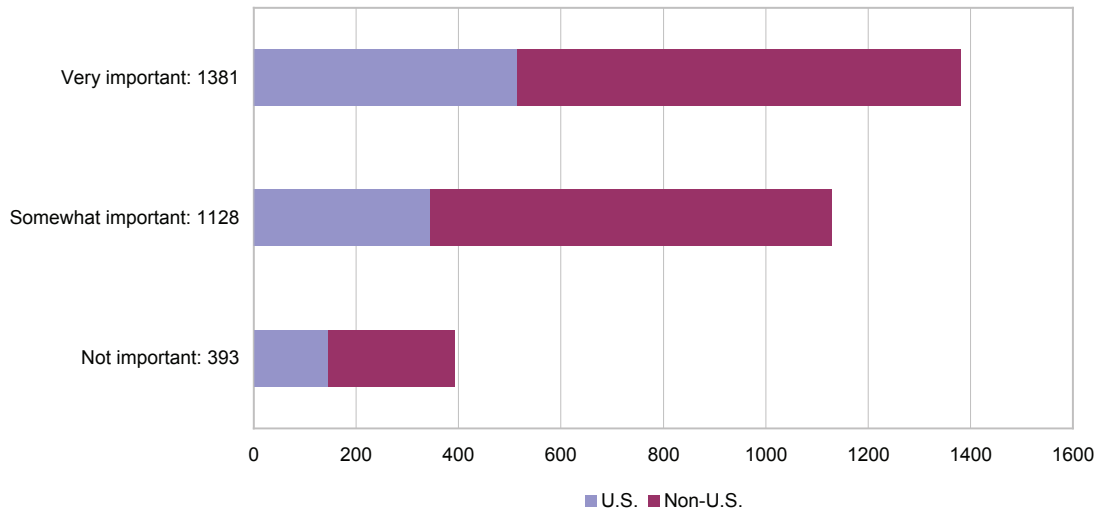


13. How important are the following features to e-books? (continued)

Ability to email text

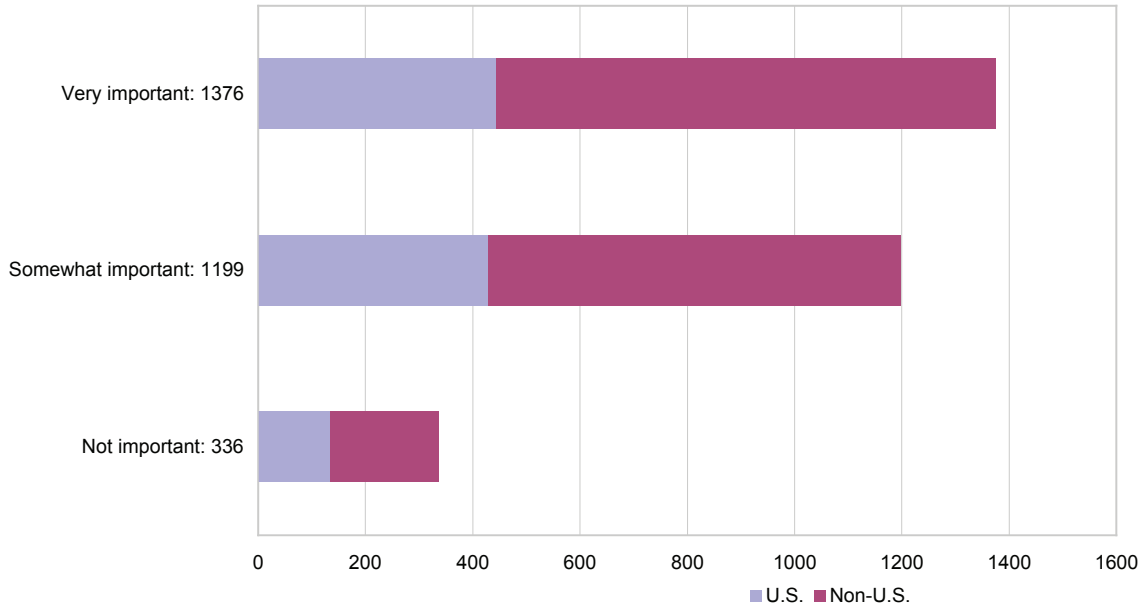


Annotating

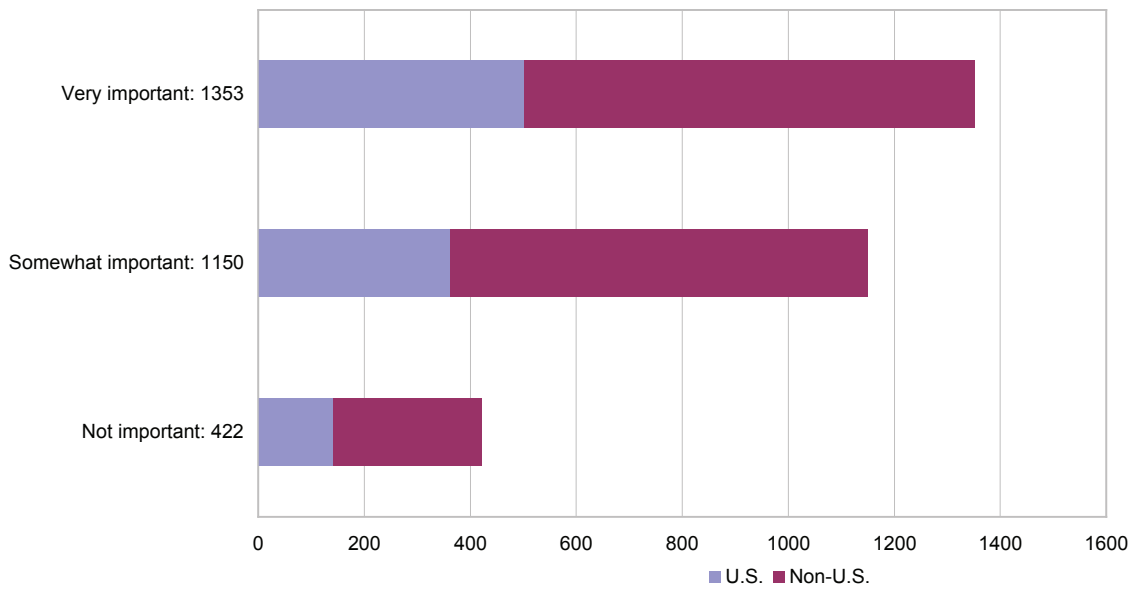


13. How important are the following features to e-books? (continued)

Book reviews

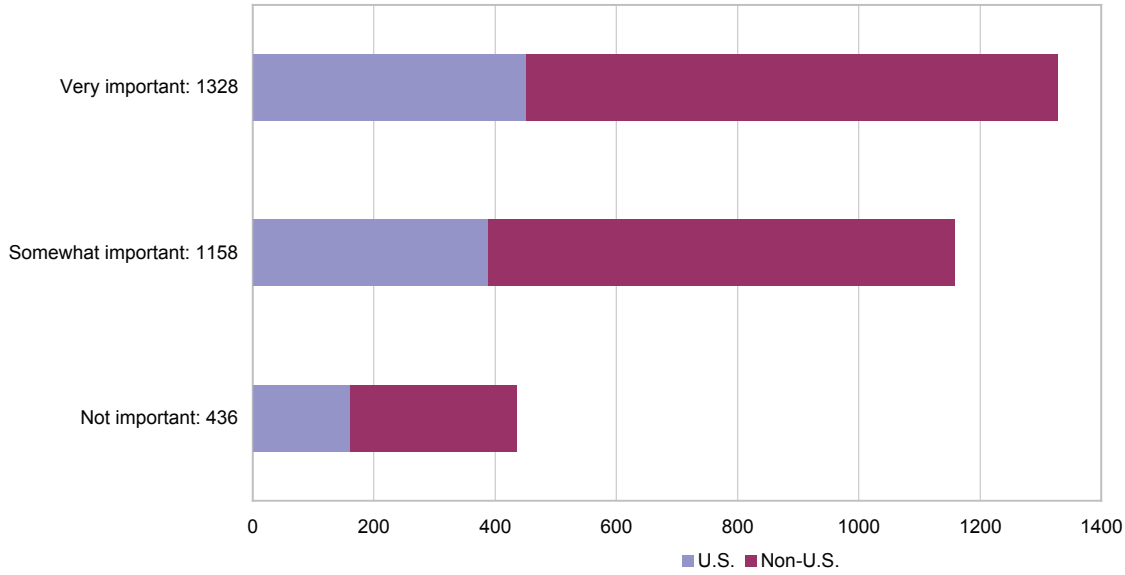


Multimedia

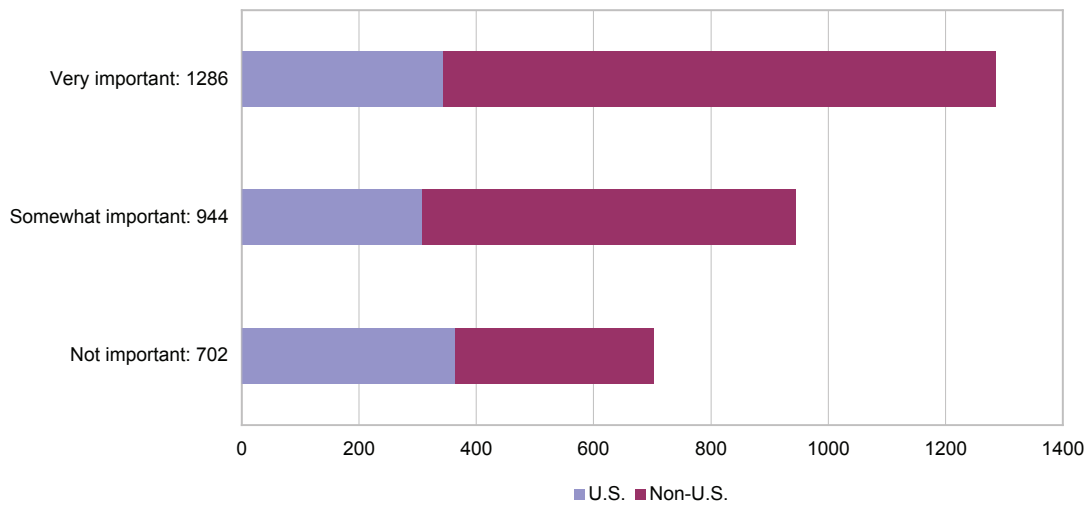


13. How important are the following features to e-books? (continued)

Ability to share notes

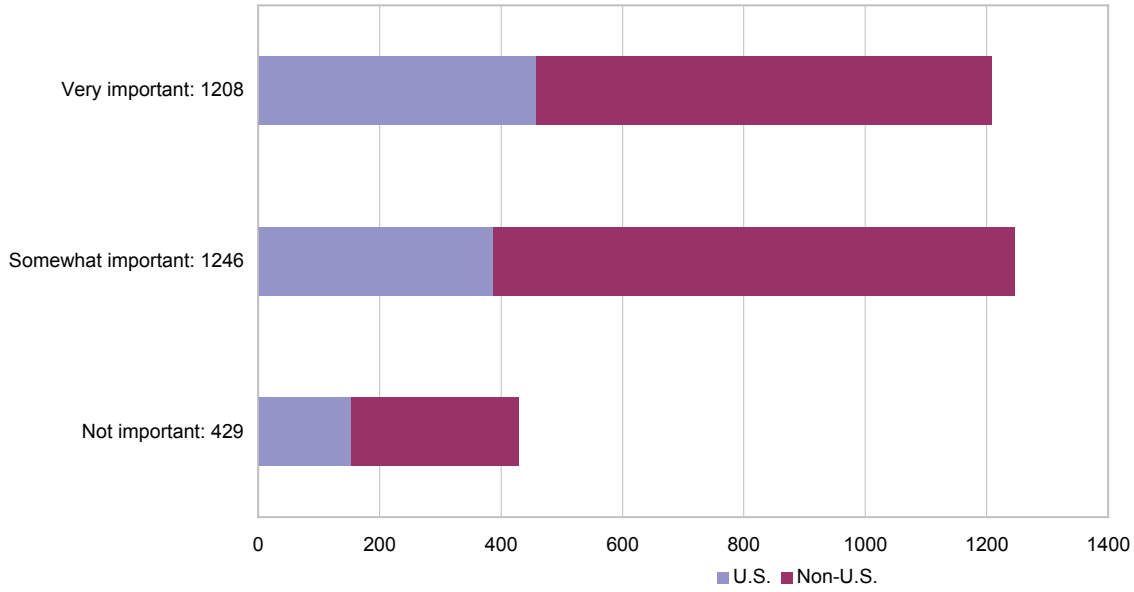


Downloading to handheld device

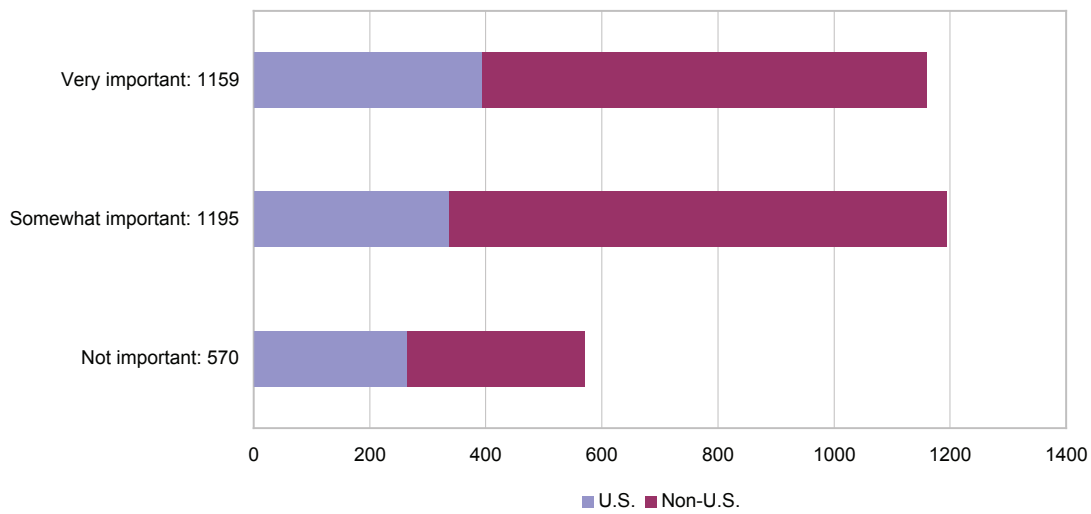


13. How important are the following features to e-books? (continued)

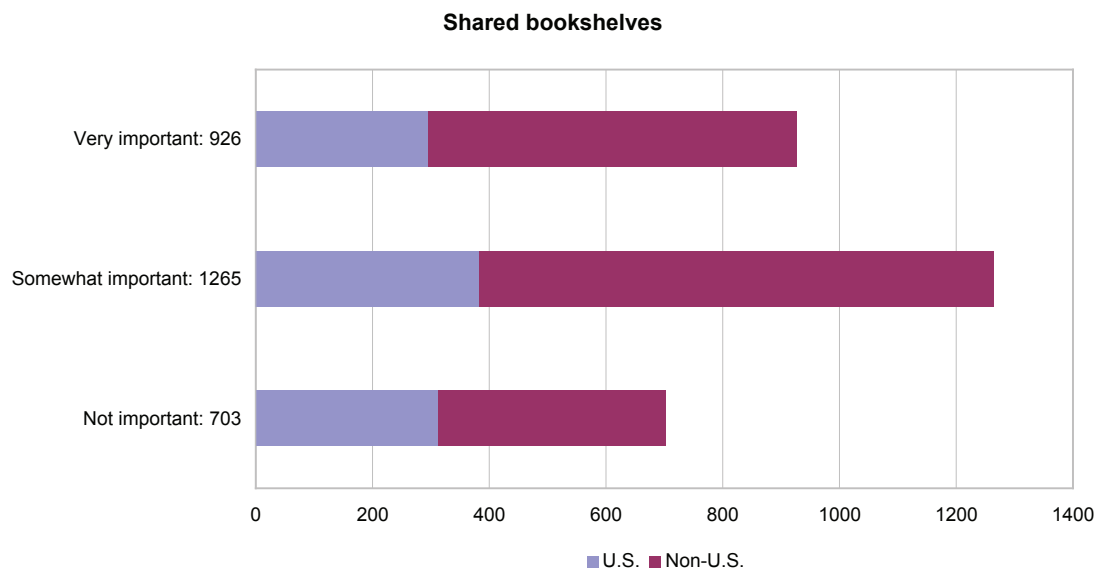
Collaborative tools



Personal bookshelves



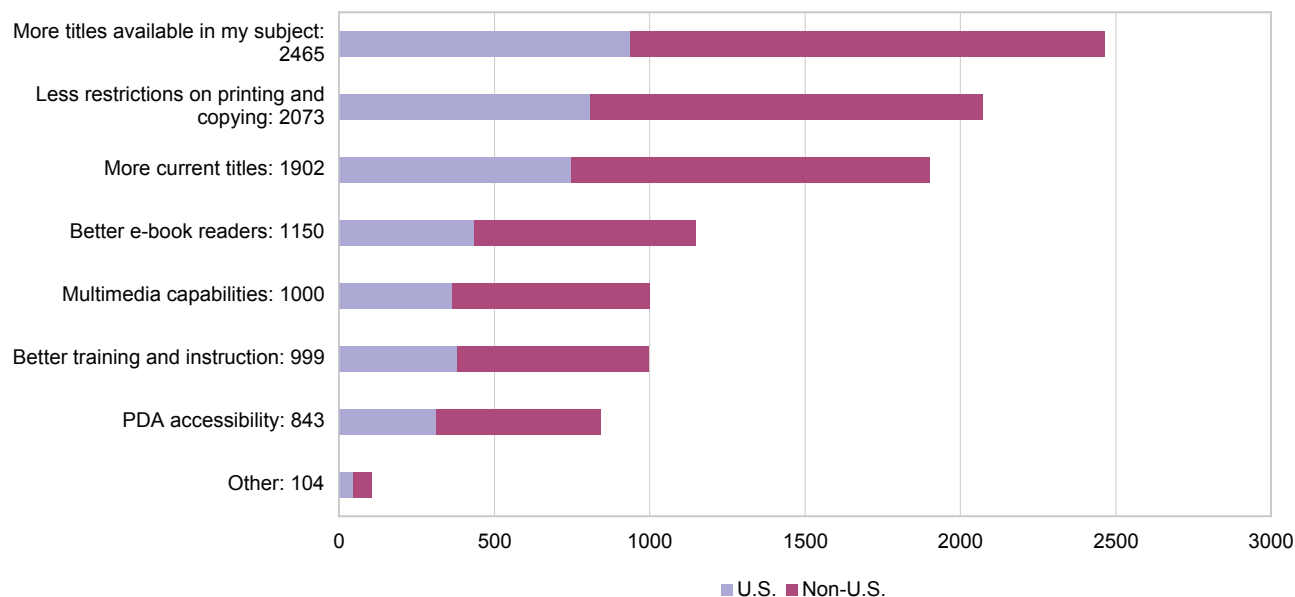
13. How important are the following features to e-books? (continued)



Total number of respondents: 3059

Respondents selected “very important,” “somewhat important,” or “not important” for each item.

14. What do you feel would make e-book usage more suitable for use in your area of study?



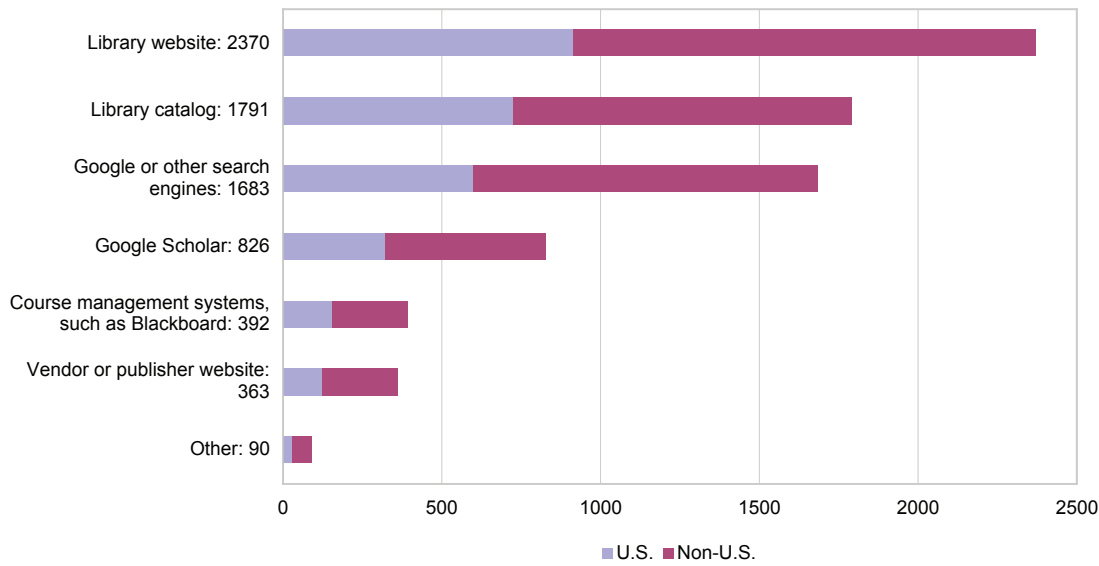
Total number of respondents: 3038

Respondents selected all items that apply.

“Other” responses to which features are important to e-books as well as what would make e-book usage more suitable included the following:

- Easy to use.
- Easy to read.
- Affordably priced or free.
- Stability and reliability.
- Available on any computer platform (Mac, Windows, Linux).
- Available in multiple formats: Microsoft Reader, MobiPocket Reader, Adobe.
- Ability to export to other formats.
- Ability to link to and search other databases and reference books.
- Smaller file size for downloaded files.
- Better quality of graphics and text display.
- No DRM.
- Full-text.

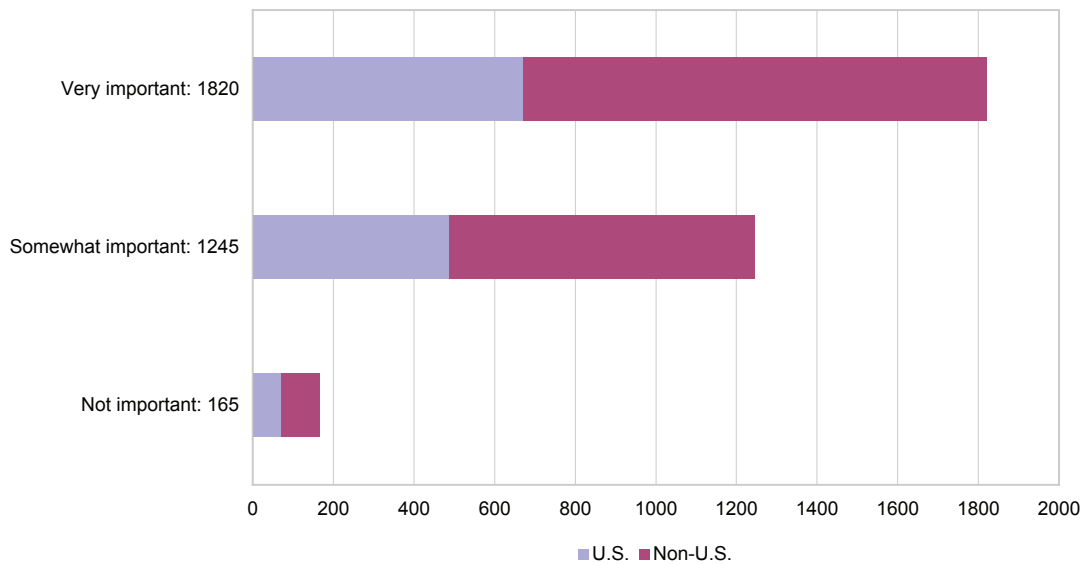
15. How do you usually find and access e-books (i.e. what is your starting point)?



Total number of respondents: 3059

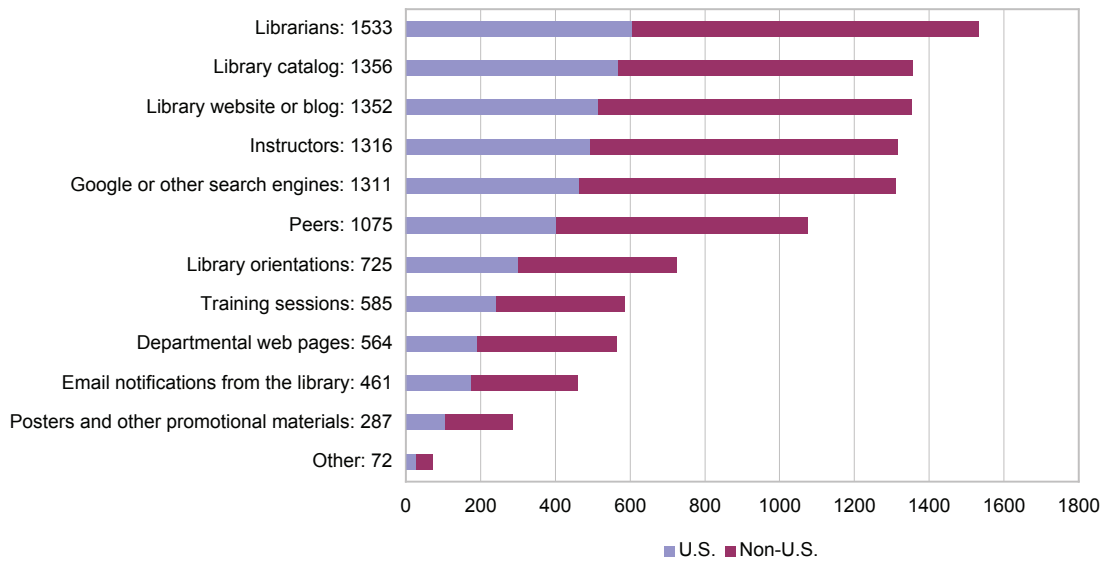
Respondents selected all items that apply.

16. How important is instruction or training in finding and using information resources to your research and learning?



Total number of respondents: 3230

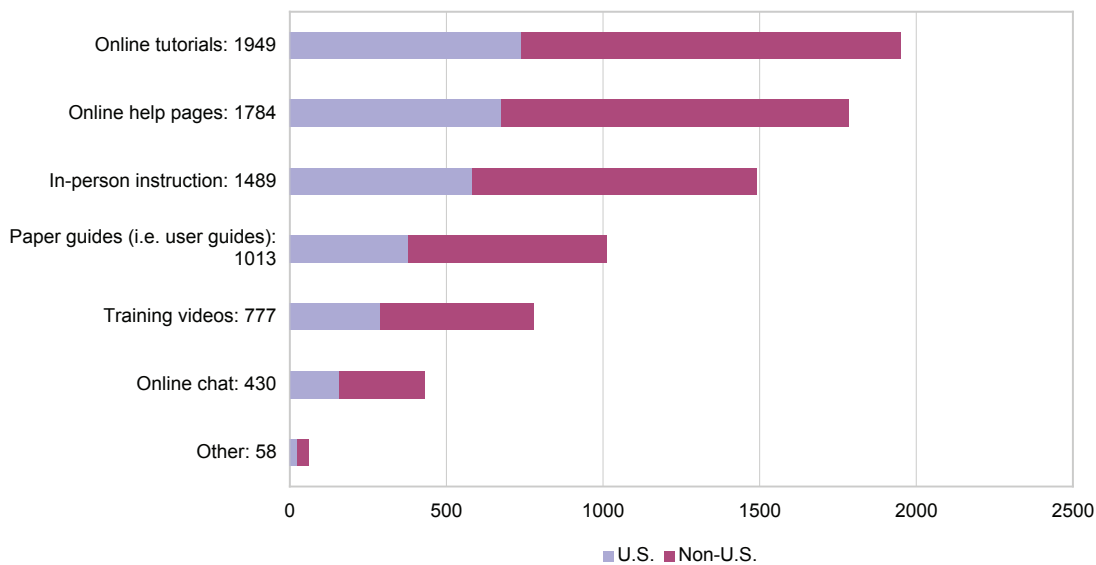
17. How did you learn about e-books?



Total number of respondents: 3058

Respondents selected all items that apply.

18. What do you think are the most effective support and training tools for learning how to find and use e-books?



Total number of respondents: 3038

Respondents selected all items that apply.

Survey Analysis

by Allen McKiel, Dean of Library and Media Services, Western Oregon University

INTRODUCTION

This article reviews the responses from the survey that ebrary concluded in May 2008 concerning student experience with information resources. The survey examines student academic and personal use of electronic and print resources, their preferences and attitudes about them, perceived strengths and weaknesses of various resources, and preferences concerning information literacy instruction.

OVERVIEW OF SURVEY RESPONDENTS

The survey includes responses from 6,492 freshmen through doctoral students from nearly 400 institutions. The respondent demographics were collected in questions 1 through 4. Tables in the results section of the survey provide a breakdown of participants by country, academic discipline, and self-reporting on awareness of electronic resources. The questions concerning the focus of the survey begin with question 5.

COMMENTARY

5. Does your library have e-books (electronic books)? (n=6492 – Number of Respondents)

Fifty-seven percent (3713) of the students acknowledged that their libraries have e-books. Nine percent (606) said that they did not. Thirty-three percent (2173) did not know. These percentages roughly reflect the numbers of e-books reported by librarians in ebrary's 2007 *Global Librarian E-book Survey* (see Table 1). Thirty-seven percent of the librarians in the survey indicated that their libraries had fewer than 1,000 e-books. Twelve percent indicated that they had none. Students generally find out about e-books through instruction or by finding them in the library catalog. The likelihood of stumbling onto e-books in the catalog with fewer than 1,000 e-books is low, since e-books would be a relatively minor part of the collection. Similarly, instruction for students from an institution with so few e-books would not address the topic of

e-books. Hence, the 33% of students surveyed that did not know if their libraries had e-books roughly matches the 37% of librarians who reported that their libraries had fewer than 1,000 e-books.

Table 1 – Responses from Students and Librarians from Respective Surveys Concerning the Numbers of E-books at Their Institutions

<i>Student Survey</i>	<i>Librarian Survey</i>
57% have e-books	63% have over 1,000 e-books
33% did not know	37% fewer than 1,000
9% do not have	12% do not have

6. How often do you use e-books that your library provides? (n=6452) 7. If never, why? (n=3125)

Nearly half of the students in this survey, 49% (3132), reported that they never use e-books. These students were automatically channeled to question 7 and did not continue with the rest of the survey. Of these students 57% (1790), indicated that they never use e-books because they did not know where to find them and 17% (526) said that their library did not offer e-books. They could not access e-books. They do not necessarily prefer not to use them. On the other hand, nearly half of the students reporting that they never used e-books, 45% (1420), indicated that they preferred print books. The particular shortcomings that they experienced concerning e-books are given some shape in the remainder of the responses. In order of the highest vote-getters they are (n=3125):

- 14% (434) too difficult to read
- 7% (230) not available in subject areas relevant to my program
- 6% (193) too difficult to access remotely
- 4% (121) too difficult to use
- 2% (53) my instructor requested I do not use e-books
- 1% (43) not reliable
- 1% (39) I do not have access to a computer and/or Internet

Since the non-e-book users did not continue with the survey, their preferences and attitudes concerning e-resource and e-books in particular will represent a diminished percentage of the results. Some of the more stalwart opposition to e-books will be less operative so I will comment here on the nature of some of the dissent that I have observed as a librarian. Lack of interest is perhaps too mild a characterization for the reaction that some students have to e-books. Many of the reactions that I have encountered have been more visceral. They reflect an intensity I did not see in the transition from journals to e-journals. The loss of print books is personal. Books are loved. E-books threaten them. I think it is important to acknowledge that for many students, faculty and librarians, perhaps most acutely for librarians, e-books threaten the loss of something approximating the loss of a personal friend. None of the reasons associated with the utility and economics of e-books, no matter how eloquently and effectively stated, will remove the sting of the portent of loss. They will instead exacerbate it. For those still in mourning or denial, acknowledgement of the grief is in order.

The exclusion of the non-e-book users from the survey is of consequence to the answers in the rest of the survey. I will comment throughout on possible implications for the results in the context of the responses to the particular questions. For individuals who have discovered the merits of e-books for research and assignments, the focus is not on the potential loss of print books but on the advantages of e-books. The remainder of this survey is more fully focused on their perceptions.

8. What types of resources are you using and for what purpose? (n=3208)

Google and other search engines received the most responses with 81% (2593) of the students indicating that they used them for research/class assignments. This I suspect is not a surprise to most faculty and librarians. The student response parallels the faculty responses in the ebrary *2007 Global Faculty E-book Survey*. Use of websites had the highest number of responses with 89% of the faculty indicating that they used the websites (edu, gov, and org) as an information resource for research and course preparation. For both the surveyed faculty and this subset of students, websites have already eclipsed journal and book collections as the most popular source of information for research.

However, e-books in this survey were in second place for students with 78% (2517) of the respondents selecting them. For this subset of students, books as a format are

important. I did not expect this for two reasons. In the ebrary *2007 Global Faculty E-book Survey*, e-books were the sixth element (56%) in the list of the resources faculty indicated that they used for academic purposes. Secondly, it violated expectations formed from library usage statistics which show e-book usage considerably behind print. From my experience with usage statistics in two university environments, I expected the student responses to correspond to a rate of about half the print book usage when their circulation is viewed relative to their percent of the collection. This survey shows e-books on a par with print book usage. Seventy-seven percent (2478) of the students indicated that they used print books. The loss of the non-e-book-user perspective explains this result. Those that were excluded from this part of the survey are representative of the students that contribute to the usage statistics that show a preference for print books.

Tables 2 and 3 below permit a comparison of the responses from students in this survey with the faculty from ebrary's earlier survey. The numbers provide a handful of inferences concerning student usage. Print books still command respect. Wikipedia has already arrived as a tool of choice just behind Google. E-reference resources like dictionaries, encyclopedias, and maps are established self-help reference. Print textbooks are not the primary focus of research or class assignments. E-journals and e-databases are underutilized by students. Faculties have moved to the Internet but e-journals and e-databases have a stronger utility to them than students. Eighty-six percent of faculty indicated that they use e-journals and 76% use databases for academic work, while only 65% and 62% respectively of this subset of students use them. Since this is the subset that has demonstrated by their use of e-books that they use online resources, the numbers may be worse for the 49% who indicated that they do not use e-books and left the survey.

Table 2 - Student academic use of information resources

- 81% (2593) Google
- 78% (2517) E-books
- 77% (2478) Print books
- 69% (2206) E-reference
- 67% (2142) Wikipedia
- 65% (2098) Print textbooks
- 65% (2080) E-journals
- 62% (1992) Databases (ProQuest, LexisNexis, JSTOR, etc.)

Table 3 - Faculty use of electronic information resources for research (from the 2007 Global Faculty E-book Survey)

- 89% (794) websites - edu, gov, org
- 86% (771) e-journals
- 76% (684) databases
- 55% (490) personal websites
- 54% (483) corporate websites
- 54% (478) e-books

9. What types of resources do you consider trustworthy (accurate and reliable) for research and class assignments? (n=3163)

Books, whether electronic or print, garnered the most votes to claim the top three slots for resource trustworthiness: print books 90% (2845) e-books 88% (2796), and print textbooks 83% (2628). E-books may not have been in the top three had all of the students who started the survey made it to this question given their unfamiliarity with them. The students that did answer this question indicated by their selections that print resources in general are more trusted. Four of the five items with the most responses were print resources (print books, textbooks, reference works, and journals). E-books were the notable exception.

It is also notable that even though students reported in question nine that they trusted print resources more, they reported in question eight that they used e-resources more. While four of the top five trusted resources are print, four of the top five resources students reported using are electronic (Google, e-books, e-reference, and wikipedia). Students will use whatever information resource most efficiently gets the assignment done within acceptable parameters for the desired grade.

Librarians and faculty may take some comfort in seeing that students indicated by wide margin that journals were trustworthy over magazines whether print or electronic (p-journal 2417; p-magazine 1543; e-journal 2378; e-magazine 1406). It is an information literacy success that students recognize the difference in rigor. The new formats are viewed as the least accurate—i.e. MySpace, personal websites, blogs, and wikis.

10. How do you determine if a source of information is trustworthy? (n=3186)

Eighty-five percent (2718) of the students selected instructor as the primary source of information trustworthiness. This makes sense given the instructor's evaluative authority for assignments. Librarians, 67% (2145), followed behind publishers, 71% (2250), in the number of students who looked to them for validation of resources. The prominent position of the publisher in responses suggests awareness of peer review processes for vetting information integrity. This may be a good sign for the effects of information literacy instruction; however, the responses from question eight that demonstrate a higher usage of Google and wikipedia than electronic or print journals, make it fairly clear that trustworthiness is not the primary determinant for student use of resources. Only 14% (454) reported that they trust information that is available via search engines like Google while 81% reported in question 9 that they used it for research or class assignments.

Only 31% (999) of the students indicated that other students were trusted for vetting the integrity of information. For 27% (853) of the students, information was trustworthy if in print format.

11. When you have the option of using either the electronic or print version of a book, how often do you opt to use the electronic version? (n=3067)

The student preferences (Table 4 below) for using an electronic or print version of a book follows nearly the same pattern of preferences the faculty expressed when asked whether they preferred working with electronic or print resources when doing research and/or class preparation. Both skew heavily toward a preference for working online. This makes sense. They are both using at least MS Word and PowerPoint. The students and faculties who prefer using electronic resources likely have research and authoring skills and tools that are computer-based for most of their work.

Table 4 – Student & Faculty Print or Electronic Usage Preferences

<i>Students</i>	<i>Faculty</i>
51% (1566) very often or often	50% electronic
32% (974) sometimes	32% does not matter
17% (527) rarely or never	18% print

For the 32% of students that prefer using e-books sometimes and the 32% of faculty for which it does not matter, there are determining factors for when electronic or print is preferable. In the faculty survey, for example, the comments included a preference for print when reading an entire work and a preference for electronic resources for searching through the text. The shift toward a preference for e-formats can be expected to continue as software and hardware tools relevant to research and authoring evolve.

If the effect of the skewed sample toward e-book-using students is considered, the responses would not show as strong a preference for e-books. The faculty responses would therefore show more of a preference for electronic resources than those of the students. This suggests to me that a greater percentage of the faculties are possessed of research and authoring skills and tools that are computer-based than students. This also seems reasonable to me. The students may possess greater web 2.0 and social networking skills but faculties are likely more seasoned in adapting technology to their research needs, are probably more skilled MS Word, Excel and PowerPoint users, and have tools for manipulating and tracking the data with which they are occupied.

12. Please indicate if the following statements are true for e-books, print books or both. (n=3051)

It is in keeping with a central concern of these times that the characteristic selected most for e-books was *environmentally friendly*, 62% (1905). Saving trees by lessening paper production is good for the ecosphere. The close runner-up was *anytime, anywhere access*, 62% (1885). *Searching*, 59% (1785), *sharing*, 56% (1703), and *storing*, 54% (1651) fill out the remainder of the top five selections of e-book qualities.

The primary virtue associated with print books is *ease of reading*, 45% (1367) with *ease of cover-to-cover reading* receiving 43% (1322) of the votes. Print is the format of choice for *note taking* and *highlighting* for 40% (1231) and 37% (1123) of the students respectively. And print collections were acknowledged for having a *wide selection of titles* by 33% (1019) of the respondents.

Below are tables listing the five characteristics with the highest scores (Table 5) and the five characteristics with the lowest scores (Table 6). I have arranged the columns associated with e-books and print books in reverse order to highlight the polarity of their strengths and weaknesses. The five highest scoring for one format are the lowest ranking for the other with the exception of the low score on *information currency* for print.

Table 5 - Five Characteristics with Highest Scores (n=3051)

<i>E-books</i>	<i>Print books</i>
62% (1905) environmentally friendly	45% (1367) easy to read
62% (1885) anytime, anywhere access	43% (1322) easy for cover-to-cover reading
59% (1785) easy to search and find info	40% (1231) ability to take notes
56% (1703) easy to share	37% (1123) ability to highlight
54% (1651) easy to store	33% (1019) wide selection of titles

Table 6 - Five Characteristics with Lowest Scores (n=3051)

<i>Print books</i>	<i>E-books</i>
7% (227) easy to share	10% (298) easy for cover-to-cover reading
8% (255) environmentally friendly	13% (393) easy to read
9% (281) easy to search and find info	14% (428) wide selection of titles
9% (283) easy to store	15% (453) ability to take notes
10% (306) information is current	28% (842) ability to highlight

Below (Table 7) I have listed the top five characteristics that were selected as associated with both print and electronic book collections. The table also includes the number of students that indicated separately that the characteristic was true for e-books or print books. Students could select that a characteristic was true for e-books, print books, or both. The variety of responses to this question accentuates the nuances of experience associated with the needs and skills of students as they meet the resource environments in the context of assignments. For example, 1332 students indicated that both e-book and print book collections from their experiences contain current information. A fairly high number of students (1021) indicated that currency was a virtue of e-book collections and 307 students indicated that it was true of book collections with which they were familiar. For 391 students, none of the collections appeared current to them or they were saying they did not know. Students have their particular experiences from which to draw conclusions. The point is that the experiences of individuals

in the context of their particular environments are variable and their responses to surveys like these will shift as their experiences and information environments change. Librarians affect both of these variables through collection development and instruction.

Table 7 - Five Characteristics Associated with Both*

Quality	Both	E-books	Print books	No selection
Clear graphics and images	50%, 1519	845	409	278
Easy to use	47%, 1443	882	595	131
Easy to print or photocopy	46%, 1408	973	476	194
Easy to cite	45%, 1382	922	459	288
Information is current	44%, 1332	1021	307	391

* 3051 students responded to question 12

13. How important are the following features to e-books? (n=3039)

The top five features in order of the number of responses are: *searching* 87% (2647), *anytime access* 86% (2626), *off-campus access* 82% (2481), *multiple user access* which assures availability 81% (2462), and the *ability to download to a laptop* 80% (2438). Searching and access are advantages of e-books and, as these responses demonstrate, they are well known. The ability to download to a laptop, however, is not a common feature and brings up what I believe will become an increasingly important aspect of information usage—the tools for organizing, analyzing, authoring, and sharing information. E-books are a source of information used for research and assignments. Students, like faculty, are doing something with the information. They are writing papers and preparing reports and presentations. The primary tools at the moment for authoring are MS Word and PowerPoint. A richer visual and audible environment is evolving on the Internet with a proliferating variety of formats. Along with this variety is an ever expanding volume of information. Students and faculty will need ways of organizing, analyzing, authoring, and sharing information that is relevant to their interests and endeavors in their academic and personal lives. Facebook and MySpace are examples of web tools that permit the organization of

information that can be shared. They are a shadow of the applications on the horizon. The progression to a more web centered living and working environment continues with a herky-jerky inevitability as vendors announce their latest Internet appliances. Students may want a device that lets them read information resources with the same portability that is available in a book or magazine. However, when they are creatively interacting with the information, they will want functionality more in keeping with a laptop or desktop.

14. What do you feel would make e-book usage more suitable for use in your area of study? (n=3038)

The responses to this question fit into two categories. Those that respond to the ways of improving use of e-books in a subject area (i.e. more titles) and those that respond to improving e-book functionality (i.e. fewer printing restrictions). *More titles available in my subject* received the highest number of hits 81% (2465) and *more current titles* received the third highest number of responses 63% (1902). The high level of concern for adding titles may have more to do with how these responses most clearly answer the question of how to improve the subject area, which is the main focus of the question. It may not be the first choice for how to develop e-book functional usability, which is what most of the available answers address. If the question had more directly asked what would make e-book usage better, the responses would likely have been higher for the answers that address functionality.

The top choice for functionality concerned fewer restrictions on printing and copying 68% (2073). Most librarians are familiar with this issue as a complaint from students and faculty when they encounter the vendor/publisher imposed limitations in their use of e-books. These restrictions may prevent some copyright violations; however, they are also responsible for some of the most severe feelings about the usability of e-books. Given the eventuality of e-books eclipsing print distribution as the preferred access model in the future, this may be a short-sighted market strategy.

Better e-book readers garnered more votes than I expected. They picked up 38% (1150). They are still, however, not hot items for students, who generally need to do something with the information—i.e. write a paper. Hence, having the e-book on a laptop is more helpful than on an e-book reader. For 80% of the student responses in question 13, downloading to a laptop was important. Most students have not experienced an e-book reader and probably have not thought much about the implications of having it become a better experience.

As portable Internet devices become more suitable for reading and interacting with digital objects, the functional differences between a laptop and an e-book reader will lessen. Apple pushed past the limitations of cell phones by turning them into computers. The iPhone runs on OSX. It can potentially do whatever a laptop can do depending on how the application hardware and software develop. Google and T-Mobile along with about 40 other companies cooperated on the development of Android, an open source, Linux-based operating system designed to stimulate ongoing development of portable cellular/Internet phone/computers. Google, Intel, Time Warner and a few other companies have contributed an additional US\$3.2 billion to the efforts of Sprint and Clearwire to implement WiMax, one of the technologies intended to provide the bandwidth needed for the merger of cellular and Internet technologies. The expanded bandwidth and portable devices are meant to have us constantly tethered to and interacting with the Internet. A plethora of mobile Internet devices suitable for reading e-books, e-journals, e-magazines, and e-newspapers; finding, viewing, and interacting with Internet content; as well as chatting, gaming, or emailing are on the way. Concerns for hardware and software functionality will become more central issues to e-book distribution as will the desire for access to expanded content.

15. How do you usually find and access e-books (i.e. what is your starting point)? (n=3059)

Seventy-seven percent (2370) say they usually access e-books through the library website. Fifty-nine percent (1791) regularly find them through the library catalog. Google is nearly as likely a method for finding e-books in this study sample as the catalog with 55% (1683) confirming the experience. Only 12% (363) indicated starting at the vendor website. However, students use the vendor websites more than this indicates. Students go to the library website to use the link to the e-book websites, which have largely been vendor websites. Even when students initiate a search through the library catalog, they generally end up at the vendor web site. Students use the vendor interfaces because they are easier and more effective for searching. In the responses to question 12 concerning the characteristics of books and e-books, e-books received 1785 votes for ease of searching and finding while print books only received 281 votes. The students may have started at the catalog but they likely continue their search with the vendor interface once they get to an e-book.

16. How important is instruction or training in finding and using information resources to your research and learning? (n=3230)

While most students who answered this question recognized that instruction is helpful, a smaller percentage of students in this survey acknowledge it than faculty in the 2007 *Global Faculty E-book Survey* (Table 8 below). The student breakdown was 56% (1820) selecting *very important*, 39% (1245) *somewhat important*, 5% (165) *not important*. In the faculty survey, the responses were 85% *very important*, 14% *somewhat important*, and 1% *not important*. Keep in mind that the group of student respondents who reached this question had a higher percentage of students who were familiar with e-books than the group that started the survey. The 3132 students, who left the survey after question seven, did not use e-books. The primary reason given for not using e-books (57%) was that they could not find them. If this group had stayed in the survey, they may have been more likely to recognize the need for instruction and therefore may have moved the responses more toward the faculty percentages.

Table 8 – Student & Faculty Print Perceptions of the Importance of Instruction

<i>Students</i>	<i>Faculty</i>
56% very important	85% very important
39% somewhat important	14% somewhat important
5% not important	1% not important

17. How did you learn about e-books? (n=3058)

Librarians were most often selected as the individuals who introduced students to e-books, 50% (1533). The catalog, 44% (1356), the library website, 44% (1352), instructors 43% (1316), and Google, 43% (1311), showed up in close proximity as the second, third, fourth, and fifth selections.

Comprehensive instruction in the effective discovery and utilization of e-books in the variety of collections provided by publishers and aggregators as well as through open source collections would increase student use and satisfaction with e-books. Over half of the students that started the survey did not make it to this question. They, for the most part, did not get introduced to e-books. This is clear from the student responses to questions 5, 6, and 7. Thirty-three percent of the students indicated in question 5 that they did not know

if their library had e-books. Over one quarter of the students (28%) who answered in question 6 that they had never used e-books answered in question 7 that the reason was that they did not know where to find them.

These students as well as those who know something about e-books would benefit from instruction concerning e-books. Instruction could cover an overview of the collections available including collections like Open Library, an introduction to the various interfaces to collections, an explanation of some of the nuances of publisher restrictions to viewing, printing, and copying, perhaps a note about the significance of the OCLC/Google agreement, and an explanation of the extent to which the local library catalog includes e-book citations.

The transition to e-books has been more difficult for many students and faculty than the adoption of e-journals. Below (Table 9) is a sketch of some of the experiential differences that I have observed from comments of students and faculty over the years. Instruction would assist in ameliorating some of these barriers to effective use of e-books.

Table 9 – Observations of E-journal and E-book Experiences

<i>E-journals</i>	<i>E-books</i>
Replaces arduous and frustrating search through paper indexes and through the stacks with easier keyword, online access.	Replaces a well understood online catalog search and relatively easy shelf access.
Nearly everybody was introduced through instruction efforts.	Users ‘come upon’ the vendor interfaces through the online catalog. Some are in the last minutes of getting a paper completed and the digression into learning the interface is most unwelcome.
Provides immediate access to material available for copy paste.	Replaces a comfortable, portable book with interfaces that have ‘unreasonable’ restrictions for viewing, printing, and copying.
In smaller to medium sized libraries, the e-journal collections quickly surpassed the utility of journal collections for undergraduate research needs.	The e-book collections are generally dwarfed by the print book collections.

18. What do you think are the most effective support and training tools for learning how to find and use e-books? (n=3038)

Higher numbers of students in this survey and faculty in theirs ranked online tutorials as the best tools for instruction. Online tutorials without assessment received the highest number of responses (58%) from the faculty in the *2007 Global Faculty E-book Survey* as the preferred method of information literacy instruction. Sixty-four percent of the students (1949) selected online tutorials as the most effective support and training tool for learning how to find and use e-books. Fifty-nine percent (1784) selected online help pages. In-person instruction came in third with 49% (1489).

The independence and convenience afforded to students by online resources are likely responsible for a portion of the preference for online tutorials over in-person instruction. Tutorials can be accessed anytime from anywhere. They provide just in time learning resources that accommodate immediate need. For instructors they provide the least intrusive means for providing instruction that some consider tangential to course content. For librarians tutorials extend instruction beyond the limitations of staff resources for traditional instruction. For vendors the use of tutorials and online help promotes their products by making them more usable. The vendors thereby also assist librarians in responding to their growing commitment to information literacy instruction.

The strong showing for in-person instruction means that it should not be discounted even though there are compelling reasons for librarians to use tutorials. Nearly an equal number of the survey participants prefer the presence of an instructor for learning. Providing a mixture of traditional and online instruction within institutional resource limitations requires balancing the need for comprehensive instruction with the desire to accommodate learning styles and preferences.

CONCLUDING SUMMARY

Additional perspective on the student responses in this survey emerge from comparisons with the *2007 Global Faculty E-book Survey*. For both the surveyed faculty and this subset of students, websites have already eclipsed journal and book collections as the most popular source of information for academic work. When asked what they use for research/class assignments, *Google and other search engines* received the top number of hits with 81% of the students indicating that they used them for research/class assignments. *Websites (edu, gov, and org)* received the most responses (89%) in the *2007 Global Faculty E-book Survey* as a resource used for research and course preparation.

Books, print or electronic, are holding their own as a preferred resource. E-books were in second place as a resource used for research/class assignments with 78% of the students selecting them. Print books followed closely at 77% (2478/3208). It is noteworthy that e-books are just behind Google as an important format for students. It is a hint of evidence suggesting that the format may endure in the context of the Internet. In ebrary's *2007 Global Faculty E-book Survey*, e-books were the sixth element (53%) in the list of the electronic resources that faculty indicated they used for research and course preparation. Seventy-nine percent (658/829) of the faculty reported that print books were preferable for reading the entire work.

Student and faculty usage diverged slightly over the use of e-journals. They placed second in the faculty survey with 86% of the faculty selecting them. Only 65% of the students indicated that they used them for research/class assignments. Faculties are moving to the Internet but the traditional format of the journal organized in the context of the Internet appears to have a stronger utility for them than students.

Other inferences appeared in the student data. Wikipedia scored just behind Google as a tool of choice for assignments. E-reference resources like online dictionaries, encyclopedias, and maps are firmly established tools. Textbooks are fading as a central course resource. Both students and faculty skew toward a preference for working online. And both students and faculty view instruction in information literacy as important. Fifty-six percent of students selected very important while 85% of the faculty indicated that it was very important.

Surveys of this nature are not precise reflections of the current reality of usage and preferences of information resources. They are sketches of the experiences and attitudes of subsets of academic information users from diverse information environments. Survey results are best utilized when placed within the context of the rapidly changing information sphere that has to this point and will in the future shape experiences and attitudes. Certainly the vendors and publishers of information resources and tools will be looking toward the changes in information and communication infrastructure technology as they sift through the results of this survey. Librarians will have an eye focused on a growing range of devices and tools for interacting with Internet-based information and their interoperability with a variety of digital object formats as they address collection development and information literacy instruction for students and faculties of their respective academic environments.

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