

COLLEGE STUDENT PERCEPTION OF ELECTRONIC TEXTBOOKS USAGE

Cathrine Linnes, Hawaii Pacific University, HI

Abstract

Students have more distractions than ever before. Society is pushing towards digitization and online access. Using mobile devices smartly but having the ability to concentrate when you need to can be a challenge. The old fashion library is on its way out, in favor of vibrant digital learning centers where students can search, chat, twitter and blog. Data storage is also more affordable these days, which has made this shift possible. This research focused on electronic textbook acceptance among today's college students. Specifically, this study examined the reason why students prefer one format to the other.

Student acceptance of electronic textbooks was overwhelmingly positive. From the study 55.9% preferred to use e-books and 11.9% conducted all of their reading online where as 89% did a mixture of online and print reading. However, 53.4% felt they easily got distracted reading books online. Portability (94.9%) was reported the number one reason why students wanted to read books online.

Keywords: eBook, electronic textbook, e-Text, technology acceptance, generation X/Y/Z

INTRODUCTION

Can you concentrate when Netflix, Facebook, Twitter, LinkedIn, FaceTime, e-mail, and the rest of the Internet is only a swipe away? Are you able to give reading your full attention? A tablet offers a menu full of distractions that can fragment the reading experience, or completely disrupt it. For many, it does not take much to get lured away from drab textbooks. For some this can lead to consuming a book at a slower pace and perhaps read fewer books or not get through the assigned material in class at all.

Background

Today's consumers are using Amazon more than ever to purchase e-books (Milliot, 2010a). Many publishers are reporting a decrease in their printed sales (Riess, 2011; Milliot, 2010b). In the United Kingdom (UK) alone, e-books account for 14% of the publishing market (Warman, 2013). In the United States the market has climbed from 17% in 2011, 23% in 2012, to 28% in 2014 (Jones, 2014). According to Tim Cook during Apples launching of the iPhone 6 and iPhone 6Plus, Apple has sold over 500 million iOS devices since launched. Of those, over 75 million was sold in the last

quarter alone (Gorman, 2014). Technology is a major part of our lives and being able to use technology to cultivate reading can be an advantage. It is important to provide students with various methods of learning the material as well as reinforcing continuous learning. Despite all this, studies show that only 3 percent of college students are purchasing electronic books for their studies (Novack, 2012) and publishing agencies reports 20% of all book sales are e-books (USA Today, 2013). If today's students are truly more technology literate compared to earlier generations, and if e-books offer so much value to students, why haven't we seen more interest yet from the younger generation. Some people still like to hold a hard copy in their hands; it is something that most people feel more comfortably with, as it is part of our learning culture. According to Henke (2001) he stated that e-books are about 50% technology and 50 % culture.

The Internet has also changed the \$14 billion U.S. textbook industry (Band, 2013). The textbook industry is extremely competitive. Diesel e-books announced it had to close at the end of March 2014 due to deep pocket competitors such as Amazon, Apple and Barnes & Noble (Rosen, 2014). For instance, in 2012, Governor Jerry Brown of California signed a bill that would give local Universities 50 electronic books targeted to lower-division courses. Students can download the books through California Digital Open Source library for free or they can opt to purchase a digital copy for a modest fee of \$20, which is an affordable amount for most (Schwartz, 2012). This allows students to become familiar with the technology, which might result in students opting to purchase more electronic books in the future. E-books are good for the environment and it cuts down on some of the costs students and parents are faced with. Even though the textbook market only accounts for 1% of the overall education spending, the digital movement has the potential to improve the quality of education (Band, 2013). Also, November 13, 2013 U.S. Senators Dick Durbin (D-IL) and Al Franken (D-MN) signed the Affordable College Textbook Act, which would grant higher education institutions the opportunity to support a pilot program that would expand the use of open textbooks to save students money (Band, 2013; Durbin, 2013). Having government help the digital movement is a good choice and it gives students easy access to good information at a lower cost. Despite the technology and support from various players, hard copy textbooks seem to be favored (Tan, 2014).

There is also a strong movement toward open online education giving competition to commercial publishers and universities. Massive Open Online Courses (MOOCs) are offered on platforms such as Coursera, Udacity, or edX. MOOCs provide students with all course materials, essentially replacing the textbook (Band, 2013).

Objective of the Study

The purpose of this research was to investigate the acceptance of electronic textbooks among a diverse range of college students. Both textbooks and traditional books are included in this study due to faculty frequently assigning regular books for their

courses and students frequently rely on additional information for their course work. This research will attempt to answer the following questions: a) what textbook format do college students prefer and b) why do college students choose one format over another?

This study will be of interest to educators, publisher and the technology industry alike. The results will help educators to provide the resources in the best possible way to stimulate student learning. It will aid publishers and technology companies to better understand the consumer and how they would prefer their reading experience on an electronic device should be, as well as how accepted the technology is today.

LITERATURE REVIEW

Overview

Electronic books are quite new, however the concept has been around for some time. Wyatt (1997) published an article on technology and the library, which indicated electronic books, might be part of the future. An electronic textbook is a book intended to be used for instructions. In most cases there are support materials in the back of the book such as practice problems, discussions, quizzes etc. to help support the learning process. However, for many graduate courses the professor assigns regular books. For this study an e-textbook can be an ordinary eBook as well as a traditional textbook. There are numerous articles on e-books. A few are discussed here.

A handful of experimental research studies have been conducted on electronic vs. traditional textbooks (Siebenbruner, 2011; Simon, 2002; Weisberg, 2011). Siebenbruner (2011) conducted a quasi-experimental study comparing undergraduate psychology students' academic performance and experiences as a function of using electronic vs. traditional textbooks. Students who used traditional textbooks reported that their readings contributed more to their learning than those using electronic textbooks. Weisberg (2011) studied student behavior and attitude towards the use of digital textbooks and showed no significant difference in learning between e-textbooks and paper textbooks and that students became more receptive to and accepting of using digital textbooks. Simon (2002) conducted an experiment distributing e-books to college introductory biology students who later received a questionnaire the results indicated students were eager to adopt the technology.

Traditional Textbooks

Many studies report that students prefer traditional textbooks (Cassidy, Martinez, and Shen, 2012; Gregory, 2008; Hannigan, 2007; Lewontin, 2014; NACS, 2014; Tan, 2014; Woody, Daniel, and Baker, 2010). Cassidy, Martinez, and Shen (2012) looked at the electronic book usage among advanced researchers, investigating the differences in behavior, perception, and attitude between users and non-users of e-

books. The result from their survey indicates that the advanced researchers favored paper books. In addition, the study found that participants were unaware of the library e-books availability and were not familiar with e-book features. Lewontin (2014) looked at the e-book acceptance rate of undergraduate students, faculty and staff at Wellesley College. The results showed a strong preference for printed books. The National Association of College Stores (NACS) has been conducting yearly studies from 2010 to 2013 to determine students' preferences regarding printed textbooks vs. electronic textbooks for class usage. According to their study, students still prefer using printed textbooks (NACS, 2010; 2011; 2014). An article by Woody, Daniel, and Baker (2010) examined student book preference, e-books vs. paper books. The authors reported that participants preferred paper books and that reading an e-book is not equivalent to reading a traditional book. Gregory (2008) conducted a survey on four core undergraduate classes at College of Mount St. Joseph. The survey indicated that the students will use e-books for research purposes, but prefer to use traditional print books for anything else. Hannigan (2007) conducted a survey to determine library user's awareness of e-books. The results indicated more marketing may be needed regarding the availability of e-books. The participants also found it difficult to read all materials online. A recent study conducted by Hewlett Packard at San Jose State University reported that 57% prefer print, 21% prefer e-textbooks and 21% prefer both formats (Tan, 2014).

Electronic Textbooks

Meanwhile, other studies reported that students prefer electronic textbooks over printed versions (Abdullah and Gibb, 2008; Croft and Davis, 2010; Ongoz and Baki, 2010; Shelburne, 2009). The variation in the student's preference might have to do with the type of technology they chose to read their electronic textbook on (Grasha and Yangarber-Hicks, 2000) as well as when they were born, where they are from, and major they choose to study in college. This study will expand on these claims. Abdullah and Gibb (2008) reported that students indicated that their preferred book formats varied depending on the context of the information they need. Croft and Davis (2010) studied student usage of e-books at Royal Roads University in England. Under the right conditions, e-book usage has been reported to have gone up from 2003 to 2009 and the acceptance rate reached 54%. Ongoz and Baki (2010) surveyed graduate students in Turkey and found that the graduate students are aware of the convenience of e-books, but preferred to use these resources for academic purposes and not for leisure reading. Shelburne (2009) examined library patron usage patterns and attitudes toward e-books and reported that the acceptance of e-books has reached a level where they have become a key library service.

E-books in Libraries

Several studies have been conducted on e-books in libraries where researchers studied the benefits, challenges, and how the technology would affect the traditional library (Chu, 2003; Herring, 2003; Lonsdale and Armstrong, 2001; Ramirez and

Gyeszly, 2001; Reed, Flinchbaugh, and Moskal, 2004; Shepherd and Artega, 2014). Shepherd and Artega (2014) conducted a survey of e-book preferences among students in the social work program at the school library. The findings show that while not all students prefer e-books, they are willing and likely to use e-books when purchased by the library. The results from Gibbons (2001) study were mixed. The study looked at e-book usage within the library system located in Rochester, New York. Several respondents either stated they would use an e-textbook over a paper based book. Some reported no preference at all. The benefits to e-books were reported to be able to adjust the font size, ability to store multiple books on devices, and adjusting back lighting features (Gibbons, 2001).

Summary

Studies also show that e-books are more popular in certain subject areas such as Computer Science and Business (Dillon, 2001; Fernandez, 2003; Ramirez and Gyeszly, 2001). At Duke University it was found that e-books were more popular among Computer Science, Psychology, Medicine, Religion and General Social Sciences students (Littman and Connaway, 2004). It is understandable that the results of these studies vary. E-books are massive changes to libraries, readers, authors and publishing companies. In addition, changes in technology have made many users want information in a different way. However, the variation in student preference might have to do with the type of technology they chose to read their electronic textbook on (Grasha and Yangarber-Hicks, 2000) as well as their age, where they are from, the major they choose to study in college.

Advantages and Disadvantages of Electronic Textbooks

There are of course both advantages and disadvantages to e-books, but the advantages are starting to outweigh the disadvantages. The following are some of the advantages of electronic textbooks over traditional textbooks reported by other researchers and stated in the media.

- Portability – easier to bring books while traveling, fits in your handbag (Gomez-Borbon, 2013; Rodzvilla, 2009).
- Storage – the storage capacity on a tablet is quite large allowing the user to have multiple books stored at once (Gomez-Borbon, 2013; Harness, 2014).
- Adjustable fonts and lighting and search, highlighting, note taking, and cut-and-paste functions are considered an advantage (Behler and Lush 2010; Croft and Davis 2010; Harness, 2014; Ongoz and Baki 2010).

Even though the technology is exciting, one could also argue disadvantages to electronic reading.

- Eyestrain – it might be hard for a person to read over a longer period of time (Hoseth and McLure, 2012).
- Screen Size – hard to read a textbook on a computer screen (Harness, 2014).

- Resale Value – students would not be able to sell their textbook back (Harness, 2014).

Publishing companies are pushing for electronic book sales. The major publishing companies in higher education are: Pearson, McGraw-Hill Education, Cengage, and Wiley (Band, 2013). Pearson offers students 60% savings and instructors get free access on their Course Smart website (Course Smart, LLC, 2014). The product capabilities are getting better and more reflect the traditional reading experience. However, it still takes time for electronic books to fully become the choice and for potential users to become comfortable and familiar with the features available.

Technology and Generation Characteristics

To better understand the current student body acceptance of e-textbooks we need to look at some of the general characteristics of the different student generations and how they may be changing.

Generation Z is the group of people born after the millennial generation. There are no precise dates but sources indicate 1995 to present. They are known as “Technoholics”. They are entirely dependent on IT and have little grasp of alternatives. Their signature products are google glass, graphene, nano-computing, 3-D printing, driverless cars, etc. Their way of communicating is by hand-held (or integrated into clothing) communication devices. They prefer FaceTime to face-to-face when communicating. When making financial decisions their solutions will often be digitally crowd-sourced (Robertson Associates, 2013; Wikipedia, 2014c).

Generation Y is the group of people following generation X. There are no precise dates but sources indicate 1981-1995. They are defined as digital natives. Their signature products are tablets and smart phones. Their way of communicating is by SMS and social media. They prefer online or mobile (text messaging) communications and face-to-face when making financial decisions. Generation Y has a clear passion for technology, they like using it and prefer to learn in team settings (Childs, Gingrich, and Piller, 2009; Coates, 2007; Dulin, 2005; Robertson Associates, 2013; Shih and Allen, 2007; Wikipedia, 2014d).

Generation X is the group of people born after the generation referred to as Baby Boomers. There are no precise dates but sources indicate 1961-1980. They are defined as digital immigrants. Their signature product is personal computers, their way of communicating is by e-mail or SMS. They prefer text messaging or e-mail over face-to-face meetings. When making financial decisions they prefer online meetings and face-to-face if time permits (Robertson Associates, 2013; Wikipedia, 2014b).

Baby Boomers are the group of people born after WWII until about the mid-1960s. They are early information technology adaptors. Their signature product is the

television while their way of communicating is through the telephone. They prefer face-to-face meetings with e-mail or phone as a backup. When making financial decision they prefer face-to-face but increasingly will go online (Robertson Associates, 2013; Wikipedia, 2014a).

METHODOLOGY

Hawaii Pacific University (HPU) is a private university located in the heart of Honolulu with approximately 6,500 students. An online survey was sent out to every students enrolled in the Master of Science in Information Systems (MSIS) program as well as those enrolled in the MSIS courses. The sample therefore included a few non-IT majors who currently were taking MSIS courses as well as concurrent undergraduate computer information systems students enrolled in the MSIS program. A total of 179 students received an invitation to take the survey.

To administer the survey, SurveyMonkey.com was used. The survey tool was selected due to easy integration and student's familiarity. A web link was forwarded to the students with an invitation to participate in the study. Fourteen survey questions were generated. The survey consisted of demographic questions such as major selected, level in school, gender, age, and country of origin. To answer the research questions the following questions were used along with the demographic questions (questions 1-5).

Question 1: What textbook format do college students prefer?

Questions 6-9 were used to address the first research question. Students were asked to identify the type of electronic device they currently own such as smartphone, laptop, desktop, e-book reader, and asked to check all that apply. Furthermore, students were asked to expand upon their preferences by reporting their reading habits such as the amount of reading done electronically, when the last time was using an e-book and finally, how often they use an e-book.

Question 2: Why do college students choose one textbook format to another?

Questions 10-14 were used to address the second research question. Students were asked to rate their experience using e-books. Students were asked to share what materials they preferred to read on eBooks; such as recreational reading, class reading, work reading or user manuals. Identify main shortcomings and sharing which devices they prefer to read an e-book on.

This study takes an exploratory approach, which allows for further investigation. The analysis of this data consists of descriptive statistics. Such research can lead to more future research.

FINDINGS

A total of 118 out of 179 questionnaires were completed (65.92% return rate). This is noteworthy considering return rates closer to 30% for electronic surveys are the norm (Shih and Fan, 2008; Sue and Ritter, 2007). Participants were given a two-week window to take the survey and a reminder was sent out during this time period.

Ninety two of the respondents were graduate students in the MSIS program and 13 were undergraduate students in the computer information systems program housed in the College of Business at Hawaii Pacific University. Furthermore, some of the participants were non-IT majors 24, but were enrolled in one of the graduate MSIS courses. The undergraduate students have status as concurrent where they are allowed to take four graduate courses in their senior year. This allows students to finish their bachelor and master degree in five years. From the breakdown below, 11 of the students were dual majors. All surveys were fully answered.

TABLE 1: Student Program of Study

<u>Degree Program</u>	<u>N=118</u>	<u>%</u>
MSIS	92	78.0
CIS	13	11.0
MSMS/MBA/HRM/GLSD	24	20.3

Not surprisingly, majority of the students participating in this survey were male 72.0%, and the average age of the respondents were 31. The youngest participant was 20 and the oldest 59. Therefore, majority of the students grew up with some form of technology. When comparing the participants to the various gender characteristics 3.4% of the students in the MSIS courses are considered Baby Boomers (BB), 23.7% generation X, and 72.9% generation Y. It is understandable there were no generation Z in the sample as this study concentrates on student enrolled in the MSIS courses. Generation Y should be quite custom to using technology. According to Combes (2009) generation Y is tech savvy however, they were never taught how to use technology efficiently and effectively. Reading online requires a different form of discipline due to potential distraction.

TABLE 2: Generation Baby Boomer, X, Y, Z

<u>Generation</u>	<u>Percentage</u>	<u>N=118</u>	<u>%</u>
Gen Z	1995-now	0	0.0
Gen Y	1981-1995	86	72.9
Gen X	1961-1980	28	23.7
BB	1945-1960	4	3.4

Looking at the demographics, the participants come from North America (34.8%), Hawaii (28.8%), Saudi Arabia (16.1%), Asia (11.9%), Europe (5.9%), South

America (1.7%) and Africa (0.9%). Every continent is represented. This gives the results a global perspective. Majority of the participants are only in Hawaii for two years.

Furthermore, the students are becoming more tech savvy, 90.7% own a smartphone, 95.8% own a laptop, 57.6% own a tablet, and 49.2% own a desktop, 26.3% own an e-book reader and majority own multiple devices. This is also quite noticeable in the classroom where students are often choosing to bring multiple devices. The result shows that students are choosing to use mobile devices over desktops. Even e-book readers are losing ground. As the literature states, generation Z cannot even fathom not being connected and generation Y is not far behind them. Therefore e-book readers will most likely not meet the newer generations' needs.

TABLE 3: Technology Devices Owned by Students

Device	N=118	%
Smartphone	107	90.7
Tablet	68	57.6
Laptop	113	95.8
Desktop	58	49.2
eBook Reader	31	26.3

When asking the student participants regarding their reading habit, 11.9% reported they read all their books online, 24.6% read about two thirds of their books online, 18.6% read about a third of their books online, 33.9% reported less than a third and only 11.0% choose not to purchase online books. This means at least 89.0% of the students do some reading online. From the results there were too few data points to be able to determine a pattern as to who conducted all or majority of their reading online vs. none.

TABLE 4: Online Reading Habits

Online Reading Habits	N=118	%
All of my reading	14	11.9
About two-third of my reading	29	24.6
About a third of my reading	22	18.6
Less than a third of my reading	40	33.9
None	13	11.0

A question was raised to find out when was the last time the students surveyed tried to read an e-book. From the surveyed 53.4% reported a week ago or less, 21.2% reported a month ago or less, 17.8% reported a year ago or less, and 7.6% more than a year ago. This means reading online is fresh in their minds and they are able to reflect back on their online reading experience.

TABLE 5: When Did You Read an E-Book Last

When did you read an e-book last	N=118	%
A week ago or less	63	53.4
A month ago or less	25	21.2
A year ago or less	21	17.8
More than a year ago	9	7.6

In terms of how often the students read e-books online, 18.6% reported they read e-books daily, 21.2% read e-books 2-3 times a week, 9.3% read e-books once a week. Therefore, large portions of the respondents are frequent users of electronic books. On the other hand, 11.9% read online books 2-3 times a month, 9.3% once a month and 29.7% less than once a month. Based on experience many students opt not to purchase textbook and rather search for relevant information available online. This can be one of the factors some students opt to read fewer textbooks online.

Electronic books has made it possible for, e-book publishing companies such as Amazon, Apple and Google to easily track how far readers are getting in books, how long they spend reading them and which search terms they use to find books. By studying reader's habits they can learn how people engage with books and better create Apps and books.

TABLE 6: Frequency Use of E-books

Frequency Use of E-books	N=118	%
Daily	22	18.6
2-3 Times a Week	25	21.2
Once a Week	11	9.3
2-3 Times a Month	14	11.9
Once a Month	11	9.3
Less than Once a Month	35	29.7

Of the surveyed students, 33.1% of the students preferred to read e-books on a tablet, 30.5% on a laptop, 15.3% on an eBook reader, 11.0% on their phone and 10.2% on a desktop. This shows users are becoming more and more mobile and often opt to work in untraditional places, which is in line with the generation Y characteristics.

TABLE 7: Device Preference to Read an E-book on

Device Preference	N=118	%
Smartphone	13	11.0
Tablet	39	33.1
Laptop	36	30.5
Desktop	12	10.2
e-Book Reader	18	15.3

A general question was asked to find out if there were a stronger preference to read non-academic material on an electronic device, however, the results showed no significant difference. Students enjoyed reading e-books for recreational reading, academic reading, work related reading and various user manuals.

TABLE 8: Material Read

Material Read	N=118	% Agree	Average Rating
Recreational Reading	74	62.7	3.7
Class Reading	81	68.6	3.8
Work Reading	81	68.6	3.8
User Manuals	81	68.6	3.8

In addition 55.9% of the students preferred to use electronic textbooks for their college courses, 20.3% were opposed and 23.7% were unsure. Of these students, 67.0% of the students felt e-textbooks were effective for learning the material, 62.7% felt e-textbooks gave them the freedom to learn the way they wanted, 81.4% said it was easy to look up information in an e-textbook, 77.1% of the students were comfortable using an electronic e-textbook and 75.4% find it easy to use an e-textbook. The findings look quite promising for e-textbooks.

TABLE 9: Satisfaction with eBook Technology

Satisfaction	N=118	% Agree	Average Rating
I find it easy to use an electronic textbook	89	75.4	4.0
I am comfortable using an electronic textbook	91	77.1	4.0
It is easy to look up information in an electronic textbook	96	81.4	4.2
Electronic textbooks give me the freedom to learn the way I want	74	62.7	3.9
Using an electronic textbook is effective for learning the material	79	67.0	3.9
I prefer electronic textbooks for me college courses	66	55.9	3.6

The survey also addressed potential shortcomings of electronic textbooks. Students were mostly concerned with limited selection of e-books, eyestrain, not able to print and note taking capabilities. The user interface, cost of the reader, time it takes to read a book online and cost of e-Books were least of their concerns.

Besides, multitasking and working in noisy places, and faced with various temptation's are something students are dealing with daily. When reading a book

online, students have access to their e-mail, social media, Netflix, Internet etc. 53.4% of the students felt it was easy to get distracted.

TABLE 10: Main Shortcomings of eBooks

Shortcomings	N=118	% Agree	Average Rating
Cost of reader	58	49.2	3.4
Cost of e-book	62	52.5	3.4
Eye strain	71	60.2	3.6
Limited selection of e-books	75	63.6	3.7
Lack of note taking /highlighting abilities	70	59.3	3.6
User interface	53	44.9	3.4
Not able to read offline	63	53.4	3.5
Not able to print	71	60.2	3.7
It takes way too long to read an e-book	34	28.8	2.9
Too easy to get distracted by Internet, e-mail, social media, Netflix etc.	63	53.4	3.6
Prefer print books for my college courses	59	50.0	3.4
No problems, I am happy with the technology	64	54.2	3.7

Lastly, the reason students liked reading books on electronic devices were rated in the following order; portability, ability to store many books, convenience and special functions like dictionary capabilities, font adjustment etc.

TABLE 11: Important Features

Important Features	N=118	% Agree	Average Rating
Portability	112	94.9	4.5
Convenience for acquiring books	104	88.1	4.4
Ability to store many books	106	89.8	4.4
Special functions, like dictionary, Internet access, font adjustment, and ability to play audio, video etc.	101	85.6	4.4

CONCLUSION

Students' acceptances of electronic textbooks were overwhelmingly positive. The results clearly showed that 55.9% preferred to read their class material online and 77% reported they felt comfortably reading online. Of course personal characteristics can come into play in the adoption process. IT majors might be more eager to try new technology compared to other majors. However, this survey had student participants from all around the globe with different upbringings and backgrounds. Despite this there was no clear pattern as to who were more likely to prefer to read their materials online. Overall, a majority of students are starting to prefer electronic books due to

portability, convenience, ability to store many books, and special functions available. Electronic textbooks allow students to have all their course and reference materials with them at any given time. Every student in this study had the choice whether to purchase an electronic or hard copy textbook for their classes but majority seems to have embraced the new technology and feel comfortably using it. When classes are taught in technology classrooms, students have computers at their disposal at all times, however, many choose to bring in their own laptop, iPhone, iPad, etc. It is a completely different ballgame than a few years ago. This is a clear signal to Universities that an optimal IT infrastructure needs to be in place to satisfy future students as well as the upcoming workforce way of working.

Classrooms need to be designed to allow for students to use multiple devices on a university network. Instructors need to be able to plug in their iPads, iPhones and personal laptops to create innovative lectures and foster creative collaborations and connections. Digital classrooms help to deepen the learning in a creative way. In addition, publishers need to communicate with students and continue to enhance the eBook features otherwise it will continue to be a challenge offering both hardcopy and electronic copies. However, Google is very active digitizing books. Moreover, we have all seen students studying at the mall, local coffee shop or bookstores and wondered are they getting anything done. 53.4% of the students acknowledged they are being distracted by having Internet, Facebook, movies, text message, FaceTime features capabilities available at all times. The technology is here to stay and there is no going back. As time passes students and instructors will all learn to adopt.

For future studies, it will be interesting to see how generation Z compares to these results. Generation Z has just entered college and should come with a new way of thinking.

REFERENCES

- Abdullah, N., and Gibb, F. 2008. Students' attitudes towards e-books in a Scottish higher education institute: part 2 Analysis of e-book usage. *Library Review* (57:9), 676-689.
- Band, J. 2013. The Changing Textbook Industry. November 21. (<http://www.project-disco.org/competition/112113-the-changing-textbook-industry/>; accessed June 12, 2014).
- Behler, A., and B. Lush. 2010. Are you ready for E-readers? *The Reference Librarian* (52:1/2), 75-87.
- Cassidy, E.D., Martinez, M., and Shen, L. 2012. Not in Love, or Not in the Know? Graduate Students and Faculty Use (and Non-Use) of E-Books. *Journal of Academic Librarianship* (38:6), 236-332.
- Childs, R., Gingrich, G., and Piller, M. 2009. The future workforce: Gen Y has arrived. *Engineering Management Review* (38:3), 32-34.
- Chu, H. 2003. Electronic books: Viewpoints from users and potential users. *Library Hi Tech*, (29:3), 340-346.
- Coates, J. 2007. *Generational learning styles*. LERN Books, River Falls, WI.

- Combes, B. 2009. Digital natives or digital refugees? Why we have failed Gen Y. *International Association of School Librarianship. Selected papers from the 38th Annual Conference*, September 2-4, Abano Terme, Padova, Italy, 1-12.
- CourseSmart, LLC. 2014. Course Smart. (<http://www.coursesmart.com>; accessed June 20, 2014).
- Croft, R., and Davis, C. 2010. E-books revisited: Surveying student E-book usage in a distributed learning academic library 6 years later. *Journal of Library Administration* (50:5): 543-569.
- Dillon, D. 2001. E-books. The University of Texas experience. Part 1. *Library Hi Tech* (19:2), 113-124.
- Dulin, L. 2005. Leadership preferences of a Generation Y cohort: A mixed methods investigation. Ph.D. dissertation, University of North Texas, Denton, TX.
- Durbin, D. 2013. Durbin, Franken introduce legislation to help make college textbooks more affordable. (<http://www.durbin.senate.gov/public/index.cfm/pressreleases?ID=26d6b011-b4b3-4fa1-9fea-8b2706026943>; accessed July 10, 2014).
- Fernandez, M. 2003. A usage comparison for print and electronic books at the University of North Carolina Chapel Hill. (<http://ils.unc.edu/MSPapers/2827.pdf>; accessed August 1, 2014).
- Gibbons, S. 2001. E-books: Some concerns and surprises. Portal: *Libraries and the Academy* (1:1), 71-75.
- Gomez-Borbon, P. 2013. Ten Advantages of E-Book. (<http://www.lifehack.org/articles/lifestyle/ten-advantages-book-readers.html>; accessed April 12, 2014).
- Gorman, M. 2014. Apple: over 500 million iOS devices sold. (<http://www.engadget.com/2013/01/23/apple-over-500-million-ios-devices-sold/>; accessed October 31, 2014).
- Grasha, A., and Yangarber-Hicks, N. 2000. Integrating teaching styles and learning styles with instructional technology. *College Teaching* (48:1), 2-10.
- Gregory, C.L. 2008. But I Want a Real Book: An Investigation of Undergraduates Usages and Attitudes toward Electronic Books. *Reference & User Services Quarterly* (47:3), 266-273.
- Hannigan, G.G. 2007. Users' Awareness of Electronic Books is Limited. *Evidence Based Library & Information Practice* (2:2), 104-106.
- Harness, J. 2014. The Advantages of eBooks Versus Traditional Books. (<http://online-bookstores-review.toptenreviews.com/the-advantages-of-ebooks-versus-traditional-books.html>; accessed May 10, 2014).
- Henke, H. 2001. Electronic Books and ePublishing. *Springer-Verlag*, London, Great Britain.
- Herring, M.Y. 2003. Libraries in the cyberage: part 3: *Electronic publishing and the future of scholarship* (15:2), 46-47.
- Hoseth, A., and McLure, M. 2012. Perspectives on E-books from Instructors and Students in Social Sciences. *Reference & User Services Quarterly* (51:3), 278-288.
- Jones, M. 2014. New Pew Poll Finds That E-Books Are Booming but Print Holds Its Own. (<http://www.thedailybeast.com/articles/2014/01/19/new-pew-poll-finds-that-e-books-are-booming-but-print-holds-its-own.html>; accessed April 12, 2014)
- Lewontin, A. 2014. Review of Ebook Use and Acceptance in an Undergraduate Institution. *Collection Management* (29:1), 45-46.
- Littman, J., and Connaway, L. 2004. A circulation analysis of print and e-books in an academic research library. *Library Resources and Technical Services* (48:4), 256-262.
- Lonsdale R., and Armstrong, C. 2001. Electronic Books: Challenges for Academic Libraries. *Library Hi Tech* (19:4), 332-339.

- Milliot, J. 2010a. Consumers show growing satisfaction with e-books. *Publishers Weekly*, April 12, (257:15), 5.
- Milliot, J. 2010b. Digital reader penetration accelerates. *Publishers Weekly*, November 29, (257:47), 3.
- National Association of College Stores (NACS). 2010. Electronic book and e-reader device report. (http://www.nacs.org/LinkClick.aspx?fileticket=blmPMgdQ_LA%3d&tabid=2471&mid=3210; accessed April 5, 2014).
- National Association of College Stores (NACS). 2011. Electronic book and e-reader device report. (<http://www.nacs.org/LinkClick.aspx?fileticket=ulf2NoXApKQ%3d&tabid=2471&mid=3210>; accessed April 10, 2014).
- National Association of College Stores (NACS). 2014. College Students Still Prefer Print Textbooks to Digital. (<https://www.nacs.org/advocacynewsmedia/pressreleases/collegestudentsstillpreferprinttextbookstodigital.aspx>; accessed April 20, 2014).
- Novack, J. 2012. Should College Students Be Forced To Buy E-Books? (<http://www.forbes.com/sites/janetnovack/2012/05/18/should-college-students-be-forced-to-buy-e-books/>; accessed April 5, 2014).
- Ongoz, S., and A. Baki. 2010. E-book usage of graduate students studying educational sciences in Turkey. *Turkish Online Journal of Distance Education* (11:1), 198-210.
- Ramirez, D., and Gyeszly, S. 2001. netLibrary: a new direction in collection development. *Collection Building* (20:4), 154-164.
- Reed, C.A., Flinchbaugh, M., and Moskal, R. 2004. Expanding the ILL Role – Interlibrary Loan Contributing to Collection Development. *Against the Grain* (16:4), 44-49.
- Riess, J. 2011. Print Book Sales Down by 9% in 2011... But There's Good News Too. (<http://www.beliefnet.com/columnists/flunkingsainthood/2012/01/print-book-sales-down-by-9-in-2011-but-theres-good-news-too.html>; accessed April 5, 2014).
- Robertson Associates. 2013. Which generation are you? X/Y/Z? Lost? (<http://www.robertson-associates.eu/blog/2013/11/29/which-generation-are-you-xyz-lost>; accessed April 10, 2014).
- Rodzvilla, J. 2009. The portable e-book issues with e-book reading devices in library. *Serials* (22:3S1), S6-S10.
- Rosen, J. 2014. Diesel eBooks to Close. *Publishers Weekly*. (<http://www.publishersweekly.com/pw/by-topic/digital/retailing/article/61586-diesel-ebooks-to-close.html>; accessed April 20, 2014).
- Schwartz, M. 2012. Update: CA Creates Free Digital Textbook Library. *Library Journal*. October 3. (http://lj.libraryjournal.com/2012/10/legislation/ca-creates-free-digital-textbook-library/#_; accessed April 5, 2014).
- Shelburne, W. 2009. E-book usage in an academic library: User attitudes and behaviors. *Library Collections, Acquisitions, & Technical Services* (33:2/3), 59-72.
- Shepherd, J., and Arteaga, R. 2014. Social Work Students and E-Books: A Survey of Use and Perception. *Behavioral & Social Sciences Librarian* (22:1), 14-28.
- Shih, W., and Allen, M. 2007. Working with Generation-D: Adopting and adapting to cultural learning and change. *Library Management*, (28:1/2), 89-100.
- Shih, T.H., and Fan, X. 2008. Comparing Response Rates from Web and Mail Surveys: A Meta-Analysis. *Field Method* (20:3), 249-271.
- Siebenbruner, J. 2011. Electronic versus Traditional Textbooks: A Comparison of College Textbook Formats. *Journal on Excellence in College Teaching* (22:3), 75-92.
- Simon, E.J. 2002. An experiment using electronic books in the classroom. *Journal of Computers and Mathematics and Science Teaching* (21:1), 53-66.
- Sue, V.M., and Ritter, L.A. 2007. Conducting online surveys. *Sage Publications*. Los Angeles, CA.

- Tan, T. 2014. College Students Still Prefer Print Textbooks. *Publisher Weekly*. July 8. (<http://www.publishersweekly.com/pw/by-topic/digital/content-and-e-books/article/63225-college-students-prefer-a-mix-of-print-and-digital-textbooks.html>; accessed January 1, 2015).
- USA Today. 2013. E-book sales are up 43%, but that's still a 'slowdown'. *USA Today*. May 16. (<http://www.usatoday.com/story/life/books/2013/05/15/e-book-sales/2159117/>; accessed April 5, 2014).
- Warman, M. 2013. Books go digital as print sales slump. January 5. *The Telegraph*. (<http://www.telegraph.co.uk/technology/news/9781356/Books-go-digital-as-print-sales-slump.html>; accessed April 5, 2014).
- Weisberg, M. (2011). Student attitudes and behaviors towards digital textbooks. *Publishing Research Quarterly*, 27(2), 188-196.
- Wikipedia. 2014a. Baby boomers. (http://en.wikipedia.org/wiki/Baby_boomers; accessed October 10, 2014).
- Wikipedia. 2014b. Generation X. (http://en.wikipedia.org/wiki/Generation_X; accessed October 10, 2014).
- Wikipedia. 2014c. Generation Z. (http://en.wikipedia.org/wiki/Generation_Z; accessed October 10, 2014).
- Wikipedia. 2014d. Millennials. (<http://en.wikipedia.org/wiki/Millennials>; accessed October 10, 2014).
- Woody, W., Daniel, D., and Baker, C. 2010. E-books or Textbooks: Students prefer textbooks. *Computers and Education* (55:3), 1-13.
- Wyatt, J.B. 1997. Technology and the Library. *College and Research Libraries* (40:2), 120-124.

About the Authors

Cathrine Linnes is an Associate Professor in Information Systems in the College of Business at Hawaii Pacific University where she teaches in the Master of Science in Information Systems program. Her focus is in software engineering and business analytics. She received her Ph.D. from Nova Southeastern University.

APPENDIX A

SURVEY ON ELECTRONIC BOOKS

1. How old are you? _____

2. What is your gender?

_____ Male _____ Female

3. What level in school are you?

_____ Graduate student _____ Undergraduate student

4. What is your major? _____

5. Where are you from?

_____ Asia _____ North America _____ Hawaii _____ Middle East
 _____ South America _____ Europe _____ Other (please specify)

6. Do you own any of these devices? (Check all that apply)

_____ Smartphone _____ Tablet _____ Laptop _____ Desktop _____ eBook
 Reader (Kindle, Nook etc.)

7. How much reading do you do using e-books?

_____ All my reading
 _____ About two-thirds of my reading
 _____ About a third of my reading
 _____ Less than a third of my reading
 _____ None

8. When was the last time you used or tried to use an e-book?

_____ A week ago or less
 _____ A month ago or less
 _____ A year ago or less
 _____ More than a year ago

9. How often do you use e-books?

_____ Daily
 _____ 2-3 times a week
 _____ Once a week
 _____ 2-3 times a month
 _____ Once a month
 _____ Less than once a month

10. Which device do you prefer to read an e-book on?

- Smartphone
 Tablet
 Laptop
 Desktop
 eBook Reader (Kindle, Nook etc.)

How do you feel about each one of these statements?**11. I like to read e-books for:**

SA A N D SD

- Recreational reading
 Class reading
 Work reading
 User manual

SA = strongly agree; A= agree, N=neutral, D=disagree, SD=strongly disagree

12. How pleased are you with the current e-book technology?

SA A N D SD

- I find it easy to use an electronic textbook
 I am comfortable using an electronic textbook
 It is easy to look up information in an electronic textbook
 Electronic textbooks give me the freedom to learn the way I want
 Using an electronic textbook is effective for learning the material
 I prefer electronic textbooks for my college courses.

SA = strongly agree; A= agree, N=neutral, D=disagree, SD=strongly disagree

13. What are the main shortcomings of electronic textbook reading?

SA A N D SD

- Too easy to get distracted by Internet, e-mail, social media, Netflix etc.
 Cost of reader
 Cost of e-book
 Eye strain
 Limited selection of e-books
 Lack of note taking/highlighting abilities
 User interface
 Not able to read offline
 Not able to print
 It takes way to long to read an e-Book

Prefer print books for my college courses

No problems, I am happy with the technology

SA = strongly agree; A= agree, N=neutral, D=disagree, SD=strongly disagree

14. The following e-book features are important to me

SA A N D SD

Portability

Convenience for acquiring books

Ability to store many books

Special functions like dictionary, Internet access,
font adjustment, and ability to play audio,
video etc.

SA = strongly agree; A= agree, N=neutral, D=disagree, SD=strongly disagree