MBA Student Scholarship   Graduate Studies

12-2012

Exploratory Research: The Effects of Electronic Books on College Students

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Students

Authors' Note

A paper Submitted in Partial Fulfillment of the
Requirements for the MBA Degree
Course Name: Business Information & Decision-Making
Professor: Martin W. Sivula, Ph.D.
Course Number: RSCH 5500

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Abstract

In recent years, the e-book has become more and more popular among college students, and it is much easier to be installed and set up in electronic equipment, such as laptop, Kindle, or IPad. A random sample (N=80) of undergraduate (n=25) and graduate (n=55) students not only use the e-book to read in class and library, but also at public places and at home. Of the respondents, 46% have a part-time job, 32% have a full-time job, and 22% are not employed. Fifty-five percent of the sample was male and 45% were female. The results of the survey questionnaire indicate that 55% sample claimed to spend hours on learning every week by using electronic tools, especially reading articles. Twenty-eight percent of the participants would take their electronic equipment to class instead of traditional textbooks; and 17% of them own at least two pieces of electronic equipment. Although most students rely on traditional paper print books, the population of college students applying e-book in their study life is increasing rapidly because many more "smart" and inexpensive electronic equipment (hardware) are displayed in markets in which an e-book can be installed. As everyone knows, textbooks in the United States are very expensive to be afforded by all college students. Consequently, the e-book offers a far less expensive alternative than paper print books.

Key words: e-book, college students, e-book reader, electronic equipment, devices

Introduction

College life could be an incredibly important period in a young person's development. However, many college students are facing exorbitant tuition fees and after graduating from universities, they may have to pay back students loans. What's worse, the price of traditional textbooks in colleges is extremely high, which implies that much more pressure is given to students… and they have to afford more payments in their school life besides study. Fortunately, there is a new option to release their stress recently which costs next to nothing: the e-book. E-book has become one of the most popular and important tools for college students, and its price is far lower than textbooks. Also, e-books can be transported at the speed of light anywhere around the world instantly, no more heavy books. At present, there are several e-book devices, for example, some commonly used devices are PCs, PDAs, Blackberries, Pocket PCs, Tablets, Sony Readers, mobile phones, iPods and Kindle (Vasileiou, Hartley, & Rowley, 2008). In recent years, the number of college students applying e-book to their study life is increasing. Therefore, this research ascertains college students' attitudes and perceptions about using e-books instead of traditional books.

Statement of Problem

To address the issue of the effectiveness of using the e-book, the first question raised in this study is: for what purpose do college students decide to purchase e-book for their study? Is it really more helpful and more reliable than regular books? Is it easier to save and carry? Based on these fundamental questions, we attempt to compare students' preferences of e-books and standard textbook. Thus, the objective of this research is to explore college students' attitudes

and perceptions towards using e-book at school.

The purpose of this research is to seek students' attitudes and perceptions between text book and e-book and to determine the advantages and disadvantages of e-book. Results might improve the use of educational technology and increase learning efficiency.

Research Problems

1. What are the attitudes and perceptions of college students toward e-book?

2. What are the advantages and disadvantages of e-book?

3. Why would students decide to choose another form of reading?

Literature Review

The Internet is changing globally. The new word in the publishing industry is not a word, but a letter "e" in electronic books or e-books (Rao, 2003, p.85). The emergence of e-book technology in recent years has been a significant development, and the continued presence of electronic books or e-books as an information provision medium throughout this time has significantly affected the publishing industry (Rao, 2004, p.363). The e-book can be defined as: a text in digital form; as a book converted into digital form; as digital reading material; as a book in a computer file format or electronic file of words; or as images with unique identifiers. The metadata may be displayed on computer screen or read on a computer through network or viewed on a desktop/notebook/dedicated portable device, or read on any type of computer or formatted for display on specific e-book readers (Rao, 2004, p.364). After many years of a dedicated effort by a number of scientists, the e-book industry has finally appeared to have got the technology correct (Qian, 2011, p.97).

With the incredible development of Internet and electronic technology industry, e-book has become a necessary part in college students' school life across the world today. They spend hours every day online on reading, doing coursework and searching relevant materials. A large user base of students complements the audience for academic e-books (Velde & Ernst, 2009, p.571). However, they are just going about it in a less-than-traditional way. Users recognized that dealing with chargers, downloads, files, joysticks, and keyboards is different from dealing with paper, pages, or pens, but they are deterred by the change (Pattuelli & Rabina, 2010, p.242). With the help of e-books, it is becoming much easier for students when dealing with their school work. E-readers were easily and seamlessly integrated into the day-to-day activities of participants (Pattuelli & Rabina, 2010, p.242). Although some dissatisfaction with specific features of the e-reader was reported, the portability and ubiquity that Kindle offers were generally valued by students (Pattuelli & Rabina, 2010, p.242).

Recently, universities and librarians have been increasing the number of electronic collections. E-books are becoming essential components of university library collections (Wu, & Chen, 2011, p.294). There is undoubtedly a role for e-books in school library, and it is likely that e-book service will attract new users to library service and perhaps will better serve patrons with special needs (Jeong, 2012, p.390). E-books can provide digital content for the development of digital libraries, whether personal or institutional, while complying with copyright and fair use laws (Connaway, 2001, p.347).

In recent years, more and more students are using electronic tools to study because it is much more convenient and effective for them to fulfill the coursework requirements by reading and writing online. By giving students and researchers access to large e-book collections, they are given access to a valuable database of content (Velde & Ernst, 2009, p.583). E-book content

is electronic and potentially offers the users all the advantages of the computer… including being able to search and find particular information and being able to manipulate the content (Long, 2003, p.30). Replacing traditional reserve materials with e-books offers a perfect opportunity to transform low use items into tools for student success, while making better use of our collections and funds (Rojeski, 2012, p.237).

Nowadays, there are more and more e-book readers displayed in markets around the world. There are several e-book formats available on the market and also devices specifically designed to read e-books or designed for other uses as well (Vasileiou, Hartley, & Rowley, 2009, p.175). E-readers and tablet computers are becoming increasingly popular and publishers are trying to keep up (Lynch, 2012, p.78). Previous research findings indicate that factors of convenience, compatibility, and media richness appear to be significant determinants of e-book readers' acceptance (Lai, & Chang, 2011, p.558). However, because e-book reader technology is relatively new, different e-book readers tend to use different e-book file formats (Qian, 2011, p.97). In order to be able to read an e-book, consumers must use a computer, ebook-reader, IPad™ or other form of electronic hardware (Helberger, 2011, p.69). Just as the Apple IPod™ transformed the music industry, portable e-readers like the Kindle™ and recently introduced Apple IPad™ have the potential to significantly alter the way readers consume books and other written materials (Pattuelli & Rabina, 2010, p.242). Regardless of how the e-book revolution plays out, the fundamental co-dependent relationship between texts and text-bearing devices will not change, but the nature of that relationship almost certainly will change (Peters, 2001, p.61). Print books are here to stay; e-books will enhance access to more science and research (Velde & Ernst, 2009, p.583).

Method

A pilot study was conducted to ascertain students' attitudes on the e-book using a small sample (N = 80) of college students from which data was collected. This study utilized an anonymous questionnaire, and data was collected according to the standard survey collection methods. The total number of usable questionnaires was 80, with a gender makeup of males (n=44) and females (n=36). According to the respondents, 63% were graduate students and 37% were undergraduate students attending school currently. Forty-six percent of the participants have a part-time job, 32% have a full-time job, and 22% are not employed. Fifty-six percent of the participants were international students whose first language is not English, and 44% of the participants were American. These demographics were of high relevance to the research questions and might help explain variance shown in questionnaire.

The questionnaire was developed with a series of questions about college students' attitudes toward e-book. This survey method was stochastic selection of participants without the consideration of gender and educational level. The collected data implies multiple variables which lead to whether college students' attitudes and perceptions regarding e-book were positive or negative. There are some sample questions, for instance: "What are your points of views about e-book?", "How often do you use electronic equipment for learning?" and "How many e-readers (such as laptops, iPads, Kindles or mobile phones) do you have?"

There were some other elements which made up students' opinions on the advantages and disadvantages between e-books and traditional print books, and their opinions of whether e-books were more helpful and effective than regular printed textbooks. One open ended question asked "What are the advantages of e-book readers?" which might shed light on why students

determine to use e-book instead of traditional books. The questionnaire closed with an open question as to whether they think the e-book would replace paper print materials in the future. Compared with traditional textbooks, this survey questionnaire summarized with how college students consider e-book's practical application, benefits, and future development.

A variety of different questions exhibited students' attitudes toward e-books. Researchers attempted to control other variables which could affect the results. Also the researchers tried to decrease other independent variables endangering and affecting respondents' attitudes in order to increase this research's internal validity.

Results

All of the participants (N = 80) admitted that they used e-books both in their study hours and in their leisure time. Eighty-three percent of the participants agreed with that e-books had a positive aspect for both their school life and daily life. However, only 17% of the sample considered that e-books were not that useful. According to the survey, the best benefit of e-book was its lower price than traditional books. Being of "light weight" and "flexible" were two advantages of e-books recognized by the respondents. One hundred percent of the sample owned a laptop which could be used as an e-book reader. Seventy- five percent of the sample admitted that they spent hours on learning every week using electronic tools. Seventy-four percent of the sample was iPhone and other smartphone users, allowing them to read e-books on these devices as well. Moreover, 45% of the sample used special e-book readers besides laptops and smart phones, such as iPads and Kindles. Eighty-nine percent of the sample held an idea that it was really helpful to look for materials for their coursework through Internet, and where they could read material instantly. Forty-seven percent of the participants took an e-book reader to

class instead of regular print textbooks, and 91% of the sample stated that their professors used electronic equipment to teach in class, such as a Smart blackboard and/or a projector. Fifty-six percent of the sample admitted that an e-book reader was expensive. On the other hand, 78% of the sample disagreed that e-book would replace traditional print books in the future and they think that the regular book would keep its special position.

Discussion

From the results of the survey, most of the participants have positive attitudes on e-books and claim they have been using e-books both in their study hours and in leisure time. The development of e-book technology has made vast improvements over the last several years. Not only can users read articles and take notes on the e-book, but they can also watch videos, search words, and draw pictures. More and more smart functions and "apps" on e-books are coming out which make them more appealing and convenient. There is nothing that seems impossible in the near future for the development of the e-book. In addition, 100% of the sample owned a laptop, and 74% of the sample was IPhone and other Smartphone users, and 45% of the sample used special e-book readers. Fifty-six percent of the sample was international students, and they stated that e-book was very useful for them because their first language is not English. Therefore, they could look into English dictionary when they were using electronic devices to read at the same time. As we can see, many persons own electronic devices, which mean electronic products have become much cheaper, so most people can afford them. This is the other important reason why e-book is becoming so popular.

However, 78% of the sample disagreed that e-book would take over traditional print books in the future and they think that the regular book would keep its special position. There are some reasons, for example e-book can be harmful so some individual's eyes, and it can be lost

very easily. Many persons still use a traditional reading style and still rely on real paper materials. The participants who were not employed still think a special ebook-reader such as iPad or Kindle is expensive, and they could not afford it. Although these devices are relatively expensive, they seem to be less expensive than purchasing print textbooks for each course (from the student perspective). As we all know, print textbooks in colleges are so expensive that the prices of two textbooks would be equal to an ebook-reader. Hence, with the super development of technology, electronic devices' prices are decreasing compared to a few years ago. Therefore, e-book reading will interface more and more with one's life style in the years to come.

Conclusion

In summary, this research shows the attitudes of most college students on e-books were found to be positive and they prefer reading e-books to paper materials. Although this research indicated e-books have some weakness, bad for health (e.g., the eyes), easy to lose data if you forget back up, and so on. However, these problems will not hamper the development of e-book, because e-books have more benefits such as watching videos, searching words, and over the long term cheaper in price. The improvement of the e-book can be attributed to the successful research and development of this technology. Integration of person's lives with electronic products will tend to increase over the next several decades.

Recommendations and Future Research

Since our group had limited time for this research project, we did an exploratory study by only and received 80 usable questionnaires. When compared with millions of college students in the United States, this is just a small study, testing the feasibility of the possibility larger research study design in the future. As a result, a serious limitation is that our data and results may not

reflect the whole population's attitudes. Also we limited our questions and this may not be suitable and may affect the results.

In addition, at the time of our study many regular print books could not be found in e-book editions. Thus, we recommend that editors and publishers should speed up the development process of e-books so that they can meet customers demand. This research also found that the software which makes e-books not easy to apply. Most editors need more time to learn how to edit the books using professional software. Even though the e-book is a new technology, companies should pay attention on all their procedures. Moreover, there are too many e-book editions, such as iBook, Kindle, PDF, which can't be read on one e-device. If customers use IPads, they can only read IBook edition. That means if customers buy e-books from Amazon, the books might not be read on the IPad. Therefore, customers need to buy more devices or install more software, which is costly and complicated. All the e-books should have the same edition if it is all possible, because this is not only good for customers, but also good for editors. Thus, the government or other organizations might consider a change on this policy.

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