

# e-Textbooks Usage by Students at Andrews University: A Study of Attitudes, Perceptions, and Behaviors

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# **E-TEXTBOOKS USAGE BY STUDENTS AT ANDREWS UNIVERSITY: A STUDY OF ATTITUDES, PERCEPTIONS, AND BEHAVIORS**

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## **ABSTRACT**

Although e-books have been incorporated into the academic library's collection for over a decade now, it has not been, until today, without question. It is still, as the literature reveals, a controversial topic for librarians, publishers, and users around the globe. Although many researches indicate that patrons still prefer the printed format over the electronic version, the tipping point seems to be reaching us earlier than many might think. The growing availability of e-books to users has begun to affect user perceptions and attitudes, creating more access and usage opportunities, a recent research concluded. This paper presents the results of a large scale survey designed to investigate usage patterns of and attitudes towards e-books by students at Andrews University. One important aspect which the study investigated is how the use of e-books impacts student's learning. The subjects were divided into two different groups, namely, (1) students who purchased the electronic version of an e-textbook for a class (the bookstore offered 74 books in an electronic format), and (2) students who had the opportunity of purchasing the electronic version of a textbook but preferred the traditional print format. Only four percent of the population studied opted to use an e-textbook. The print version is still greatly preferred by college students. However, the majority of those who used e-textbooks, would use it again and would recommend it to a friend. Lack of awareness, not knowing how to get it, eyestrain, and difficulty of reading are the culprits for students not using e-books more often. Although it is possible to note an increase of e-books usage, caution is recommended when developing collection development policies when includes e-books.

## **INTRODUCTION**

From time to time libraries find themselves in the crossroad of change. For the last four decades technology has been the main source driving libraries to its outer limits and boundaries of innovation. More recently, the development of e-books has been forcing libraries to review collection development policies and rethink how they build collections, organize OPACs and how they provide information services to their patrons. All of these factors push libraries to adopt different and innovative collection management strategies.

Academic libraries have traditionally played an important role in providing access to and disseminating information across learning and research communities. That role has now been extended to facilitating access to electronic resources such as e-journals and e-books through innovative technologies. Although both publishers and libraries are unsure about the future for and the impact of e-books, there is increasing awareness that e-books demand further attention(Vassiliou & Rowley, 2008). Studies show that librarians are only partially aware of student's perceptions about e-books and that there are conflicting priorities among students, faculty, and librarians (Soules, 2008, p. 7).

It is in this context that James White Library conducted a research to better understand how students at Andrews University were using the e-textbooks that were being sold at the university's book store. More specifically, the objective was to identify the student's acceptance level and their attitudes and behavior towards e-textbooks (and e-books in general), independently whether or not their teachers had recommended or required their use.

The first major developments in the field of e-books began in the 1970s with Project Gutenberg and the Oxford Text Archive. Project Gutenberg was founded in 1971 by Michael Hart at the University of Illinois. As the use of the internet became more widespread in the late 1980s, book vendors (publishers and aggregators) recognized the possibilities of providing content in digital form.

In 2004, e-books represented the fastest-growing segment of the publishing industry. During the first quarter of the year, more than four hundred thousand e-books were sold, representing a 46 percent increase over the previous year's numbers. E-books continue to gain acceptance with some readers, although their place in history is still being determined – fad? Great idea too soon? Wrong approach at any time? The answers partly depend on the reader's perspective, according to Gall (2005). After reviewing the results produced by the study conducted by Anonymous (2010) five years later, that 74% of college students prefer a print textbook for classroom use, we still have reasons to keep on making the same questions.

Non-the-less, Abram (2010a, p. 22) presents advantages of e-books, such as ease of transport, access, ease of navigation, educational support, searching, and environmental impact, amongst others, and concludes – “When well constructed, they become the framework for the entire pedagogy of a course, a grade, a subject, or more... If we were to not take steps to improve the learning experience and add additional features in the shift to an electronic format, we would be missing a remarkable opportunity” (Abram, 2010b, p. 34).

This research considered this important aspect by posing the question: “Do you feel that the use of e-textbooks influences your learning experience in any way compared to the use of textbooks in the print format”, hoping that students would express their experiences and insights when they compared both.

Libraries can benefit from the advent of e-books. Vassiliou & Rowley,(2010, p. 359) states that:

Digital libraries can eliminate manual and physical processing such as packing, unpacking, shelving and physical circulation of books and also to save cost in the whole acquisition process because of the instant delivery of an ordered e-book title. In addition, there is no risk of the book being lost, stole or damaged nor are there any physical space requirements. Given appropriate licensing models, e-books provide concurrent access to heavily used titles. E-books enable libraries to stock a broader range of material in individual subjects and access essential material.

In a recent article on the disappearance of some of London's most venerable and beloved bookshops, Klinkenborg (2010, p. 347) writes: “(...)books are slipping behind an electronic curtain, becoming iBook apps or drab, kindled, digital versions of what Lamb once called ‘biblia-a-biblia’ – books which are not books, (but) mere tangible shadows of their old visceral selves.”

But are they really? Has the expectations changed? Back in 2000, when the e-book phenomenon was stated by Mark Walter (McLaren, 2000, p. 404) as the “newly emergent electronic books”, predictions for its future were mixed. Whereas Dick Brass of Microsoft is said to have predicted that “In the year 2000, consumers will purchase 1 million e-book titles,” Veronis, Shuler & Associates (1999) forecasted in the Communications Industry Forecast -1999, that “e-book sales will not be significant in the consumer market in the next five years.” This would have been, then, in 2005.

Recently, Herther (2011, p. 14) stated that “Google currently offers a mix of about 3 million public-domain and contemporary e-books. Amazon claims to offer 750.000 books for sale in addition to a stable of 1.8 million free books.” E-books sales for the 13 publishers that report to AAP soared

176% in 2009, to \$169.5 million. The rise in sales, coupled with a decline in print trade sales, increased the e-book share of total trade sales from 1.2% in 2008 to 3.3% in 2009 (E-book, 2010, p. 4).

It seems like that the prediction made at the E-Book '99 Conference, held in Gaithersburg, Maryland, at NIST headquarters in September of 1999 that "Although the projection that e-books will outsell print books within a decade sounds aggressive, sales will be driven by convenience, new functionality, and available content if offered at a reasonable price" did not come true (Luther, 2000, p. 47).

Although this represents almost 200% increase in sales, the \$169.5 million in sale still represents a very low share of the total book sales of \$35 billion, reported by the Forrester Research in 2010. According to a Publishers Weekly report, Amazon customers may be buying more Kindle edition bestsellers than print bestsellers, but the e-book market is still a relatively small source of income for publishers. Executives across the board insist e-books currently account for 10% to 15% of revenue (Deahl, p. 4, 2010). Out of the 10 best sellers, only two of them represented 33% of e-books in the total sales volume. Hook (2007) reports that e-books were still a small part of the total publishing market just a few years ago.

The same study reported that only 7% of online adults who read books read e-books. How about students in universities? The results of our research shows that only 23.3% of the total population studied (503 students) have read e-books. This percentage could easily be much lower if we had differentiated e-leisure books from e-academic books.

Although today many studies convey optimism (Johnston, 2011; Milliot, 2010), including a report from Google (2011) published last year in "Information Today", others report worrisome data. In Italy e-books are worth just 0.1 percent of publishing turnover, and 3 percent in the UK, although the Italian publishers present in the digital segment rose from 299 to 471 in a 12 month period. (Italy, 2011). The news coming from China is grim also. In the middle of June of 2011, Hanvon Technology announced that the company was going to suffer great loss in the first six months of 2011. Soon after that, Aigo Digital and Founder Technology Group announced to quit the electronic book hardware business. Hanvon technology suffered a net loss of CNY 4618 million in the first three months of 2011, and it was expected to lose over CNY 100 million in the second quarter of 2011 (Electronic, 2011).

According to Just (2007), the e-book supply has grown markedly during the last two decades, with an average annual rate of growth of around 20 per cent. However, he continues, "e-books as yet constitute only a small portion of the total book marketplace." In the same line of thought, Nelson (2008, p. 44) has noted that "e-book sales lag far behind projections and constitute only a small percentage of the book market."

There is no doubt that the technological and publishing industries are pushing heavily the boundaries of this trend. However, maybe they should, and specially librarians, consider Walter's advise before making huge investments and commitments – "We must also take into account what students will want" (McClaren, 2000, p. 405).

And this is exactly what this research aimed at finding out twelve years later.

## **LITERATURE REVIEW**

The impact of e-books in academic libraries has been a concern for well over a decade now (Fialkoff, 1999; Kinnell & Barbara, 2000; Roy, 2000; Dillon, 2000; Doris Small, 2000; Burk, 2000; Snowhill, 2001; McCarty, 2001; Peters, 2001; Bell; McCoy, & Peters, 2002; Tedd, L. A., 2005; Connaway & Wicht, 2007; Alvite Díez, L & Rodriguez Bravo, B., 2009; Morgan, 2010). During the late 90's and early 2000's researchers and librarians voiced in writing their concerns about the future of e-books. ( Bash, 1991; Barker, 1992; ; Fialkoff, 1999; Stephanie, 2000; Farmanfarmaian,

2001; However, this issue still occupies many pages of printed (and online) publications today (Konen et al., 2011; Goldberg, 2011; Polanka, 2011; Stamison, 2011; Orr, 2011; Matthew, 2011; Johnston, 2011; Herther, 2011; Shrimplin, et all, 2011; Hane, P. J., 2010; Milliot, 2010; Deahl, 2010; Abram, 2010b; Hellman, 2010; Botero, C. et al. 2009).

Although there are plenty of articles describing how academic library's are experiencing and managing e-book collections today, such as the study undergone by Shen (2011) at the California State Polytechnic University, in Pomona, CA, this literature review underscores only recent studies which identified e-textbooks (and e-books in general) usage by students in academic/university libraries.

A recent study conducted by Folb (2011) assessed the use and factors affecting use of e-books by all patron groups of the Health Sciences Library System. A total of 871 patrons completed the survey, for an approximate response rate of 18.5%. The results indicated that library e-books were used by 55.4% of respondents and that, in general, respondents preferred print for textbooks and manuals and electronic format for research protocols and reference books. In spite of little promotion, 65.5% were aware of the e-book collection.

Great awareness was also reported by Gunter (2005). He found that 85% of the users surveyed in the UK were aware of e-books. Interesting enough, lack of awareness of the Royal Roads University Library's e-books collection was the top reason cited by the 779 students who participated in the study for not using them (Croft & Davis, 2010). The title of the paper published by Woody, Daniel, & Baker (2010) indicates that they reached a similar conclusion – "E-books or textbooks: students prefer textbooks." It seems that the preference for print books has not changed within the "millennial" generation. In 2008 Nicholas and Lewis (2008) studied the attitudes of Millennials toward books and e-books and concluded that "Although Millennial students are quite familiar with and use many forms of technology daily, when it comes to reading a book even they prefer good, old fashioned print" (p.23).

In an earlier study, conducted by Knutson and Fowler (2009), e-texts received mixed reviews from students. But still, 75% of college students said they would prefer print to digital texts. Slater (2009) focused his study conducted at Oakland University, in the identification of what got more use, e-books or print books. He divided the use by subject and found out that library patrons showed a strong preference for e-books in the computer science/technology and sciences in general, and a marked preference for the print format in History and in Language and Linguistics and humanities.

Jamali, Nicholas and Rowlands (2009) studied the views of 16,000 academics. The study disclosed that convenience associated with online access (n = 6,169) along with searchability (n = 1,556) were the biggest advantage of e-books. The authors added that printing features needed to be improved and plans should be made by librarians to better promote the e-books collection. Nariani (2009, p. 7) also concludes that "the data and comments gathered from the survey" applied to students at the York University of Toronto, "indicate that e-books have not been used to a very large extent and there is room for further promotion and education. E-book promotion needs to leverage on the convenience, searchability, and accessibility of e-books as a format.

The student, faculty, and staff population of the University of Illinois at Urbana-Champaign was surveyed regarding their awareness, usage, or lack thereof, and opinions about e-books. Shelburne (2009) received 1,547 responses. Fifty seven percent of these reported that they had used e-books. Approximately 41% of respondents who had not used e-books indicated it was because they did not know they were available, 15% that they did not like to read from the screen, 10% stated that they did not know how to find e-books, and 7% that they had a preference for printed books. The results show that users considered e-books better than print books in terms of space and storage, accessibility 24/7, currency of information, and availability from any location.

Another work published in 2009 (Jones, 2009) reports that 44% of respondents indicate some use of UCL e-books. However, the author observes that libraries should make their sites more highly

visible, abandon any hope of being a one-stop-shop, and they should accept that much content will seldom or never be used, other than perhaps a place from which to bounce. Noorhidawati & Gibb (2008) had made this clear in their paper "How students use e-books – reading or referring?" This study was conducted using 1,372 students from the University of Strathclyde, in Scotland. The survey revealed that the most popular reason for using e-books was for finding relevant content which, according to the authors, "indicated that e-books were not read in their entirety but instead were consulted or used for reference purpose.

One of the most comprehensive e-books use surveys ever conducted (Nicholas et.al, 2008) involved 22,437 subjects in the UK. The study shows that e-book penetration was very strong – 61.8% of all students were already using them in connection with their scholarly work. According to the authors, the e-book revolution had already happened but clearly it had some way to go.

Significant results were obtained by Shepperd, Grace, & Koch (2008) in the same year. They examined the perceptions and performance of students who used an electronic versus a traditional paper textbook for and Introductory Psychology class. Most of the students purchased the paper text (n = 330, 90%) versus the electronic (n = 37, 10%). The 392 students who chose between the 2 formats did not differ in course grades. However, the authors summarize that "students using the electronic text reported spending less time reading for class compared to students using the paper text and generally evaluated the electronic text unfavorably. No student who purchased an electronic text in a prior class chose to purchase it for Introductory Psychology" (p. 2). Interesting enough, "only one third of the students purchasing the electronic text said that they would do so again if given a chance."(p. 4)

## **METHOD**

Andrews University, located at the south eastern part of the state of Michigan in the USA, serves approximately six thousand students worldwide offering a wide range of programs at undergraduate and graduate levels in the humanities, social sciences, health sciences and technology. In the Fall semester of 2011-2012, the university's bookstore offered 74 e-textbooks for purchase.

The first step of this study was to match those e-textbooks to their corresponding classes and teachers. The 56 teachers who had an option of adopting an e-textbook were contacted and asked to provide the number of students in their classes and the number of students who had opted to use the electronic format of the textbook. A total of 38 faculty members responded. That's a 67.8% return ratio. A total of 962 students were registered for their classes. Out of these, 56 students (6.2%) chose the e-textbook version.

After the matches were made, the data gathering procedure began. For this end, slightly different questionnaires were developed. One questionnaire for students who chose the traditional hardcover text book, and another for students who chose the e-textbook format. Questions were asked about their awareness, acquaintance, use and experience with e-textbooks, the reasons why they either chose or did not choose the e-textbooks, their opinion on what would make e-textbooks more suitable in their area of studies, what factors they thought would hinder their use, how e-textbooks compared to the print version, which e-books features were most important to them, and how they felt that the use of e-textbooks influenced their learning. These questions drove the core of the research.

Out of the 38 faculty members who responded, 28 actively participated in the study, either distributing the questionnaires to students, and collecting them, or allowing us to distribute and collect them during class.

Therefore, half of the teachers who had an e-textbook available for their classes through the bookstore actively participated in the study. Out of the 962 total student population, 772 (80.2%) had the chance to participate in the study, due to their teachers willingness to cooperate in this

investigation. Out of these, 503 participated in the survey, representing a return rate of 65.1%. Out of the 56 students who chose the e-textbook, we received a return rate of 73.2%, that is, 41 students.

The results obtained were then tabulated and compared with findings of similar studies.

## **FINDINGS AND DISCUSSION**

The data found in this study will be compared to results of recent academic library studies reporting students' e-books usage, preferences and perceptions.

### Use and Preference

Among the 503 student respondents, only 61(12.1%) used e-textbooks. However, 41 of those were required to do so by their physics teacher. This means that only 20 (4%) actually chose to use an e-textbook for their classes. A test with e-text usage was made by Wiley at the University of Texas. The Co-op sold only 55 e-books, though they were available for 198 courses taken by a total of 15,000 students. This represents a mere .4% of the students (Nawotka, 2009). Out of the 392 introductory psychology class students who participated in the study conducted by Shepperd, Grace and Koch (2008), 10% preferred the e-textbook over the print version. In a recent examination of student buying patterns, Shepperd et al. (2008) revealed that 10% of students who were given the option of purchasing an e-book did so (although the printed book was more expensive), despite easy access and an in-class demonstration of the e-books. These results represent a much lower percentage than the 36.6% obtained by Anuradha & Usha (2006).

A study conducted by Levine-Clark back in 2006 demonstrated that 62.0% of the population studied had used e-books occasionally, and 27.7 % had used e-books one time only. That study indicates that "in response to the question 'if you had access to print and electronic versions of the same book, which would you use? 2.1% only declared that they would always use electronic" (p.292).

The results of the JISC National E-Book Observatory study indicated that only 13.2 % of the population studied posted general expressions in favor of e-books, and also only 13.1% of the subjects requested for the provision of more e-books (Jamali, Nicholas, and Rowlands, 2009).

Although 61.8% of the 22,437 students who participated in the JISC funded UK National E-Books Observatory study conducted by Nicholas et al (2008) had used e-books, the preference for printed books over e-books, also shown in this study, is well documented. Similar conclusions are reached when the findings of different studies are compared (Folb, Wessel & Czechowski, 2011; Shelburne, 2010; Crof & Davis, 2010; Fowler, 2009; Slater, 2009; Jones, 2008; ebrary, 2008; Williams and Best, 2006; Langson, 2003).

In our study, out of the remaining 442 students who chose the print version instead, 103 (23.3%) had used e-books of any type in the past. Jones (2008) found similar results. The profiles of the 28 students who participated in the interactive user research showed that most had limited e-books experience. Actually, the 301 students were "infrequent users" of eBooks. The study conducted by Levine-Clark (2006) at the University of Denver also comes to the same conclusion.

The results of the survey conducted by Rowlands et al. (2007) shows that 53% of the participants had no experience using e-books. Although the study showed that half of the 2,067 participants used e-books, most used them only occasionally (68% of faculty, 57% of undergraduates, and 64% of graduates). Only 10% believed they used it frequently. From the 3,322 students who participated in a study in the UK, 1,610 (49%) said "yes" to the question whether or not they had used e-books (Gunter (2005). However, Anuradha & Usha (2006) reports that 59.4 % of the students they surveyed at the Indian Institute of Science had used e-books at some point.

In our study, a total of 41 (40%) out of 103 students who reported having used e-textbooks before, manifested that their experience had been positive, claiming that it was *easy to navigate* (n = 7) and that there were *less books to carry around* (n = 5). However, out of the remaining 62 (60%) students who reported having a negative experience, 29 (26.8%) indicated that the hard cover was better to read, and 7 (11.3%) that it was hard to scroll. In reality, there were other 27 different complaints. Some students even stated that they “*hated*” the experience, that they couldn’t “*highlight important text*”, that it was “*time sensitive*”, “*couldn’t make notes*”, and “*did not learn well.*”

Administrators at Northwest Missouri State University handed a book reader to 200 students with an assignment: “Use e-textbooks for studying, instead of heavy hardback texts”. Fowler (2009) reports that dozens of participants dropped out of the program, complaining that the e-texts were awkward and inconvenient. Penn State ran a similar pilot program with 100 students, and found similar results (Fowler, 2009). A decade earlier, Luther (1998, p. 32) already had observed that “Designers of these new e-books realize that they have to provide readers with a comfortable experience....”

Although the literature is robust in showing that there is a clear preference for print books over e-books by college and graduate students, Morgan (2010, p.17) concluded, after a study he conducted at the Health Sciences Library of the Memorial University of Newfoundland, that “apparent low overall use of the print collection and the accessibility of e-resources strongly suggest that electronic texts should replace much of the print collection.” Interesting enough, 86% of the students from the University of Illinois who participated in Shelburne’s study, indicated that they “want to use them more” (Shelburne, 2010, p. 62).

Although there are recent studies, such as the ones conducted by Morgan (2010) and Shelburne (2010) which report optimistic figures in favor of e-books, the results obtained by Shepperd, Grace and Koch (2008) a few years earlier, is more indicative or more closely resembles the reality today. It was shown in their study, that the 36 students (out of 392) who purchased an electronic text for a prior course, not one purchased the electronic text for the introductory psychology class. A minority of the subjects studied indicated their preference for e-books.

But clearly, this research closely replicates results of many studies which investigate e-textbooks usage patterns by university students. For more than a decade now, studies show that students prefer the hardcover book over the e-book for their studies.

### Reasons for not Using E-books

The great majority of the students (87.9%) surveyed did not choose the e-textbook version. When asked why, more than half of these students (59.2%) stated they preferred the print version, 12.4% that they were not familiar about how to use it, and 9.5% expressed that e-books were too expensive. Shelburne (2009) also found that 10% of the students did not know how to find e-books, and 5% could not find e-book titles applicable to their research.

However, a data that stands out and should be considered closely by librarians is that 131(30%) students affirmed they did not know it was available and another 36 (8%) indicated they did not know how to get it. A similar result was found by Folb, Wessel, and Czechowski (2011). They found that 35.5% of the students surveyed at the Health Sciences Library System at the University of Pittsburgh were not aware of the e-book collection. Other studies (Shelburne, 2009); Levine-Clark, 2006; ebrary 2008; Chong, Lim & Ling, 2009; Anuradah & Usha, 2006) confirm these findings with similar or even higher percentages.

According to Jones (2008, p. 6), “eBooks are part of a large and evolving information ecology, and users are understandably unaware of the availability of eBooks in the collection. So when eBooks show up in search results, it often occurs as a surprise – in most cases (nearly all, at first) the eBook would be seen as an alternative to the printed book.” Answering to the e-Brary’s (2008) study, 14% of the 6,492 respondents reported that their awareness level of electronic resources was “excellent”, and 54% was “good”. Thirty seven percent stated that it was less than “good”.



However, 57% stated that they did not know where to find e-books. Nicholas (2008) observes that “the demand for e-textbooks to support taught course students in higher education are not currently being met and the scarcity of textbooks generally is a big point of concern for students.”

More poignantly, in the study conducted by Croft & Davis (2010), lack of awareness was the top reason cited by students for not using e-books. A total of 40.2 % said they did not know the RRU Library had e-books, 26% that they didn't know how to find them in the library system, and 6% that they were not familiar with these resources.

Opposite results were also obtained by several researchers. Nariani (2009) reported that the majority (65.5%) of graduate students surveyed was aware of e-books and 76% had used them. Over 85% of the business academic staff was aware of the JISC Collections e-versions of the print texts (Nicholas et al., 2008). Similarly, Levine-Clark (2006a) and Levine Clark (2006b) report that 59.1% of the 2,067 participants in his study were aware that Penrose Library provided access to electronic books.

In our study, nineteen other reasons were given by students for not buying the electronic version of the textbook, including that it is *hard on the eyes*, *it expires*, and it is *unreliable*. Findings from the study undergone by Shelburne (2009, p. 62) indicate that 15% of the students surveyed do not like to read them on the screen. Levine-Clark (2006) also reports that students and faculty commented that *eyestrain* was one of the reasons why print books were preferred over e-books.

The results of the survey conducted by Rowlands et al. (2007) and also Nicholas et al. (2008) at the University of London unquestionably demonstrates that e-books clearly compare very unfavorably with print titles for perceived *ease of reading*. Concurring with Rowland and Nicholas' (2008) previous findings, Jamali, Nicholas, and Rowlands (2009) found that only 0.74 percent of the participants in their study stated *ease of use* as an advantage of e-books over the hard copy. They also noted that the most inhibiting feature of e-books is the difficulty of reading them from the screen. In the ebrary (2008) study, almost 14% of the 3,125 students who answered why they never had used e-books, did so reporting that e-books were *too difficult to read*. Hard to read and browse was also given as a reason for not using e-books by 21.7% of those who participated in the study conducted by Anuradha & Usha (2006). Although this does not seem to be an expressive number, it is however, the reason most cited for not using e-books. In a study conducted by Chu (2003), participants revealed their dissatisfaction with e-books claiming that they were *hard to read and browse or need special equipment*.

As far back as 2004, Kropman, Schoch, & Teoh (2004) had already suggested that eye strain from computer screens can lead to a level of discomfort and differential usage of this medium that could affect student's preference.

Thus, lack of awareness, not knowing how to get it, eyestrain, and difficulty of reading are the culprits for students not using e-books more often.

### Satisfaction with E-books

Almost half, (27 out of the 61, that is 44.3%) of the students who had chosen an e-textbook had used one before. When asked if they thought that e-textbooks were a good alternative, 41 (67.2%) answered it was, asserting also, that that they had a positive experience. Twenty of them remarked that e-books were *less expensive*, 15 that it was *lighter to carry* and 8 stated they were *more accessible* than the print version. Twenty students (32.8%), however, affirmed that e-textbooks were not a good alternative. Ten of them said that it was *hard to read*, ten that they *preferred the hard copy*, five that *computer crashes*, four that they *can't flip through the pages, can't highlight*, and that they had *problems with lap tops*. These were the main reasons given to justify their answers. However, there were also 17 others given to justify their negative experiences.

In regards to e-books in general, Kroft and Davis (2010) found that while only 5.4% of the students reported not being satisfied with their experience using e-books, 33.7% were either satisfied or very satisfied. The study undergone at the Indian Institute of Science revealed that 55% of the respondents were somewhat satisfied with e-books and 36.6% were very satisfied. Only 8.3% claimed they were unsatisfied and none very unsatisfied (Anuradha & Usha (2006). However, Woody, Daniel, and Baker (2010) indicated that students experienced greater satisfaction with print books.

Although the majority of students clearly manifest their preference for the printed text, the majority, however, who chose to use the e-book version, report they are fairly satisfied. But it is also noted that those who claim not being satisfied, present numerous reasons.

### Suitability

Table 1 shows the results to the question, what do you feel would make e-textbook usage more suitable for use in your area of study? Almost 30% of the students agreed that *fewer restrictions on printing and copying* would make e-textbooks more suitable. It is interesting to note that 84 (17%) out of the 503 respondents mentioned *better e-book readers*. The main “other” responses were related to *difficulties reading book online, costs, expiration dates, and highlighting* issues.

The results of the ebrary (2010) study reveals that 81% of the participants answered that *more titles available in my subject* would make e-book more suitable, while 68.2% answered *less restrictions on printing and copying*, 62.6% *more current titles*, and 37.8% *better book readers*.

CampusBooks (2011a) conducted a study of the top 1000 textbooks for back to school last year, and found that the e-book retailers had very few available, less than 50% of the books students need. “Digital and e-books are the textbooks of the future, but finding them is still a struggle. Students have to either manually search each site for their book, or just hope it’s available on their iPad or Kindle (Jeff Cohen, CampusBooks CEO). “Until more titles are added, it looks like students may not find their books” (CampusBooks, 2011b).

SUITABILITY OF E-TEXTBOOKS	Students Who used Print (442)	Students Who used E-text (61)	Total (503)
I don't know	162	-	162
Fewer restrictions on printing and copying	128	20	148
Multiple capabilities	111	18	129
PDA accessibility	86	18	104
More titles available in my subject	89	14	103
Better e-book readers	61	23	84
More current titles	54	09	63
Better training and instruction	44	03	47
Others	05	04	09

**Table 1 – Suitability of E-Textbooks**

Surprisingly, a total of 162 (32.2%) students, all who chose the print version, answered that they didn't know what could make e-textbooks more suitable for use in their area of studies.

Once again, students pointed *difficulties reading book online, costs, expiration dates, and highlighting* as the main barriers for a more prolific use of e-textbooks. More than 30% of the

respondents didn't know what could make e-textbooks more suitable. This could be an indication that they lack experience using it and, therefore, can't have a justifiable opinion.

### Types of Usage

As can be seen in Table 2, the 103 students who had used e-books have, in average, only "sometimes" read parts of the book. In relation to e-textbooks, the 61 students "often" read a page only or a single or a few entries. These 174 students rarely read the entire book online. Also, they rarely download it to an e-reader device. (1 = Never; 2 = Rarely; 3 = Sometimes; 4 = Often, 5 = Very Often). These results should not come as a surprise.

<b>E-BOOK AND E-TEXTBOOK USAGE</b>	<b>MEAN E-BOOKS</b>	<b>MEAN E-TEXTBOOKS</b>
Read directly from screen	3.4	4.0
Read a chapter or an article only	3.0	3.3
Read a single entry or a few	3.0	3.7
Read a page within a book	3.0	4.0
Read section summaries	3.0	2.8
Read captions and charts	3.0	3.4
Use the activities or online resources	2.7	3.0
Answer section summaries	2.0	2.2
Answer study questions	2.0	2.5
Read on a mobile phone	2.0	1.8
I use e-books from Google E-books	2.0	-
I use e-books from an e-book reading device	2.0	-
Read the entire book online	2.0	2.2
Download it to a e-reading device to read it	2.0	2.4
Print parts of the e-book	1.9	2.0
Read on a dedicated e-book device	1.8	1.9
Print the whole e-book to read it	1.5	1.8
I use e-books from the library's online catalog	1.0	-

**Table 2 – How Students Use E-books and E-Textbooks**

When e-books were still trying to find their way into libraries, Meadow (1995, p. 10), referring to e-books, stated that "The benefit in use will come first to those who want to look up brief passages (facts or quotations), who want or need control over searching or reading sequence, or who want to do linguistic analysis of a text rather than to read it." A few years later Nielson (1997) and Rho & Gedeon (2000) found that readers skim computer-based text more often than paper-based text, and reading e-text in an "F" pattern, searching for key terms rather than reading line by line was observed by Nielson (2006) a decade later. Although Nicholas et al. (2008) noticed that a large number of students were using e-books, nevertheless they were reading "snippets online and not the whole book. Safley (2006, p. 445) defends that "Rather than support the sequential reading of books, electronic e-books are commonly used to find information and can be particularly well-suited for reference purposes."

A similar pattern of how students use and read e-textbooks (or e-books in general) is confirmed by: Rho & Gedeon, 2000; Gunter, 2005; Levine-Clark, 2006a; Levine-Clark, 2006b; Shepperd, Grace & Koch, 2008; Jones, 2008; Shelburne, 2009; Nariani, 2009; and more recently, by Ebrary, 2010.

All of these studies report that very few students read e-books from cover-to-cover. The great majority skim through e-books or only parts of it to find bits of information. They also indicate that students are more likely to read captions, charts, section summaries, and answer study questions more in print texts than when using e-books.

Sixteen years after Meadow's (1995) study, Folb, Wessel, and Czechowski (2011) reported that a total of 56.6% of the students surveyed use e-books to look up brief factual information. Thus, for almost two decades studies have demonstrated that this pattern of use has not changed.

### Starting Point to Access E-books

Almost half (43.7%) of the 103 students who had used e-books start their search using Google or some other search engine, as can be seen in Table 3 below. Only 22 (21%) of them at the library - either at a library web site, online catalog, or through a library staff.

<b>PLACES WHERE SEARCH STARTS</b>	<b>Frequency</b>
Google or other search engines	45 (43.7%)
Google Scholar	14 (13.6%)
Vendor or Publisher website	12 (11.6%)
Library website	11 (10.6)
Other bookstores	10 (9.7%)
The University's bookstore	9 (8.6%)
Library online catalog	9 (8.6%)
Course syllabus or course management system	6 (5.9%)
Friends and colleagues	5 (5.8%)
Teacher	4 (3.9%)
Library staff	2 (2.0%)
Others	7 (6.8%)

**Table 3 – Starting Point for E-book Search**

Although there are studies which show that student value the library as the starting point to access e-books (Nariani, 2009; Levine-Clark, 2006; ebrary, 2010), Similar results were found by Croft and Davis (2010). Less than 20% of the 779 students they surveyed answered they found out about RRU Library e-books through the library with a reference or research question. Rowlands et.al (2007) report that only 35% of the students at UCL source e-books from the library. According to Jones' (2008, p. 5) findings, most students usually start their scholarly research with an open web search - scholars' portals, online catalogue, all eResources, and the Web (Scholar, Google, Wikipedia).

Other studies show, however, that students value the library as the starting point to access e-books. Nariani (2009) reports that 67.2% of the Steace Science & Engineering Library students who were surveyed used the library catalogue as the main e-book discovery route. The library website and the library catalog were the starting point for most of the ebrary's (2010) study participants, and it was either through librarians or other library information resources that these students learned about e-books. Levine-Clark (2006, p. 289) states that 'Of those (1,215) indicating the means by which they learned about the university's provision of electronic books, 39,3% learned about the availability of e-books through the library's catalog, 26.7% from a professor, 15.6% from a librarian, 14% from a library home page, and 4.4% learned about it from a friend.

Why many college and graduate students are not using the library access resources as a first venue to search for e-books is still to be answered. Lack of promotional initiatives and information literacy programs covering this resource could be the main reasons.

### Opinions and Perspectives

Students who were using e-textbooks were asked how strongly they agreed or disagreed with several statements so we could better understand their perceptions about and use of e-books. Students who had used e-textbooks, in average, slightly agreed when confronted with the statement “I’m very familiar with the technology to use e-books”, and were, in average, undecided whether they agreed or not with the statements: “I know where to access e-books”; “E-book reading devices are user friendly”; “I would use e-textbooks for other classes in the future”; “I know where to access e-books”; and “E-book reading devices are user friendly”. They were very undecided if they agreed or not with the statements “E-textbooks are very useful and reliable for my assignments”; “I’m satisfied with the use of e-textbooks”, “I only use e-textbooks when the print version is not available”; and “I’m willing to recommend e-textbooks to other colleagues”. They slightly disagreed that “e-textbooks can replace the print version” and that there is a “steep learning curve to use the various interfaces”.

Very similar answers were obtained from the 103 students who had used e-books in general, especially in regards to the statements: “I only use e-books when the print version is not available”; “I know where to access e-books”; “I’m very satisfied with the use of e-books”; “E-book reading devices are user friendly”; and “There is a steep learning curve to use the various interfaces”. In average, they also were very undecided whether they agreed or not with those statements.

The 339 students who had never used an e-book were also asked to determine to what degree they agreed or not with similar statements. In average, they agreed with the statement “I’m used to reading printed books and do not want to change the habit”, and were very undecided if they would use an e-book if a professor or friend recommended it. They were also very undecided if they agreed or not with the statement “There is a steep learning curve to use the various interfaces”. It is interesting to note that they disagreed also with the statements “I’m not familiar with the technology to use e-books” and “I’m aware of the availability of e-books in the library”.

At least half of the participants in the Ebrary (2008) study agreed that e-books are accessible anytime, anywhere; that they were easy to search and find information, easy to share and store, good for quick reference, and easy to browse. Only 13% agreed that e-books were easy to read.

It is interesting to note that Simon’s (2001) study reveals that all of the participants in his experiment would recommend e-books. And this was when e-books were still in their initial phase, entering the market with many limitations.

### E-book Features

All of those students who had used e-textbooks or e-books in general before (164), were given a list of e-books features to rate how important those were to them. The ratings were: 1 = Unimportant; 2 = Of little importance 3 = Moderately important; 4 = Important; 5 = Very important. The results are presented in Table 4 below.

FEATURES	MEAN
Portability/Mobility	4
Instant access to content	4
Lightweight	4
High-quality screens for backlighting for reading in many situations	4
Glossary lookup	4

Ability to store large amounts of materials	4
Off-campus access	3.9
Hassle free	3.9
Anytime access	3.9
Convenience	3.9
Searching capabilities (tools to locate words or quotes...)	3.8
Downloading to my computer/laptop	3.8
Good customer service	3.7
Search and browse dictionary and indices	3.7
Ability for more than one student to use an e-book at the same time	3.6
Highlighting	3.6
Un-highlight	3.6
Copying and pasting	3.6
Zoom and scale	3.5
Automatic citations	3.5
Printing	3.4
Ability to share notes	3.3
Annotating	3.2
Collaborative tools	3.2
Book reviews	3.1
Present multiple views of content	3.0
Notes with labels	3.0
Multimedia	3.0
Ability to email text	3.0
Downloading to handheld device	3.0
Shared bookshelves	3.0
Personal bookshelves	3.0
Personalize the look and feel	3.0

**Table 4 – Importance of E-book Features**

As can be seen from Table 4 above, none of the 33 features presented were considered “very important” (mean = 5). Only 6 of those features were considered, in average, “important” (mean = 4), and 6 others very close to important (mean = 3,8 and 3.9). All of the other features were considered, in average, “moderately important” (mean = 3.0 to 3.7). E-book features that stand out as being important to students are *portability/mobility, instant access to content, high-quality screens, convenience, searching capabilities, sharing, and highlighting*. Some of the “moderate important” ones are: *printing capability, annotating, ability to email text, and download to a handheld device*, amongst others. Compatible results were obtained by Folb, Wessel, and Czechowski (2011). They found that students considered *printing, bookmarking, highlighting, and annotating* text moderately important.

Studies show that students highly value *printing* (Folb, Wessel, & Czechowski 2011; Nariani, 2009; Rowland & Nicholas, 2008; E-Brary, 2010; Mulvihill, 2011); *annotating* (Folb, Wessel, & Czechowski, 2011; EDCUASE, 2010; Chong, Lim & Ling, 2009; E-Brary, 2010; Mulvihill, 2011); *highlighting* (Folb, Wessel, & Czechowski 2011; Chong & Ling, 2009; E-Brary, 2010); *sharing* (EDCUASE, 2010; Nariani, 2009; E-Brary, 2010); *24/7 access* (Anuradha & Usha, 2006; Nariani, 2009; Rowland & Nicholas, 2008; E-Brary, 2010); *bookmarking* (Folb, Wessel, & Czechowski 2011; Chong & Ling, 2009); *cross-linking* (EDCUASE, 2010; Chong & Ling, 2009); *downloading to a reader device* (Nariani, 2009; E-Brary, 2010); *searchability*, (Jamali, Nicholas & 2009); and *portability* (Anuradha & Usha, 2006; Jamali, Nicholas & Rowlands, 2009; Mulvihill, 2011). Other important features mentioned in these studies were *costs, ease of making copies, up-to-datedness, and space saving*.

A study conducted in 2003 reveals that *availability around the clock* and *searchability* were both chosen and ranked by the participants as the most important reasons why they used e-books (Chu (2003). What students value most in e-books didn't seem to change much since libraries began investing in them more consistently. Simon (2001) found that *glossary lookup, bookmarking, highlighting, and annotation* were the features that more than 64% of the students surveyed considered as being important.

Surprisingly, in Croft's and Davis' study (2010), the majority of students rated the ability to download an e-book to a hand-held device as not important.

A report from the Ebrary (2010, p.12) well summarizes this issue:

Downloading to a laptop or handheld device raises some issues. This capability assumes the ownership of, or access to, such a device. The ability for more than one student to use an e-book at the same time usually depends on what the student's institution can afford. This issue comes up particularly if the e-book is a required reading for the whole class. When there is a sudden influx of hits on that book, students will quickly reach the limit and usually don't know why they were denied access. They do not connect e-book with the concept of circulation. Copying, pasting, printing, and emailing text present more issues. Some platforms will allow only page by page printing, while others, such as Springer, supplies e-books in PDF format and allows up to 30 pages of printing at a time.

### E-books vs. Print Books

The 164 students who had used either e-textbooks or e-books in general before, were given the opportunity to compare them based on 28 different factors and features. The results are presented in Table 5. The scale used was: 1 = e-Text books are better; 2 = Print books are better; 3= They are the same; 4 = Don't know

<b>FACTORS/FEATURES</b>	<b>MEAN (164)</b>
Provides a learning experience	2.5
Easy to maintain attention and concentration	2.2
Ease of reading	2.1
Pleasure of reading	2.1
Ease of marking a place	2
Up-to-date	2
Available everywhere	2
Flexibility	2
24/7 accessibility	2
Ease of annotation	2
Ability to Highlight	2
Easy to cite	2
Clear graphics and images	2
Tangibility	2
Durability of information	2
Easy to use multiple documents at once	2

Quantity of titles in my program of study	2
Cost/benefit	2
Ease of Plagiarism	2
Easy to organize	2
Possibility to share	2
Ease of making copies	1.9
Portability/Transportability	1.8
Quick reference	1.8
Convenience	1.7
Ease of navigation/Browsing	1.6
Space/Storage capability	1.4
Searching capabilities	1

**Table 5 – Comparison Between E-books and Print**

Students considered that the printed version of books is better than e-books regarding 20 (75%) factors or features. E-books were considered better in features such as *quick reference, convenience, ease of navigation and browsing, portability, storage, and searching capabilities*. The greatest differences in favor of the print version was in relation to factors such as *learning experience, easy to maintain attention and concentration, and ease and pleasure of reading*.

Shelburne (2009) found that library users considered e-books better than print books in terms of *space and storage, accessibility 24/7, currency of information, ease of making copies, and availability from any location*. They stated, however, that print books were better than e-books for *ease and pleasure of reading*.

According to Fowler (2009), educators find e-book readers and e-textbooks *expensive*. E-textbooks aren't cheap, and they may cost only slightly less than the print equivalent. E-textbooks are *also difficult to share and print*. Fowler still observes that most e-readers lack highlighting, note-taking, and sharing capabilities and many expire after several months, meaning that they can't be kept for future reference. Fowler (2009) further reports that the Student Public Interest Research Group, a consortium of 504 student activists based in Chicago "slammed existing e-textbook efforts for 'being in the wrong track.'

The eBrary study conducted in 2008 (eBrary, 2010) indicates that students considered e-books as being more *environmentally friendly, accessible, easy to search and find information, easy to store* than the printed book format. A study reported by Microsoft (2002) revealed several disadvantages of e-books compared to hard copy ones. The main ones were: *lack of standardization of interfaces* which can confuse users; *limited number of e-books in all disciplines* which are mostly in English; *e-book software* which does not always seem to be designed in a user-friendly manner; and *rights management features* may prevent users from *printing, e-mailing, or sharing e-book contents*.

Pricing is a huge – in fact, a decisive factor in the rapid acceptance of e-textbooks, according to Johnston (2011). A total of 16% of the participants in Anuradha & Usha's (2006) study, six years earlier, mentioned cost as being the reason for their lack of use of e-books.

Chu (2003) reported on a survey conducted at Palmer School of Library and Information Science. The study showed *around the clock availability*, and *searchability* to be the most favorable features of e-books and "being hard to read and browse" or "need for special equipment" as reasons hindering the use of e-books.

In 1995, Meadows (1995, p. 10) predicted that "someday, we will have an electronic reader that is small, light, comfortable to use, and comfortably priced. Six years later, Birkey (2001, p.28) made



the same prediction... “these young adults will be lightening their unwieldy book bags by carrying around dozens of texts on one device” and “they will carry around a book for pleasure reading because it doesn’t take up more room in their bags.” This enthusiasm was possible because “it was only last year when advances in e-book technology began to show readers worthwhile alternatives to the printed page.” While studies today show that these predictions have come true, others have not.

Still today, e-book users are struggling with the same issues Snowhill (2001, p. 3,4) pointed more than a decade ago as features that needed to be enhanced to gain user’s full acceptance.

A pragmatic factor in using e-books is the ease of reading and using them, yet e-book hardware devices are still not quite practical or cost effective enough to penetrate very deeply into the market...Still being developed, DRMS are either hardware or software (or both) that enforce control over intellectual property, such as limit by user, time, fee, and/or extent of content...Do to publisher’s concerns about rights, to date e-book vendors are normally able to offer only limited usage rights for printing, downloading and copying. Normally, interlibrary loan is not allowed, and classroom use is not always allowed. Issues of access include user awareness and the ability to accommodate simultaneous users.

If we change the year of this quotation to 2011, no one would disagree.

### Learning Experience

The three last questions of this survey are extremely important to gage the “status quo” of e-books from the student’s perspective at the present moment.

A recent study conducted by Woody, Daniel, & Baker (2010, p. 945) timely reminds us that “The possibility that e-texts could have differential effects on learning ...is an important consideration in the adoption of a text option for every student... Although e-books tend to mimic their print counterparts, students may not read e-books the same way as they do textbooks.”

The 108 students in our survey who had previously used e-textbooks, had the opportunity to answer the question “Do you feel that the use of e-textbooks influences your learning experience in any way compared to the use of textbooks in the print format”? Thirteen students answered *yes* and ten *no*.

Only three of those who answered *yes* felt that the use of e-textbooks influences the learning experience positively. However, none of the 9 reasons given were actually related to their learning experience. The ten students who thought that it influences negatively, seven answered that it is *harder to focus* when studying or using an e-textbook, four stated that they *learned more on the printed version*, and three that reading an e-textbook *depreciated their learning*. Reasons such as “*text harder to read*”, “*they make me want to study less*”, and “*don’t absorb as much*”, were also mentioned by these students.

Students that participated in Jones’ study had similar reactions. Jones (2008, p. 12) states that “...these undergraduate students were unwilling to risk their grade on the unknown interaction style for learning the subject from an eBook.” Thus, keeping students in mind when going digital is key, suggests Mulvihill (2011), and Worlock notes that “one of the best drivers for change is providing evidence of improved student performance” (Mulvihill, 2011, p. 4). Since Ponti thinks that e-textbooks have positive impacts on student’s ability to understand the material better, she makes an effort to choose e-textbooks offered on Aplia (Mulvihill, 2011). However, a professor at Andrews University discontinued using the e-textbook for her class because the “experiment did not go well.”

Schumacher and Waller (1985) are of the opinion that we risk losing important information by not focusing upon the process variables associated with the reader’s use and interaction with the text.

Although e-books tend to mimic their print counterparts, students may not read e-books the same way as they do textbooks (Woody, Daniel, & Baker, 2010, p. 945).

Although the research conducted by Aust, Kelly, & Roby (1993) reveals that there are no differences in comprehension of material presented on paper versus electronically, Young (2001) asserts that some students and instructors complained that reading from a computer text feels disjointed, and after experimenting with the eTextReader for two computer science classes, McFall (2005, p. 80) remarks that "It remains to be seen whether the user of an e-textbook does indeed significantly increase student learning."

Concluding their study, Woody, Daniel & Baker (2010, p. 947) state: "It is becoming quite clear that, despite the ubiquity of computers and interactive technology in their lives, students preferred textbooks over e-books for learning and this preference is not altered by familiarity with the medium."

Nonetheless, responses from students who had used an e-book did not differ from the responses of students who had not chosen to use an e-book when they rated the way they would prefer to learn (Woody, Daniel, & Baker, 2010). Shepperd, Grace, and Koch (2008) found that there are no differences between the e-book and textbook groups in learning outcomes.

Studies in this particular matter present mixed results. Too many uncontrollable and individual factors come into play when evaluating the learning process. In-depth research specifically approaching how e-books influence learning is still needed.

#### Future Use of E-books

In average, the 442 students who used the print version of textbooks answered that they would *hardly ever* acquire and use an e-textbook if a friend recommended to them, and *somewhat likely* if a professor would in the future.

Shelburne concluded that 25% of the students and 28.5% of the faculty would prefer printed books in the future and only 11% of both populations preferred e-books. (55% of them would use both E and print). However, the study conducted by Woody, Daniel & Baker (2010) shows that of the 91 participants in their study, 54 (59.3%) had decided to use an available e-book in a previous course. This means that almost 60% of the participants decided to use e-books again.

More interesting are the results obtained by Simon (2001). In his study, the nineteen students who participated in his experiment affirmed that they were pleased with the e-books provided and that they would recommend it in college courses to a friend. A total of 95% indicated that they wished more courses incorporated this new medium and that such inclusion could affect their course choice. The results of the study conducted by Anuradha & Usha (2006) indicate that 33.3% of the participants would definitely use/purchase an e-book in the future and the same percentage claimed that they would probably use/purchase one. Only 11% said they probably would not and 1.6% would never use. However, 17.8% of the respondents claimed they were used to reading print books and had no wish to change.

Despite these encouraging results, Shepperd, Grace and Koch (2008) revealed, as a result of their study, that only one third of the students purchasing the electronic text said they would do so again if given a chance. Based on the results of our study, and considering its limitations, it seems that this general trend has not changed much.

It seems like many college students are still skeptical about the advantages of e-textbooks, while others are optimist. While the majority of students seem to prefer print books, most of those who actually use them, would most likely use them again in the future.

## CONCLUSION

Besides all the optimism surrounding e-books, recently published papers continue to expose a concern for their future in libraries. Herther (2011, p. 12) states that just as Gutenberg's invention re-created books, e-books represent another major shift. If publishers are not able to move beyond issues of DRM and copyright to match user needs, they will find themselves marginalized as authors and readers discover new ways to find each other on the internet. If this is the actual scenario, Herther's opinion that "libraries themselves aren't safe in this changing information environment" makes sense, and her question "what role will libraries play in the 21<sup>st</sup> century?" is pertinent, and should be answered conscientiously by every librarian before making major commitments towards adding great quantities of e-books in their collections.

It was observed by Soules (2008) and confirmed by this research, that not every student has the knowledge, the fiscal means, the actual need or desire, or the circumstances to use e-books or to implement their features. Some students are still learning of the existence of an e-book. Perhaps they have encountered them, not known what to do, and chosen something else. This something else, meaning in most cases - sticking to the print books.

According to Soules, (2008, p. 14), "ultimately, e-books and e-textbooks, at least of the traditional kind, will become a larger part of the higher education scene because of distance learning." However, if libraries don't find a way to overcome the barriers associated with e-book lending, this might never happen to its fullest.

Despite the issues and despite their slower-than-expected evolution, e-books will prevail. Soules (2008) observed that this seems to be what researchers have expected and predicted for the last few years. There is optimism in the air. Librarians will continue to solve technical issues (as they always have); more and more e-books will be added into the collections; they will promote e-books and provide instruction on how to find, search, and use them.

Balas (2006, p. 36) remarked that "While the idea of caring a slim, lightweight device filled with a library of titles is appealing, it remains to be seen whether the new products that are just over the horizon will start the move toward an electronic format for books or if the printed book will retain its dominance." Although portability has been proclaimed by students in varied studies as an advantage of e-books, I can assure Janet Balas, that as of now, printed books are still retaining its dominance. As this research indicates, it seems like that Bunnelle (2000, p. 6) was right- "...the traditional book will continue to exist. ...E-books won't stop people for wanting books." At least, until 2008, this seemed to be the case. Soules (2008, p. 10) clearly concludes from his research that "The frontier of e-books may be exiting and cutting-edge, but, ultimately, will the user at the other end of the e-book, choose them? To date, e-books have not 'taken off' in the way some people expected."

For Vassiliou & Rowley, (2008, p. 364), "e-books are at a relatively early stage of development. Therefore, there is room for further research, such as:

- The context in which e-books can support access to information, reading and learning;
- Viable business models for authors, publishers, libraries and users around e-books
- The development of library acquisition and collection development policies to accommodate e-books."

More than a decade ago Snowhill (2001, p. 8) asserted that,

It is not clear that academic libraries can replace print with e-books as a long-term collection goal. There are still concerns about adequate rights to information to support the academic mission of open scholarly communication. As one respondent to our survey stated: Print has many rights and powers that e-books don't. We like e-books but we must not allow ourselves to be locked into technology or legal/social paradigms that impair our ability to support open research, teaching, and public discourse of our community. We will

favor vendors who support open process of scholarship and long-term preservation so we will not rush into e-books.

I hope that James White Library will follow this path.

I just came back from the cafeteria. I had lunch with a professor friend of mine. He asked me what research I was developing now. And I explained that I was going back to the library after lunch to write the conclusion of this research. After explaining the nature and objective of the study, he remarked: "Oh...I'm not using them. They are hard to read and still too expensive."

I think we should listen to him...to his colleagues...and to his students.

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