

Case Study

**Used/idle goods trading platform for Chinese students in the U.S.
—— a Wechat mini program**

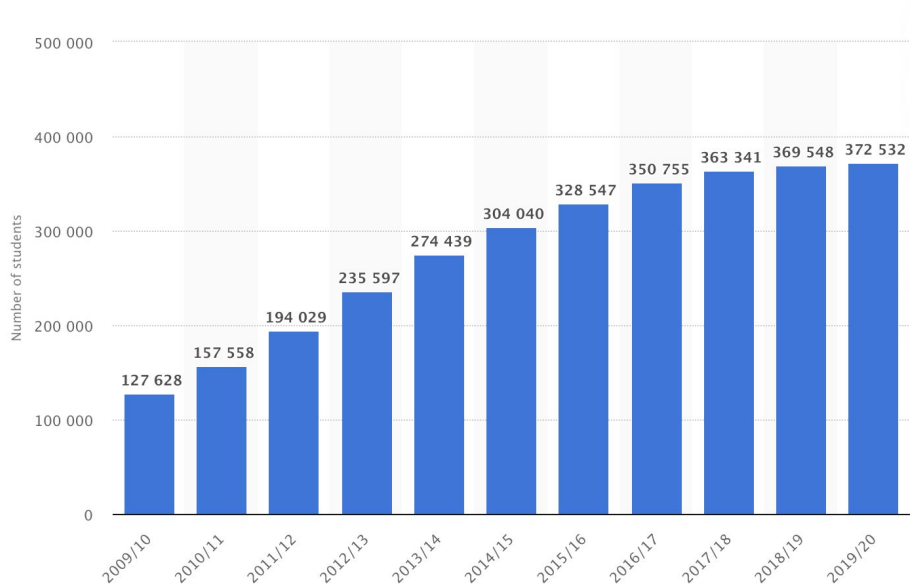
Yumeng Xie

User Research & Testing for User Experience Design

Pro. Debra Lawton

Problem Statement

Chinese students is a big group among all the International students in the U.S. They need to sell/buy used-goods in many situations. However, they face with diverse problems when using existing platforms when trade used-goods. As a result, an easy-to use used-goods trading platform is necessary and this product will bring convenience to Chinese students in the U.S.



Number of college and university students from China in the United States from academic year 2009/10 to 2019/20
© Statista 2021

Number of Chinese students enrolled in higher education, 2019



Sources: The Economist Intelligence Unit; national statistics bureaus; UNESCO; OECD; International Institute of Education.

Proposal

For dealing with the problems ahead, I would like to design a product embedded into Wechat as a mini program to provide a better user experience for the Chinese student in the U.S. to trade used/idle goods. Currently, I will focus on these goals in the product:

How might we create a product to provide Chinese students in the U.S. with a better used goods trading experience, in the meantime...

1. design simple and cozy listing pages to help users browse/post used/idle goods and item details (e.g. pictures, information, location)?
2. design easy-searching pages to help users find specific goods quickly?



Persona & User Journey



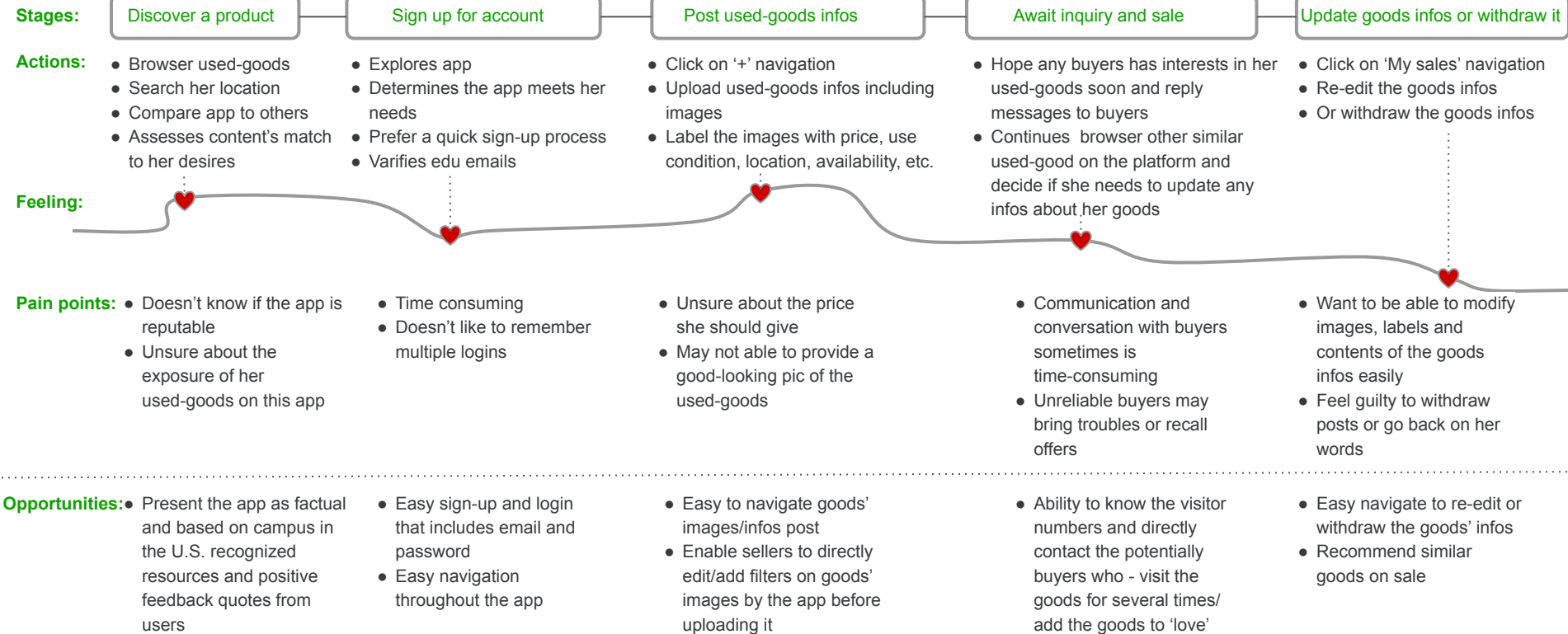
Lily Chen

Scenario

Lily as an international student (Chinese) in the U.S. loves shopping but sometimes would like to get rid of excessive used-goods in a reliable trading platform.

Goals & Expectations:

- Wants to sell used-goods quickly
- Wants to make money
- Wants to save time when communicate with buyers



Research

I have conducted these research for designing the product (participants were all Chinese students in the U.S.):

- 1 online survey (Google form) to collect information of Chinese students' experiences, needs, and ideas about the used-goods trading platform in the U.S.: <https://forms.gle/Pr44xsrJqxcVNS7J9>.
- 2 existing competitive product testings(5-second, usability, desirability) with 3 participants.
- 1 card sorting test for information architecture: <https://7pbpb63.optimalworkshop.com/optimalsort/865841hj>.
- 2 A/B testings for the homepage/filter page preferences of my product with 2 participants.
- 2 usability tests for the 2 clickable prototypes with 2 participants.

Used-goods trading platforms for Chinese students in the U.S. survey 关于中国留学生在美国使用二手交易平台的调查

Hi, I am Yumeng Xie, a Design Ph.D. candidate at Arizona State University, and I am taking a User Experience Design course from the University of Minnesota. I am conducting research about Chinese students' experience on using used-goods trading platforms in the U.S. Your feedback about your experiences with used-goods will be valuable for this study. This survey will take no more than five minutes to complete. There are no right or wrong answers and all the data are anonymous. Thank you so much for your time and cooperation!

你好! 我是谢蓉蓉, 美国亚利桑那州立大学设计专业的一名设计专业博士生。我在美国大学期间正在做关于中国留学生在美国使用二手交易平台的用户体验研究。你的反馈对于这个研究非常重要。填写这份调查将占用你宝贵的时间, 没有正确答案或错误答案, 并且所有数据都是匿名的。非常感谢你的配合!

Are you currently a Chinese student in the U.S.? 你现在是在美国就读的中国学生吗?

☐ Yes

☐ No

Which level you are in? 你处于哪一阶段?

☐ Freshman 大一

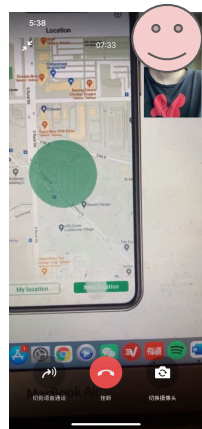
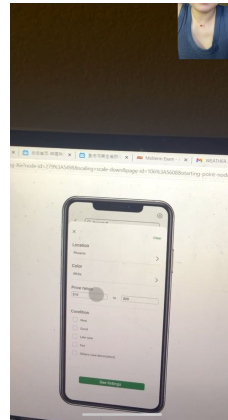
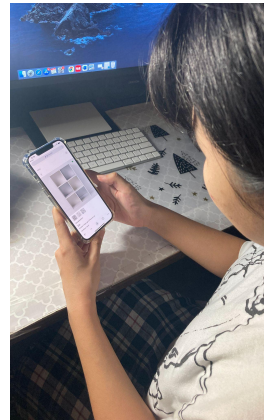
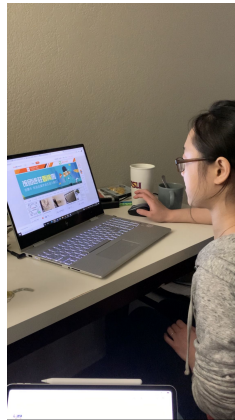
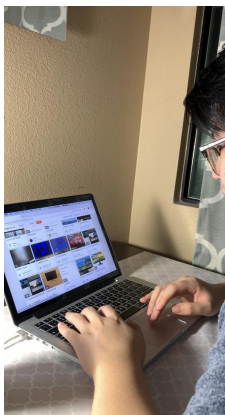
☐ Sophomore 大二

☐ Junior 大三

☐ Senior 大四

☐ Master 硕士生

☐ PhD 博士生



Survey

From the survey results, it shows most of the Chinese students in the U.S. use Wechat groups to publish, buy and sell campus-based used/idle goods. However, Wechat groups, by its nature, it is a social media (message) app, therefore, there are many problems/inconvenience to trade via Wechat groups, for example:

- Redundant/unnecessary groups and messages
- Scam postings
- No item updates
- No archive
- No search or sorting for postings
- Inconvenient to post items
- Buyers/sellers trust issues
- Time consuming of trading and communication process

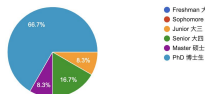
Are you currently a Chinese student in the U.S.? 你是在美国读的中国学生吗?

12 responses



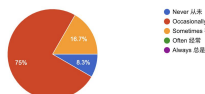
Which level you are in? 你处于哪一阶段?

12 responses



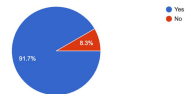
How often do you browse used-goods trading platforms in the U.S.? 你在美国浏览二手交易平台的频率?

12 responses



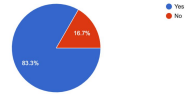
Have you ever bought any used goods in the U.S.? 你之前在美国买过二手商品吗?

12 responses



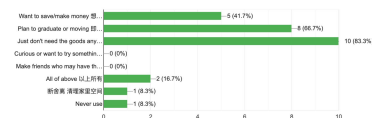
Have you ever sold any used goods in the U.S.? 你之前在美国卖过二手商品吗?

12 responses



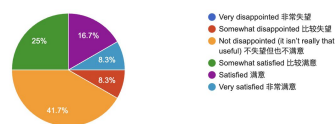
What are the main reasons you use used-goods trading platforms? (please fill in 'others' if the platform is not listed) 请勾选出你需要在美国进行二手交易的原因。(如果没有列出, 请在'其他'中手动输入, 可写中文)

12 responses



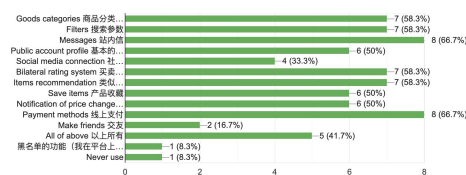
How do you feel about your used-goods trading experience in the U.S. 你如何评价你之前在美国进行二手交易的经历和体验?

12 responses



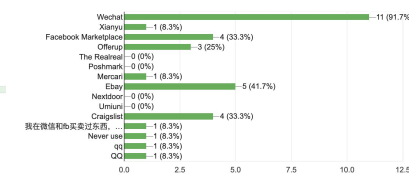
Among the features of a platform below, what are necessary features for you when you trade used-goods platforms in the U.S.? (please fill in 'others' if the platform is not listed) 在以下功能中, 请勾选出所有你觉得在美国进行二手交易平台上所必需的功能。(如果没有列出, 请在'其他'中手动输入, 可写中文)

12 responses



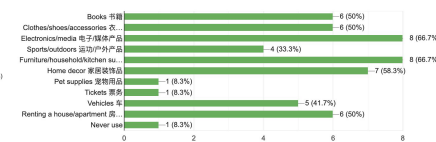
What platforms you have used for used-goods trading in the U.S.? please fill in 'others' if the platform is not listed) 你之前在美国用过哪些二手交易平台? (如果没有列出, 请在'其他'中手动输入, 可写中文)

12 responses



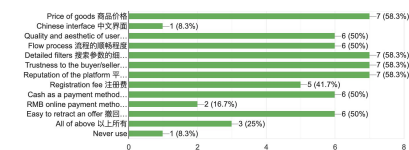
What used-goods you have traded in the U.S., or you plan to trade? (please fill in 'others' if the platform is not listed) 你之前在美国买卖过哪些二手产品? (如果没有列出, 请在'其他'中手动输入, 可写中文)

12 responses



What features influence your experience when using a used-goods platform in the U.S. - what encourages/prevents you to use it? (please fill in 'others' if the platform is not listed) 请勾选出所有影响你在美国使用二手交易平台的体验的原因。哪些原因会使你使用这个平台? (如果没有列出, 请在'其他'中手动输入, 可写中文)

12 responses



Please list 1-3 keywords as qualities of a good used-goods platform for Chinese students in the U.S. 请列出1-3个关键词作为特质来形容一个好的在美国中国留学生二手交易平台。

9 responses

WeChat, Facebook, Instagram
Convenience credible Secure
信任透明 沟通方便 商品上架便利
靠谱 方便 快
大量广告推广, 易于查找, 信息透明
方便 快捷
透明度高, 信誉度高
safe transaction, easy to use, easy to communicate
安全, 公开

Competitive analysis

Offerup



- Good UI/UX
- Detailed filters and categories
- Good navigation

Facebook Marketplace



- Good reputation
- Linked to facebook account so it may be more trustworthy

Umiuni



- Already has provided services to some campus areas in the U.S.

Wechat



- Large amount of potential users
- Online payment is easy (RMB)
- Flexible, no need to registration

Competitive analysis

Affinity diagram - Problems in existing products

Problems from sellers

Problems from both

Problems from buyers

Problems before/about login

Unsure about the exposure of her used-goods on this app.

Doesn't know if the app is reputable

Doesn't like to remember multiple logins

Distracting advertisements.

Cannot find their campus on the app

Problems in posting/reviewing goods

Unsure about the price should post

May not able to provide good-looking images of the used-goods

UI is boring and navigation is complexed

Would like to know each others ratings for trust-building

No sortings (e.g. newest, low/high price, relevance)

Used-goods categories are not clear or easy to navigate

Filters for searching is not good

Cannot directly send messages or ask goods availability

Problems in trading

Unreliable buyers may bring troubles or recall offers

Private concerns if the goods need to be picked up

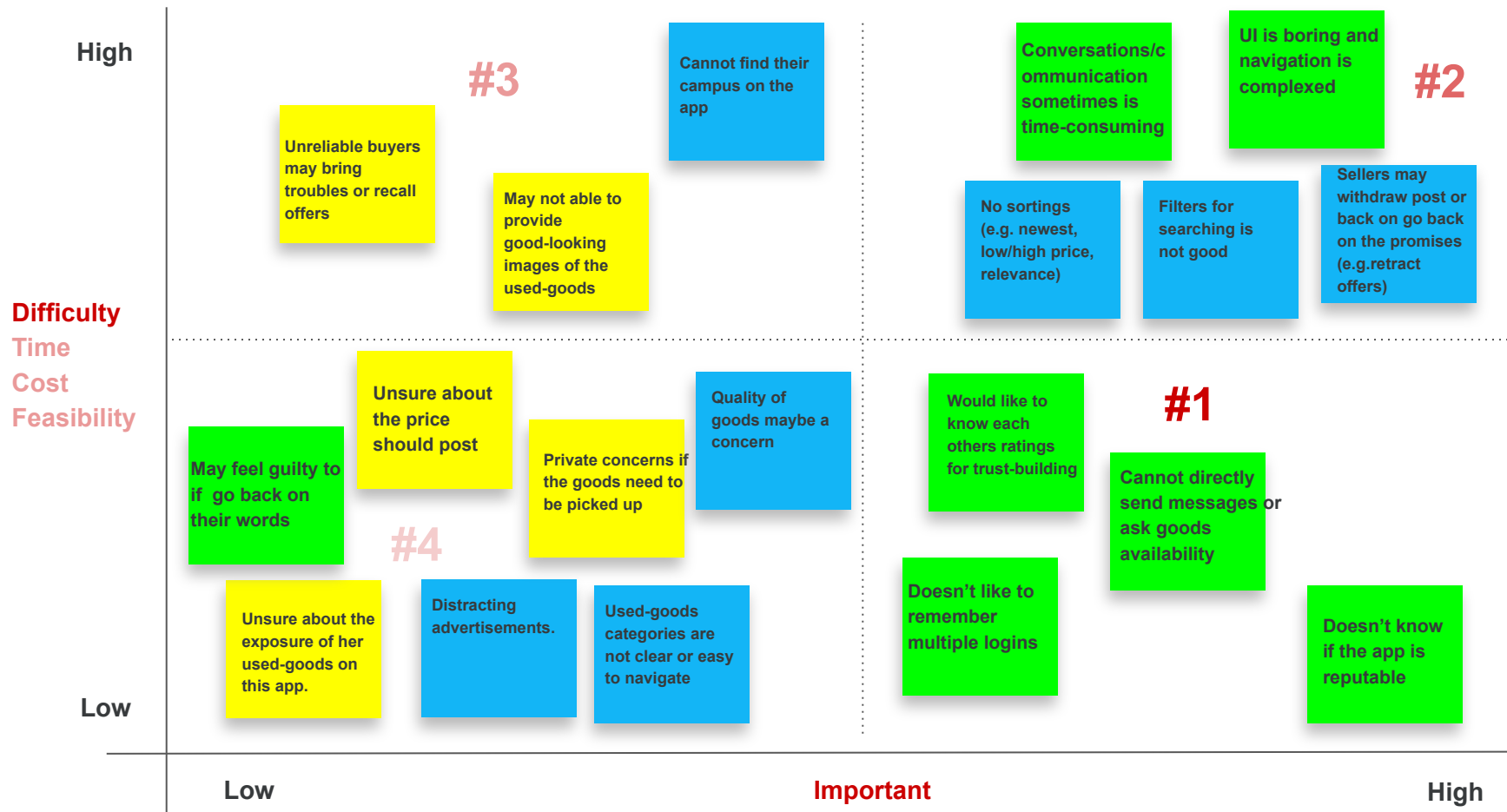
Conversations/communication sometimes is time-consuming

May feel guilty to if go back on their words

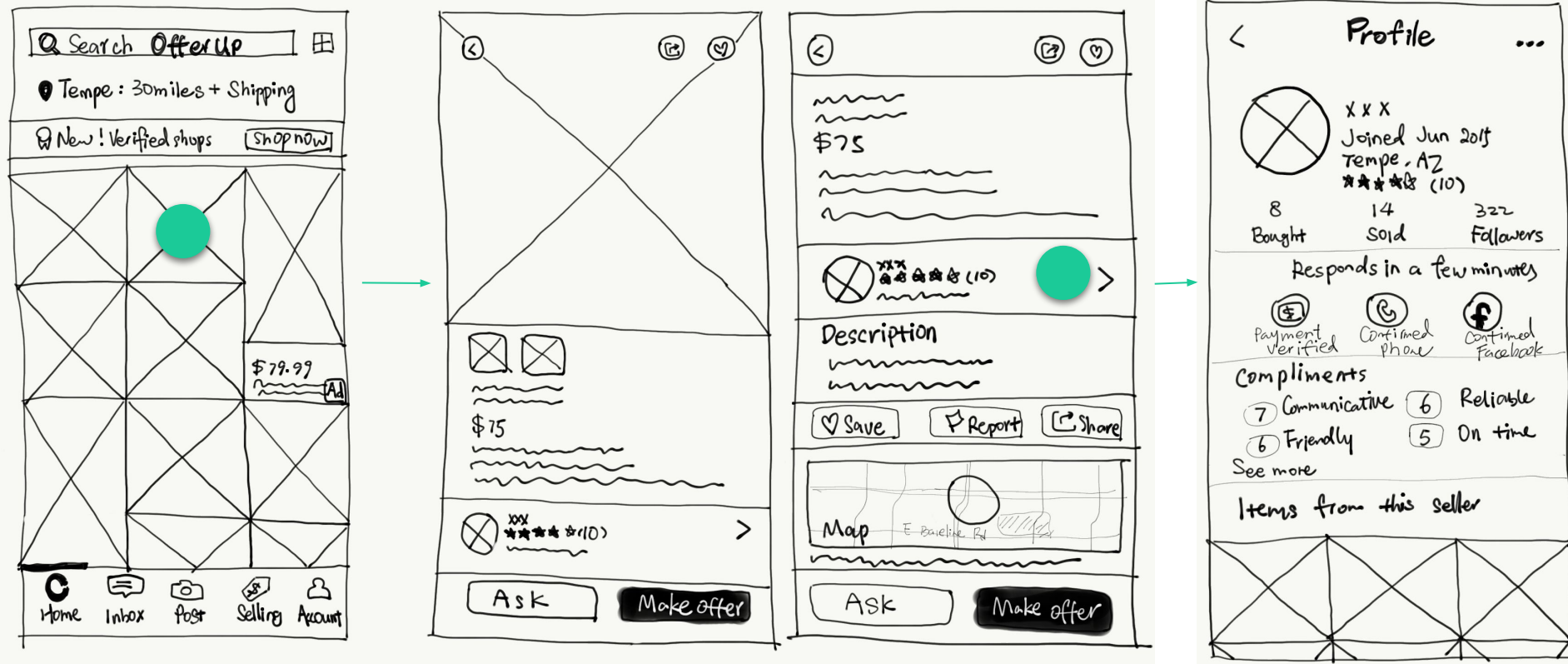
Sellers may withdraw post or back on go back on the promises (e.g.retract offers)

Quality of goods maybe a concern

Importance & Difficulty matrix



Wireframe breakdown of existing competitive product (OfferUp)

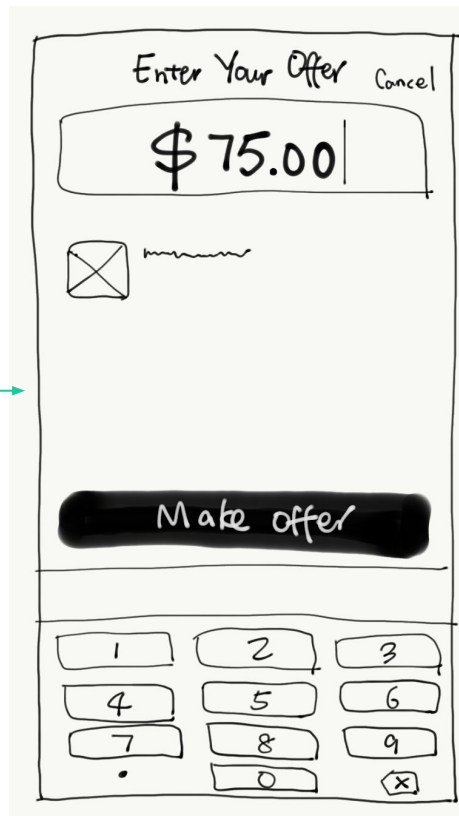
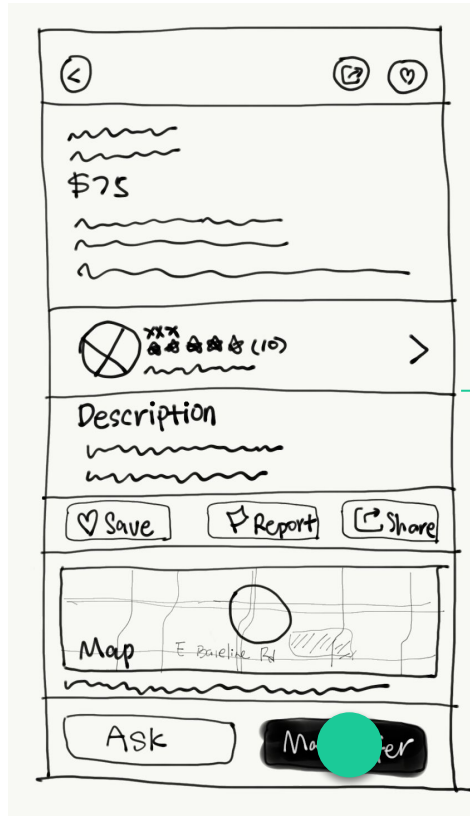
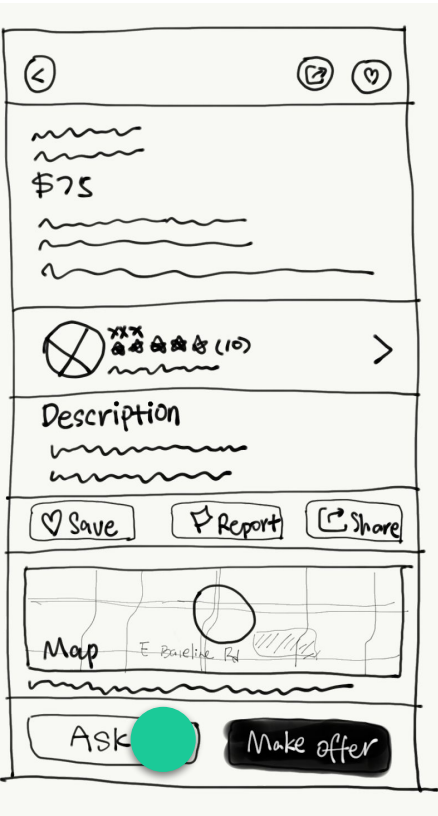


Clear features and goods' images layout

Simple navigation UI/UX

User's ratings and other infos are available which benefit to trust-building

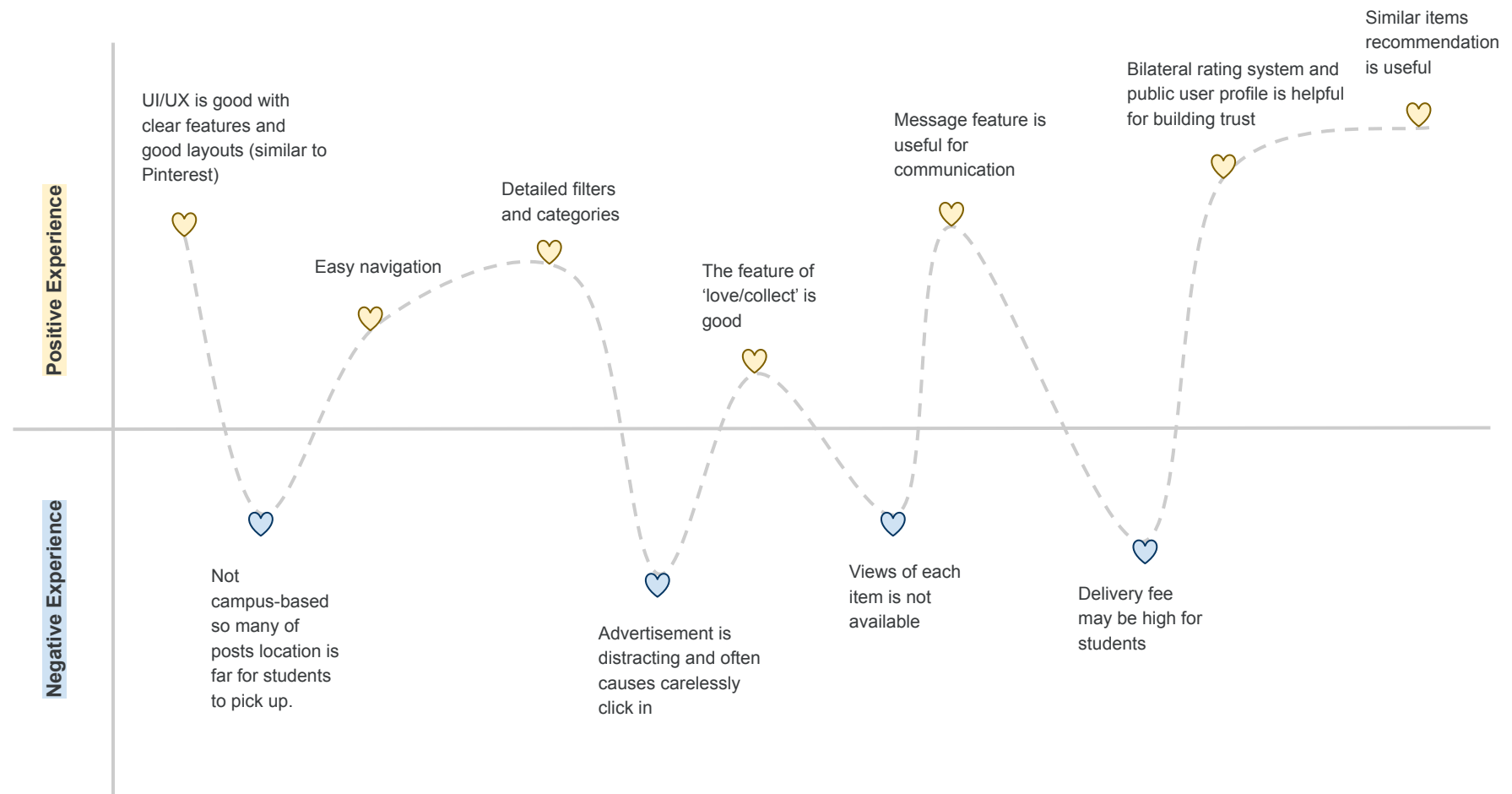
Wireframe breakdown of existing competitive product (OfferUp)



Communication feature benefit to trust-building

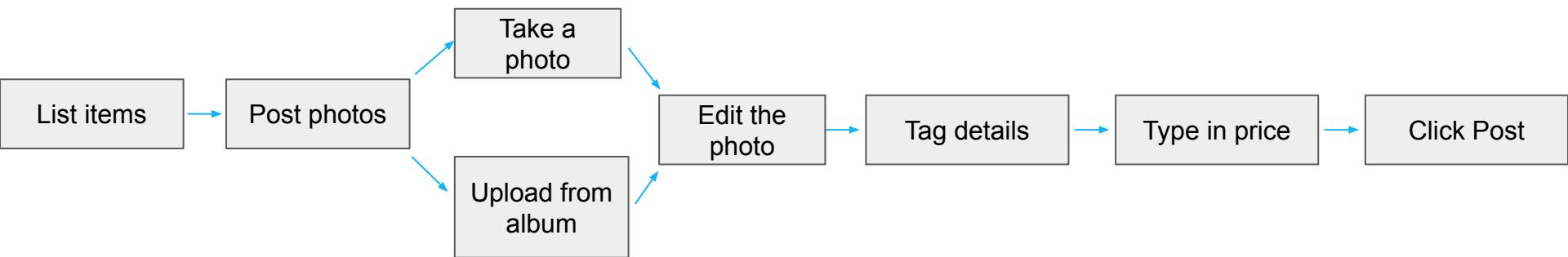
Simple navigation UI/UX

User journey map of existing competitive product (OfferUp)



User task flow

1. Design easy-listing pages to help users(sellers) post used/idle goods pictures and information in a clear, fast and convenient way.



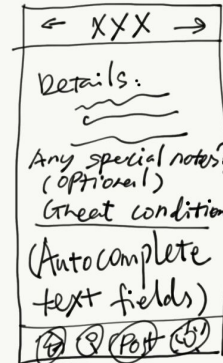
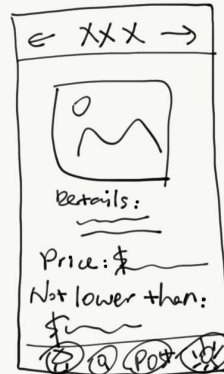
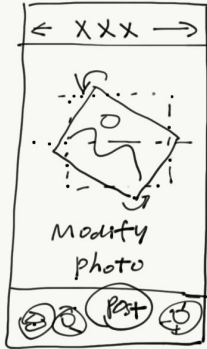
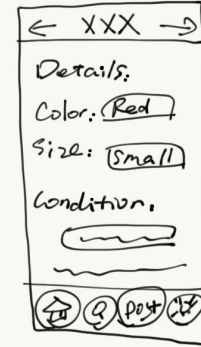
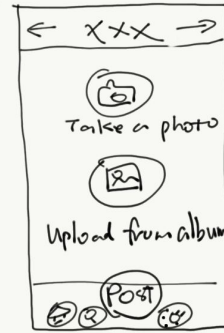
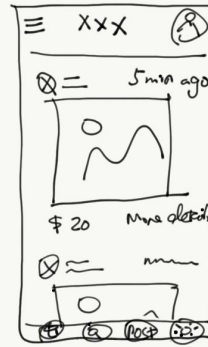
2. Design easy-searching pages to help(buyers) browse and find specific goods quickly.



Crazy eight ideation

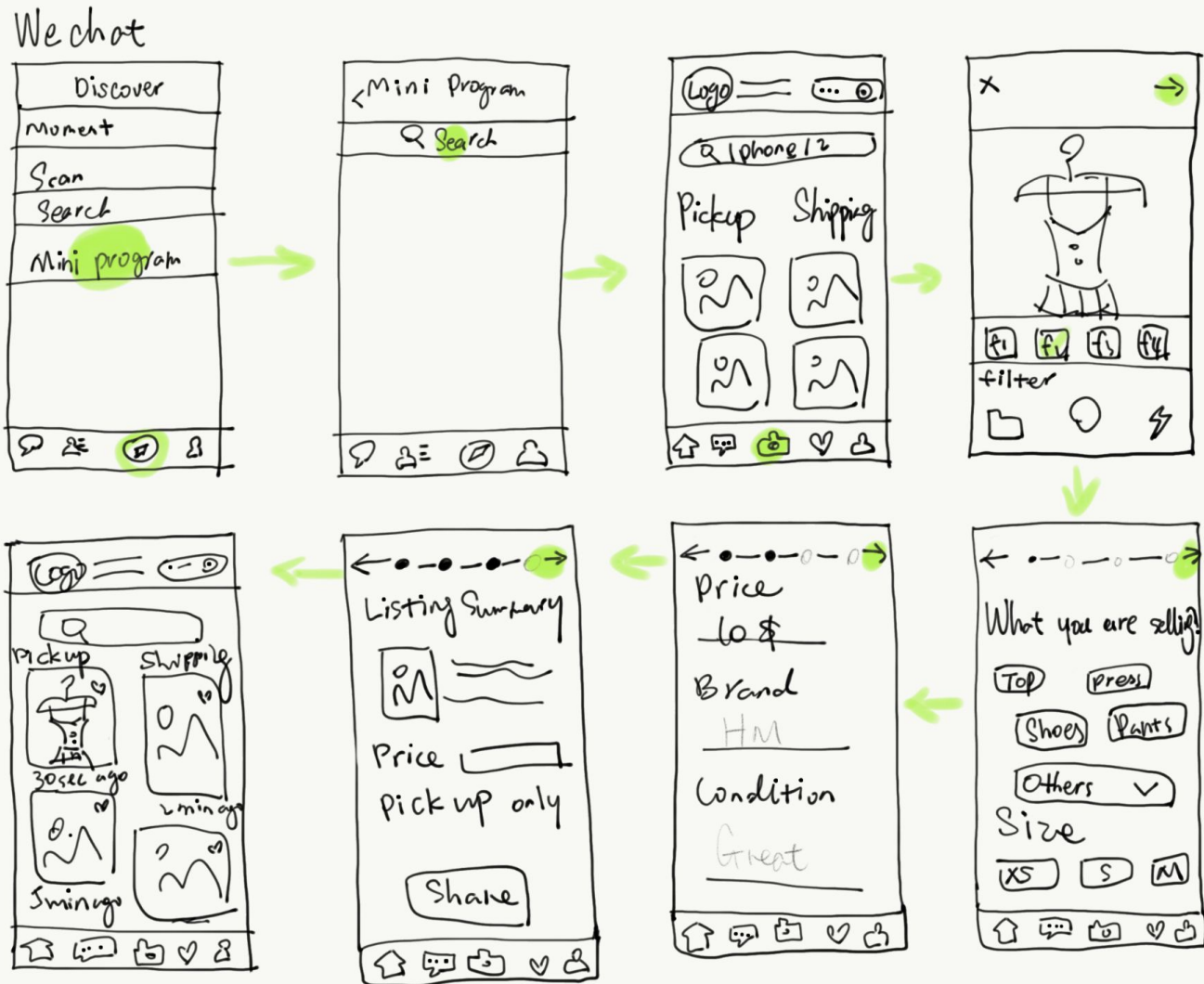
Neat Home page	Simple Item Listing page	Clear Tags on Item Listing page	Improve Visual Appeal when Listing Items
Avoid Time-consuming Bargain for users	Help users to post items quickly and easily	Account page	Complete page

8 goals



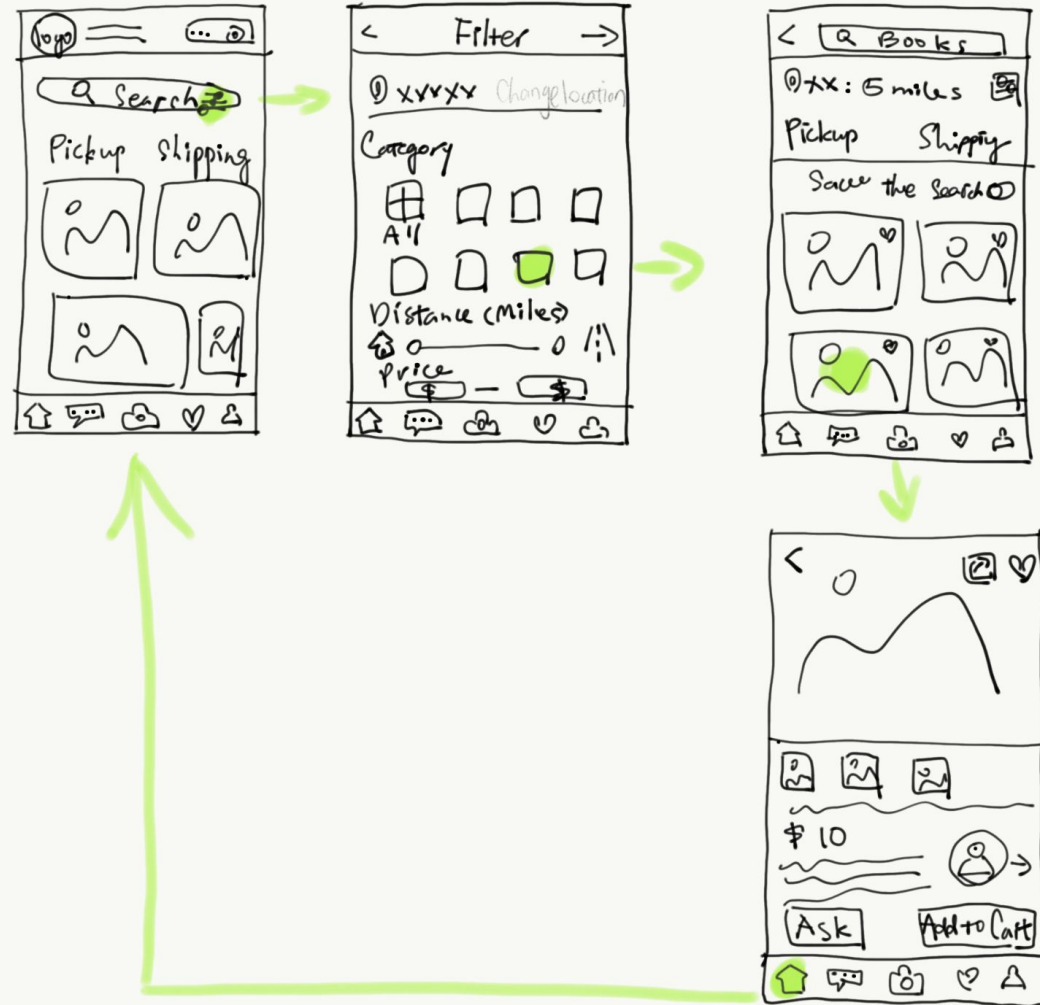
Wireframes

1. Design simple and cozy listing pages to help users browse/post used/idle goods and item details (e.g. pictures, information, location).



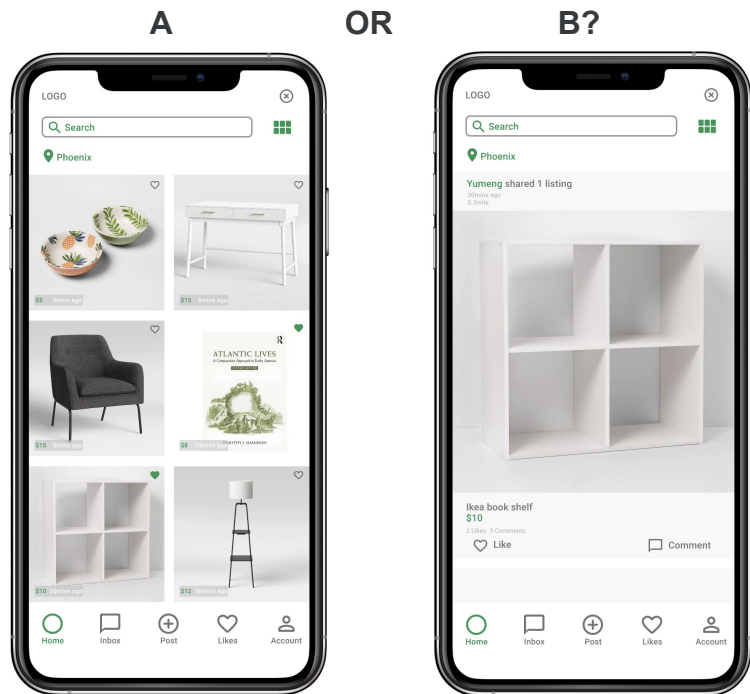
Wireframes

2. Design easy-searching pages to help browse and find specific goods quickly.

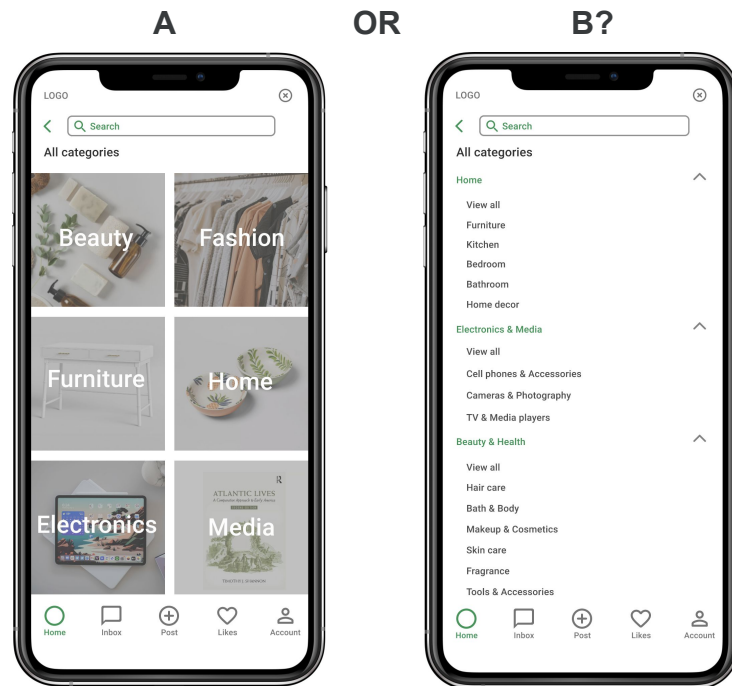


Testing of prototypes (three rounds)

First round - A/B testing



A/B testing on the home page

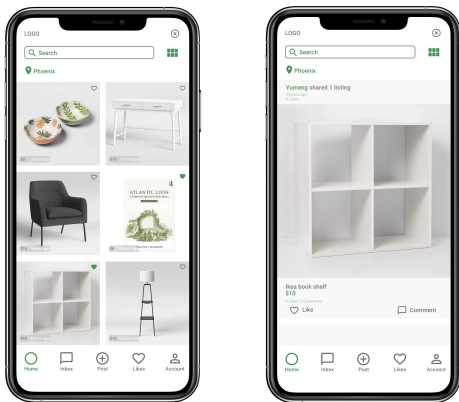


A/B testing on the categories page

Results

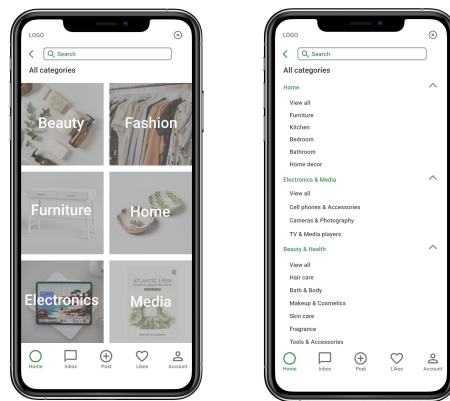
Suggestions about the homepage design and items browsing process/ experience:

- Want to browse **as many items as possible** because it is **effective, attractive** and **informative**. And the thumbnail is very straightforward and can provide enough information.
- Prefer to know the **details** once clicking the interested items.
- Want to see the **filter** on the homepage.
- Enable users to see **recommendations** after reviewing the interested items.



Suggestions about the filter page design:

- Suggest to **combine the items page** (70% coverage, upper) **and categories page** (30% coverage, lower) because it would be more effective to see the items results once clicking on the chosen categories, which help users to get **instant feedback** if the chosen categories can provide expected items.
- Suggest to give **more labels to items** because some goods are difficult to be categorized (**multi-labeled**).
- Users prefer to **see pictures rather than texts** because pictures are more **straightforward**. For example, the left one below is better than the right one as the filter page.



Testing of prototypes (three rounds)

Second round - Usability test

Usability test for the #1 clickable prototype with 2 participants.

<https://www.figma.com/proto/3yRXiwQRxlZUDIAankicYO/Yumeno-Xie?node-id=247%3A4840&scaling=scale-down&page-id=106%3A5608&starting-point-node-id=247%3A4840>

Task:

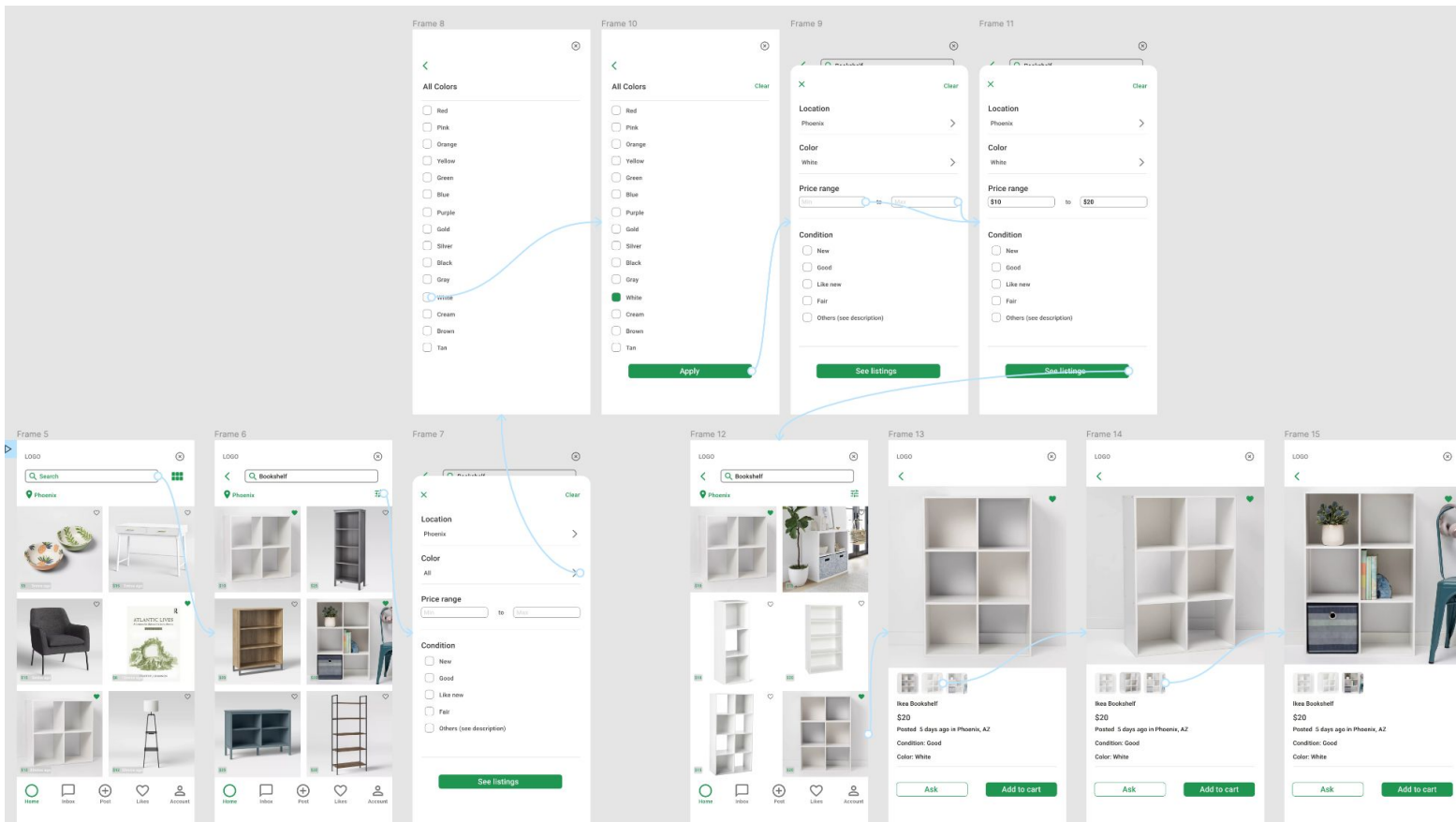
Find a white bookshelf between \$10- \$20.

Goal:

To know how do users browse, search and find specific goods through this product.

To help me understand how do users interact with my homepage, and how do they search for the expected used-goods.

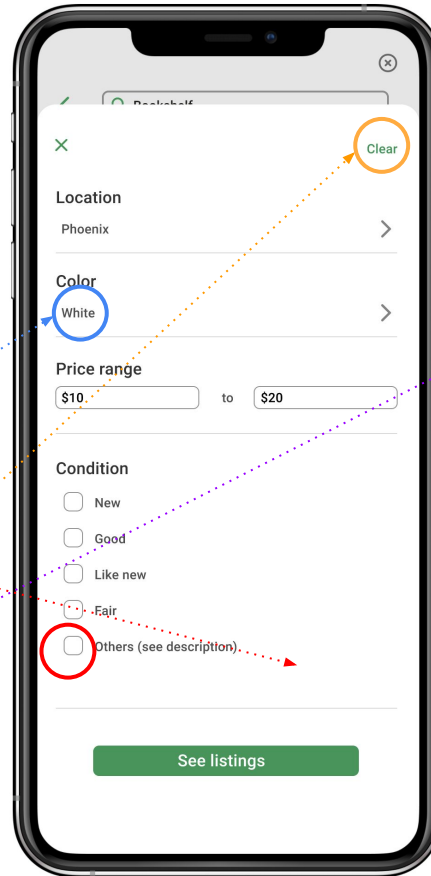
To determine what features work and what might be missing.



Results

Suggestions about the items searching and adding process/ experience:

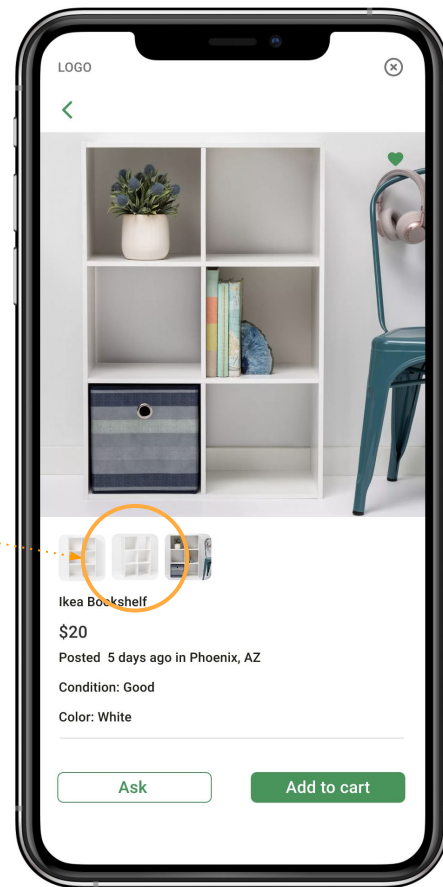
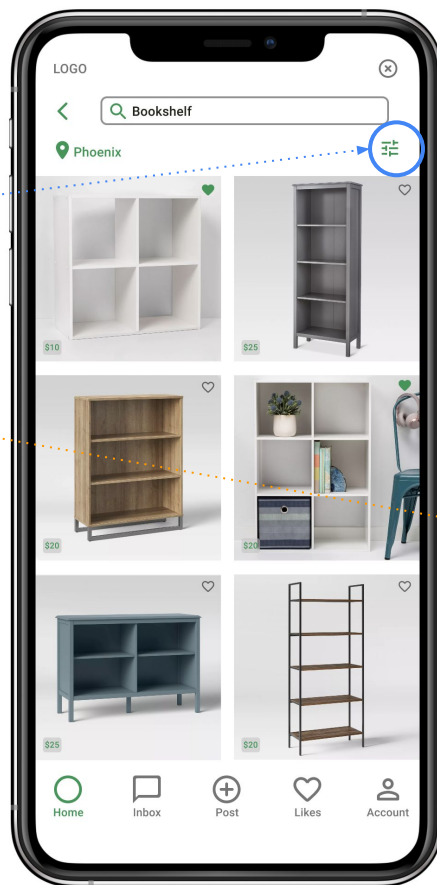
- Back button is needed.
- 'Like' feature is redundant, because she doesn't want to waste of time to delete or maintain the 'Like' list.
- Homepage **category icon** is misleading. For her, it looks like showing how many items in this page.
- Want to see the **search history** when use it.
- 'Others' in 'condition' feature is not needed, it's too **ambiguous**. 'Bad' option is needed. So, the 'condition' feature should be multiple answers.
- Want to delete **filter detail tags** directly and quickly if needed.
- Want to have both '**Clear all**' and 'clear' for each filter details for specific editing.
- Listing **sort** feature is needed.
- Want to see the **map** in the item details.



Results

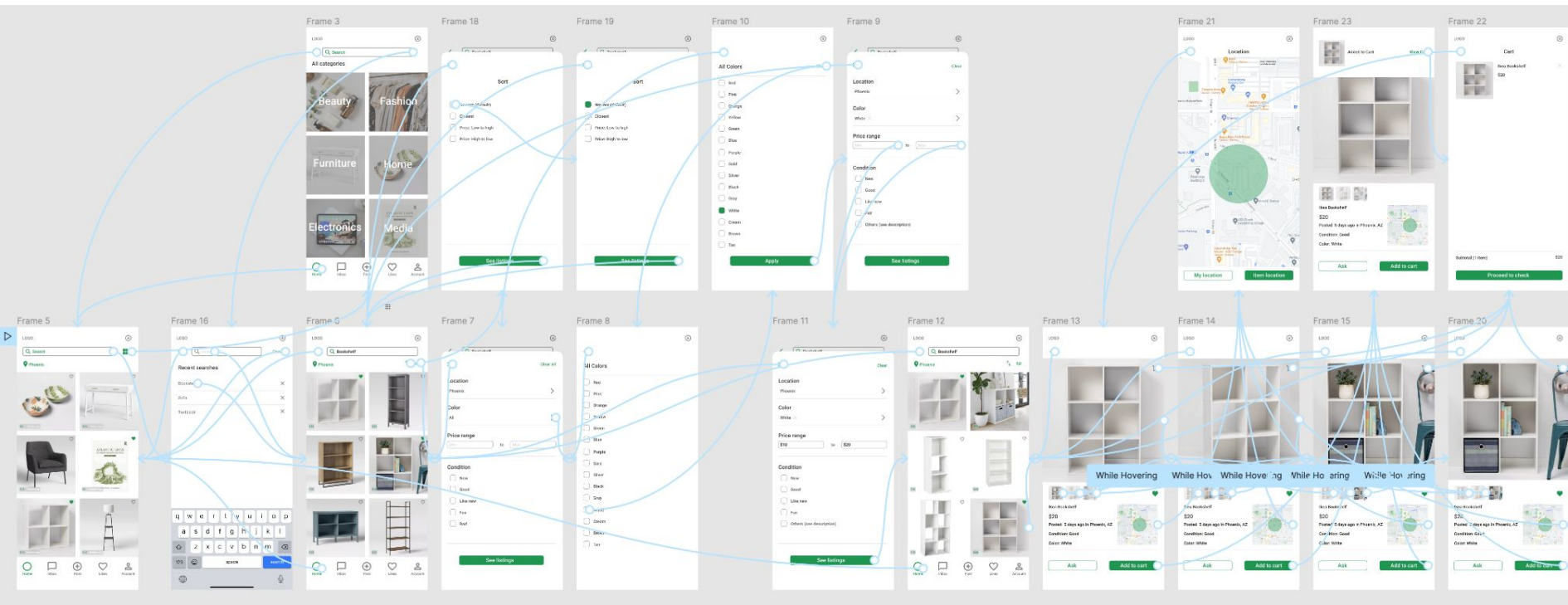
Suggestions about the items searching and adding process/ experience:

- **Filter icon** is not so understandable.
- Color feature is not necessary, especially for the sellers, because sometimes it is not easy to define the color of the item.
- **Listing sort** feature is needed.
- Want to **slide** to see the detail pictures of the item rather than clicking on the thumbnail.



Testing of prototypes (three rounds)

Third round - Usability test



Usability test for the #2 clickable prototype with 2 participants (evolution of the #1 prototype).

<https://www.figma.com/proto/3yRXiwQRxiZUDIAnkicYO/Yumeng-Xie?node-id=360%3A4839&scaling=scale-down&page-id=360%3A4838&starting-point-node-id=360%3A4839>

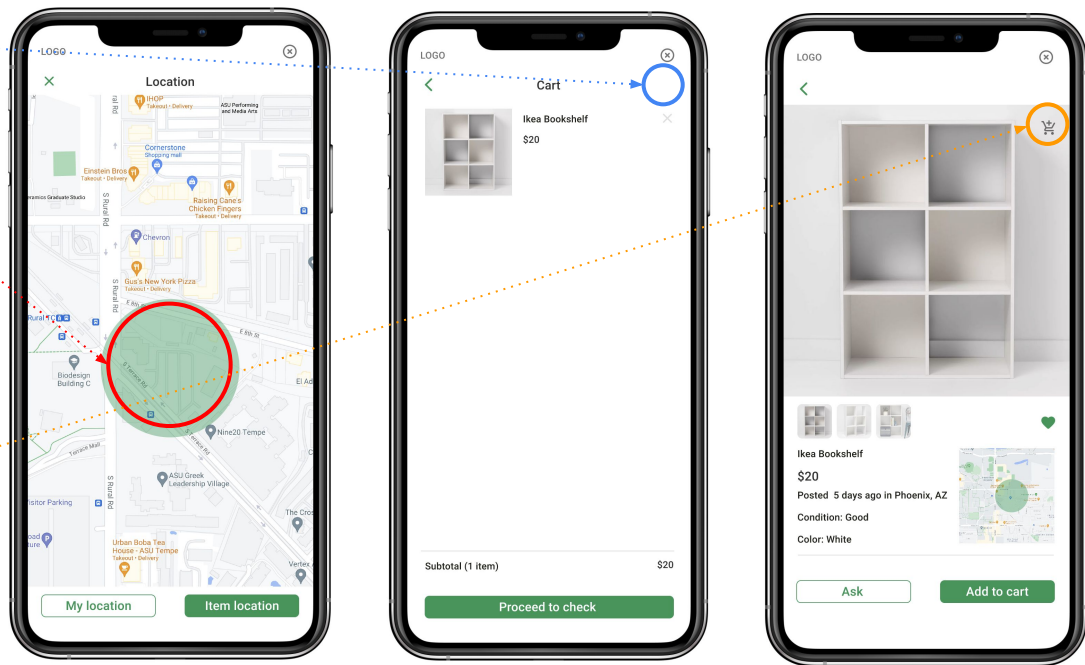
Task: Find a white bookshelf between \$10- \$20 and add it to the cart.

Goal: To help me understand how could users interact with the modified product better, and how do they feel about the updated process of searching and adding expected used-goods. And to determine what features work and what might be missing.

Results

Suggestions about the items searching and adding process/ experience:

- Want to include '**continue shopping**' feature after adding items to cart.
- Want to **zoom in/out** the items location map.
- It's good to consider the **privacy issue** when viewing the approximate rather than the detail location of the items on the map.
- Suggest to show other **users' interests** on the selected items (present **visibility of system status**, e.g. XX people added this item to their carts)
- Enable users to get the **update of the items availability**.
- Hope to see the both buyers' and sellers' profile due to the **trust issue**. It's better to have the **bidirectional rating system**.
- The '**view cart**' icon is misleading, because the plus icon makes users think this icon can enable users to add this item quickly, however, it is redundant and similar to the 'add to cart' feature. But, actually, this icon aims to lead to 'view cart'. As a result, the plus sign should be deleted. Or, it maybe better to replace the **plus sign** with a number (of items in the cart).
- Overall, the whole interaction process for searching item is better with more details than the first prototype.



Next steps

I would like to move forward with this mini program design through:

- Improving the **information architecture** through more rounds of card sorting tests.
- Developing more **prototypes**.
- Testing those prototypes with **more users**.
- Conducting a survey to collect data about users' preferences on the **user interface design**.
- Thinking about the **multi-language** and **payment methods** in reality situations.

Lessons learned

- Usually, **users are the real experts** of their life experience rather than designers. Therefore, it is essential to listen to their voices and know their ideas before/during/after the product design process.
- Don't forget to **update personas** because anything would change, users and their needs will change as well.
- **Don't talk too much ; explain the design; or ask/answer questions** during the usability test. I did not perform very well about that when testing the prototypes.
- It's better to **conduct diverse types of tests** to make the UX research more reliable and comprehensive.
- It is necessary and important to **often go over testing results** during design process to get more insights.

References

<https://www.statista.com/statistics/372900/number-of-chinese-students-that-study-in-the-us/>

<https://www.eiu.com/n/how-will-the-coronavirus-affect-outbound-chinese-students/>

Case study of using personas video by Anna Priscari

Travis, D., & Hodgson, P. (2019). *Think Like a UX Researcher: How to Observe Users, Influence Design, and Shape Business Strategy*. CRC Press.

Thanks!