A Computer Science Course eTextbook Initiative at a Historically Black Colleges and Universities

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Abstract

Much of the literature has been focused on printed textbooks versus eTextbooks. Other studies have examined the concerns with the high cost of textbooks. Only a minimum amount of literature has discussed how eTextbooks can play an important role for science, technology, engineering, and mathematics, (STEM) student who attend Historically Black Colleges and Universities (HBCUs) in ensuring both cost reduction and to improve student success. This paper details the authors' experience with the development and delivery of an eTextbook. The cost reduction and suggestions are made for how instructors can use these benefits to assist first time generation students and non-traditional students who have challenges with purchasing their textbooks due to the increase of cost of printed textbooks. Readers will become familiar with the eBook project and why it was designed with students being the number one priority.

Keywords: STEM; eTextbooks; printed textbooks; HBCU; cost; first time generation; non-traditional

1. Introduction

High textbook rates are playing a big role in how many students drop out partway through their college education. For many minority students, the costs of textbooks are challenging. The rising cost of textbook have added financial pressures on college students and their families. According to the College Board (2016), the average student at a four-year public college spends around $1,200 a year on textbooks and other supplies. The concern of the rise of textbook prices are getting nation attention and action from state and federal legislatures, public interest groups, faculty, students, bookstores, publishers, and university leadership. Based on the U.S. Government Accountability Office (2013) review the amount of textbooks increased 82 percent from 2002 to 2012.

The U.S. Government Accountability Office first did an investigation in 2005 on the topic of the rise of college textbooks, confirming that textbook costs are comparable to 26% of tuition at state universities and 72% at community colleges. Evidence presented by the Student PIRGs research found that the major issue of increase textbook prices were due to publishing industry practices. It is not uncommon for an individual textbook to cost as much as $200, and some have price tags that go as high as $400, with many textbooks not resalable on the used textbook market.

Today, students and their families are estimated to spend as much as $6 billion on college textbooks and supplies (National Association of College Stores, 2015; Koch, 2006). While other estimates of annual expenses on textbooks vary by the year and the type of institution attended, it is reasonable to conclude that per-student expenditures on textbooks can easily reach $1,200 annually (Koch, 2006). This is a concern for both students and administrators at institutions of higher education because many students are making the decision not to purchase a textbook (Prasad & Usagawa, 2016; Redden, 2011).

Many low and middle-income students receive grant money to support their college education; however, many students do not receive enough funds to cover the expense of their books and when they do, the checks from financial aid are often received late and when classes have begun (Advisory Committee on Student Financial Assistance, 2007). The rise in textbook price has increased for the last four decades with no signs of this trend ending soon (Prasad & Usagawa, 2016).

2. Institutional Context

This study took place at one of the largest public four-year, Historically Black Colleges and Universities in the southeast region in the United States. The 2015 Fact Book shows a headcount of 5,107; 83% of its students are Black, 5.1% are white, and 11.9% are classified as other (includes international and unknown). Sixty-four per cent of the students are female, and 36% are male. In addition to serving a high proportion of students of color, 67% of undergraduates received a pell grant and 90% of bachelor's graduates had a loan debt in 2014 -2105.

The author conducted this study because of the increased price of printed textbooks and to examine the impact of electronic textbooks adoption. The study was first pilot tested in an online course using on an electronic textbook. Some institutions of higher education provide motivation for research studies that examine the impact of electronic textbook adoption. Research shows there are two broad groups that these studies can be categories in. Miller and Baker-Eveleth (2010) and Baker-Eveleth, Miller, & Tucker. (2011) describes one category as the process of adopting an electronic textbook or provides a case study of such adoption for business education. Textbooks. (Shepperd et al., 2008; Woody, Daniel, & Baker (2010) describes another category that includes studies that report results based on a comparison of two distinct choices of electronic and traditional textbooks. These studies were focused on student preferences and performance.

3. Literature Review

3.1 Emergence of eTextbooks within the Education Market

The way we purchase content is changing more quickly than ever before. Technology, devices, and applications are constantly changing the way we access information (Leu, Kinzer, Coiro, Castek, & Henry, 2013), especially when it comes to digital textbooks. The rise of eTextbooks are relatively new within the education market and is elevating the teaching, learning, and research experience (Aharony, 2014). Some of the trends contributing to the increase and interest in eTextbooks are affordability and availability. The

high cost of textbooks drives students to delay or not to purchase textbooks. Digital materials such as eTextbooks may offer a more cost-effective alternative.

With the popularity of mobile devices, digital material has increased exponentially (Denoyelles, Raible & Seilhamer, 2014). In the United States of America digital material represent 1.5-3 percent of the total higher education market and in the next five years, electronic textbooks are predicted to show strong growth with the total share expected to reach 25 percent (Reynolds, 2011). Electronic textbooks are reported to be 52% lower than printed textbooks (Allen, 2010). According to Cengage Learning and Eduventures (2010), 50% of students reported eTextbooks had a significant impact on their overall learning, 86% of students reported they were engaged more by using digital material in their coursework, and 31% described eTextbooks as having the potential to improve engagement and learning outcomes.

3.1.1 Diffusion of Innovation

The diffusion of innovation theory (DOI) can provide a rich framework for understanding the area of technology diffusion and adoption. Roger's (2003) theory propose that within a population group, innovations are not adopted at the same time by all individuals, as some people are more willing to try new ideas and technologies than others. There are many personal factors to consider in the adoption of innovation such as: age, gender, education, income status, ethnicity, and innovativeness; and in regards to technological factors such as perceived usefulness and perceived benefits (Leung & Wei, 1999).

Many researchers have proposed Rogers' diffusion of innovations theory is the most appropriate for investigating the adoption of technology in higher education and educational environments (Borrego, Froyd, & Hall, 2010; Medlin, 2001; Parisot, 1997). Much of the diffusion research includes technological innovation; therefore, Rogers (2003) used the word innovation and technology as synonyms. Rogers defines diffusion as the process of implementing a new idea, product, or practice over time thorough communication among members of a social system. In fact, much diffusion research involves technological innovations so Rogers (2003) usually used the word "technology" and "innovation" as synonyms. Roger define the four main key elements of the diffusion of innovations as innovation, communication channels, time, and social system. Roger also identifies five classification categories of adopters: innovators, early adopters, early majority, late majority, and laggards (2003).

In order to achieve the study aims, the research based in secondary sources such as: published theoretical literature and research literature. After a profound analysis and evaluation of theoretical framework in studies on the perceptions of eTextbook innovations, Rogers's theory on innovation adaptation and diffusion concluded as a theoretical framework more appropriate for the study.

In general, it was determined that some of the computer science higher education faculty preferred the status quo of keeping things exactly the way they were. There were some innovators who were the first to try to implement the new eTextbook, close behind them were early adopters who came on board through the positive responses of innovators about the benefits of adopting it. Following the early adopters in stages were the early majority, the late majority, and the laggards, who resisted adopting the new idea until they had no other choice or were penalized for resisting.

3.1.2 An Alternative Method of Delivering Content through eTextbooks

The practice of delivering content and reading books is taking on a new dimension with the emergence of electronic books. Today's students are digital native and they come to college expecting the infusion of technologies throughout their academic learning experiences. The 21st century students are involved and fascinated with technology. According to Cady and Griffin (2010) tools such as digital readers assist with creating a connection between their education and their everyday lives. Electronic textbooks have a positive effect on students' metacognition, self-regulated learning, self-efficacy, information exploration, problem-solving, intrinsic motivation, and self-reflection (Kim & Jung, 2010).

Utilizing eTextbooks has the potential to offer flexibility, interactive, multimedia, cost effectiveness, manipulative, constructive, active, and searchable features that engage students   and supports self-regulated learning environment (Dean, 2016; Kim & Jung, 2010). It is often easier to locate electronic content in an online environment such as Blackboard or Canvass in which students can link to the material. Students are more engaged in the material when the instructor provides discussion content that is controversial or debatable (Dean, 2016). The self-regulated learning environment is significant when it comes to the distance education learners because they do not have the structure of a regular classroom to rely on. Self-regulated learners solve problems effectively, manage tasks, seek information, synthesize, and evaluate (Kim & Jung, 2010).

Delivering content through eTextbooks is also a way of implementing diversity as these have functions that provide an alternative method of reading for students, help students with specific needs such as pronunciation guides, vocabulary support, and text-to-speech (Kim & Jung, 2010). Electronic textbooks have made the distance learner study more convenient and affordable. They are becoming the educational standard for students. As a distance learner, if needed the student can store their eTextbook on their mobile device, computer, or download it from the Learning Management System (LMS). Athletics do not have to worry about carrying textbooks while traveling. Face to face learners and distant learners can access their books on the go an on their own schedule. With mobile media and digital textbooks, instruction can become more individualized to meet the needs of different learners with interactive, language and vocabulary options, and assessment tools, they "encourage better student performance, engagement and retention" (McFadden, 2012).

3.1.2 Importance for Adoption at HBCU

One major concern for HBCU students, many of whom are first time generation and from low social economic background is the high cost of textbooks. This problem is even more challenging for those in STEM majors because the books are more expensive. According to Textbook Equity (2013), based on a sample of 400 printed textbooks sold by Amazon.com from the spring of 2010 through the spring of 2012, the most expensive textbook was a $256 chemistry textbook. The average textbook out of the 400 textbooks rose 4.4% from 2010 to 2012 ((A Textbook Price Study: 90% Ownership and average prices, 2013). The STEM (science technology, engineering and math) textbooks rose 10.2% for the same period ((A Textbook Price Study: 90% Ownership and average prices, 2013). The average cost of most STEM

textbooks are $200. Other issues are the 40% markup of the book by the bookstore and most of the students use financial aid to purchase books.

During the academic year of 2015-2016, the average STEM student paid an average of $2,400 on printed textbooks, 1,800 on rentals, and $1,400 on eTextbooks at the largest Historically Black Colleges and Universities in the southeast region in the United States. There were 543 students enrolled in an introductory computer science course during the academic year of 2015-2016, many students did not purchase books at all and other students used outdated editions or non-assigned books.

Many students are surprised by the required expense, which is often the last and least anticipated expense encountered. To avoid paying for the textbook, students knowingly accepted the risk of a lower grade. This had a profound impact of student success. The university has a high population of first time generation students and non-traditional students. Most students take 4-5 courses per semester; the estimated total costs of textbooks would reach approximately $15 million (Hayashi Nicholls, 2010). The cost of college textbooks causes a significant financial burden on HBCU students and their families and, by extension, on the university financial aid department.

The high cost of textbooks creates a challenging decision for the students to choose if they should purchase the textbook or not because the cost is too high (Weisbaum, 2016). This is a serious problem for the students because an entire class will share one textbook in the library, some have turned to illegal downloading, copying the textbook or they will just completely go without. Many of them have to decide if they will pay the expensive cost to purchase the textbook and take time away studying to work extra hours to pay for their books, or they if they will go without the book and accept the consequences (Weisbaum, 2016). Most students will have to work an average of 28 hours just to purchase one single textbook (Weisbaum, 2016). A large percentage of the faculty members are not aware of the cost of the textbooks they selected for their courses (Koch, 2006). According to the California Public Interest Research Group 76% of faculty report, new editions are justified only half the time or less, the publishers continue to update them frequently that causes students to have no option but to purchase a new textbook. Expensive textbooks can be a barrier for HBCU students. HBCUs serves a large percentage of students of color and low-income students. Over 70% of students attending HBCUs receive Pell grants (New American, 2015). Many of the students who are unable to afford the textbook for the course, usually do not pass the course, drop the class, withdraw from the university, and many times do not complete their degree. The rise in textbook prices are not only hurting student's finances, but also have caused many students to risk their grades, and even their academic decision. Because several of the HBCU students are paying for their college education, it is hard for them financially, to pay the high price of textbooks. They become frustrated because they know they need the textbook to be success in the course; however, they are not able to afford it.

In addition, the cost of textbooks sometimes prevents students from taking a full course load because they base their decision on which or how many classes they should take each semester. If the student decides to take a reduce course load to get around the financial burden of textbooks, it will require the student to be in college longer, which is also a burden and an expensive option. For some students this also decreases the likelihood of graduation. Due to the rising costs of textbooks (Kaplowitz and Zell,

2012); the importance of the adoption of eTextbooks are gaining prominence in higher education. Empirical research is in relatively early stages regarding eTextbooks in higher education (DeNoyelles & Chen, 2014). The next sections will discuss the redesign of the course using an eTextbooks adoption at the largest HBCU in the southeastern region in the United States.

4. Development of the eTextbook for an Online STEM Course

4.1 Motivation for Redesign of the Online Introductory Computer Science Course with an eTextbook

The primary needs to redesign the computer science general education course was to identify strategies for keeping textbooks and other course materials affordable for students and to improve student learning. This is an introductory course taught by multiple faculty members and adjuncts. Teaching was uncoordinated and many instructors did not adhere to the course learning goals and objectives, and some did not use the selected textbook for the course. Some of the faculty taught the course to suit their individual interests rather than the agreed-upon learning goals for students. This resulted in inconsistent learning experiences for students and inconsistent learning outcomes. The redesign of the course ensured consistence by using a common syllabus, eTextbook, and preparation for our Southern Association of Colleges and Schools (SACS) review and our Quality Enhancement Plan (QEP) initiative. QEP relies on this course to meet our critical thinking objectives and requirements. One of the goals for redesigning the course was to make the course a hallmark of the University's approved QEP and Provost's Five Point Plan.

There is no other course on the campus that fulfill the same model as the introductory general education computer science course. This course ensure graduates are equipped with problem solving, teamwork, cross-cultural, research and communication skills. To meet the Strategic Goal #1: Create and Sustain a Culture of Academic Excellence and Success. The cohort of teachers strived for excellence and to set, provide, and maintain non-negotiable high standards and service to students. The course has been designed to deliver the same content across all sections of a course, and in every academic term, but facilitated by different instructors. It is vital that all instructors cover the same objectives as this indicate what information students will be able to complete at the end of the course. Additionally, using a prescribed curriculum from course to course helps ensure that all students are presented with the exact same information and eliminates any discrepancy that may occur.

The role of the instructors was moved from a sage on the stage to the role of a coach and facilitate. Student learning is measured through both formal and informal forms of assessment, including group projects, educational gaming, student ePortfolios, peer teaching, journals and blogs, and rubrics created by instructors and students. The course is focused on student centered and quality driven, by providing opportunities for learners to be actively engaged in their own learning. The course offers more hands-on assignments relating to real life situations, organized in four unit modules, and designed by faculty experts. Resulting in all students having the same kinds of learning experiences, significant improvements in course coherence, and quality control.

4.1.1 Implementation

The author created her own instruction aids into the eTextbooks, rearranged the chapters, and left out chapters that did not apply. The eTextbook made the shift from teacher-centered to a more active learner-centered. Lecture presentation were replaced with an array of interactive materials, hands-on activities, and peer teaching, that move students from a passive, note-taking role to an active learning environment. As Confucius puts it, "I hear and I forget, I see and I remember, I do and I understand". Many STEM-H students learn by doing not by listening to someone lecture. Chickering and Gamson (1987) reported, "Learning is not a spectator sport. Students do not learn much just by sitting in classes listening to teachers, memorizing pre-packaged assignments, and spitting out answers" (p. 4).

Some examples of student engagement that were used in the redesign of the course to change from passive listener to active participant consisted of interactive games (Millis, 2010), video clips (Wright & Abell, 2011), learning management systems (Malm & Defranco, 2012), online blogs (Cheng & Chau, 2011; Hsu & Wang, 2011), and flipped courses (Baepler, Walker, & Driessen, 2014; Bergmann & Sams, 2014). Research shows undergraduate students learned more when they are engaged in their own learning with active instructional practices than just in solely didactic lectures (Millis, 2010). Most STEM courses report limited use of approaches to active learning; however, when STEM faculty were convinced of best pedagogical practices they would adapt instructional method that included engaging learning activities (Smith, Jones, Gilbert, & Wieman, 2013).

The evaluation of STEM courses were to provide feedback to instructors on class time usage and to identify areas where professional development might be beneficial (Smith et al., 2013). During Smith et al. two year study it was concluded that STEM students spent more than half of the class time (57%) engaged in various activities other than listening. The activity engaged in most often was group work (16%) followed closely by answering instructor questions during group discussions (15%). From this researched it was concluded the more active pedagogical approach had a major impact on students learning.

4.1.2 Lessons Learned

Most research on eTextbooks in higher education have limitations and gaps because the majority of the research take places with a course or campus-wide pilot (DeNoyelles & Chen, 2014). Usually these pilots focus on reducing the rising cost of textbook and consist of universities collaborating with eTextbook publishers and providers. This study aims to fill the gap of fundamental information on an eTextbook adoption at a HBCU to facilitate learning and reduce cost.

Despite the potential benefits of the eTextbook initiatives, many students and instructors were reluctant to transition from printed-based textbook to an electronic textbook. We had one instructor who was loyal to print-based textbook and resisted the transition. The eTextbook initiative is still in the early stage and both the instructors and the students were not taking full advantages of all the digital features the eTextbook had to offer. I recommend that the publisher provide training to the instructors and students to assist with becoming effective digital readers, learners, and instructors. In higher education, eTextbooks are relatively new and many instructors need specialize professional development to assist with an understanding of how to effectively use them. We implemented step-by-step videos to assist faculty with

professional development and the publisher offer technical support for students and faculty. It is important to ensure that the publisher create a user-friendly digital textbook environment.

It was discovered that to increase student's motivation to learn, instructors spend more time preparing props when using a printed textbook; however, when utilizing an eTextbook it was equipped with motivational material. The digital textbook provided more meaningful learning experiences with multimedia. Another advantage was as long as students and faculty had internet they could access their book anytime, anywhere. The advantage of student not having to carry the weight of a book was convenience.

5. Conclusion

The eTextbook initiative, has attracted attention on the campus. The Introduction to University Life course have implemented an eTextbook that was authored by one of the instructors. The transition might take some time for faculty and student to become comfortable with the idea eTextbooks; although, there is a federal backed technology drive going on now for learners to become more technical savvy. The more comfortable administrations, faculty, and students become with technology, the sooner eTextbooks will play a major role in higher education. Most of the college students today are familiar with technology and with more online courses and degrees being offered, eTextbook might become an expectation instead of an option.

This study is significant because it adds to the growing body of literature about eTextbook initiatives at HBCU. The results indicate that eTextbooks are cost effective, convenience, students and faculty need support to learn about the features to effectively facilitate learning, and the advantages seem to outweigh the disadvantages. My future plans include (1) working with the publishing company on obtaining lower cost eTextbooks; (2) promoting campus, regional, and national awareness of cost effectiveness for eTextbooks; (3) establishing a faculty focus group for eTextbooks; and (3) working with the Director of Faculty development in creating professional development opportunities on the topic of authoring effective eTextbooks.

Further research in this field will assist with other HBCU initiatives to encourage effective teaching, learning, and research with the use of eTextbooks. I hope the information provided will encourage such research.

Acknowledgement

References

Advisory Committee on Student Financial Assistance. (2007). *Turn the page: Making college textbooks more affordable*. Retrieved from the U.S. Department of Education website: http://www2.ed.gov/about/bdscomm/list/acsfa/turnthepage.pdf

Aharony, N. (2014a). The effect of personal and situational factors on LIS students' and professionals' intentions to use E-books. *Library & Information Science Research, 36*, 106-113.

Baepler, P., Walker, J. D., & Driessen, M. (2014). It's not about seat time: Blending, flipping, and efficiency in active learning classrooms. *Computers and Education, 78*, 227-236.

Baker-Eveleth, L. J., Miller, J. R., & Tucker, L. (2011). Lowering business education cost with a custom professor-written online text. *Journal of Education for Business, 86*(4), 248-252.

Bergmann, J., & Sams, A. (2014). Flipping learning: Gateway to student engagement. *Learning and Leading with Technology, 41*(7), 18-23.

Borrego, M., Froyd, J. E., & Hall, T. S. (2010). Diffusion of engineering education innovations: A survey of awareness and adoption rates in U.S. engineering departments. *Journal of Engineering Education, 99*, 185-207.

Cady, M., & Griffin, M. (2010). Is it time to switch to digital textbooks? *Learning & Leading with Technology*, *38*(3), 6.

Cengage Learning and Eduventures. (2010). Instructors and students: Technology use, engagement and learning outcomes [PDF document]. Retrieved from http://www.cengage.com/trends/pdf/CL -EduventuresSurvey2010.pdf

Cheng, G., & Chau, J. (2011). A comparative study of using blogs and wikis for collaborative knowledge construction. International *Journal of Instructional Media, 38,* 71-78.

Chickering, A. W., & Gamson, Z. F. (1987, March). Seven principles for good practice in undergraduate education. *AAHE Bulletin,* 3-7.

Christopher, L. C. (2009). Academic publishing: Digital alternatives to expensive textbooks. Retrieved from http://www.seyboldreport.com/bookpublishing/academic-publishing-digital-alternatives-expensive-text books

College Board. (2015-2016). Trends in college pricing 2015. Retrieved from http://trends.collegeboard.org/sites/default/files/2015-trends-college-pricing-final-508.pdf

Dean, Matthew. (2016). A call to embrace social reading in higher education. *Innovations in Education and Teaching International, 53*(3), 296-305.

DeNoyelles, A., & Chen, B. (2014). Exploring students' e-textbook practices in higher education. J*ournal of Information Influency, 3*(1), 37-50.

DeNoyelles, A., Raible, J., & Seilhamer, R. (2015, July 6). Exploring students' e-textbook practices in higher education. EDUCAUSE Review.

Hsu, H., & Wang, S. (2011). The impact of using blogs on college students' reading comprehension and learning motivation. *Literacy Research and Instruction, 50*, 68-88.

Kim, J., & Jung, H. (2010). South korean digital textbook project. *Computers in the Schools*,

27(1), 247–265

Koch, James. 2006. An Economic Analysis of Textbook Pricing and Textbook Markets. ACSFA College
        Textbook Cost Study Plan Proposal, report prepared for the Advisory Committee on Student
        Financial Assistance.

Leu, D. J., Kinzer, C. K., Coiro, J., Castek, J., Henry, L. A. (2013). New literacies: A dual level theory of
        the changing nature of literacy, instruction, and assessment. In Alvermann, D.E., Unrau, N.J., &
        Ruddell, R.B. (Eds.). (2013). *Theoretical models and processes of reading* (6th ed.). (pp.
        1150-1181). Newark, DE: International Reading Association

Leung, L., & Wei, R.A.N. (1999). Who are the mobile phone have-nots? Influences and consequences.
        New Media and Society, 1(2), 209-226.

Malm, E., & Defranco, J. F. (2012). Toward a student-centered measure of learning management system
        utilization. *Journal of Educational Technology Systems, 40*, 401-413.

McFadden, C. (2012). Are textbooks dead? Making sense of the digital transition. *Publishing Research
        Quarterly*, *28*(2), 93-99.

Medlin, B. D. (2001). *The factors that may influence a faculty member's decision to adopt electronic
        technologies in instruction* (Doctoral dissertation, Virginia Polytechnic Institute and State
        University). ProQuest Digital Dissertations. (UMI No. AAT 3095210)

Miller, J. R., & Baker-Eveleth, L. (2010). Methods of use of an online economics textbook. *American
        Journal of Business Education, 3*(11), 39-44.

Millis, B. J. (Ed.). (2010). *Cooperative learning in higher education: Across the disciplines, across the
        academy.* Sterling, VA: Stylus Publishing.

National Association of College Stores. (2012). Where the new textbook dollar goes. Retrieved from
        http://www.nacs.org.

Parisot, A. H. (1997). Distance education as a catalyst for changing teaching in the community college:
        Implications for institutional policy. *New Directions for Community Colleges, 99*, 5-13.

Prasad, D., & Usagawa, T. (2016). Progressing toward open textbooks learning analytics system. Journal
        of Perspectives in Applied Academic Practice, 4(3), 56-60.

Redden, M. (2011, August 23).7 in 10 Students have skipped buying a textbook because of its cost. *The
        Chronicle of Higher Education*, Retrieved from http://chronicle.com

Reynolds, R. (2011), Trends influencing the growth of digital textbooks in US higher education.
        Publishing Research Quarterly, 27(2), 178-187.

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York, NY: Free Press.

Shepperd, J. A., Grace, J. L., & Koch, E. J. (2008). Evaluating the electronic textbook: is it time to dispense
        with the paper text? *Teaching Of Psychology, 35*(1), 2–5.

Smith, M. K., Jones, F. H. M., Gilbert, S. L., & Wieman, C. E. (2013). The classroom observation protocol
        for undergraduate STEM (COPUS): A new instrument to characterize undergraduate STEM
        classroom practices. *CBE-Life Sciences Education, 12*, 618-627.

State Public Interest Research Groups. (2005). Rip-Off 101: How the publishing industry's practices needlessly drive up textbook costs. Retrieved from http://www.studentpirgs.org/news/new-report-shows-college-textbooks-are-ripoff-101

United States Government Accountability Office. (2005). *College textbooks: Enhanced offerings appear to drive recent price increases*: GAO-05-806. Retrieved from http://www.gao.gov/cgi-bin/getrpt?GaAO-05-806.

United States Government Accountability Office. (2013). *College textbooks: Students have greater access to textbook information*: GA0-13-368. Retrieved from http://www.gao.gov/products/GAO-13-368.

Weisbaum, H. (2016, February). Students are still saddled with soaring textbook costs, *NBC News*. Retrieved from http://www.nbcnews.com/business/business-news/students-are-still-saddled-soaring-textbook-costs-report-says-n516011

Woody, W., Daniel, D., & Baker, C. (2010). E-books or textbooks: students prefer textbooks. *Computers & Education, 55*(3), 945–948.

Wright, D. G., & Abell, C. H. (2011). Using YouTube to bridge the gap between baby boomers and millennials. *Journal of Nursing Education, 50,* 299-300.

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