

# Developing a Campus Social Website for Buying, Selling, and Trading Textbooks

Muhammed Miah  
mmiah@suno.edu

Adnan Omar  
aomar@suno.edu

Selen Sagioglu  
sagiogluselen@hotmail.com

Department of Management Information Systems  
Southern University at New Orleans  
New Orleans, LA 70126

## Abstract

Textbooks play an important part in the learning process of students' college education. The use of textbooks gives students stability and confidence. Textbooks are great resource for self-directed learning, because students can use them whenever and wherever they want. Textbooks generally contain everything that students are supposed to learn within a certain timeframe. However, as the cost of textbook continues to rise, students face difficulties to buy textbooks. To get the textbook in hand also sometimes takes longer time even if bought online. In the process of looking for an alternative and affordable option to buy and sell textbooks, this study creates a website "SunoBookflick" only for Southern University at New Orleans (SUNO) students. On the website students can communicate with other students that currently enrolled at SUNO, they can sell, buy and exchange their books on campus. User needs to create an account with user name and a password in order to use the program. The website is provided to the students for free to use and then a survey is conducted on the usability of the website. The study also collect and analyze the survey data; and provides the findings and recommendations.

**Keywords:** Buying, selling, and trading textbooks, textbook website, social website.

## 1. INTRODUCTION

Education in its general sense is a form of learning in which knowledge, skills, and habits of a group of people transferred from one generation to the next through teaching, training, research, or simply through auto didacticism. Generally, it occurs through any experience that has a formative effect on the way one thinks, feels, or acts (John, 1916/1944). Education is very important

because it is the key to a person's future. Good education helps us to achieve all types of goals in our life. Individuals' purpose for pursuing education can vary. However, in early age the focus is generally around developing basic Interpersonal communication and literacy skills in order to further ability to learn more complex skills and subjects. After acquiring these basic abilities, education is commonly focused towards individuals gaining necessary knowledge and

skills to improve ability to create value and a livelihood for themselves. Satisfying personal curiosities (Education for the sake of itself) and desire for Personal development, to "better oneself" without career based reasons for doing so are also common reasons why people pursue education and use schools. Education takes almost quarter of our life. Beginning from elementary school and then Middle school and following the high school education is a long period for students and for their families. Therefore, studying is not only long period but also expensive for most of the students and for their families. Textbooks play an important in any educational system. A textbook or course book is a manual of instruction in any branch of study. Textbooks are produced according to the demands of educational institutions. Even though most textbooks are only published in printed format, many are also available as online electronic books. Many books are available illegally, in scanned format on file sharing networks. Many students and families complain about textbook prices most of the time. Textbook market is huge industry for publishing companies so that they easily increase the textbook price without controlling. The textbook market does not operate in exactly the same manner as most consumer markets. First, the end consumers (students) do not select the product, and faculty or professors do not purchase the product. Therefore, price is removed from the purchasing decision, giving the producer (publishers) disproportionate market power to set prices high. Similarities are found in the pharmaceutical industry, which sells its wares to doctors, rather than the ultimate end-user (i.e. patient). Once a textbook is purchased from a retailer for the first time, there are several ways a student can sell his/her textbooks back at the end of the semester. Students can sell to 1) the college/university bookstore; 2) fellow students; or 3) a number of online Web sites or student swap service. Campus buyback: As for buyback on a specific campus, faculty decisions largely determine how much a student receives. If a professor chooses to use the same book the following semester, even if it is a custom text, designed specifically for an individual instructor, bookstores often buy the book back. Student to student sales: Students can also sell or trade textbooks among themselves. After completing a course, sellers will often seek out members of the next enrolling class, people who are likely to be interested in purchasing the required books. Online marketplaces: These are two major types

of online websites students can use to sell used textbooks. Online marketplaces may have an online auction format or may allow the student to list their books for a fixed price. In either case, the student must create the listing for each book and wait for a buyer to order, making the use of marketplaces a more passive way of selling used textbooks. Unlike campus buyback and online book, students are unlikely to sell all their books to one buyer using online marketplaces, and will likely have to send out multiple books individually (<http://en.wikipedia.org/wiki/Textbook>).

College education takes at least four years. On the average, students take five courses per semester; this means that they buy at least five textbooks every semester. Totally, students buy more than twenty textbooks during the four years college education period. It costs a lot for the students to spend big amount of money just for textbooks. Therefore, students seek relief from rising prices through the purchase of used copies of textbooks, which tend to be less expensive. Some students buy their textbook online, which is the cheapest way of getting textbooks. The disadvantage of buying online, sometimes it takes couple of weeks to be delivered. During shipping period, students are not able to follow their courses without textbook. Even if students buy new or used textbook from bookstore, it is still very costly. In addition, selling the textbook can be very hard process. For example, most of the students have the same textbooks from previous semesters and they want to sell their textbook as soon as possible even it can be sold at a lower price. So selling the textbook with a good price will be hard in this big textbook market. Therefore, students may not be able to get the price they would like to sell.

The objective of this study was to develop a web site for students to buy, sell or trade their textbooks online and to examine its usability. SunoBookflick was created to help SUNO students to save money, time and have easy access to a portal where they can buy, sell and share/trade textbooks. The data were collected in the combination of the textbook sharing websites. The principle function of this project was to provide the methods for developing Textbook sharing website and examining its usability.

The remainder of this paper is organized as follows. Section 2 documents a review of the literature to the usability of book sharing websites. Section 3 discusses the data and

methodology about book sharing web site created for SUNO students. Section 4 presents the empirical results. Sections 5 and 6 provide the conclusions and references respectively.

## 2. REVIEW OF LITERATURE

The internet has given us the ability to connect with people from around the globe with a few clicks of a button, making it easier than ever to keep in touch with our friends and family. Because of that, social networking is the biggest industry of our time, but it wasn't always that way. Geocities was among the first social networking sites on the Internet, launching its website in 1994. Its intent was to allow users to create their own websites, dividing them into "cities" based on the website's content. In 1995, TheGlobe.com was launched, offering users the ability to interact with people who held the same interests and publish their own contents. Two years later, in 1997, AOL Instant Messenger and SixDegrees.com were launched. This was the year instant messaging became popular and it was the first time internet users were able to create a profile and friend each other (Walker, 2011).

Friendster was the pioneer of social networking. In its first three months, the social networking website acquired 3 million users, amounting to 1 in 126 internet users being members at the time. Friendster served as the launching point for the widely popular MySpace, who cloned Friendster and launched after just 10 days of coding. In the following years, other social networking websites like Classmates.com, LinkedIn and Tribe.net started to pop up, including what was to be the most popular social networking website in internet history. Facebook.com was launched in 2004 with the intent to connect U.S. college students, starting with Harvard College. In its first month, over half of the 19,500 students signed up. After gaining popularity, Facebook opened its registration to non-college students, and in 2008, Facebook surpassed MySpace as the leading social networking website (Walker, 2011).

Development of Social Networking web sites also influenced the Book sharing web sites. Shelfari is a social network devoted to create a global community of booklovers by encouraging users to discuss and share their favorite books with friends and strangers. By allowing users to build a virtual bookshelf, Shelfari creates a great visual interface for sharing great books.

BookCrossing is a book-based social network where members release books back into the public by leaving them on park benches, at the gym or at school. One part social network and one part social experiment, BookCrossing lets you participate in giving back to the world of literature by passing on your favorite books. Reader2 is a book social network that allows one to tag his/her books with a keyword and categorize them any way they want. He/she can interact with friends, display your book lists on his/her own blog, and discuss books with other readers. One great feature of Reader2 is the ability to recommend a book based on another title. This works by matching up similar keywords used to describe the book and generating a list based on those keyword matches. Revish is a social network for book reviews. It is not only writing reviews of his/her favorite books, he/she can also create a journal of the books have read. Moreover, by using the Revish API and the provided widgets, one can also share the book list on the blog or on MySpace or Facebook profile. ConnectViaBooks is a social network where booklovers can find other people who enjoy similar books. Publishing and sharing book lists allows users to connect with others, and by writing reviews, users share their love of books with the public. Users can create multiple book lists, publish those lists on their own blog, and engage in lively discussions about books. Campus Textbook Deals is an online resource that was created to assist potential students in their search for the cheapest textbooks attainable online. The website is online resource assisting students to find the best textbook deals (Book Social Networks, 2013).

CampusBooks searches dozens of bookstores, thousands of sellers, and millions of new and used textbooks to find you the lowest textbook prices on the Internet. It allows comparing prices on textbooks now using the search box, or find textbooks at campus using school booklist. If someone is buying more than one book, then she/he can use the book bag to compare prices on all textbooks at once. The website compare every combination of price, shipping, tax, and coupons at all the bookstores, and give the lowest total price on all new and used textbooks at once (CampusBooks, 2013).

Despite all of the websites available to buy/sell textbooks, buying/selling textbook is still difficult, costly and time consuming for many students.

While designing book social network web sites, usability is extremely important factor. Usability determines web sites popularity and number of visitors. If the web site has poor usability, many visitors will not come to the website.

Usability studies examine user/technology interfaces in order to improve design so that it is more user oriented (Nielsen, 2001). Applied to websites, the term usability means intuitive navigation, a good search function and easy checkout. Slow downloading raises the likelihood that customers abandon the site (Nielsen, 1993).

The human-computer interaction community aims to increase the awareness and acceptance of established methods among software practitioners. One of the basic lessons we have learned in human-computer interaction (HCI) is that usability must be considered before prototyping takes place. Thus, user interface design should more properly be called user interface development, analogous to software development, since design usually focuses on the synthesis stages, and user interface components include metaphors, mental models, navigation, interaction, appearance, and usability (Marcus, 2002).

It is generally accepted that the following five essential usability characteristics should be part of any software project: learnability, so the user can rapidly begin working with the system; efficiency, enabling a user who has learned the system to attain a high level of productivity; memorability, allowing the casual user to return to the system after a period of non-use without having to relearn everything; low error rate, so users make fewer and easily rectifiable errors while using the system, and no catastrophic errors occur; and satisfaction, making the system pleasant to use (Shneiderman, 2005).

Questionnaires are useful for studying how end users use the system and their preferred features, but need some experience to design. They are an indirect method, since this technique does not study the actual user interface: it only collects the opinions of the users about the interface. A simpler form of questionnaire is the interview. The form of the interview can be adjusted to respond to the user and encourage elaboration (Holzinger, 2005).

There are many other important quality attributes. A key one is utility, which refers to the design's functionality: Does it do what users need? Usability and utility are equally important:

It matters little that something is easy if it is not what one wants. It is also no good if the system can hypothetically do what one wants, but there is no way to make it happen because the user interface is too difficult (Nielsen, 2001).

### 3. METHODOLOGY

The purpose of this study is to examine usability features of Book social network websites. Ten leading book social websites across different web design categories were examined for this study. In order to achieve the objectives of this study, one template website was used to accommodate the usability features. SunoBookflick was created, so that it could be distributed to students of SUNO and other campuses.

#### Questionnaire

The questionnaire (see Appendix) was created for examining the usability of SunoBookflick. It was developed and analyzed with the help of the usability features. Each question was categorized with respect to a Hollinger's usability feature. A descriptive title and an introduction title were written for the questionnaire. At the beginning of the questionnaire, it was indicated what respondents should do. Questions were created to see if users like this kind of website. Simplicity was designed to enable respondent, to recognize what is asked in the question. Due to the nature of the questionnaire, respondents were instructed to use their own criteria and not to be impacted by general guidelines, i.e., they were asked to fill out the form with full subjectivity.

#### Respondents

The questionnaire was submitted to 100 students at Southern University at New Orleans. The respondents included undergraduate and graduate degree students. After using the website, students took online survey by clicking survey button, which redirects them to the SurveyMonkey website. This online survey was used because it was easy to collect data. After the data collection, the responses were saved in a Microsoft Excel spreadsheet as a table. The analysis of data is shown in Section 4.

SunoBookflick website was developed for SUNO students to share their books easily in campus. According to the needs of students, the required updates for the SunoBookflick website were determined. The home page of SunoBookflick website is shown below in figure 1.

In website, the logo was placed in the top-left. Ease of use navigation depends on what types of links normally appear on the web pages, where they were placed, and how they appear visually. Before gathering data, it was necessary to develop a set of characteristics that could determine the general features of navigational interfaces across the sample of five book social network websites.

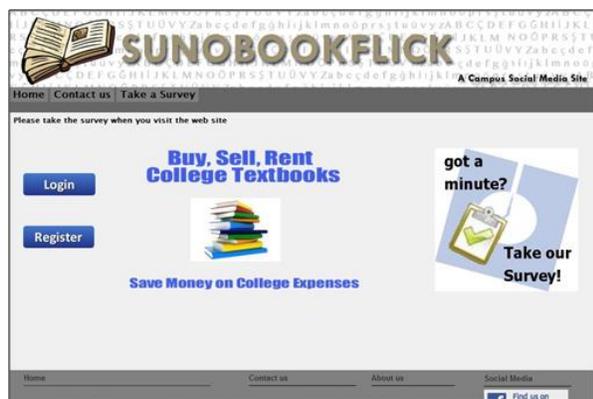


Figure 1: Screenshot of Website Home Page

The design of well-known book social websites such as goodreads and Connectviabooks were examined, it was considered that the navigation should be on the top. In addition, the login field and register button were placed on the left of main body. Logout field were placed to the right side under the banner.

According to these usability rules, the following updates were done for the SunoBookflick website:

**Learnability:** According to this feature, the size of the web page was increased. The size of the images and buttons were increased on the first page, and after the users click on the buttons and links, related page will be opened. These changes allow users to rapidly begin working with the system.

**Efficiency:** Home page, MyAccount, Admin and take a survey links were placed in the Navigation to the top to achieve a high level of productivity for the users. By using this navigation, users feel that they can reach to the information page that they are looking for. Because of this change, website works at a reasonable speed and is adapted to their browser.

**Memorability:** The website was designed to enable users to return to it after a period of non-use without having to relearn everything. For example, a login part has the feature that the user can be remembered by the browser. In addition, the login part has a reminder property for username and password fields. This feature helps users when they forget their username or password.

**Low error rate:** By adding left and top navigation, the website decreases the error rate for the users. If the users accidentally click on a different link, they can return to the right page by using the related link placed on top. By doing this, users make fewer and easily rectifiable errors while using the system, and no catastrophic errors occur.

**Satisfaction:** In order to make the system pleasant to use, the banner size was increased and attractive banner chosen. In addition to this, sizes of images were increased, so the users could easily see the product they wanted in the website.

The website created was a campus social website where students are able to communicate with each other by sending/receiving messages, creating forums and discussions. But the main purpose of this study was to allow students to buy, sell, and share/trade textbooks through the website. Then a survey was conducted after using the website to determine the usability of the website. The analysis of data is shown in next section.

#### 4. FINDINGS

This section presents the data collected from the survey as well as statistical analysis and graphical presentations obtained from analyzing the data.

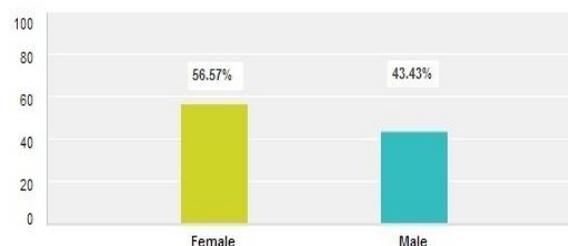


Figure 2: Gender of Respondents

Over 99% of the respondents were familiar with buying textbook online and book stores. This may be because most students have to have textbook to follow the class.

Out of 100 students who responded, 80 current students had actually participated in the website and 20 of them faculty, staff, alumni and future students used the website and took the survey.

Figure 2 demonstrates the gender characteristics of the survey sample. Out of 100 participants, 99 answered and one person skipped this question. Female respondents constitute 56.57% of the whole sample, whereas male respondents make up the remaining 43.43%. This result shows that the survey was taken slightly more by females.

Figure 3 indicates the status of the survey participants. Out of 100 respondents, 4 people skipped and 96 people answered this question. Current undergraduate and graduate students constitute 83.33% of the survey takers. 52.08% of them are undergraduate students, while 31.25% are graduate students. The rest of the survey was answered by 1.04% faculty members, 3.13% staff, 7.29% alumni and 5.21% future students. Overall, this result shows that the website mostly takes students' attention.

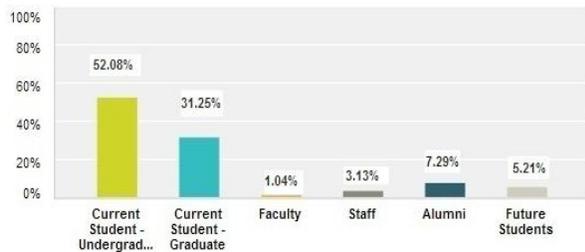


Figure 3: Status of Respondents

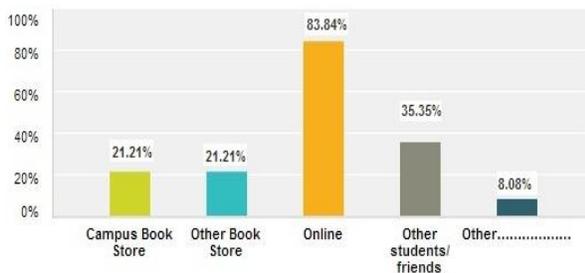


Figure 4: Ways of Buying Textbook

Figure 4 reveals that most of the respondents (83.84%), prefer to buy their books online. The second most popular way for buying books is through other students and friends and they account for the 35.35% of the survey takers. On the other hand, campus bookstore and other bookstores, which are seemingly more

expensive sources, receive less demand. The online option is the cheapest alternative and this explains the high demand for it.

Figure 5 shows that 75.26% of participants prefer to sell or trade their used textbooks. 24.74% of the whole participants do not sell or trade their textbooks. This figure shows that some of people are not able to find ways to sell or trade their books or they do prefer to keep their textbooks.

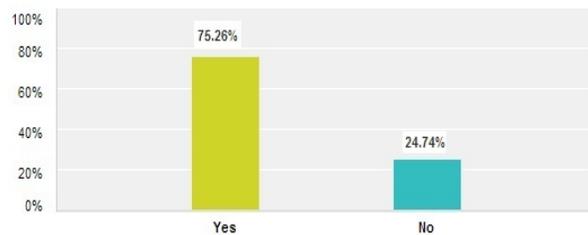


Figure 5: Selling/Trading Textbooks

Figure 6 states that, among the people that are selling/buying/trading textbooks, 95.88% of them would be very interested in SunoBookflick or similar website on campus.

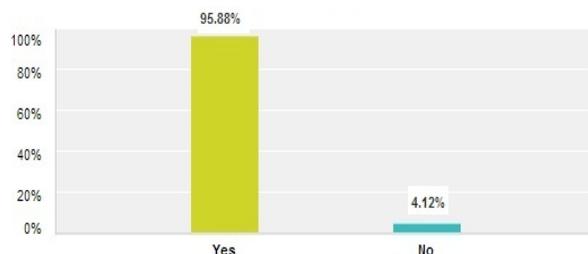


Figure 6: Interest on SunoBookFlick Website

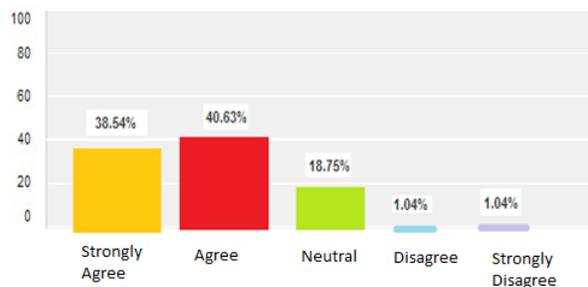


Figure 7: Liking of the Website

According to Figure 7, most of people like SunoBookflick for selling/buying/trading textbooks. 38.54% of the survey participants strongly like the website and 40.63% like it. This

shows that once this kind of website becomes available, it will attract a lot of interest.

Figure 8 shows how easy people find SunoBookflick website to use and navigate. In total, 78.95% of the survey takers think that it is very convenient in the sense that it is easy to use and navigate. It is important for a website to be user friendly at the first glance, and SunoBookflick seems to be highly recognized as easy to use according to most of the survey respondents.

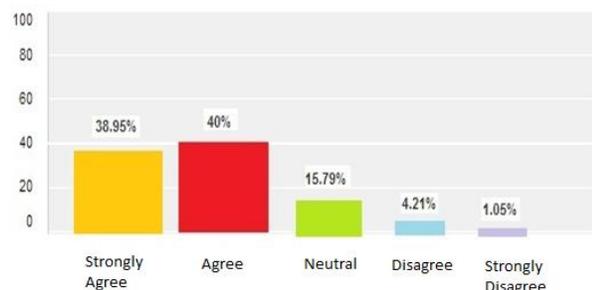


Figure 8: Easiness to Use the Website

Figure 9 indicates that SunoBookflick found to be easy to find/search textbook ads. 74.47% of the participants think that the search function is user friendly because one can search all the materials very easily.

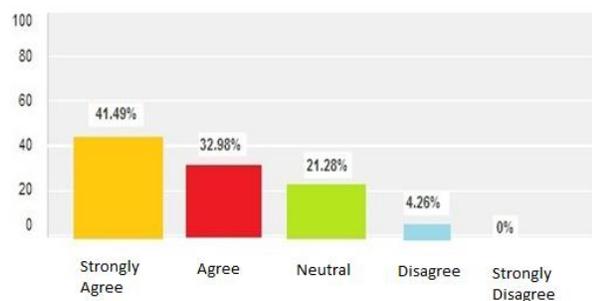


Figure 9: Easiness to Find Ad

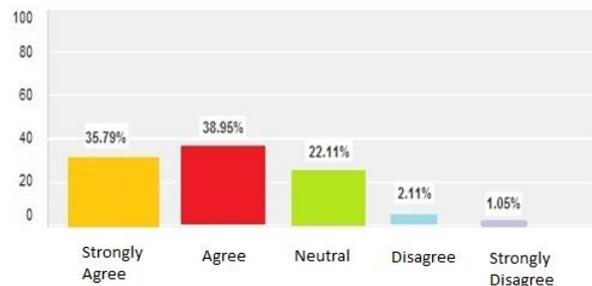


Figure 10: Easiness to Post Ad

Figure 10 reveals that the website is not only user friendly for buyers but it is also very intuitive for people those want to post ads for textbooks. The results show that 74.74% find SunoBookflick easy for advertising textbooks.

Figure 11 clearly demonstrates that, SunoBookflick will be extremely useful for students in buying/selling/trading textbook on campus. Given the fact that, students were already in need of an organized platform where they can easily search for textbooks or put an advertisement to sell by their own. SunoBookflick makes it very convenient for all students to exchange their textbooks. Every semester, hundreds of students complete their classes and new ones start taking the same classes. Without SunoBookflick, many students will be searching the internet to find the cheapest match for their required textbook or many of them will not be able to sell their used ones because of the difficulties of posting an advertisement to an outside website. SunoBookflick will be an easy and useful solution to many of the students' textbook buying/selling problem. The previous survey answers of the participants already show that the website has been found user friendly and easy to navigate. Given the need and demand for a website like SunoBookflick, the many advantages it will bring to the student community in the college will be highly appreciated.

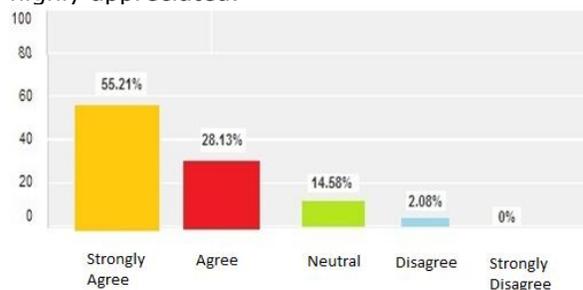


Figure 11: Usefulness of the Website

**Limitations**

In this study, the research team would have loved to include as many students as possible all over the campus but it was difficult to guarantee that internet users in different campus would respond to the questionnaire. Moreover, due to time constraints the research team was unable to present a significant number of users of both websites located in the Southern University at New Orleans campus area as well as beyond. In spite of these limitations results from the

survey, correlate with the findings of other studies that had a similar research purpose.

## 5. CONCLUSIONS

The importance of textbook for students cannot be underestimated. Buying textbook processes could take days and even weeks for students to complete in the past, but now it takes just couple of hours or a day. Currently, Textbook sharing websites allow different students to access and buy textbooks that they are looking for. However, it is necessary that the Textbook sharing web sites interface should be user-friendly and have more usable web design so as to help students to obtain their desired results easily. Based on the aforementioned, this study seeks to restate the importance of website usability for Book sharing websites.

During the course of this study, it was observed that usability of online book sharing websites has led to increased student-satisfaction. Explaining the aforementioned in detail, book sharing websites that ranked low in usability and user-friendliness were found to be less satisfying for the students. In contrast, students had higher satisfaction Website that was ranked higher in usability and user-friendliness features and user-friendly design.

Holzinger's usability features were analyzed to improve the usability of a website. According to the questionnaire results, the usability of a website increases for each of the usability factor. Using the SurveyMonkey website, the authors applied the survey reports to show the usability results of book sharing website. The survey analysis showed that the book-sharing website has high usability on each usability factor.

Future efforts to minimize website usability problems will certainly include a combination of human-computer interaction, increased awareness on websites usability, research on usability factors for web design and new technological solutions. Current usability methods should be evaluated and developed to get better results. To help the students with their textbooks, every campus should have a website like SunoBookflick where students are

able to buy, sell and/or trade textbooks easily and in a less costly manner.

To build up the "Developing a book sharing web site and examining its usability" research, a survey which provides different scenarios in a questionnaire may be conducted. To contribute to understanding the technological implications of usability of websites, further research closely related to ease of use and user-friendly websites are highly recommended. Researching other factors that influence usability of websites can also intensify this study.

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## Appendix

### Survey Questionnaire:

#### 1. What is your gender?

- Female
- Male

#### 2. Are you.....?

- Current Student - Undergraduate
- Current Student - Graduate
- Faculty
- Staff
- Alumni
- Future Students

#### 3. How do you usually buy your textbook?

- Campus Book Store
- Other Book Store
- Online
- Other students/ friends
- Other.....

#### 4. Do you sell or trade textbooks?

- Yes
- No

#### 5. If you are interested in selling/buying/trading textbook, would you be interested in this kind of website (SunoBookflick)?

- Yes
- No

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**6. How do you like SunoBookflick website for selling, buying or trading textbooks**

Strongly Agree      Agree      Neutral      Disagree      Strongly Disagree

**7. SunoBookflick is easy to use and navigate**

Strongly Agree      Agree      Neutral      Disagree      Strongly Disagree

**8. It is easy to find/search textbook with SunoBookflick**

Strongly Agree      Agree      Neutral      Disagree      Strongly Disagree

**9. It is easy to post/add for textbook with SunoBookflick**

Strongly Agree      Agree      Neutral      Disagree      Strongly Disagree

**10. SunoBookflick will be useful for students' for buying/selling/trading textbook in campus**

Strongly Agree      Agree      Neutral      Disagree      Strongly Disagree