Evidence Summary

**Longitudinal Analysis of Undergraduate E-book Use Finds that Knowledge of Local Communities Drives Format Selection and Collection Development Activities**

**A Review of:**

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**Abstract**

**Objective** – To determine undergraduate students’ opinions of, use of, and facility with e-books.

**Design** – A qualitative study that incorporated annual interview and usability sessions over a period of four years. The protocol was informed by interview techniques used in prior studies at Wesleyan University. To supplement the body of qualitative data, the 2014 Measuring Information Service Outcomes (MISO) survey was distributed; the researchers built five campus-specific e-book questions into the survey.

**Setting** – A small university in the Northeastern United States of America.

**Subjects** – 28 undergraduate students (7 per year) who attended summer session between the years of 2011-2014 recruited for interview and usability sessions; 700 full-time undergraduate students recruited for the 2014 MISO survey.

**Methods** – The method was designed by a library consortium in the Northeastern United States of America. The study itself was conducted by two librarians based at the single university. To recruit students for interview and usability sessions, librarians sent invitations via email to a random list of students enrolled in the university’s summer sessions. Recruitment for the 2014 MISO survey was also conducted via email; the survey was sent to a stratified, random sample of undergraduate students in February 2014.
Interview sessions were structured around five open-ended questions that examined students’ familiarity with e-books and whether the format supports academic work. These sessions were followed by the students’ evaluation of specific book titles available on MyiLibrary and ebrary, platforms accessible to all libraries in the CTW Consortium. Participants were asked to locate e-books on given topics, answer two research questions using preselected e-books, explain their research process using the above mentioned platforms, and comment on the overall usability experience. Instead of taking notes during interview and usability sessions, the researchers recorded interviews and captured screen activity. Following sessions, they watched recordings, took notes independently, and compared notes to ensure salient points were captured.

Due to concerns that a small pool of interview and usability candidates might not capture the overall attitude of students towards e-books, the researchers distributed the 2014 MISO survey between the third and fourth interview years. Five additional campus-specific e-book questions were included. The final response rate was 33%.

**Main Results** – The results of the interviews, usability studies, and MISO survey suggest that although students use print and electronic formats for complementary functions, 86% would still select print if they had to choose between the formats. Findings indicate that e-books promote discovery and convenient access to information, but print supports established and successful study habits, such as adding sticky notes to pages or creating annotations in margins. With that being said, most students do not attempt to locate one specific format over another. Rather, their two central concerns are that content is relevant to search terms and the full-text is readily available.

Study findings also suggest that students approach content through the lens of a particular assignment. Regardless of format, they want to get in, locate specific information, and move on to the next source. Also, students want all sources – regardless of format – readily at hand and arranged in personal organization systems. PDF files were the preferred electronic format because they best support this research behaviour; content can be arranged in filing systems on personal devices or printed when necessary. Because of these research habits, digital rights management ( DRM) restrictions created extreme frustration and were said to impede work. In some cases, students created workarounds for the purpose of accessing information in a usable form. This included visiting file sharing sites like Pirate Bay in order to locate DRM free content.

Findings demonstrated a significant increase in student e-book use over the course of four years. However, this trend did not correspond to increased levels of sophistication in e-book use or facility with build-in functions on e-book platforms. The researchers discovered that students create workarounds instead of seeking out menu options that save time in the long run. This behaviour was consistent across the study group regardless of individual levels of experience working with e-books. Students commented that additional features slow down work rather than creating efficiency. For instance, when keyboard shortcuts used to copy and paste text did not function, students preferred to type out a passage rather than spend time searching for copy functions available on the e-book platform.

**Conclusion** – Academic e-books continue to evolve in a fluid and dynamic environment. While the researchers saw improvements over the course of four years (e.g., fewer DRM restrictions) access barriers remain, such as required authentication to access platform content. They also identified areas where training sessions lead by librarians could demonstrate how e-books support student research and learning activities.

The researchers also found that user experiences are local in nature and specific to campus cultures and expectations. They concluded that knowledge of local user communities should drive book format selection. Whenever possible, libraries should...
provide access to multiple formats to support a variety of learning needs and research behaviours.

**Commentary**

Dozens of studies published over the last decade have focused on e-book use, particularly at the undergraduate level. While the study at hand supports what was previously known – students scan texts for key concepts (Hernon, Hopper, Leach, Saunders & Zhang, 2007), lack a general awareness of platform functionalities (Cassidy, Martinez & Shen, 2012), and express frustrations with DRM restrictions (Hyman, Moser & Segala, 2014) – it does include a unique feature that brings value to the information profession: a methodology for conducting a longitudinal analysis that explores the research behaviours of local user communities.

Because the study conclusions emphasized the importance of understanding local research behaviours, the inclusion of the full protocol in the appendix adds significant value to the paper. This, combined with the researchers’ descriptions of recruitment techniques and how the methodology was executed over a period of four years, provides a detailed roadmap that librarians can adopt or customize in order to document the e-book landscape at their home institution.

Although the methodology was certainly of interest, the organization and presentation of study results diminished the overall strength of the paper. Although three methods were used to collect data, the researchers lump all findings together and attempt to discuss them at once. At times it was difficult to determine if a discussion was informed by results of the interview sessions, usability tests, survey, or a combination. It would have been interesting to read the results of each method separately, followed by a discussion of observed trends across the entire data set.

To add to the above mentioned point, it seemed that a discussion of MISO survey results was largely omitted from the paper. Although the researchers state that survey results did not reflect findings from interview sessions and usability tests, they did not explain how or why. This discrepancy is one of the most interesting aspects of the study findings and it would have been fascinating to learn more about the researchers’ thoughts and observations. It also seemed like a missed opportunity to present research questions for future study.

Despite these limitations, the paper demonstrates how to document local attitudes and research needs surrounding e-book collections. The researchers gathered interesting sentiments regarding e-book experiences; one thought that stood out was that “the e-books we were testing seem to be designed not to be misused rather than to be used” (Hobbs & Klare, 2016, p. 13). Insights such as this can inform how funds are allocated, services are developed, and materials are selected at individual institutions. In the future, it would be interesting to run the study across a group of libraries within a consortium to examine how user attitudes and behaviours compare across collecting groups.

**References**

Cassidy, E. D., Martinez, M., & Shen, L. (2012). Not in love, or not in the know? Graduate student and faculty use (and non-use) of e-books. *The Journal of Academic Librarianship, 38*(6), 326-332. [http://dx.doi.org/10.1016/j.acalib.2012.08.005](http://dx.doi.org/10.1016/j.acalib.2012.08.005)

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