

UNDERGRADUATE STUDENT PERCEPTIONS OF A FREE TEXTBOOK ALTERNATIVE

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ABSTRACT

Course content for business students should be relevant, accessible and affordable. Business and library faculty collaborated to provide undergraduate students enrolled in three sections of Introduction to Marketing with a free online content option. This option included embedded links for all course key terms and concept strategically placed in a Blackboard course site. The 87 enrolled students earned extra credit by participating in 10 surveys throughout the semester. Using content format (traditional textbook, e-book only or combination of both) as an independent variable, authors measured student perception of content quality and convenience. Findings indicate that students who used the embedded e-book links prefer this option to traditional textbooks for relevancy, accessibility and affordability. This paper discusses findings and proposes a model that promotes business and library faculty collaboration, the harnessing of existing electronic library resources and distribution of those resources to students in face-to-face, hybrid and online course environments. Recommendations for application of this model to other courses and disciplines are also discussed.

JEL: I23; M30

KEYWORDS: E-books, textbook alternatives, undergraduate, pedagogy, Blackboard

INTRODUCTION

Given the digital age, information technology is a critical element of higher education. No longer are traditional textbooks the sole source of reliable, foundational course content. Electronic library resources and the internet often provide content that can support learning outcomes and serve as viable alternatives to traditional textbooks. While developing a syllabus over the summer months for an Introduction to Marketing course, a Business faculty member identified the e-book database Books 24x7, accessible via the university library, which contained updated and relevant content in support of all course key terms and concepts.

This discovery led to the following research questions: Is it possible to embed e-book database content in the Blackboard Learning Management System as an alternative to an assigned course textbook? How will students respond to the option of choosing a traditional textbook or relying on embedded links? These questions provided the inspiration for the development of this pilot course that resulted in this study.

Business and library faculty collaborated at the course level to provide undergraduate marketing students with three content options (traditional textbook, embedded e-book links from the Books 24x7 database, or a combination of the two), as the foundational content for the course. The faculty posted online surveys in the Blackboard course site at intervals throughout the term to monitor student feedback on their experience using both the traditional textbook and embedded e-book link options. Results indicate high acceptance rates of an embedded e-book link option by students resulting in increased demand for and awareness of library resources. The comparison of student perceptions of content quality and convenience indicated there was no statistical significant difference between groups that used the traditional textbook, embedded e-book links or a combination of the two.

The remainder of the paper is organized as follows. Section 2 briefly discusses the relevant literature. Data selection and research methodology are described in Section 3. Section 4 provides analysis and interpretations of the findings and Section 5 concludes the paper and offers lessons learned.

LITERATURE REVIEW

There is a recognized need for a change in pedagogical practices based on the assumption that, “within five years today’s K-12 students will be showing up at colleges and universities with substantively different cultural attitudes towards e-books than today’s students” (Nelson, 2008 p. 52). Nelson argues, “higher education must position itself to be ready to incorporate e-books effectively on campus” (p. 52). Using e-books in the university classroom promotes a shift in teaching pedagogy that caters to the diverse learning styles of students in the digital age (Grensing-Pophal, 2010). This shift is not only potentially beneficial for student learning but for competition in the higher education market. In Grensing-Pophal’s *EContent* article (2008), Trevor James of North Park University (Chicago) suggests that colleges and universities that adapt earlier to the e-book in the classroom model will “have an edge in the marketplace” (p. 20).

Currently, there is much speculation in the media regarding the demise of the print textbook (Grensing-Pophal, 2010; Nelson, 2008; Birnbaum, 2004). The cost associated with textbooks is perhaps the most obvious factor in students’ dissatisfaction. The cost of the “average” college textbook (Kingsbury & Galloway, 2006) increased 186% between 1986 and 2004 helping annual textbook costs reach \$900 per student (Waldman, 2010). Such dramatic increases are largely due to the practice of “textbook bundling,” or packaging the print material with multimedia supplements that may be superfluous. Yet, high cost is not the only negative aspect of the traditional textbook model. Textbook publishers release new editions of titles every few years, making up-to-date materials impossible to keep up with for the students, faculty and university library (Buczynki, 2007). Print textbooks are also notably bulky and environmentally unfriendly (Shepperd, Grace, & Koch, 2008).

Price increases, bundling and rapid release of new editions have forced university students to seek alternatives to traditional textbook acquisition. Common practices in the past, as well as the present, include purchasing used copies from the university bookstore or on the internet via Amazon and similar web vendors. A recent development in the textbook industry is students’ ability to rent their books through the university bookstore or other rental providers (Christensen, E., 2010). The rise of publisher-marketed electronic textbooks (e-textbooks) has also recently made its mark on higher education (Shepperd et al., 2008; Kingsbury & Galloway, 2006). Although prices of such e-textbooks are lower than their print counterparts are, this model is still purchase-driven and places the financial burden on the student.

One method of addressing the perceived unfair costs associated with print textbooks *and* the evolving learning styles of today’s digital natives is by adopting for use library subscription electronic resources, and electronic books (e-books) specifically, as the course “textbook.” While e-books may not be appropriate for all disciplines and university courses, studies have shown that the e-book model works especially well in the business disciplines (Buczynski, 2007; Jamali, Nicholas, & Rowlands, 2009; Nicholas, Rowlands, & Jamali, 2010; Dillon, 2001). Moreover, several studies indicate that students access and read e-books in the same manner as traditional textbooks; readers tend to “dip” in and out of sections of the text and digest information in chunked out text (Nicholas et al., 2010; Christianson, M., 2005; Appleton, 2004). It is an easier transition for students to use an e-book like a textbook than for leisure reading. The challenge is not having the content available but linking faculty to these resources and encouraging them to share with students to help achieve learning goals. This is critical to note as a 2006 study conducted at the University of Denver by Michael Levine-Clark found that students were more aware of e-book resources when directed to e-books by a librarian or professor. However, Levine-

Clark (2006) found that “awareness of electronic book availability does not necessarily translate into use” (p. 291).

Given the post-2008 recession and student concerns about the costs of textbooks, leaders in higher education must be willing to adapt practices that meet the needs of students (Grensing-Pophal, 2008). One way to better serve students is to inventory all resources available to the institution and exhausting methods for delivering those resources at a minimal cost to students. In this process, electronic library resources should be a priority. Just as individual schools monitor academic program enrollment for budget decisions, libraries monitor usage statistics to make informed decisions about acquiring resources that best serve student learning. Because of this heightened scrutiny, effective evaluation of these resources must in terms of value for the student is crucial.

Higher education should strive to deliver contemporary learning experiences in the digital age. Buczynski (2006) states, “there is a gap between how higher education faculty plan to teach a course and the actual learning environment that exists in practice” (p. 169). This study explores how to address some of those gaps. By repurposing existing electronic library resources, students receive relevant and reliable course content in a digital environment while saving money.

DATA AND METHODOLOGY

Researchers conducted the experiment in three sections of Introduction to Marketing at a small private New England University during the fall 2010 semester. Students (N=87) were given the option to use the recommended traditional textbook, embedded links to the content located in the e-book database or a combination of both content sources. A pre-course survey was developed to assess previous e-book and e-book-related technology experiences. Eight (8) end-of-module surveys measured student format selection, and preference and satisfaction of course content sources. An end-of-course survey captured quantitative and qualitative feedback regarding the course. Participation was voluntary and faculty offered extra credit bonus points to incentivize student participation.

Authors developed surveys based on the review of literature to meet the objectives of this exploratory research project and utilized Qualtrics survey software to develop and distribute the surveys electronically via the course Blackboard site. Links to each survey were available to students via a course announcement at the end of each course module. Researchers collected and analyzed the data to report initial findings and recommendations for future research.

FINDINGS

Survey participants (N=87) were female (46%) and male (54%) undergraduate Introduction to Marketing students. The majority (86%) had never used an e-book prior to the course, however all ten respondents who had used e-books previously indicated having a favorable experience. Regarding familiarity with the Blackboard Learning Management system, 58% indicated previous experience.

Data analyzed included respondent adoption rates by course content option throughout the pilot study. The majority of students selected the e-book embedded links only option (Table 1). Throughout the course, response rates varied but an average over the term indicates that 50% of students selected the e-book embedded links only option, 28% traditional and e-book content combination, while 22% used only the traditional textbook. Though existing literature predicts adoption hesitation by students, these findings indicate students are open to e-book alternatives to traditional textbooks. This shift in student behavior indicates traditional-age undergraduate students are both comfortable with technology and navigating e-books as a primary course content source. Additional research is needed to analyze this observation in more depth in terms of specific variables that influence e-book adoption rates.

Table 1: Content Source Usage by Course Module

Module	Traditional Textbook Only	e-book Links Only	Traditional and e-book Content	Total
1	13 (23.6%)	22 (40%)	20 (36.4%)	55 (100%)
2	15 (26.3%)	20 (35.1%)	22 (38.6%)	57 (100%)
3	13 (22.8%)	32 (22.8%)	12 (21.1%)	57 (100%)
4	13 (18.3%)	37 (18.3%)	21 (29.6%)	71 (100%)
5	11 (18.6%)	37 (18.6%)	11 (18.6%)	59 (100%)
6	14 (23.7%)	32 (23.7%)	13 (22.0%)	59 (100%)
7	10 (27.8%)	16 (27.8%)	10 (27.8%)	36 (100%)
8	8 (17%)	26 (55.3%)	13 (27.7%)	47 (100%)

This table shows student course content selection by course module. The course includes eight modules.

A key research question for this study was to identify how content format might affect perceived content quality by students. A mean comparison indicated no significant difference between groups for perceived content quality by respondents (Table 2). Students relying on only the traditional textbook for their course content rated this option lower for quality than the two options that included the e-book option. These results indicate a need to identify the variables that inspire student motivation for engaging with course content sources. Previous research indicates students gravitate to content presented in small doses, or “chunks.” Thus, the embedded e-book content was more appealing to students than the traditional textbook that includes lengthy chapters to be read linearly.

Table 2: Mean Comparison for Student Perceptions of Content Quality by Content Source

Content Source	Mean
E-book/Traditional Book Combination	5.66 (n=122)
E-book Embedded Links Only	5.62 (n=222)
Traditional Textbook Only	5.46 (n=97)

NOTE $df = 2$; $F = 1.230$; $N = 440$; $p = .293$ | Significance at $p < 0.05$. 7-point scale. Strongly Disagree = 1; Strongly Agree = 7

In addition to adoption rates and perceived quality, researchers also analyzed student perceptions of content format convenience. A mean comparison indicated no significant difference between groups by respondents who used the e-book embedded links only option ($m = 5.47$) and traditional textbook-only option ($m = 5.16$) (Table 3). Students using a combination of content sources indicated lower levels of perceived convenience. The context for convenience lies with the overall course design and formatting of the embedded e-book links into the learning management system, as well as the reliability of the technology used to deliver the content. Learning theory indicates that students achieve higher levels of learning with both quality content and accessible delivery of that content. Though not conclusive, this is an interesting insight into the adoption rate of students with regard to electronic/on-screen resources.

Table 3: Mean Comparison for Student Perceptions of Content Convenience by Content Source

Content Source	Mean
E-book Embedded Links Only	5.47 (n=222)
Traditional Textbook Only	5.16 (n=97)
E-book/Traditional Book Combination	3.76 (n=122)

Note $df = 2$; $F = 2.339$; $N = 440$; $p = .098$ | Significance at $p < 0.05$. 7-point scale. Strongly Disagree = 1; Strongly Agree = 7

Tracking usage statistics is critical for effective management of library funds allocated to purchase subscriptions to databases such as Books 24x7. The university library experienced dramatic growth in

Books 24x7 e-book usage since the inception of the pilot course in September 2010. A comparison was made (fall 2009 vs. fall 2010) from vendor-supplied user statistics (Table 4) and researchers documented significant increases in each key usage category between the two periods. Implications for academic libraries based on this finding are discussed in detail in the conclusion section of the paper.

Table 4: Comparing Books 24x7 Library Usage Statistics; Fall 2009 vs. Fall 2010

Usage	August 15, 2009 to December , 31 2009	August 15, 2010 to December , 31 2010
Active Session Minutes	17,548	33,471 (+239%)
Individual Users	66	191 (+102.7%)
New Users	57	161 (+90.7%)
Number of Pages Accessed	5,956	12,070 (+182%)
Total Sessions	879	2,980 (+189%)

This table outlines increases in all major Books 24x7 usage statistics for the same period of time in 2009, prior to the experiment and in 2010, the semester in which the experiment began.

CONCLUSION

The findings of this study reveal numerous reasons for leveraging and repurposing library resources (i.e. Books 24x7). Clearly, this option provides students the opportunity to utilize vetted textbook resources at no additional cost to them personally. High adoption rates dispelled initial concerns about students rejecting online e-book content delivery. Students who chose the e-book option found the content to be of equal or better quality and as or more convenient as the traditional textbook alternative.

When starting the project it was critical to ensure continual vendor support to address technical challenges that may influence reliable and efficient content delivery to students. This relationship helped maintain confidence in the product and resulted in increased use of the resource and overall awareness of library e-book resources. While libraries are not strangers to budget constraints, the present economic crisis has greatly affected the need for libraries to evaluate their materials budgets and slash subscriptions and resource lines when necessary (Hunter & Bruning, 2010; Weir, 2010). The university library looks to in-house and vendor supplied database and title usage statistics before each budget cycle in order to determine renewal priorities.

Yet, there are challenges to implementing the model introduced by this pilot course. Currently, collections included in the Books 24x7 database primarily support the business disciplines. However, there is great potential for numerous business programs to benefit from this library resource, colleagues in the areas of education and liberal arts do not yet have similar one-stop-shop resources. While the researchers are encouraged by student responses to the pilot course model, gathering data from additional sections of the course over additional terms is needed. Future research should explore utilizing other textbook alternatives such as open educational resources.

From an administrative perspective, because many institutions profit from on-campus book sales, conversations will have to continue on the balance between this revenue stream and providing relevant free content students that do not include traditional textbooks.

Designing and testing the embedded e-book links in the Blackboard Learning Management System took approximately two weeks. In addition to this preparation period, both faculty members actively gathered and analyzed data throughout the term and integrated student initiated suggestions to improve the course in each of the eight modules. This is in contrast to a traditional course that may offer students one opportunity for assessment at the end of the term. Both researchers throughout term put considerable

time and effort forth. It is worth noting that the current iteration of this pilot course requires considerably less time and supervision by both the teaching and library faculty participants.

So what is the potential for e-book databases and other open sources of content to replace traditional textbooks? Based on the quantitative and qualitative findings the researchers feel that there is a great potential for additional research in this area. Given the nature of the digital age, undergraduate students are more comfortable than ever accessing electronic content sources (i.e. e-books). Tools such as electronic library resources, Google Reader, Google News, RSS, learning management systems and others enable faculty in all disciplines to locate relevant content to support their courses, and to embed that content into meaningful learning modules for students.

The researchers believe textbook publishers still currently have a market to operate. Yet, this market is quickly changing due to economic, technological and competitive factors out of their direct control. Based on the conclusions of this experiment, additional questions present themselves specific to the learning environment that currently includes faculty, students, publishers, library resources and multiple open channels of relevant content. The authors are particularly interested in exploring whether alternative textbook resources can support an entire program (i.e. major, minor, certificate), and whether this model can be applied to additional business courses and in other disciplines. If so, can this model serve as a marketing competitive advantage for individual programs, schools or entire universities? It also remains to be seen whether individual faculty will take advantage of the influx of reliable open educational resources as an alternative to print textbooks and what role libraries and librarians have in accessing and promoting content to faculty that can potentially serve as these alternative resources.

Lessons Learned

Technology unleashes the potential for sharing quality relevant content outside the confines of a traditional textbook model. Alternative resources are available through current library subscriptions and freely on the web with the growth of the open educational resources movement. In contrast to various reports indicating that electronic content and readers for such content still trail in adoption by students to traditional print formats (Young, 2009; NACS, 2010; BISG, 2011), students embrace electronically delivered content when “dipping” in and out of embedded e-book links as previously found by the Nicholas et al. (2010) and Appleton (2005). This pilot course has found that students actually prefer the convenience of reading embedded e-book content to that of reading traditional textbooks linearly.

Another unexpected observation was students’ acknowledgment of the value of using multiple textbooks to support a single course as well as the differences in author writing styles and examples used. This observation provided a unique teaching opportunity to discuss the importance of consulting various voices during the research process and the importance of evaluating one’s sources. Students also noted that educational technology tools enable and encourage constant communication throughout a given term between students, teaching faculty and library faculty to improve course delivery and overall user experience. Having a library liaison embedded into each section of the Blackboard course site allows for constant monitoring of student questions or problems using the e-book links or e-book database. In addition, online surveys embedded in the Blackboard site captured student feedback regarding their satisfaction with e-book content, convenience and course layouts. This empowers the faculty to make real-time changes to the course and provide timely support to students.

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