

Introduction

With the rise in electronic textbooks in the academic world, it is crucial to understand where print textbooks fall in use. Masters of Library and Information Science students are required to use assigned textbooks for most of their courses. The question that arises is what textbook format MLIS students prefer. In particular, do MLIS students purchase print textbooks or electronic textbooks? As well as trying to understand what textbook format do the students prefer overall. There is also the question of whether factors influence and alter what an MLIS student prefers and the textbook format they purchase. The researchers attempt to answer questions that arise in ascertaining whether MLIS students prefer print or electronic textbooks and what factors come into play when making their purchasing decisions.

The purpose of this research was to survey a class of MLIS students to begin analyzing the purchasing trends and comparing the students' print versus electronic textbook usage. The researchers surveyed these graduate students to further the research and literature devoted to providing textbook materials for MLIS students. With this research, the goal is to provide evidence to assist MLIS professors and librarians in decision-making regarding requiring and providing textbooks.

Although the researchers had several questions regarding print textbooks and MLIS students, the research questions narrowed down to two. The first question was, "Do MLIS students report purchasing more print textbooks than electronic textbooks?" The second question was, "Which factors influence MLIS students' self-reported textbook purchases?" Due to the survey's self-reporting nature, the researchers adjusted the research questions with this in mind. It is essential to understand the students' purchasing habits and whether that included more print or electronic textbooks. It was also essential to begin distinguishing if any factors impacted their

purchase decisions. These factors could influence their purchase decision regardless of their preference for either print or electronic textbooks.

Literature Review

Textbook Cost

There is a wide selection of research on print and electronic textbook trends amongst college students. Research to determine whether academic librarians, faculty at universities, and college students have the same opinion on electronic books (Carroll 2016). However, the specific focus area of MLIS students and their textbook trends has not received research attention. This demographic of graduate students and their textbook purchasing trends causes questions primarily due to their specific field of study. As future librarians, there is cause to determine a specific preference towards their textbooks' format. In the research conducted at Old Dominion University it was found that the cost of textbooks impacted the students' perceptions of the course. The researchers found that students were more likely to either drop the course, not buy the textbook, or get a lower grade in correlation to higher textbook costs (Rush 2020).

Usability and Accessibility of Textbooks

Another researched aspect was the usability and accessibility of the textbooks in the two different formats. Electronic textbooks were analyzed to discover if they provided easy accessibility and changes both the providers and librarians could incorporate to serve the students better (Mine 2016). For students beginning their medical curriculum, there was a more considerable emphasis on using print textbooks. However, electronic textbooks gained broader preference amongst residents as they went further along in their medical curriculum (Pickett 2016). This change in textbook preference is due to the accessibility, usability, and convenience of electronic textbooks. Although print textbooks allow the user to highlight and take notes in the

book, some electronic textbooks provide other services that could encourage students to choose that format instead. Therefore, it is vital to research whether accessibility features influence and impact textbook format preferences for MLIS students.

Print versus Electronic Textbooks

In the study conducted by Yuan and their team, the goal was to compare print and electronic book usage of the same titles to analyze any noticeable differences (2017). The research conducted in this study found that students still utilized print books, regardless of the electronic versions available. This study shows that school libraries should have both the print and electronic book versions of a title available for their students to access and use. However, as in the research conducted at the University of Memphis, the subject matter dramatically impacts what format is preferred and available. For this study, music references were primarily available in print, and therefore the librarians need to be aware of this and teach students how to access and use these resources (Scott 2016). This research and other studies found that both print and electronic books have value in academic libraries. Therefore, electronic books do not mean the end of print books (Haugh 2016).

Print Textbook Preference

In multiple studies, there was a more marked preference for students to use print textbooks. However, the students did not merely ignore electronic textbooks. Cassidy's study found that although research students preferred print books, it was due to gaps in electronic textbooks such as availability and user-friendly (2012). Knowlton conducted a two-step model to assess the interest in electronic books versus print books (2016). The study found that it was amongst individual disciplines that there was a higher preference for print books. However, there was a drawback for electronic books when it came to preservation and resource sharing. These

drawbacks, in turn, led to more print purchases. However, the study conducted by Korah and the team found a higher number of libraries that purchase more electronic books than print references (2009).

School Textbook Usage

Textbooks have been a cornerstone aspect of curriculums for all grades. As such, there is still an emphasis on the importance textbooks have in graduate school. Fredskild and Frederiksen found in their study that this importance continues even with the introduction and permanence of electronic textbooks. Rather than viewing electronic textbooks as a hindrance, despite finding a lower reading comprehension percentage than print books, they found that electronic textbooks could open up new teaching techniques and teachers' opportunities (2020). In Fry's study, both print and electronic textbooks had high usage. However, transferring monographs from print to electronic formats negatively impacted their college environment use (2018). In these studies, both print and electronic textbook formats are useful and utilized by students, but print textbooks have a higher usage overall.

Through the research, there is a focus between print and electronic textbooks and student preference. In the studies conducted, there has been a focus on college students. Previous studies narrowed down the survey questions that this study wanted to incorporate. However, there has not been a specific study on the textbook preference for MLIS students. When creating the research questions, the researchers for this survey wanted to narrow the study to MLIS students' self-reported purchasing habits and factors that influence those purchases. This research study focused on those two topics to create survey questions answered by the MLIS students.

Research Questions

1. Do LIS students report purchasing more print textbooks than electronic textbooks?

2. Which factors influence LIS students' self-reported textbook purchases?

Method Statement

Define a theoretical perspective & methodology

The research study uses the epistemology of subjectivism. In this research, the subjects are responding through their interpretations of their preferences and purchases. The researchers had to rely on the subjective outlook that the research participants held about their purchasing habits through the inability to compare their actual purchases to their perceived purchases accurately. The theoretical perspective of this study is positivism. The researchers can only collect the data and interpret the data objectively based on the participants' answers. The methodology was survey research with the students enrolled in LIS 70801. The survey methodology was conducted through two demographic questions and ten Likert-scale questions to allow participants to answer on a sliding scale.

Describe who you are studying

This study focused on MLIS students currently enrolled in LIS 70801 Evidence-Based Planning, Management, and Decision Making. They are graduate students attending Dominican University. The participants of this research study range in age and their completion of the MLIS program. To better understand the demographics of those participating, there was the option to answer two questions. The first question was "what is your age?" and the second was "how many class hours have you taken (including those you are currently enrolled in) over the course of your LIS education at Dominican?" For the first question, only one person did not respond. However, everyone responded to the second question. The mean age was twenty-nine, although the standard deviation was 6.94 as there were participants from twenty-three to forty-five. The mean course hours taken was 17.92, with a standard deviation of 7.28. Again this was due to

class hours ranging from five to thirty-six. This showed a pool of participants ranging from those beginning their graduate studies to those closer to graduation.

Although the sample size was limited, the demographics on age and class hours were not completely homogeneous. However, due to the small sample size, the researchers did not ask for the demographic markers of ethnicity and gender. Perhaps if the sample size were significantly larger, those identifying markers would not be as obvious. The researchers would need to reconvene to discuss whether that demographic data was necessary for the research study.

Describe your methods, including tools you will use to collect data

This study involved a survey for the subjects to take, involving two demographic questions and ten Likert scale questions and created on Google Survey. The survey link was then sent to the students with an informed consent form included. The students were given a date to finish the survey and submit it. This date was the assigned due date given by the professor of the course. Once the due date had passed, the researchers could access the survey data collected to run the mean, median, mode, correlation, and standard deviation. Those calculations were gathered and calculated through Google Sheets.

Limitations

This research study has several limitations. One of the limitations is that the sample size is too narrow. This study only involves a small class (thirteen students, not including the researchers and professor) within a single university. As such, the study does not include a broad enough demographic of MLIS students. The second limitation involves only being able to rely on the self-reported purchasing habits of the students. The study is limited by relying only on self-reported purchasing habits because they may not accurately report their actual purchasing history. Third, this research study requires the population to participate as it is a part of their

class. There was not an option given to not participate without it negatively impacting their overall grade for the course. Fourth, although a confidentiality agreement was given and then signed, individuals may be identified through their responses and information due to the small sample size. The fact that not participating would negatively impact their grade and the possibility of being identified due to the small size may have altered the participants' responses.

Findings

This research found that seven out of thirteen participants (53%) strongly prefer print textbooks over electronic versions. Only four or 30% of the participants somewhat prefer print textbooks. This number keeps dropping to only one person (.07%), somewhat preferring electronic textbooks. The median and mode were consistent at a five (strongly prefer print), whereas the mean was 4.23, leaving this data with a standard deviation of 1.01. For self-reported textbook purchases, the participants were almost split evenly between choosing “purchased more print textbooks than electronic” (46%) and “purchased only print textbooks” (53%). This resulted in a mean of 4.53, a median and mode of five, and a standard deviation of 0.51.

In the survey questions that focused on factors that would affect preferences, the results were as follows. When asked about reading comprehension and textbooks, the mean was 4.07, with median and mode both being four (“my reading comprehension is somewhat better in print textbooks”). The standard deviation for this question was 0.75. The cost of print and electronic textbooks and whether it was a motivating factor was asked next. The results being a mean of 3.76, a median of four, a mode of five, and a standard deviation of 1.36. For the question selecting one indicated that the participant “strongly disagreed” to a five, meaning that the participant “strongly agreed.” As a part of costs, there came the statement of “I rent textbooks whenever possible” with one meaning that the participant “strongly disagreed” and a five

meaning that the participant “strongly agreed.” This statement’s answers resulted in a mean of 4.07, a median and mode of five, with the standard deviation being 1.38.

The following questions in the survey dealt with usability and accessibility features. The first question was, “for usability features such as text highlighting, annotation, and ease of navigation, my preference is.” The question resulted in eight out of thirteen (61%) choosing to “strongly prefer print textbooks.” This question’s data was: a mean of 4.07, a median of five, a mode of five, and a standard deviation of 1.49. The second question was to answer the statement, “I use accessibility features such as font resizing, high contrast visual display, and read-aloud in textbooks when they are available to me.” For this statement, one meant that the participant “strongly disagreed,” and a five meant that the participant “strongly agreed.” This survey question had a mean of 3.15, a median and mode of three, while the standard deviation was 0.89. The third question regarded the participant regarding screen fatigue with electronic text over an extended period. This question resulted in a mean of 3.92, a median and mode of four, with a standard deviation of 0.64.

The next group of questions was whether the participant purchased “textbooks of any format to build a personal LIS reference collection.” Out of thirteen participants, six participants selected yes, while seven selected no. This resulted in only six participants (46%) answer the follow-up question. The follow-up question was, “when purchasing textbooks for my personal LIS reference collection, my preference is” with one meaning “I strongly prefer purchasing e-book textbooks and five meaning “I strongly prefer purchasing print textbooks.” Out of the six participants, five (83%) responded with a strong preference for print textbooks, and one responded that they have no purchasing preference. This resulted in a mean of 4.66, a median, and a mode of five, with the standard deviation being 0.81.

The final question on the survey was, “I consider myself an early and avid technology adopter.” The majority (53% or seven participants) chose that they strongly agreed with that statement. This resulted in a mean of 4.07, a median and mode of five, and a standard deviation of 1.18. Though the remaining participants (43%) were split, two participants stated that they disagree with the statement, two stated they neither agreed nor disagreed, and the final two stated that they only agreed with the above statement.

The correlation between the participant’s textbook preference and their textbook purchases over their program resulted in a 0.73. The correlation between “for textbook purchases over the course of my Dominican MLIS program” and “regarding reading comprehension in textbooks” was 0.73. The correlation between cost as a motivating factor and renting textbooks whenever possible was found to be 0.93. Regarding preferences that could impact purchasing habits, the correlation between usability and accessibility features was 0.85. When finding the correlation between “for textbook purchases over the course of my Dominican MLIS program” and “when purchasing textbooks for my personal LIS reference collection, my preference is” it was found to be a 0.44.

Discussion

When crafting this research project, the researchers wanted to answer two questions regarding print textbook usage with MLIS students. Those questions were:

1. Do LIS students report purchasing more print textbooks than electronic textbooks?
2. Which factors influence LIS students’ self-reported textbook purchases?

As a result, the researchers had ten Likert questions on the survey. They had the participants answer to form the data that would answer these two research questions. A higher percentage of participants reported purchasing more print textbooks than electronic through the

self-reported answers in the survey. Over half of the participants (53%) reported that they only purchase print textbooks, and 46% reporting they have purchased more print than electronic textbooks. In answering this first survey question, it is important to note that no participant stated that they had purchased about the same amount of either print and electronic, a slightly greater amount of electronic textbooks, or only purchased electronic textbooks. With this first set of data, it is essential to continue onto the second research question to discover what factors had a more considerable impact on the LIS students' self-reported textbook purchases.

As researchers, the goal was to formulate and quantify the specific factors that impacted student preferences. There was also the goal of finding out if those factors changed the actual self-reported purchasing habits regardless of their preference. To do this, the survey questions concerning factors involved: reading comprehension, cost, accessibility and usability features, screen fatigue, and early technology adaptation. Through the survey questions that addressed each of these factors, the researchers were able to gain data that more clearly outlines what factors correlated with one another and correlated with and influenced the students' purchasing habits. The largest factors were cost and usability features. The cost of the textbook influenced the purchasing habits when it came to whether the student would purchase or rent the textbook. However, this still resulted in a preference for print textbooks rather than electronic versions. Based on the answers gathered from the question on usability, students preferred the usability found when using a print textbook when it came to annotating and highlighting specific aspects. The factors that the researchers gathered from previous studies and through their own hypothesis were found to greatly impact the students' self-reported purchasing habits in buying more print textbooks than textbooks in an electronic format.

This survey allowed the researchers data to answer the proposed research questions better. It also began filling in the lack of data available revolving around MLIS students' print and electronic textbook purchasing habits. With this new data, research can continue to be conducted that compares graduate students' purchasing habits across different fields of study. However, more research needs to occur to create a better survey data sample.

That does not mean ignoring this data due to its current limitations. Despite the limitations, it has created the beginnings of research for those studying to become librarians and surrounded by and have access to both print and electronic books. Therefore, it is essential to understand their self-reported purchasing habits when it comes to their textbooks for their MLIS program.

Conclusion

The purpose of this research was to begin studying the textbook purchasing habits of MLIS students and what factors, if any, impact those habits. The data collected from this study concluded that MLIS students prefer print textbooks, whether it involves purchasing or renting the textbook. Although many factors contributed to purchasing habits, it seems as if the largest contributing factor is the cost through the data collected. This factor contributes to whether the textbook is purchased or rented. Although the surprising data found was that creating a personal LIS reference library did not have a high correlation on what format the student purchased.

Through this research study, there can be a discussion between MLIS faculty and the academic librarians in providing access to the textbooks or changing the textbook requirements for their courses. However, this is a discussion that would benefit greatly from continuing research. That research would include a more extensive survey sample and more specific questions to ascertain more data on students' purchasing habits.

Nevertheless, print textbooks appear to be the preferred format that MLIS students choose for themselves through this research study. Although, as stated above, more research needs to occur before viewing it as a larger trend. The next step for research for this topic will be to diversify the participation pool to include MLIS students across universities. Through this diversifying and possibly adding aspects to the research that analyze the actual purchasing habits, rather than merely the self-reported purchasing habits, this research study can predict the purchasing trends for textbooks amongst MLIS students.

Appendices

Informed Consent Statement

Dear Participant,

We are graduate students in the Masters of Library and Information Science Program at Dominican University. We are conducting a research study that examines the participants' purchasing habits and perceptions of print books. You will be asked to complete a short survey consisting of two numerical response questions related to demographics and ten Likert scale questions about your purchasing habits and perceptions of print books compared to e-books. Please answer these questions fully and to the best of your ability using this Google Form.

You were selected to participate in this study because you are enrolled in LIS 708 01 Evidence-Based Planning, Management, and Decision Making at Dominican University. Your participation in this study is completely voluntary. Selecting, "I consent," below will be considered your consent to participate in the study and your acknowledgement of this Informed Consent Statement. You are not required to consent and you may refuse to do so. However, if you refuse to give consent, you cannot participate in this study. You may withdraw from the study by closing your web browser before clicking, "Submit," on the third page of this Google Form.

Your participation in this study will provide insight into the purchasing habits and perceptions LIS students hold regarding print textbooks and will be beneficial to the researchers' completion of the final project for LIS 708. There is no anticipated benefit for the participant. This study poses no more than minimal risk to the participant. The largest risk is the sharing of personal data. Responses are anonymous, but, in a small sample, demographic information could make responses identifiable. In an effort to protect your privacy, we will not collect your name or email address. The responses received will be kept private. Responses will only be used as part of the final project for LIS 708 and will not be shared with anyone outside of class. For the final project, the research will be shared as summarized, aggregated results and not as individual responses.

Any questions or concerns regarding this survey should be directed to a member of our group via Canvas. Questions about participation should be directed to Troy Swanson at tswanson@dom.edu.

Thank you for your time. We encourage everyone to participate.

The Print Book Research Group
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Survey Questions

#	Short description	Full text	Question type
1	Age	What is your age?	Demographic
2	Class Hours	How many Dominican University MLIS class hours have you completed including current courses?	Demographic
3	Prefer print	I prefer print books to e-books for academic textbooks	Likert
4	Purchase print	Over the course of my my Dominican MLIS program, I have purchased more print textbooks than e-books	Likert
5	Comprehension	My reading comprehension is better with print textbooks	Likert
6	Cost	Cost is a motivating factor in my textbook purchases	Likert
7	Rent	I rent textbooks whenever possible	Likert
8	Usability	My textbook purchases are motivated by usability features such as highlighting, annotation, and ease of navigation	Likert
9	Accessibility	My textbook purchases are motivated by accessibility features such as font resizing, high contrast visual display, and read-aloud	Likert
10	Screen Fatigue	Screen fatigue has become a concern given the amount of online reading required for school.	Likert
11	Build reference collection	I purchase textbooks to build my own permanent LIS reference collection	Likert
12	Tech adopter	I consider myself an early and avid technology adopter	Likert

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