

A red square graphic with a white border, containing white text. The text is centered and reads "User Experience Literature Review" in a large, bold, sans-serif font, and "Updates" in a smaller, bold, serif font below it.

**User
Experience
Literature
Review**

Updates

Original Literature Review & Findings

Scope of UX Research Team

- Initial charge
 - Investigate how variations in platform and UX are (or are not) accounted for in studies of user satisfaction with eBooks in academic libraries
- So far, the team has:
 - Completed and presented literature review (Charleston 2015)
 - Recruited team members
 - Researched and presented on accessibility issues (Charleston 2016)
 - Carried out user studies with specific platforms.

Literature Review Search Process

Retrieved 373 citations from
LISTA, LISA, and combing
bibliographies of seminal
articles

Search terms:

- SU: electronic books
AND academic libraries
(2416 results)
- e-books AND academic
libraries (1977 results)

Initial coded items in 146 articles

- Platforms/publishers
- DRM types addressed
- User group studied
- Type of study conducted
- Content notes for further consideration
- Larger conclusions about UX
- Researches satisfaction

Findings: 99 articles with clear assertion of “satisfaction”

Variations in methodology

Variations in motivation and purpose of research

- “Pure” research
- Research in practice
- Librarians, faculty, and publishers

Variations in how to determine satisfaction

- Usage data
- Surveys & focus groups

Formats, Features, & Restrictions

- Categories:
 - access, accessibility, compatibility, interactivity, systems, displays
- Favoring some features over others can hinder a user's experience
 - Page size: tablet vs. desktop computer
 - Annotations
 - Per word vs. per page vs. no annotations
- Feature = Restriction when a feature doesn't work
 - Exporting Annotations

Findings: Solutions for UX

JISC (2009)

- “(DRM) systems should either be removed or developed in line with actual user behaviour” (p. 44)
- Called for “improved user experience or functionality [that is] explicitly linked to desired outcomes” (p. 105)
- Recommended “adaptive personalisation” (p. 105)

Cassidy, Martinez, & Shen (2012)

- Recommended “as many options as possible” (p. 330)

Two sets of recommendations

1. For replicating or designing studies of eBook UX and satisfaction (Charleston 2015)
 2. For responding to and assisting users with current collections (Charleston 2016)
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Recommendations for replicating or designing studies of eBook UX and satisfaction

- Clearly identify the platforms studied (even in survey questions)
- Identify the current eBook format
- Consider usage and accessibility separately
- Consider observing users' actual behaviors
 - Their “user-centered research [was] aimed to understand not only the characteristics of behavior but also why users behave in certain ways” (Muir, Veale, & Nichol, 2009, p. 93). They used session recordings, quantitative data (such as mouse clicks and task time) and semi-structured follow-up interviews.

Note: The research team has used these guidelines to conduct our own studies and to make recommendations for change. See User Experience: User Study Panel Discussion (next session)

Recommendations for responding to and assisting users with current collections

Inspired by...

Mullarkey (2007)

- Shows that most libraries do not consider UX when subscribing/purchasing
- Most important when subscribing or purchasing is the access model (all others are price/collection related) (p. 224-5)

Michaud (2013)

- “available electronically” does not mean “accessible” (p. 24)
 - Requested tagged PDFs from publishers
 - Full-text downloading restrictions

Many users with physical disabilities have difficulty using eBooks such as those that...

- Are difficult to find or require many clicks to navigate or open
- Are scanned or untagged PDFs
- Present static, non-reflowable text
- Require proprietary, inaccessible reading platforms
- Present individual chapters for download without an option for the full text in a single file
- And more

Recommendations:

Top recommendation: acquire only accessible eBooks

Until that can happen, provide techniques for librarians to respond to and assist users who cannot use the texts they wish.

- Coordinate with Disabilities Services (DS)
- Technology Aids
 - DS hires temporary technology help.
 - The library can train all workers and have tech assistance on demand.
- Report difficulties
 - Making publishers and platform developers aware of these difficulties can create change.
- Professional development and in-house workshops for accessibility training

Goal: Working toward making more informed decisions about collection development practices that will benefit all.

Literature Review work after June 2015

Literature Review Update

Search Process

In EBSCO Discovery Services

Using Search Parameters:

- (ebooks OR e-books) AND academic libraries (71k)

In Databases: (10,833)

- Library, Information Science & Technology Abstracts with Full Text
- Library Literature & Information Science Full Text (H.W. Wilson)

Limit to June 2015- (1,415)

Limit to Academic Journals (517)

23 articles found to address satisfaction or examines preference for ebooks versus print

Themes

Primary Lens Remains Collection Development

- Most studies are designed with the intention of informing collection development decision-making
- Comparison of print to electronic very common
- DDA/PDA frequently discussed
- Surveys were the primary method of study
- Usage data and interviews used more sparingly

Themes

Print v. E-books: Preference analysis

- Usage - many articles have compared usage data and made judgements based on those; others use surveys to study preferences, some do both
- One enigma that has been noted is that based on usage data, one might conclude that e-books are more popular; but most surveys indicate that users express a preference for print
- Often suggested that users' academic discipline is a factor in print v. e preference (scientists favor e-books; humanists favor print)
- Also it has been frequently suggested that users prefer e-books for quick reference and print for in-depth reading

Themes

Print v. E: preference analysis

Most earlier studies that compared usage of electronic versus print books found that users selected e-books more often than print books when both were available. However, in many studies, more users responded that they preferred print books to e-books. This point is discussed in the introduction to this book:

Ward, S. M. & Freeman, R. S. & Nixon, J. M.(2015). E-Books in Academic Libraries: Stepping up to the Challenge. West Lafayette: Purdue University Press ([Introduction](#) discusses earlier studies that noted this anomaly)

For example, the JISC (2008) study found that 49% of those surveyed preferred print books, while 34% preferred e-books. A more recent study “2012 Ebook Usage in U.S. Academic Libraries” (2012), found that in 2010, 40% of those surveyed said they preferred print; in 2012, 50% stated preference for print.

Themes

Print v. E: preference analysis - Humanities Scholars

Chrzastowski, T. t., & Wiley, L. I. (2015). E-book Use and Value in the Humanities. *Library Resources & Technical Services*, 59(4), 172-186.

Study related to DDA program; Ebrary titles; data gathered 11-2012 to 04-2013. Participants were 73% grad students, 18% percent, 8% others (visiting scholar, etc.)

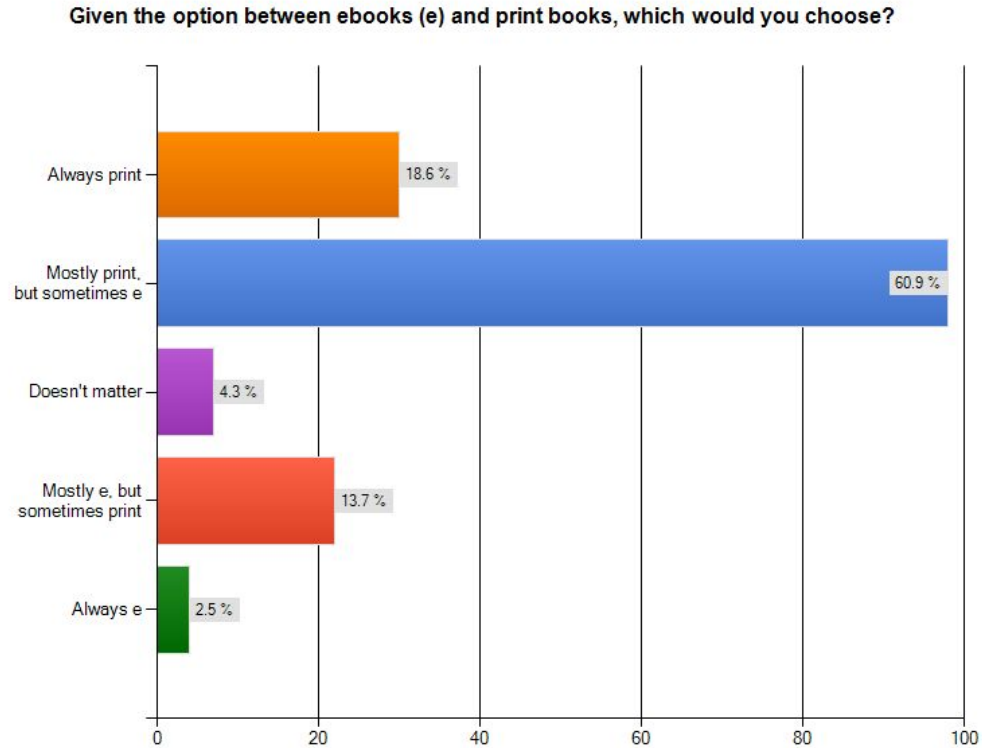
Survey found users state a preference for print, but DDA data show higher use of E when both formats are available

In his 2006 study of humanists' e-book use at the University of Denver, Levine-Clark concluded from his data that humanists "only use the electronic version as a backup when print is not available." This study does not point to that conclusion for UIUC.

"This research suggests that a shift may be happening with humanities e-books."

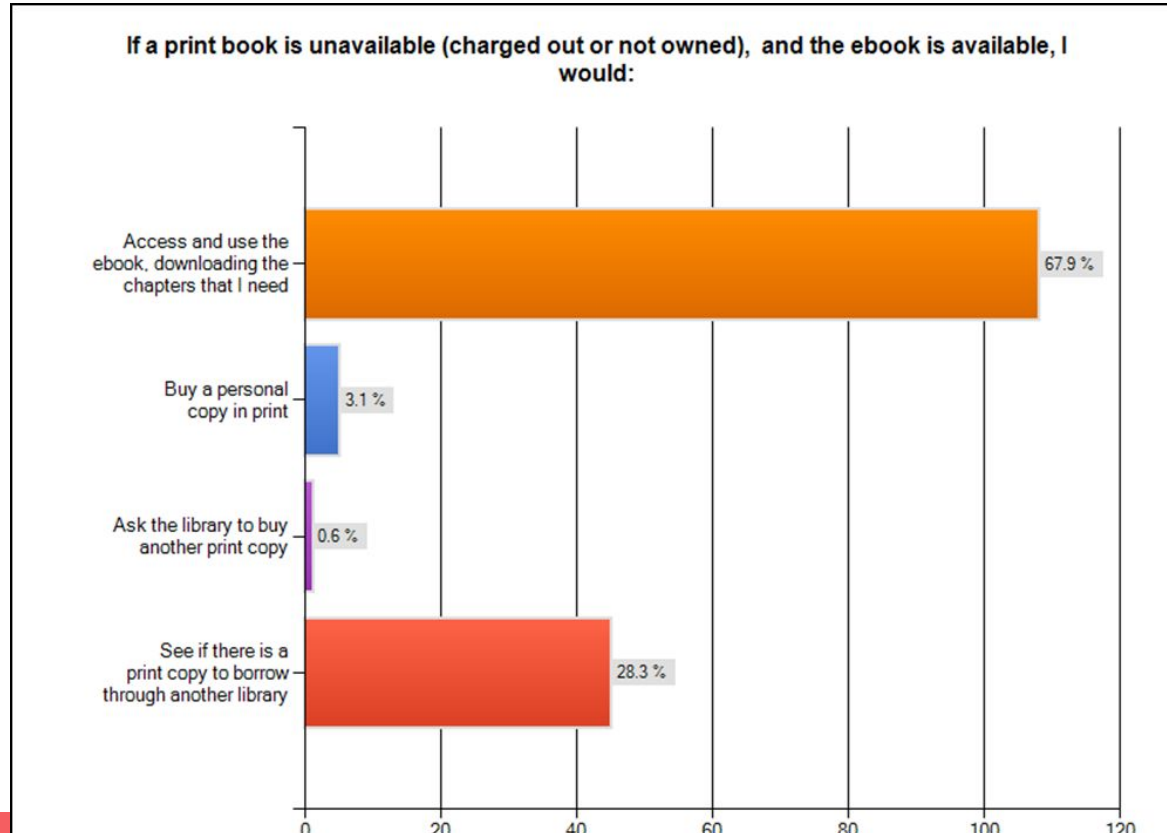
Themes

Survey responses:



Themes

Survey responses:



Themes

One recent study described the development of a method of comparing user's preferences

Knowlton, S. s. (2016). A Two-Step Model for Assessing Relative Interest in E-books Compared to Print. *College & Research Libraries*, 77(1), 20-33

Combines Use/Nonuse, Percentage of Expected Use (PEU) measures, relative holdings in print or ebook

Overall, patrons prefer print, but there are differences between disciplines - some of which are surprising

E-books are preferred by users in social scientists and humanists; print by users in mathematics, engineering and education

Continuing Shortage of Usability Assessment

Only one study was found that observed users interacting with ebooks

Hobbs, K., & Klare, D. (2016). Are we there yet?: A longitudinal look at e-books through students' eyes. *Journal Of Electronic Resources Librarianship*, 28(1), 9-24. doi:10.1080/1941126X.2016.1130451

This study combined interviews, surveys and user testing. For the user testing portion, they were provided with two research scenarios that would require them to use a preselected e-book title associated with each research question, and asked to think aloud.

7 students were observed each year for four years. Screen activity and audio was recorded. The platforms observed were MyiLibrary and ebrary.

Continuing Shortage of Usability Assessment

Survey/Interview Findings:

- More students using e-books for research
- Sources are links provided by professors, Google or Amazon searches, Project Gutenberg and Pirate Bay
- Most important functions are:
 - Downloading to pdf
 - Able to read offline
 - Able to print

Continuing Shortage of Usability Assessment

Usability Findings:

- students often went first to the tables of contents, looking for meaningful words in chapter headings or brief annotations of chapters
- If students identified a specific chapter, they went to that chapter to further skim
- students also often would skim the preface or introduction of the e-books
- Some, but not many, would look for a search function; most had to be prompted to search
- Few used index
- No clear favorite between the two platforms

Continuing Shortage of Usability Assessment

Specific problem areas included:

- page navigation (clicking page to page)
- non-intuitive icons; “Icons are incomprehensible”
- Difficulty finding a search box
- Confusing search results
- Problems with cut & paste
- Forced to log in to use annotation features

Conclusions

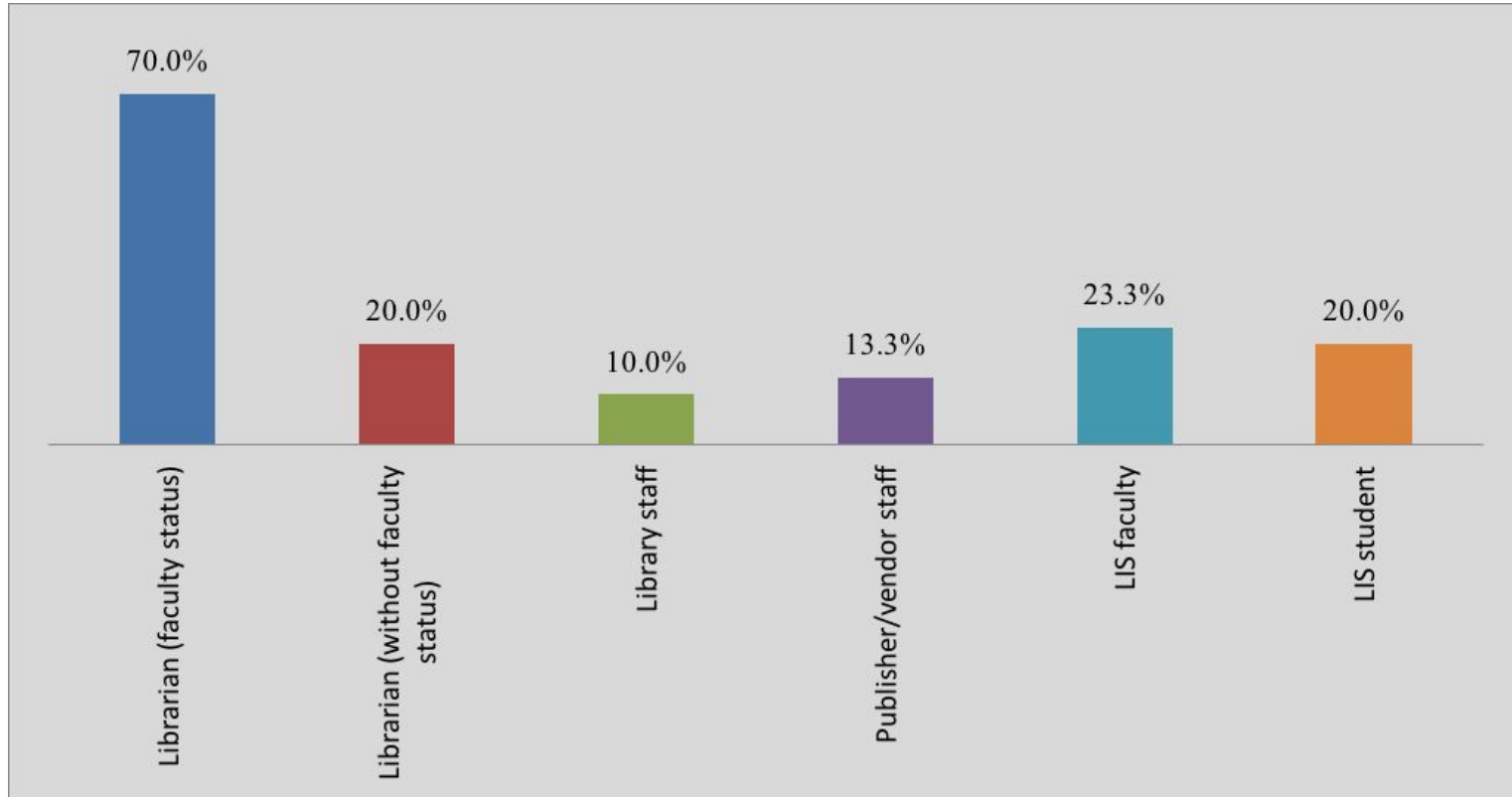
Print / E preferences still under active study

Scientist/Humanist divide under scrutiny; some evidence of growing acceptance of e-books across disciplines, particularly Humanities

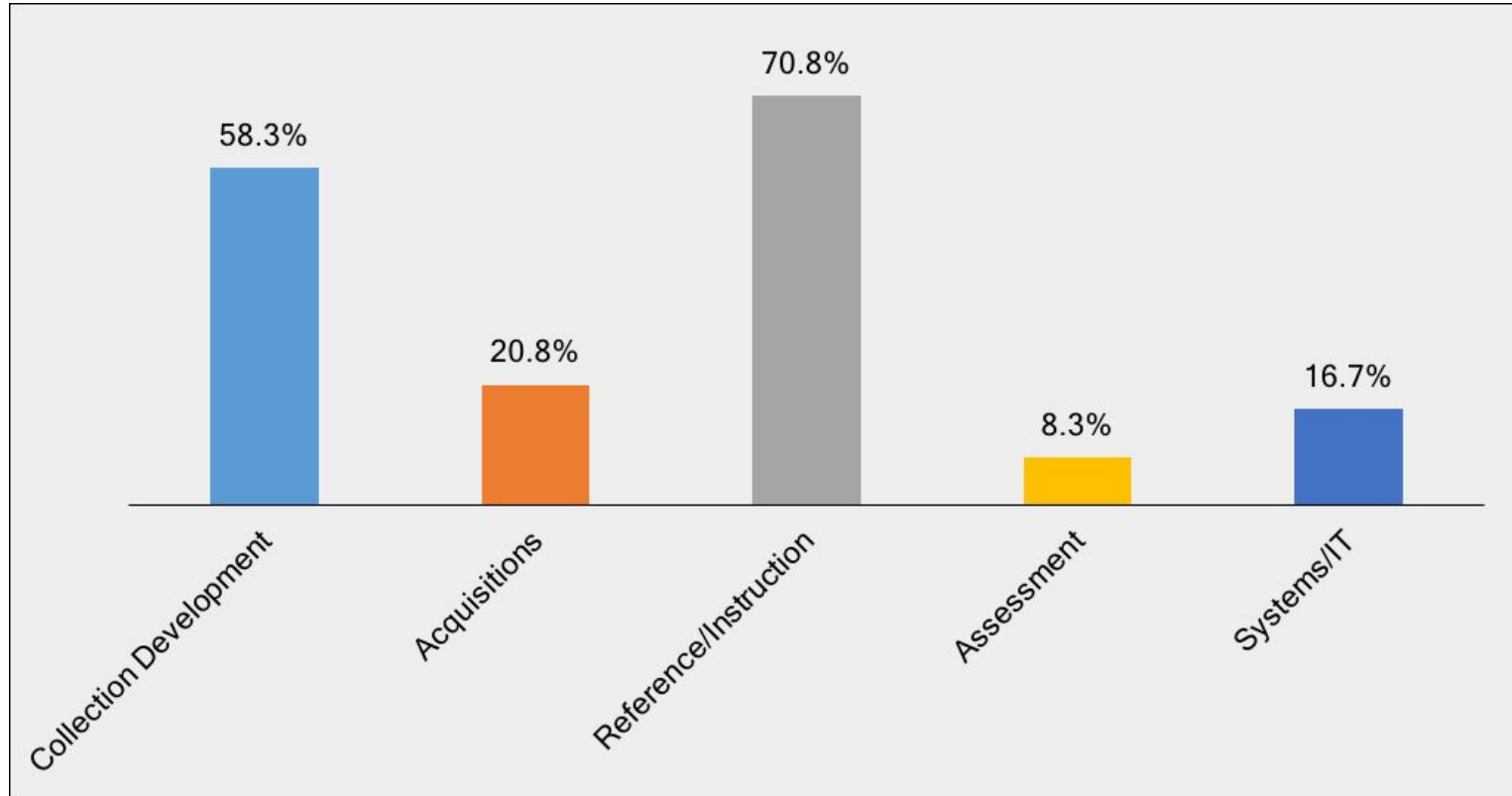
Still lack of usability assessment studies

Survey of Original Authors

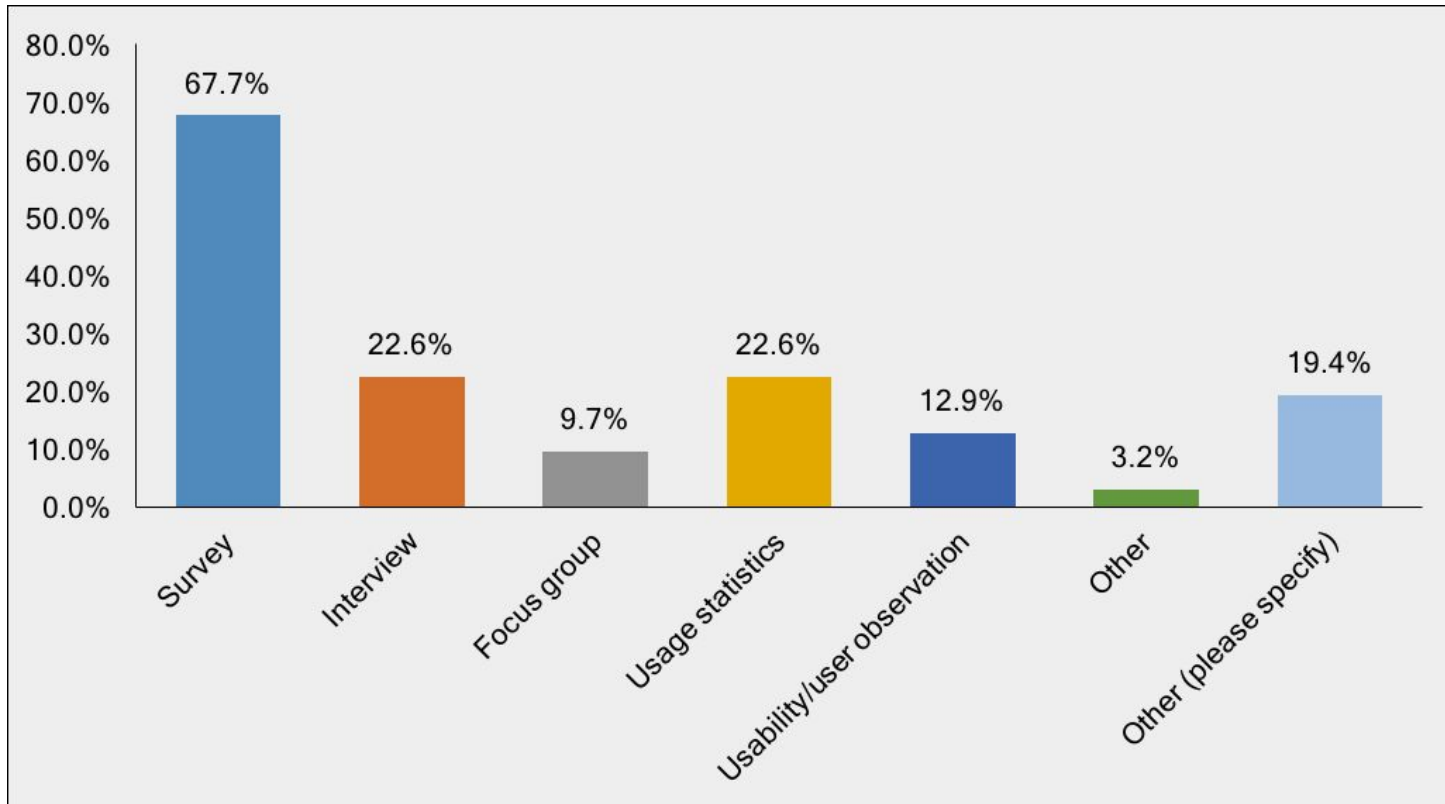
Who did the research?



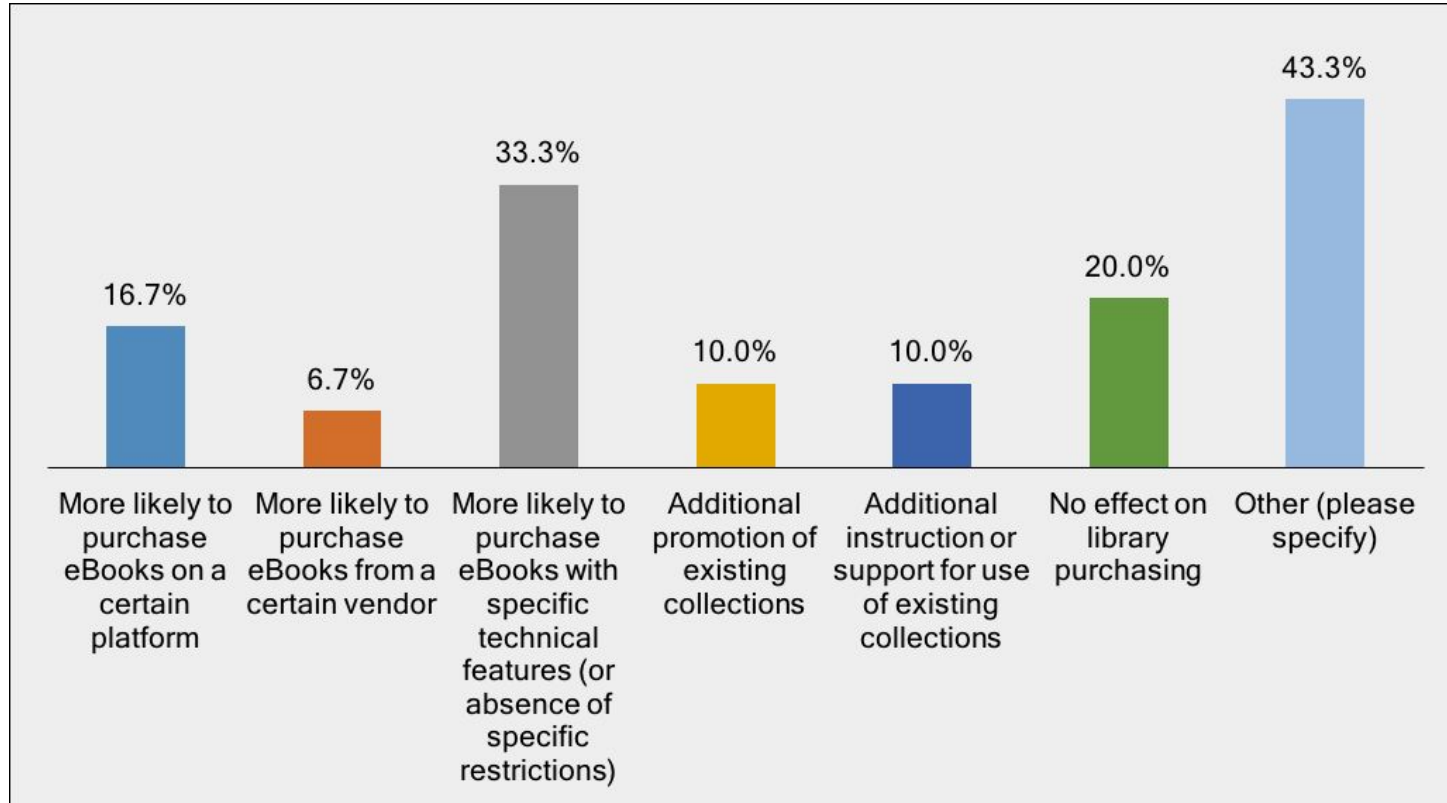
What type of librarian?



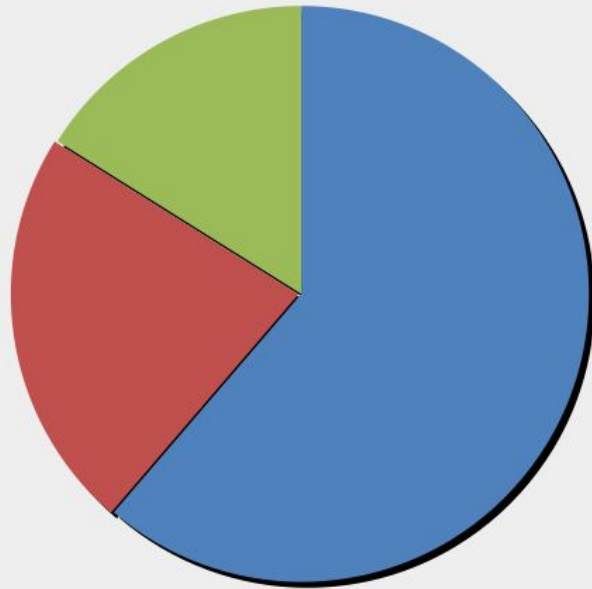
What methodology or techniques used?



What effect on practice?

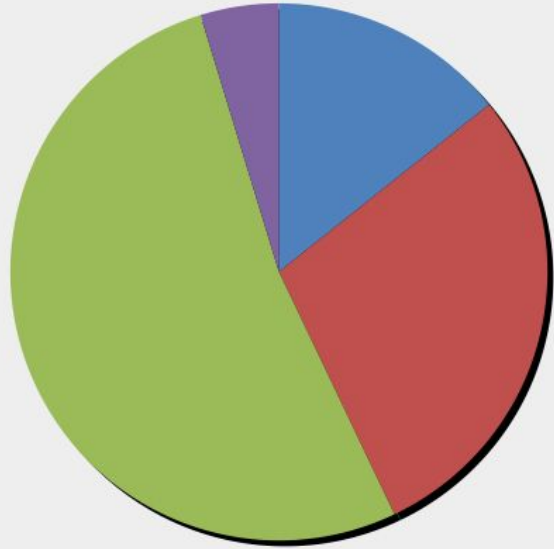


What was your primary purpose?



- Research and publication
- Library decision-making
- Other (please specify)

What matters most in selecting eBooks?



- Availability of special features
- Absence of restrictions on use
- Content available
- Price of content

Continuing conversations

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