Observation Summary

Overview

We conducted video and audio taped interviews of our target users who we have identified as University of Washington Tacoma Campus students. The goals of the interview was to gain insight on the current methods students use to obtain textbooks for their quarterly courses. Secondly, to gauge their level of satisfaction, on a scale of one to ten (*one being a bad experience ten being a great experience*) with their method. Lastly, we also inquired about what the students did with their textbooks after the quarter ended. We hoped their answers would support the need for the development of our Husky Book Exchange Application.

Findings

Question	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5	Subject 6
Name	Kristen	Terrance	John	Shopha	Mike	Eryn
Grade	Junior	Senior	Junior	Sophomore	Junior	Junior
Major	Psychology	Urban Dev.	Business	No major	CSS	Psychology
How do you obtain your text books	Online	Bookstore	Bookstor e	Amazon	Amazon	Amazon
What is your level of satisfaction with that method on a scale of 1-to-	9	5	5	5	8	6
Have your purchased books online or at the bookstore (*see footnote)	Purchased Lab books at the bookstore	Will not purchase online	Only if he feels he has time to wait for book to be shipped	Will buy at bookstore if she can't find online But feels bookstore is expensive	Will buy in bookstore if he can't get online	Bookstore if unavailable Online.
How do you feel about that experience 1-to-10	5	0	5	5	8	7

What do you	Keep	Keep	Keeps	Keeps but	Keeps	Keeps
do with your			text book	may sell		
books at the			if the	books to		
end of quarter			class is in	student		
			his major			
			may sell			
			to friend			

^{*(}if the student answered online to the first question we asked if they had also purchased at the bookstore, if the student answered bookstore to the first question we asked if they had also purchased online.)

We introduced ourselves and asked the students some basic questions such as their name, class, and major. These questions were to break the ice and make the student feel comfortable with the interviewer. Next we asked how they obtain their text books, four of six students purchase online, the other two use the bookstore. We then asked what their level of satisfaction was with the purchase. Of the four students who purchase online two rated the experience highly while and the other two rated it 5. The two students who purchase in the bookstore rated the experience so-so. Next we asked the four students who answered online if they had purchased at the bookstore as well, all said that they use the bookstore as a backup if they couldn't find them online. We then asked their level of satisfaction with the bookstore, two rated it highly and the other two rated it in the middle. The two students who answered that they purchase their books at the bookstore were asked if they had purchased books online as well. The first student said he never purchases online, while the second said he would buy online if he felt he would receive the book before they classes start. We then asked all six students what they do with their books after the quarter was over. All the student keep their books.

New Insights

We believe the data supports the need for a medium that will allow students to connect and sell and buy books from each other. Even though the students were somewhat satisfied with their current options of purchasing books, we believe this is because they aren't aware of any other option. One student told us that Pierce College provides an online medium for students to exchange books, and that he wishes that there was something similar at UWT.

Sue Park
David E Dorch
Andrew Quicho
T-INFO 220
Stage 2 Ideation

HBX Husky Book Exchange

Our design is an interactive phone and web application called the Husky Book Exchange. HBX allows students to connect with each other and buy, sell, or trade used textbooks. We originally came up with the idea through a group brainstorming session. We had a discussion in class and determined that we needed to come up with a problem solving idea for UWT students, because as UWT student's ourselves it would guarantee an emotional connection with our project. We thought of problems that all students face, and Sue mentioned the costs of textbooks. Immediately, we began to discuss our past experiences with purchasing, and reselling textbooks. After, we agreed that this was a major problem for all students, and began to discuss ways that we could solve this issue. Next we began to discuss and reenact the process of a student's obtaining their books by using our design. We role played the different possible ways a student would be able to buy and sell textbooks and concluded that a phone application and a website would the best medium for this particular solution. After determining what would be our best design, our next step moving forward was to create a storyboard representation illustrating what our application would look like. We have included an example of our storyboard in figure 1.1 showing specific design characteristics and functions. Lastly, we dissected and sketched individual application pages and their particular functions as a user would experience when navigating through our design. We have included photos in our summary as figures 1.2-1.9 showing our sketches of the start page, login page, account registration page, my page, navigation page, buy page, sell page, and the post page. All of these areas of ideation assisted the formation of our project, but of all brainstorming was the most important as the others grew from its seed.

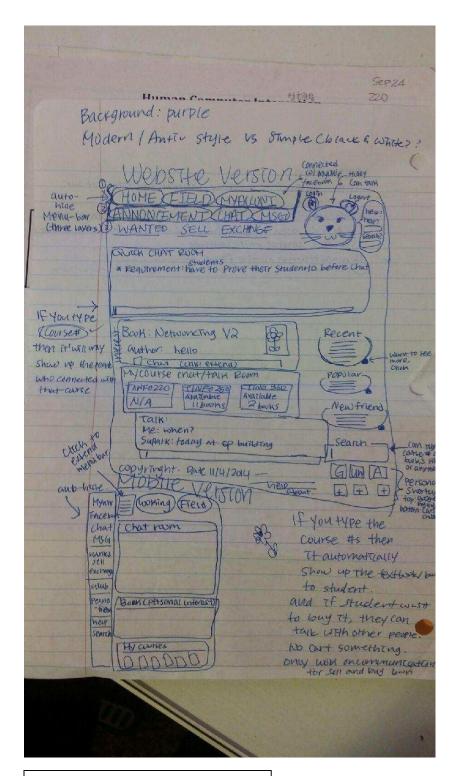


Figure 1.1

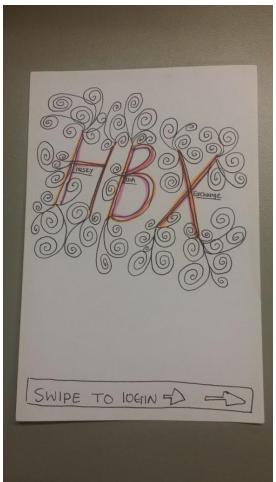




Figure 1.2 Start Page

Figure 1.3 Login Page

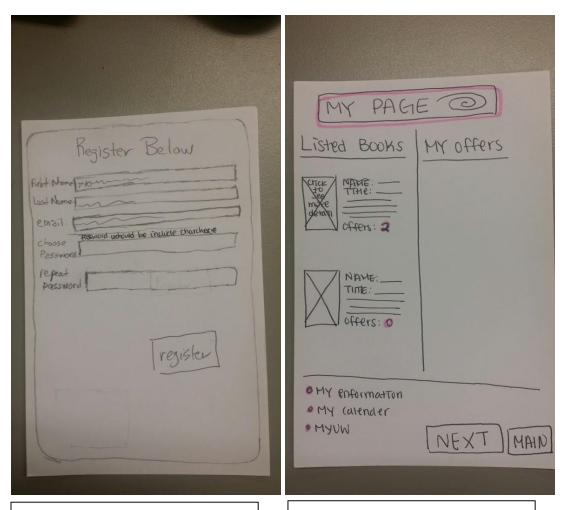


Figure 1.4 Registration Page

Figure 1.5 My Page

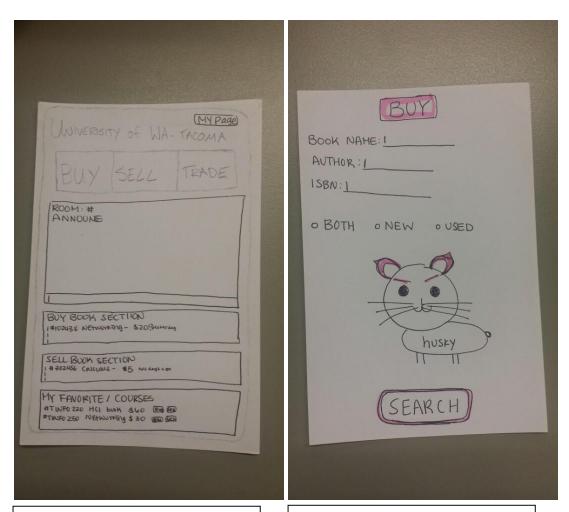
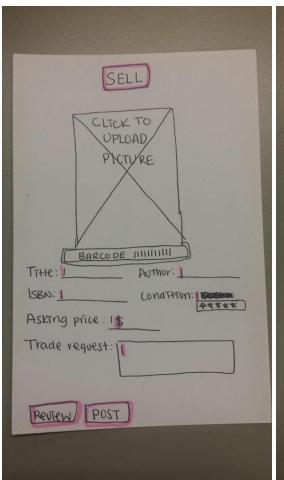


Figure 1.6 Navigation Page

Figure 1.7 Buy Page



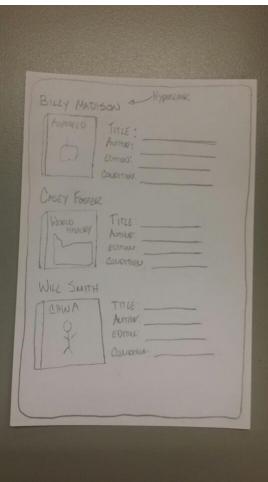


Figure 1.8 Sell Page

Figure 1.9 Post Page

David Dorch Andrew Quicho Su Park 11/21/2014

Stage 3: Rapid prototyping

Summary

We started the production of our application with role playing. The goal was to identify the different roles a user might have while using our design. We identified three major user roles, a buyer role, seller role, and scammer role a person using our system in an undesirable way. We then discussed these roles, and came up with the pieces needed for our application to function. These were fields, buttons, and screens. It also helped us design a feedback feature to help weed out undesirable users that would use the system in ways in which it was not designed for. Specifically, the role playing helped us build and design the buyer screen, the sell screen, and other windows.

From here we made sketches to define the placement of the different parts of our application such as the creation of large and visible buy, sell and trade buttons. We used sketching as a tool to give us a spatial depiction of our user interface which includes a homepage, sign in page, registration page, main page, buy(search) page, sell page, book listing page, profile(my account) page, contact page, and about us page. Our sketches also helped us design which features and icons were needed and not needed. This led us to creating pages that were simplistic and very easy to navigate especially for first time users.

We then took our sketches and created our site map prototype. This mapped the flow of our application when navigating through the site. For example, when a new user brings up our home page, they are prompted to create a profile by clicking the registration button which is linked to a registration page where they create their profile to sign in. The site map shows the next direction the user would take when they sign in into my page. Each possible user interaction is shown on our site map which allows a user to go back pages, move forward pages, or go back to my home page.

After creating our site map prototype, we put together a flip book, which is our rapid prototype. The purpose of creating a flip book was to create a rough representation of our working application. This will allow users to physically navigate and test HBX giving us feedback. We will then use that feedback to make corrections in our flip book accordingly. We have included pictures and copies of our prototyping methods along with this report. The creation of these four prototypes will help us with the development of a hi-fidelity prototype.

ROLE 1

A student is getting ready to start the new quarter and is looking for cheap books she can buy from other students. She has found HBX for the first time and is navigating through our application as she attempts to fulfill her goal of obtaining cheap books for a fraction of the retail price. The seller, a very busy senior and veteran user of HBX has books that student 1 needs and the interaction goes as follows:

INTERACTION

- Senior: Being a very busy senior finishing her thesis and capstone, she accesses HBX and posts books that fellow sophomore or juniors might need for a 450 History class. Having a lot on her plate, she quickly posts her books and continues to work on other tasks.
- Tacoma, she is looking for her require 450 History book needed for the beginning of the quarter which is about to start in 1 week. Knowing online book handlers have shipping issues, she eliminates the option of buying her books online for the fear of not obtaining her books in time for class even though she would save money. Her last option is the bookstore where she could obtain her book immediately but at the tradeoff of very high bookstore prices. Before she settles buying her books, she attempts to use the HBX application as a final stand of obtaining cheap books without the long shipping time. She registers with ease and navigates that there is 1 listing post of a 450 History book being sold by "SENIOR". She then sends a message to "SENIOR" seeing her asking price of \$50 dollars, a fraction of retail price and immediately sends a message of interest to purchase the history book.
- Senior: Still very busy working on last minute corrections for her capstone submission, she is so occupied that she forgot about her posting to sell her 450 history book and fails to check back on the application to see if she has any offers.

- **Student 1:** As days go by without a response, "Student 1" feels as if "SENIOR" is not interested or has already sold the book, so she settles with buying the overpriced book at the bookstore.
- Senior: Remembers about her listing, and enters into the HBX application to see 3 missed messages by "STUDENT" ultimately finding out "STUDENT" already bought the book from bookstore because of a lack of instant communication.

DEBRIEFING

- 1. Student was able to easily navigate through our application
- 2. Seller was able to easily post her book for sale on our application
- 3. The sale was a failure because of a lack of communication
 - a. Lack of communication caused by lack of notification feature

ROLE 2

Who: Freshman student

Role: Buyer on HBX

Situation: Need Textbook for Spanish

WHO: Junior student

Role: Seller on HBX

Situation: Has Textbook for Spanish

INTERACTION

- Freshman
 - 1. Freshman is looking for a Spanish book on HBX as a 1st time user
 - 2. Registers quickly and efficiently and clicks on 'BUY' to search for Spanish 101
 - 3. Notice 1 book is for sale for \$50 dollars and clicks on book to contact seller
 - 4. Sends a message and communicates to negotiate a deal and place to meet
 - 5. Agrees on price and meeting place
 - 6. Meets in person, completes a smooth transaction
 - 7. Rates the Seller based on a set criteria effecting the Sellers's reputation positively or negatively.
- Junior
 - 1. Junior has a Spanish book he wants to sell for a reasonable price on HBX
 - 2. https://docs.google.com/a/uw.edu/document/d/1q249oBmkhxdLtQNpHpZzmJljFw1JdADh1XY33amRYYs/editRegisters quickly and efficiently and clicks on 'SELL' filling out fields listed (e.g., Title, Author, Condition, Price)
 - 3. Book is listed on the listing page as Spanish 101
 - 4. Receives a message by 'freshman' and communicates to negotiate a deal and place to meet
 - 5. Agrees on price and meeting place
 - 6. Meets in person, completes a smooth transaction

7. Rates the Buyer based on a set of criteria affecting the Buyer's reputation positively or negatively

DEBRIEFING

- 1. Freshman and Junior created an HBX account effectively and successfully navigates user-friendly User-interface
- 2. Private trade window with the actor(s) freshman and junior worked well to negotiate a deal and meeting place
- 3. Smooth transaction from start to finish with both actors

ROLE 3

Who: Senior

Role: Illegitimate seller for Textbooks

Situation: Trying to scam students

Who: Freshman

Role: 1st time buyer on HBX

Situation: Successfully dodges a shady deal

INTERACTION

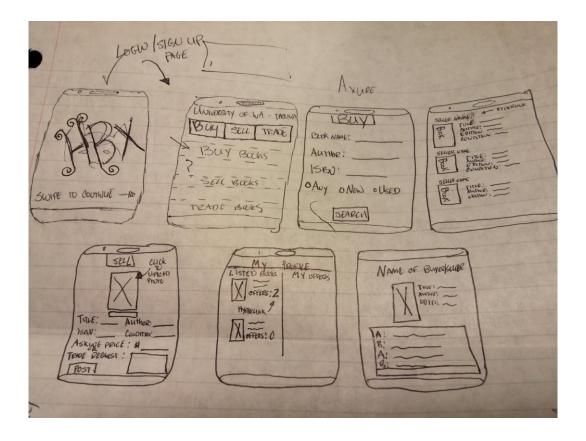
Senior

- 1. Already has a HBX account registered for 2 years.
- 2. Takes a picture of a book he doesn't personally own and posts under 'Sell' creating an illegitimate listing.
- 3. Waits for a new user to take advantage of with the intent of robbing a potential freshman looking to buy a book.
- 4. Receives a message from a potential victim to scam.
- 5. Deal falls through because of the freshman noticing a very low reputation.
- Freshman
 - 1. Registers for an HBX account for the 1st time.
 - 2. Searches for a book under the 'BUY' tab with the help of a user-friendly interface.
 - 3. Finds a book he needs in the listing page with the seller being "SENIOR".
 - 4. Clicks on user in an attempt to contact and negotiate a deal for the textbook.
 - 5. Notices very low reputation on the "SENIOR" and declines to further negotiate the deal.
 - 6. Deal falls through because freshman noticing a very low reputation on the seller.

DEBRIEFING

- 1. Freshman was able to create an account successfully navigate himself on the HBX application with ease.
- 2. Senior has accumulated a number of negative ratings by previous transactions lowering his reputation as less desirable
- 3. Freshman notices senior's very low reputation and successfully dodges a shady transaction that was waiting to happen
- 4. HBX rating system successfully helped a new user weed through trusted and untrusted accounts to help decide his actions and to protect himself from potential harm.

Image #1 Site Map





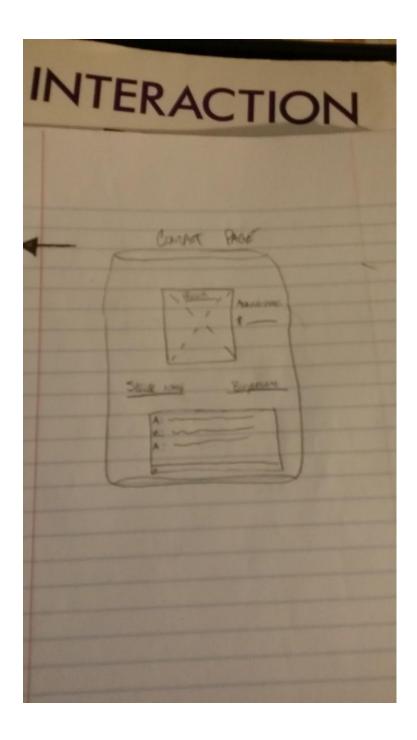
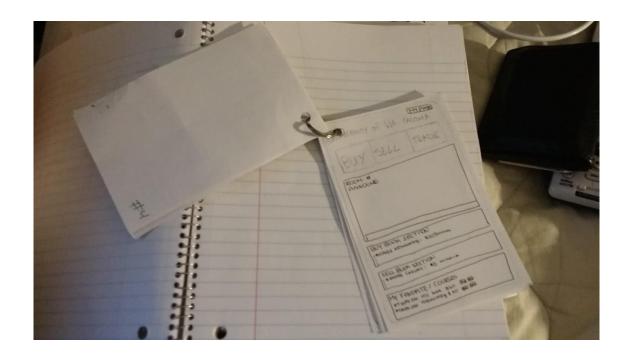


Image #4 Flip Book



Stage 4 Evaluation

Our team conducted user testing on five subjects to learn if there are areas of our design that need to be tweaked. In order to gain valid information from the testing we used the same scenario for all users shown in figure 1.1. There are four distinct use scenarios of interest for our design. First there is user registration, and then user login and navigation to MY PAGE, next navigate to the SELL PAGE and sell a book, and lastly navigate to the BUY PAGE and buy a book. We encouraged the users to speak aloud a share any thoughts they had, which we logged in notes. Since the HBX solution is a phone application it was very important that we keep it extremely simple and easy to use. Our user test produced one area of concern with our design one is that two of the five users we tested made negative remarks regarding the "Swipe To Login" tab on the HOME PAGE. One user found it confusing and suggested that instead we replace it with click or touch button. The second said it looked "cool" but could become annoying and suggested something quicker. Another user instead of swiping to login clicked the navigation button and directed the application to the SIGN IN page and then registered. This data suggests that we need to make a change to a more simple way of navigating from the HOME PAGE to the LOGIN PAGE. We plan on making updates to our prototype and continuing with some additional user testing.

User Testing Husky Book Exchange

You are Billy Madison a junior at University of Washington Tacoma and have heard of a new application called HBX (Husky Book Exchange) that helps students find books assume that you have downloaded that app on your phone.

Step 1

Please Register to use the Husky Book Exchange.

(feel free to speak aloud and share any thoughts you have while completing this task).

Step 2

Please Sign in and view MY PAGE on the Husky Book Exchange.

(feel free to speak aloud and share any thoughts you have while completing this task).

Step 3

Please Sign in and view MY PAGE, Navigate to the NAVIGATION PAGE and Sell a book titled Network Security Essentials.

(feel free to speak aloud and share any thoughts you have while completing this task).

Step 4

Please Sign in and view MY PAGE, navigate to the NAVIGATION PAGE and buy a book titled David Dorch Life Story

(feel free to speak aloud and share any thoughts you have while completing this task).

Figure 1.1

Person 1(My brother_Su)

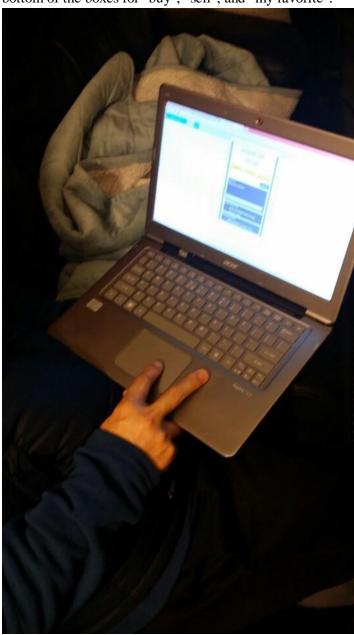
- 1. This application will be very useful from UWT student.
- 2. Confused on "Swipe To Login" comment. Maybe change instead of 'click' or 'touch'
- 3. want to see more information about myself. like schedule, textbooks for courses.
- 4. overall, application is simple and easy to use. also colors made focus on it.
- 5. chat room is great idea because it's easy to meet with other people for books.



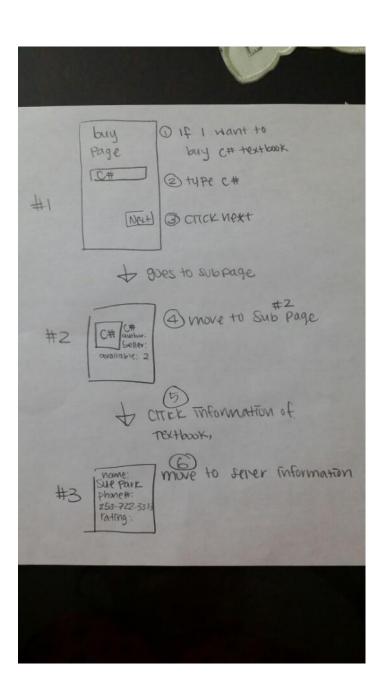
Figure 1.2

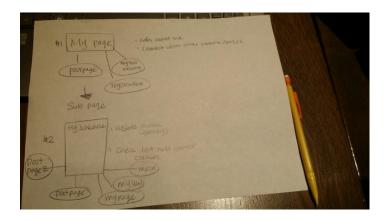
Person 2 (My Uncle_Su)

- 1. Very simple and easy to use
- 2. write more information on "ABOUT US" page. at least put email address for feedback from users.
- 3. "My PAGE", it will be great idea, if you create course page, and click the name of course then it will automatically show up the textbooks.
- 4. Trade button is useless on navigation page. maybe make one of button for connection between seller and buyer.
- 5. If these are clickable, can move to each page directly, then it will be comfortable. In Navigation page, bottom of the boxes for "buy", "sell", and "my favorite".



New prototypes(Figure 1.3)





Comment: I draw two prototypes for new pages. As you see these prototypes, I added sub pages and connect with links from "My Page" and "Buy" pages.

(Christine Co)

- 1. Swipe is cool, but might get annoying to do it every time, I want to login fast sometimes with less.
- 2.Pretty standard registration requirements. What if I forget my login password? Where can I retrieve it, any secret questions, or hints?
- 3.I like how MyUW hyperlinks connects me to the online page, very convenient.
- 4. Website home page is a little confusing, the boxes below the chat box (Buy book section, sell book section).
- 5. Simple sell process, I like it.
- 6. The exchange window is really good looking and simple.

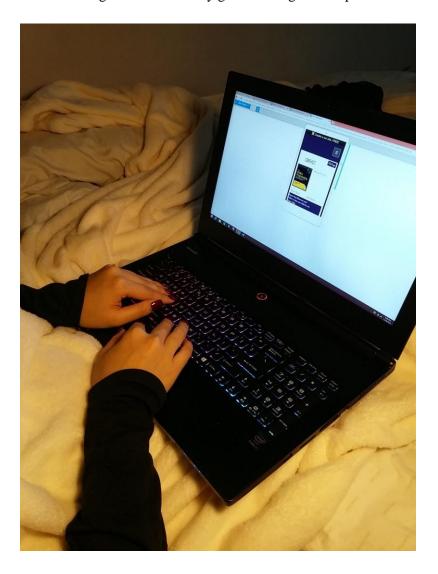


Figure 1.6

(Anthony Quicho)

- 1.Really cool HBX swipe to login page, looks slick
- 2.Do I have to enter my user name and password every time? What if there is a 1 click to login, or I can set a pin that is only 4 digits.
- 3."What are the sub boxes below the text supposed to mean?"
- 4. Will there be moderators, or filters that prevent certain words in the chat room? There might be immature people typing inappropriate stuff and spamming.
- 5.Sell and Buy tab are pretty self explanatory, good user interface, easy to use.
- 6. Useful seller information page, glad I can see the seller's rating and all his contact information, no extra information I don't need to see.
- 7. Overall really cool app, I would definitely use it, its pretty user friendly but the main page is a little confusing with the chat box and all the other sections below it.

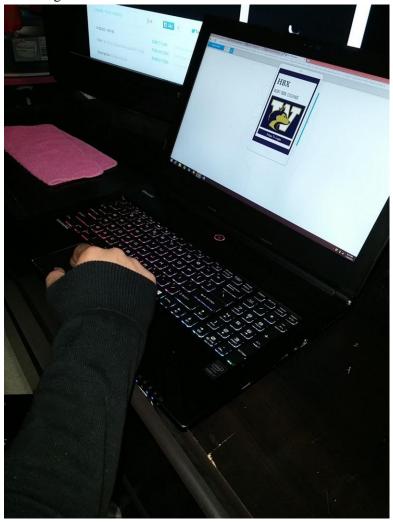


Figure 1.7

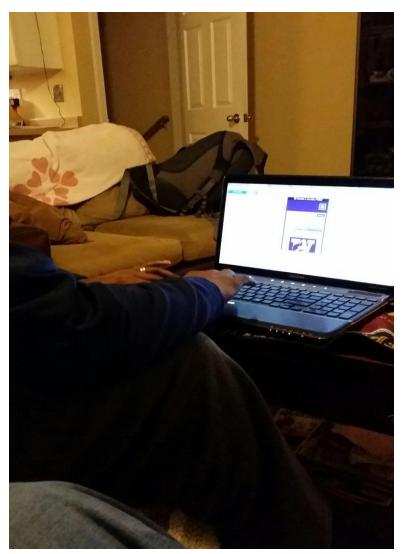


Figure 1.8



Figure 1.9



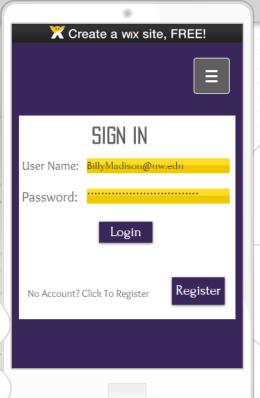
Figure 2.0 (TIm Allen)

1. Tim used the navigation button instead of the swipe button.

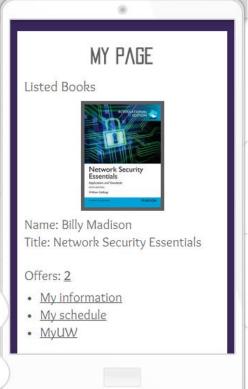
Stage 5 Final Prototype Summary

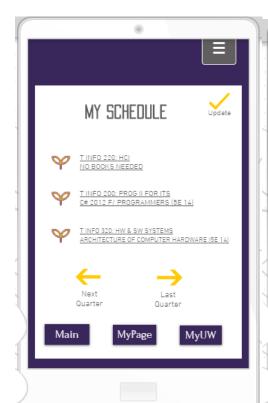
One of the main goals of our design is that it would be very easy to learn and use as a first time user. We believe that simplicity is key in designing a phone application. Understanding that users are discouraged with long and tedious processes, our focus was to make our application self-explanatory with as few steps as possible from the beginning of the experience to the end. Large links such as our buy and sell buttons were emphasized in size and design so users could easily navigate through the user interface. We veered away from unnecessary buttons and designs to prevent an excess of content on a very limited mobile page window. This helped create the simplicity in our design that we desired. After the user testing phase of our design we gathered and summarized our data. We discovered two areas that needed to be further simplified for our users. First, on our homepage some users found the swipe to enter a little confusing. So we redesigned the home page with a click button instead. Secondly, we deleted the trade button from the navigation page because trading is simply a different way of selling a textbook we incorporated that feature with the sell page. To improve the consistency of our prototype we connected textbooks from courses to the textbook list page and made shortcuts so that users can navigate to the other pages directly. We added the schedule page so that users can update the courses for the current quarter and look through the last quarter and next quarter's courses for buying or selling textbooks. Overall, we observed a common problem in our university that lacked a reliable application. By conducting interviews, we confirmed that various students share the same distaste with current solutions that exists today. We've observed, sketched, storyboarded, and created our rapid prototype using such for user-testing to further refine kinks in our design. In the past 8 weeks we have gone through various stages of development to help design and create our vision of what we feel HBX accurately depicts as our final prototype.

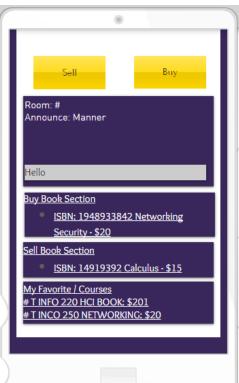


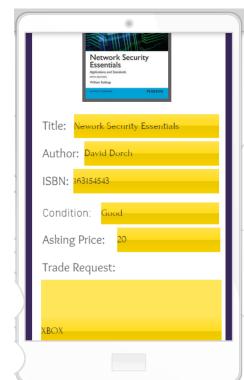


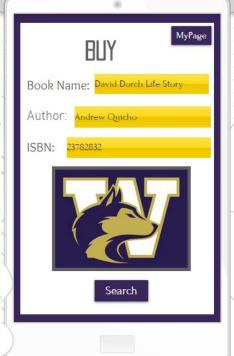


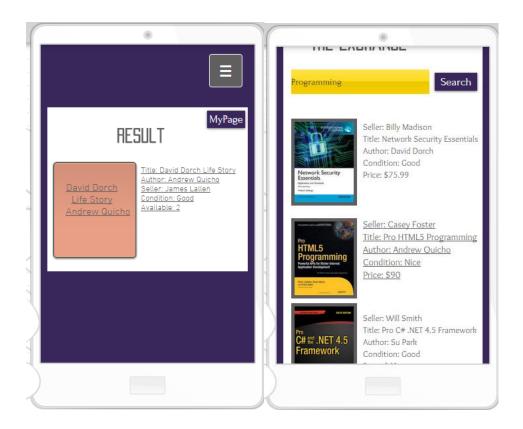












The web site can be viewed at the following link......

(http://davidedorch.wix.com/huskybookexchange)

USER ROLE SCENARIOS

ROLE 1

A student is getting ready to start the new quarter and is looking for cheap books she can buy from other students. She has found HBX for the first time and is navigating through our application as she attempts to fulfill her goal of obtaining cheap books for a fraction of the retail price. The seller, a very busy senior and veteran user of HBX has books that student 1 needs and the interaction goes as follows:

INTERACTION

Senior: Being a very busy senior finishing her thesis and capstone, she accesses HBX and posts books that fellow sophomore or juniors might need for a 450 History class. Having a lot on her plate, she quickly posts her books and continues to work on other tasks.

Student 1: Getting ready to start her junior year at University of Washington Tacoma, she is looking for her require 450 History book needed for the beginning of the quarter which is about to start in 1 week. Knowing online book handlers have shipping issues, she eliminates the option of buying her books online for the fear of not obtaining her books in time for class even though she would save money. Her last option is the bookstore where she could obtain her book immediately but at the tradeoff of very high bookstore prices. Before she settles buying her books, she attempts to use the HBX application as a final stand of obtaining cheap books without the long shipping time. She registers with ease and navigates that there is 1 listing post of a 450 History book being sold by "SENIOR". She then sends a message to "SENIOR" seeing her asking price of \$50 dollars, a fraction of retail price and immediately sends a message of interest to purchase the history book.

Senior: Still very busy working on last minute corrections for her capstone submission, she is so occupied that she forgot about her posting to sell her 450 history book and fails to check back on the application to see if she has any offers.

Student 1: As days go by without a response, "Student 1" feels as if "SENIOR" is not interested or has already sold the book, so she settles with buying the overpriced book at the bookstore.

Senior: Remembers about her listing, and enters into the HBX application to see 3 missed messages by "STUDENT" ultimately finding out "STUDENT" already bought the book from bookstore because of a lack of instant communication.

DEBRIEFING

1. Student was able to easily navigate through our application

- 2. Seller was able to easily post her book for sale on our application
- 3. The sale was a failure because of a lack of communication
- 4. Lack of communication caused by lack of notification feature

ROLE 2

Who: Freshman student

Role: Buyer on HBX

Situation: Need Textbook for Spanish

WHO: Junior student

Role: Seller on HBX

Situation: Has Textbook for Spanish

INTERACTION

Freshman

- 1. Freshman is looking for a Spanish book on HBX as a 1st time user
- 2. Registers quickly and efficiently and clicks on 'BUY' to search for Spanish 101
- 3. Notice 1 book is for sale for \$50 dollars and clicks on book to contact seller
- 4. Sends a message and communicates to negotiate a deal and place to meet
- 5. Agrees on price and meeting place
- 6. Meets in person, completes a smooth transaction
- 7. Rates the Seller based on a set criteria effecting the Sellers's reputation positively or negatively.

Junior

1. Junior has a Spanish book he wants to sell for a reasonable price on HBX

2. https://docs.google.com/a/uw.edu/document/d/1q249oBmkhxdLtQNpHpZzmJljFw1JdADh1XY33a

mRYYs/editRegisters quickly and efficiently and clicks on 'SELL' filling out fields listed (e.g., Title,

Author, Condition, Price)

3. Book is listed on the listing page as Spanish 101

4. Receives a message by 'freshman' and communicates to negotiate a deal and place to meet

5. Agrees on price and meeting place

6. Meets in person, completes a smooth transaction

7. Rates the Buyer based on a set of criteria affecting the Buyer's reputation positively or negatively

DEBRIEFING

1. Freshman and Junior created an HBX account effectively and successfully navigates user-friendly

User-interface

2. Private trade window with the actor(s) freshman and junior worked well to negotiate a deal and

meeting place

3. Smooth transaction from start to finish with both actors

ROLE 3

Who: Senior

Role: Illegitimate seller for Textbooks

Situation: Trying to scam students

Who: Freshman

Role: 1st time buyer on HBX

Situation: Successfully dodges a shady deal

INTERACTION

Senior

1. Already has a HBX account registered for 2 years.

2. Takes a picture of a book he doesn't personally own and posts under 'Sell' creating an illegitimate listing.

3. Waits for a new user to take advantage of with the intent of robbing a potential freshman looking to buy a book.

4. Receives a message from a potential victim to scam.

5. Deal falls through because of the freshman noticing a very low reputation.

Freshman

1. Registers for an HBX account for the 1st time.

2. Searches for a book under the 'BUY' tab with the help of a user-friendly interface.

3. Finds a book he needs in the listing page with the seller being "SENIOR".

4. Clicks on user in an attempt to contact and negotiate a deal for the textbook.

5. Notices very low reputation on the "SENIOR" and declines to further negotiate the deal.

6. Deal falls through because freshman noticing a very low reputation on the seller.

DEBRIEFING

1. Freshman was able to create an account successfully navigate himself on the HBX application with ease.

 Senior has accumulated a number of negative ratings by previous transactions lowering his reputation as less desirable

3.	Freshman notices senior's very low reputation and successfully dodges a shady transaction that was
	waiting to happen
4.	HBX rating system successfully helped a new user weed through trusted and untrusted accounts to
	help decide his actions and to protect himself from potential harm.
Sketches	s of design changes for final prototype

