

Clo.

Fashion Hereafter

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What goes into your decision to buy a new item of clothing? The price, how it looks, how it fits, the name of the brand, the environmental impact of its production? Most likely, the latter question goes unanswered and unconsidered. However, the fashion industry is the second most polluting industry in the world, only after oil, and it is also the second largest industrial consumer and polluter of water<sup>1</sup>. The clothes themselves and the quantity of them is what is making the industry so harmful to the environment. Polyester, a plastic fiber made from fossil fuels, makes up 50% of our clothes today, increasing our dependence on non-renewable resources. Having to produce so much polyester also results in mass amounts of greenhouse gas emissions. Of the world's total carbon footprint, the apparel industry contributes to 10% of that, and to put that into perspective, the aviation industry only contributes 2%<sup>2</sup>. This increase of the impact that the apparel industry has relates to the increasing consumption of clothing. 150 billion items of clothing are produced every year, and on average Americans purchase five times the amount of clothes they did in 1980. In 1991, the average American bought 34 items of clothing a year and by 2007, it was up to 67 items every year. On average, we will only wear those clothes seven times before we dispose of them. Because of the shift in the industry towards disposable clothing, 2.5 billion pounds of clothes end up in landfills every year, and because most of our clothes are synthetic, they will not biodegrade for 400 years.

Majority of this disposable clothing is known as fast fashion. Fast fashion involves retailers adding new items to stores every day with high turnover, only meant to last a few wears before the trends shift or the quality does not allow for many wears. For example, Uniqlo makes 600,000 items of clothing per year, Zara produces 1 million garments per day, and it is reported that Forever 21 has ordered 100 million garments per year since 2009, and that H&M pumps out 1000 tons of clothing every 48 hours<sup>3</sup>. The fast fashion business model is dependent on consumers buying fashion in excess. The clothing only lasts a few washes so that you're prompted to go out and buy more. All those cheap clothes then end up being donated or in landfills. When donated, only 10% get sold and the rest end up flooding markets in developing countries where they kill local apparel industries.

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In order to reduce the negative environmental impact of the fashion industry, we have to start by lowering the amount that we are producing and consuming each year.

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<sup>1</sup> <https://europa.eu/eyd2015/en/fashion-revolution/posts/europe-world-garment-textiles-and-fashion-industry>

<sup>2</sup> <http://www.vogue.com/13428132/fast-fashion-environmental-impact-sustainability-parsons-zady/>

<sup>3</sup> <http://www.overdressedthebook.com/fashion-fast-facts/>

**“We’ve been cast in  
the role of  
consumer, but no,  
I am a participant,  
I have the choice.”**

Andrew Morgan

# Process

## Approach + Research

When we first began looking at how we were going to tackle the wicked problems of the fashion industry, we focused on promoting sustainable and ethical fashion brands, and increasing awareness of the issues that can be found in the fashion industry. This stemmed from many of the original conversations we had with our close networks about there not being any good resources about these issues, and no alternative brands who were producing consciously. As researchers in this field, we knew otherwise that there are many resources and environmentally sustainable brands, and we felt our work could be focused on bringing those to light for a larger audience.

We felt there was a large gap in communication and had an original goal of getting people to focus on talking about sustainable brands and put their purchasing power behind them. We believed that the spread of this information would help consumers to make more conscious purchasing decisions. We started by interviewing experts in fashion, both conscious fashion and traditional fashion ranging from the VP of Marketing at Versace, to a knitwear designer for Express, to eco fashion bloggers, journalists and documentary makers. We wanted to better understand what sustainability in fashion really meant for these stakeholders and how this range of experts understood it.

We received a range of responses. We learned that sustainability is a loaded term with an array of definitions and this range of definitions creates ambiguity. People feel too unclear to talk about it. There was also many discussions on needing to better connect product to production. When we buy clothes or just see clothes, we are only able to see the product itself and the process of creating it, the lives it has touched and the impact that it has had evaporates from our awareness. Overwhelmingly it also emerged that the main issue in which all issues stemmed from was the shift in the industry towards fast fashion and our understanding of clothing as disposable.

We began researching about what fast fashion was and how this new business model was re-shaping the whole fashion industry. Scaling production to offer mass amounts of clothes for very low costs lead to consumers undervalue clothing, which was now seen as disposable because of how cheap it is. Consumers can buy new items weekly without feeling like it is making a dent in their wallets. We dove deeply to understand the model of fast fashion, the value that they offered to their customers, and who those customers are. We discovered that their main target audience is college age women, ages 18-24.

**“There is too much  
of everything,  
and within  
everything there  
is nothing.”**

Li Edelkoort

# Our Target Audience



1. Supryia
2. Harmony
3. Mas

We began researching to better understand this target audience, their values and behaviors around clothing. We conducted interviews with women in New York ages 18-22 who are currently enrolled full time in University. We spoke with multiple women attending New York University, the School of Visual Arts, the Fashion Institute of Technology, and Parsons the New School for Design.

## Our **insights:**

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- Money is at the forefront of their decision to buy fast fashion, even though they end up spending large amounts of money at those retailers. High quantity of clothing is what makes it feel affordable, rather than spending the same amount of high quality.
  - They value being able to wear different clothes all the time, especially because of the importance of social media and being constantly visible to their networks.
  - If environmentally conscious clothing was on their radar it is too expensive and not attractive, or it was not on their radar at all.
- 

We began feeling as though the problem we wanted to solve was the gap of access to sustainably made clothes and information and knowledge about the issues of the industry and the brands who are not contributing as much to those issues. We had the end goal of connecting consumers to the good things that some brands are doing in the way that they produce their clothes. From our research, we took away that consumers do not make purchasing decisions based on more compassionate values because of this lack of access and knowledge.

This led us to our first prototype, where we wanted to learn what kind of information and communication about how clothes are made and who made them would be most appealing to this audience. To do this we created a variety of clothing hang tags with different messages. The type of information ranged from pricing breakdown, to geographical provenance, to descriptions of the people who made the clothes, to fully transparent supply chains from farm to final cut-and-sew factory.

The two most compelling hang tags were one about the price/cost breakdown and one that included a map of where the item was made and an image of someone who helped to make it. Our audience was on a spectrum of how comfortable they felt about knowing more information and what information was most important to them. This left us feeling unsure about how to use what we had learned and how we should move forward so we returned to our interviews with sustainable fashion experts and our target audience to see if we could make any connections.

As we went back through our learnings from sustainable experts and their thoughts on how to get people to buy more sustainable pieces, it all stemmed from buying a lot less. It is both the way they consume clothes and then what they consume when they do have to buy something new. We saw this sentiment in every interview we did. Previously we had focused on the what, the sustainable products, and we had overlooked the how of how we are consuming clothes.



**“We consume  
constantly without  
thinking about it”**

Jennifer Sharpe

We now understood the problem that we needed to focus on was not promoting sustainable brands, but the behavior of getting consumers to buy less clothing.

Although we had begun by focusing on getting people to buy better clothes, we realized we need to focus more on this identified first step of reducing the amount of clothes we consume, if we wanted to be successful in reducing the negative environmental impact of fashion. To do this we needed to get our audience to:

- buy less clothing so that:
- each item of clothes they already had was worn more often to replace their need buy new
- so that it would reduce the demand for new clothes to be produced
- and therefore reduce the negative environmental impact of the overconsumption of clothes

This audience shops constantly and holds so much value in high quantities of clothing and so getting them to reduce that amount was daunting. We returned to the interviews we had done with the target audience already and also conducted more interviews in attempts to find insights or nuggets that could help us to find a path to this solution of buying less.

We noticed in each of the interviews, the one way that they were already buying less, usually as a way to save money while wearing something new, was by sharing clothes with their friends. We realized that this existing and common behavior of borrowing and sharing clothes spoke to their values of being about to wear higher quantities of clothing and not having to spend money, but also spoke to our goal of getting them to buy less, getting more wears per item of clothing, and reduce the number of new items being demanded each year as a result.

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**“Buying isn’t the solution, buying less is the solution”  
- Kate Black**

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1. Clothing Library,
2. Collaborative Consumption
3. Sharing Connection



## Prototypes

From here, we created three prototypes with the goal of reducing the total amount of items consumers need by increasing the amount of people who have access to the clothes.

### **Clothing Library**

We were inspired by the system of libraries for books for this prototype. Members borrow books from one hub for a certain amount of time instead of many people having to own the same book. We created a paper prototype of this concept by creating a clothing library. We asked our users to go through and check out a couple of items, and return them and check out more. We were able to get feedback on how they felt about a service such as this for clothes and if they would feel comfortable with it.

The feedback that we received about this prototype, is that although they liked the idea of it, they are not sure they would use it. It seemed like it would be inconvenient to always be returning and switching out clothes. People were also concerned about how clean the clothes would be and who had worn them before.

### **Sharing Connection**

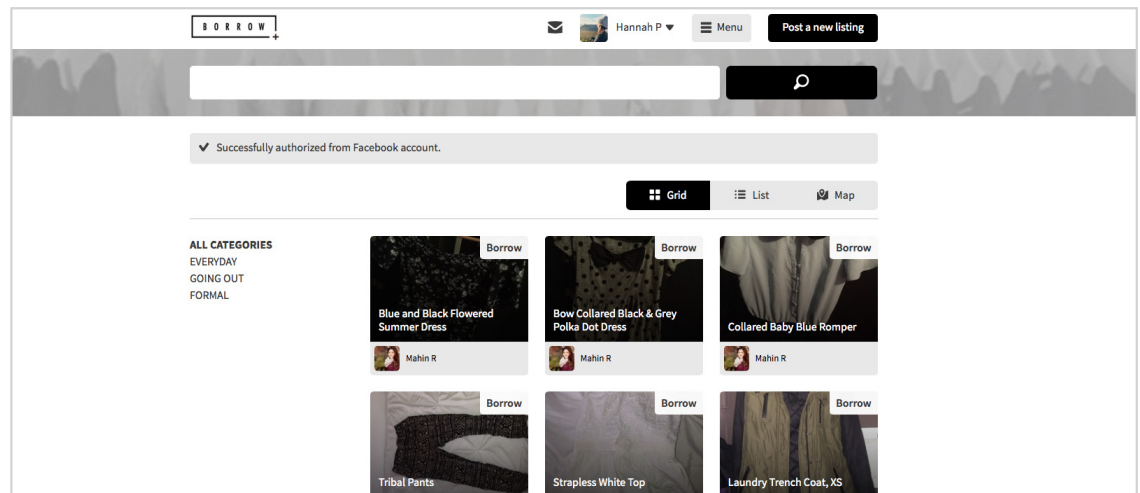
We wanted to explore the idea of increasing the amount of people one shares with as a way to give the users more options of clothes that they could borrow rather than buy. We found two girls who do not know each other but had a friend in common and asked them to lend the other an item of clothing for one week. We wanted to learn if our user would feel comfortable sharing with someone she may not know.

We got positive feedback from this prototype from both of the girls. They said it felt fun and like a style challenge, since the item may not have been something they would have bought for themselves but they liked trying out something new they may not have thought of but worked well with what they already have. We wondered how they would feel about sharing with someone they have never met, but there wasn't any concern since they trusted that we would not have asked them to share with someone who they wouldn't approve of.

### **Collaborative Consumption**

For this prototype, we wanted to learn if we could get a group of friends to buy clothes collectively with the intention that they would all be shared by the group. Instead of each girl going out and buying five items of clothing, we asked them to get five items total and share them. We got the girls to choose five items and rotate them throughout the group over one week. We had them document how they are sharing and give feedback on the experience.

Although the group said it was a fun experience, they couldn't see themselves doing this in the future and arranging this themselves. Even though they all liked the clothes and found ways to wear the styles in different ways, they weren't sure if they would want to own items as a group and preferred to each own one thing and share them.



From these prototypes, we chose to focus on the behavior of sharing what you already own and expanding your sharing network so our users have more options of clothes they could share. We wanted to learn more about how this target audience is currently sharing so that we could gain insight into how we could improve the borrowing experience so that they would choose to share more and therefore buy less.

Through our outreach efforts, we began working with a group of girls in NYU's Zeta sorority. We conducted a workshop with a few of them to better understand how they currently share and got them to map their current sharing circles and create borrowing and lending journey maps.

Although we had assumed that sharing clothes was a very social and in person experience, we learned that majority of the process was happening digitally through their phones.

This led us to create a prototype of a digital platform that took the whole process of borrowing and put it in one place instead of it being a process feeling spread out over different apps and a long span of time. We used a platform called ShareTribe, which allowed us to create a marketplace where users could upload items they were willing to share with their friends, others could request to borrow those items, and they could message about arranging a time and place to meet. If we could increase the visibility of clothes that user' networks were willing to share, that would make sharing more a more attractive and available alternative to buying.

We asked 3 girls who knew each other, but were not close friends to sign up and ask their respective friend groups to join and try the platform. We monitored the site for activity but found that there was none. A couple of the girls uploaded one or two items and very few people signed up. We learned that there were a lot more nuances to sharing clothes in this way than we had originally understood.

We met with one of the groups of friends again to get their feedback and dive deeper into how they share clothes so we could learn how to replicate the experience and figure out how to improve it.

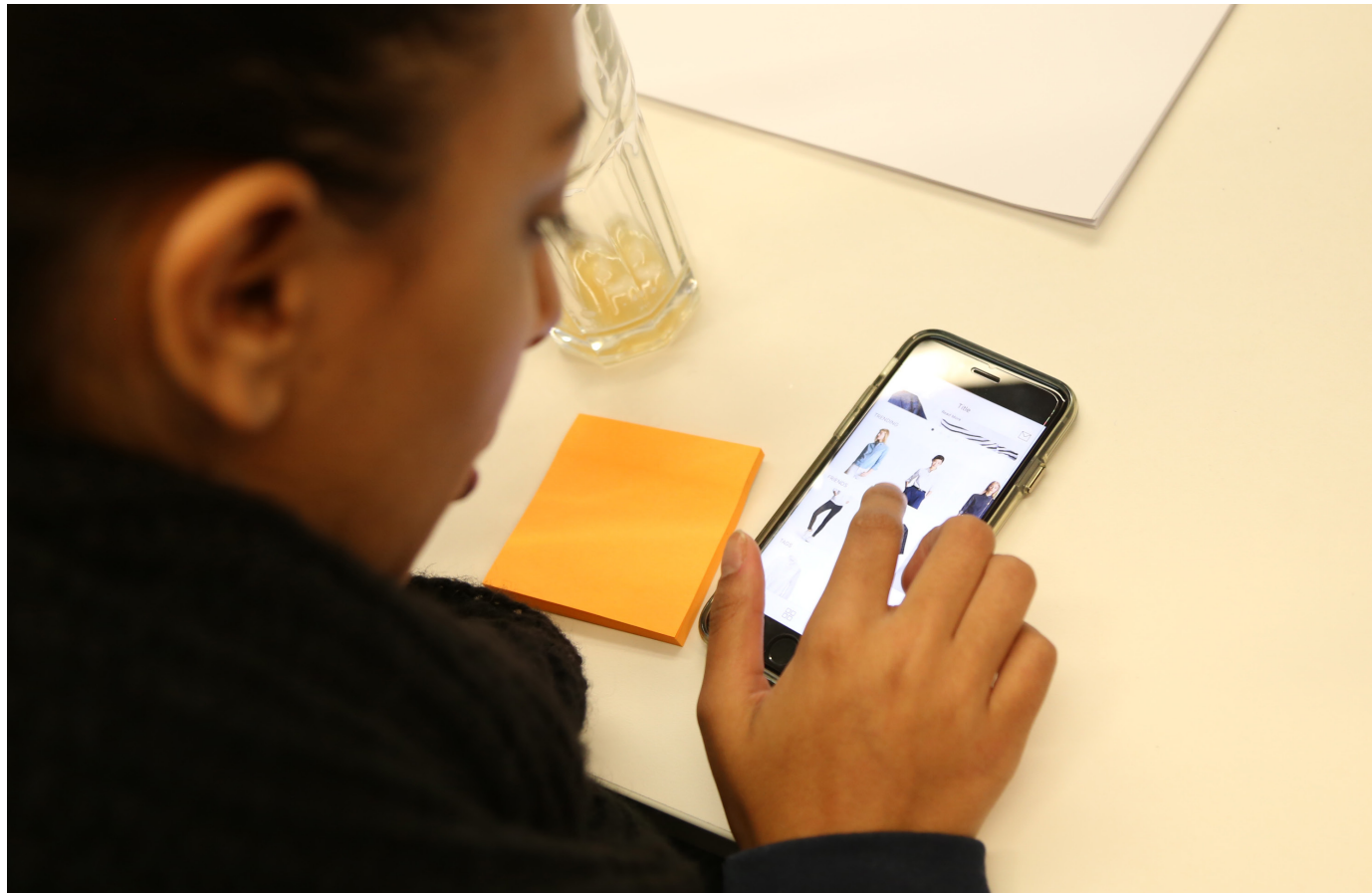
We were also able to pull insights into what values they have when it comes to sharing clothes. This included trust, access and social media,.

We wanted to continue testing the behavior of sharing clothes through a digital platform but also were aware that because of our technical capabilities we would not be able to include each element that we wanted to into a usable platform. So our prototypes from this point on took two parallel paths, one path with a usable platform with limited capabilities that allowed us to learn about the behavior of sharing clothes through a dedicated platform and designing a more final app to get feedback on the aesthetics, functionality, and added features.

# First App Design

During a workshop with our target audience, we completed usability testing and received feedback on the first designs of the app. Our users stated that it felt a lot more clean and attractive aesthetically compared to the prototype site. It felt more like the shopping apps they use so it felt familiar. However, it felt too far removed from how they are currently sharing. It missed the social element of sharing. A lot of the time, our users discover what their friends own because they have seen them where it on social media. The designs of our first app felt too disconnected from their friends and networks.

Similarly, this version of the designs did not consider the relationship dynamics when it comes to sharing. It was still an open platform and users could not curate who they wanted to share with. We were missing elements related to finding your friends, being able to choose to not share with certain people, and being able to find others in your networks like how you can on most social media sites.

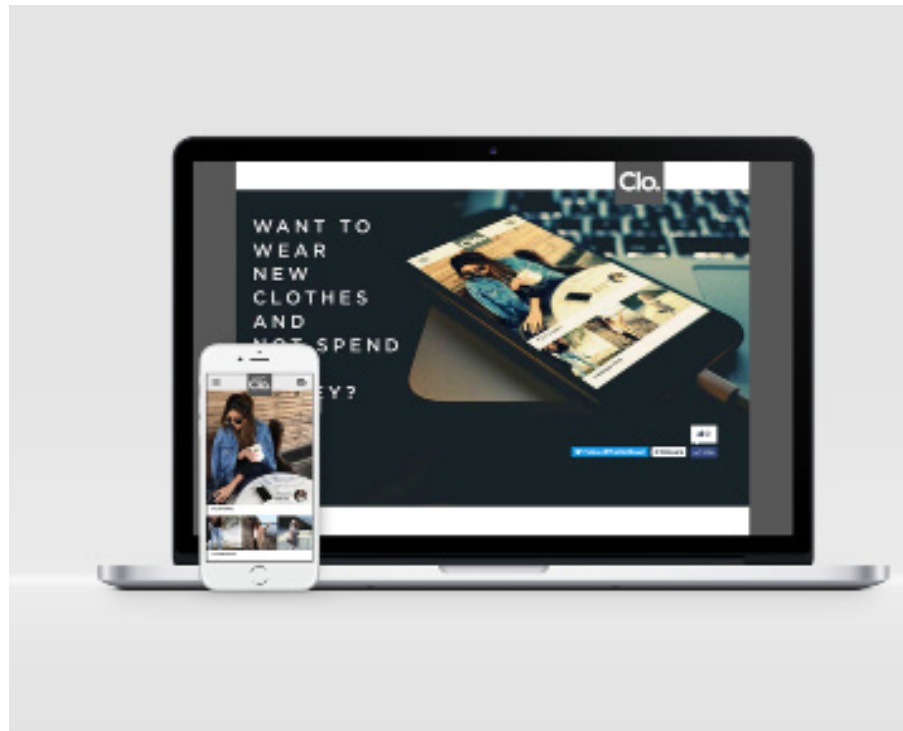


## Sharing Season - Alternative User

We also wanted to learn if our intervention would be useful for another user group and have a higher adoption rate. We used another prototype site which had the same functionalities but for young professional women, ages 24-30. For this group, we targeted the language around needing dresses for wedding season, engagement parties, and other special events when they would tend to want to wear something new. Because we found that many of the users we interviewed in this target audience, were working to develop their personal style and did want to invest in higher quality items, it was the one off items for events that led them to buy clothes that they would not wear more than once. We asked them to use the site, and upload dresses or clothes that they would wear to events. We hosted an event so we could learn how they would use the site for this purpose.

The feedback that we got was positive. All of our users felt the need to buy more than they really needed because of an influx of events during this time of their lives. They all did reflect that they had shared a lot more when they were in university because of geographic proximity to their friends, compared to now where they live further apart from each other so sharing is not as efficient as it used to be. Multiple users mentioned how they would have used this a lot more in college, confirming our college age women as our primary target audience.

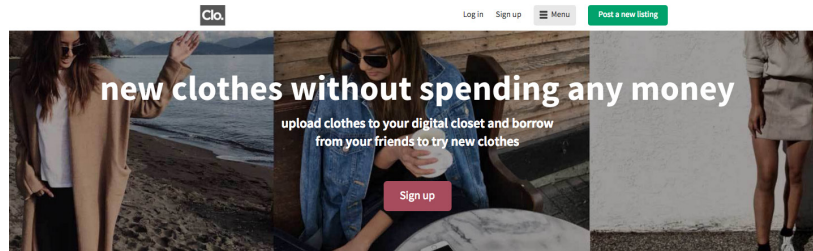




## Intervention **Pilot**

Our final app designs incorporated everything we had learned this semester. It had the core functionalities of being able to upload clothes users are willing to share with their networks, look at what their friends have posted, request to borrow an item, and message to arrange pick up time and place, as well as other features to make sharing a true alternative to buying. We also used another functional platform to user test the behavior of sharing with more learnings considered.





### Clo NYU Zeta.

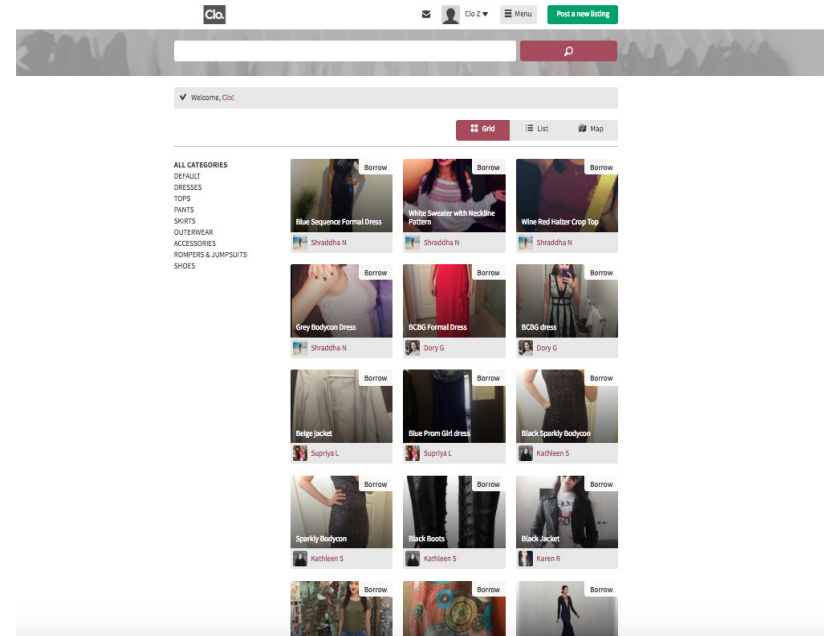
For our final pilot platform, we adopted as many learnings as we could given the limited technology. We addressed the issue of trust, by calling the site Clo NYU Zeta. By doing this the users, knew it was only for a community they already trusted.

We encouraged them to use the mobile version, rather than desktop to make it feel more like an app or social media platform that they were already familiar with, since we learned that majority of their borrowing experience was happening on their phones.

We also discovered that if they signed up for the platform through their Facebook accounts, they would be able to see which of their friends were also already on the site. This helped to create trust and community since being able to see who had already join made them feel included and more likely to use it if they knew their friends had joined as well.

A comment that we heard often in our previous feedback was that they did not have the space in their dorms to take photos of the clothes they were wanting to upload. We encouraged them to use existing photos of them wearing the items. This made the uploading process easier and also made the platform feel more like a social media app. We also knew that they often already find what their friends have in their closet through what they post on social media so this was key.

We incorporated more filters for them to search through, making the experience feel more curated and easier to find the items they were looking for.

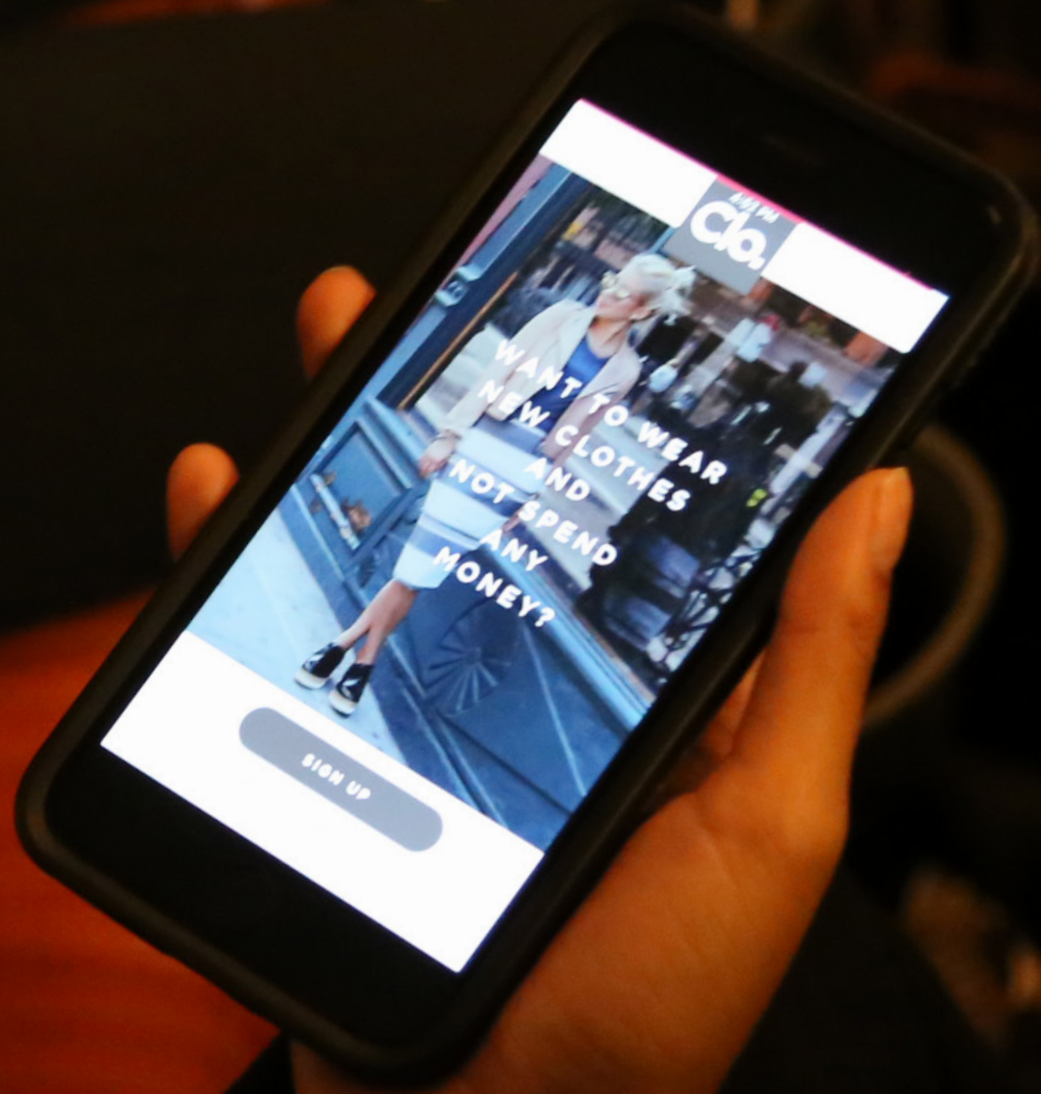


### Results

This final platform had fifteen users sign up, a success compared to our first prototype platform that only had four users sign up. There was also an increase in the number of items uploaded, from six to fifteen, and an increase in the number of transactions, from zero to eight.

We believe we were much more successful in this final iteration because we were able to address the unmet needs that discovered through our workshops and previous prototypes.

There still however were functionalities and additional features that could not be included in this version but that we addressed in our final app design. Overall however we felt that we had made drastic improvements in this platform site and we were able to see an increase in sharing.



JOIN  
clo.

WANT TO WEAR  
NEW CLOTHES  
AND  
NOT SPEND  
ANY  
MONEY?

SIGN UP

### Points System

In order for the platform to be beneficial, there needs to be a large number of items available to borrow. In order to incentivize users to upload their own clothes to share with others, the platform will have a points system. Every time a user uploads an item they will receive a point. They can then use those points to borrow from their friends. We did find however that some people tend to borrow a lot more than others and lend less, and we do not want to discourage that so users will also receive points for getting high ratings as a borrower.

### Rating

Ratings are a way to encourage trust and respect when sharing clothes. By being able to have a system to see how people treat clothes, users are more likely to take care of the clothes they are borrowing. We also found this will play a vital role in making users feel more comfortable with sharing clothes with people they may not be close with or have met. If they know that someone is a good borrower, they will feel comfortable sharing with them even if it is a friend of a friend or someone who lives in the same dorm building, but they are not currently friends.

### Groups

The ability to create groups within the app is also key. Because a lot of sharing happens around specific events or occasions that only certain groups are involved with, such as themed frat parties, or sorority formal events, being able to share for a common purpose would be beneficial to filter a sharing group and specific items. Having this added feature would encourage users who may not share often for more casual occurrences, to also sign up and participate

in sharing. For example, the girls we prototyped with had a flannel themed party and not everyone owned flannel shirts so their sorority shared a lot for that specific event.

### Secret Closet

Getting our users to switch to use our platform rather than continue the way they are currently sharing, especially the early adopters, requires more incentive because the benefit of access to more clothes will come as more people join the platform. In order to encourage users to engage with the platform, it will also feature a Clo user, who will have a secret closet only available to highly engaged or influential users. With the secret Clo closet, we would work with sustainable brands to feature their products, allowing users to try and become familiar with their brands. Having limited access to products will increase the attractiveness of engaging with the platform and will also be beneficial to raise awareness of consciously made products.

### Messenger and Cleaning service

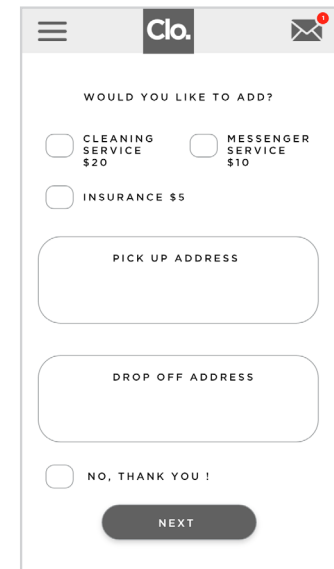
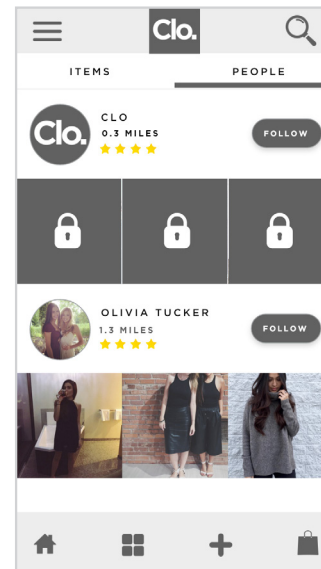
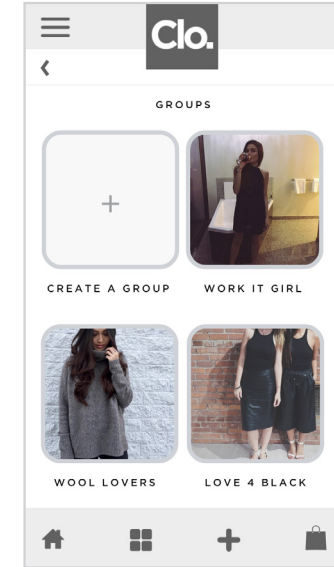
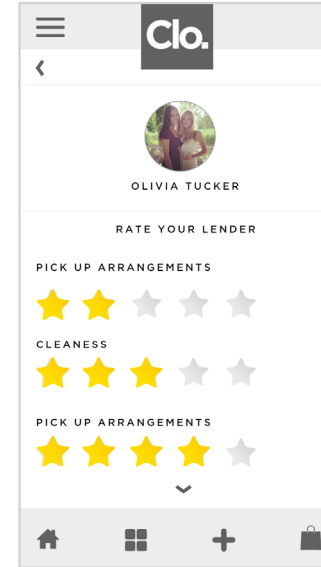
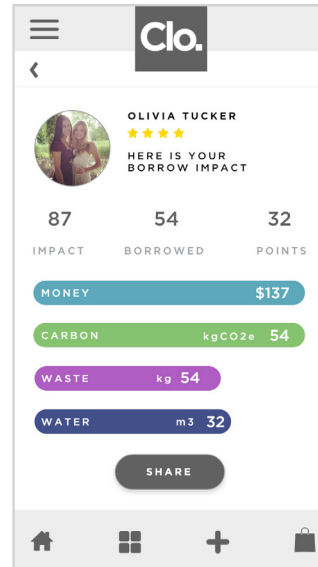
We found that something that feels limiting now for sharing is geographic distance. It is very easy for users to share with people who live close by, particularly in the same dorm building, but often users want to share with someone who lives in a different neighborhood. Having an added feature of having someone else do the transporting for you made sharing feel a lot easier, especially for our secondary user group, women age 24-30. A cleaning service felt beneficial for both groups. Often, users would clean or get the item they borrowed professionally cleaned anyways, so taking that extra task off their hands also reduced barriers to sharing.

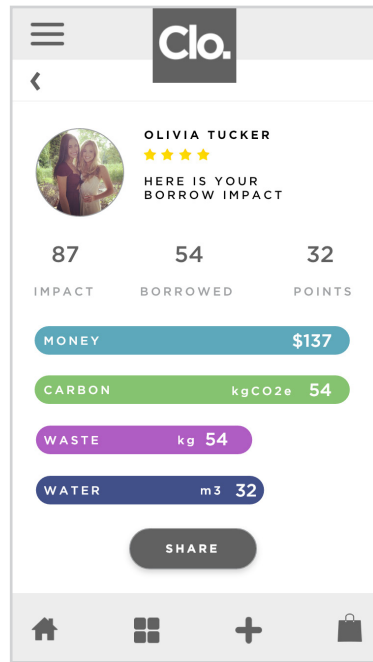
# Clo. Final Design

## Insurance

Every time we held a workshop, users always asked “what if something bad happens to the item I lent out?” Currently, if a borrowed item gets spilt on or ripped, it is decided after the fact if nothing will happen, if the borrower will pay for cleaning, or to replace the item. With Clo, users will arrange upfront what will happen if something were to go wrong. This also gave an increased peace of mind to the prospect of sharing with an extended network.

A key feature of our final design is the impact receipt. One of our original intentions for this project was to better connect individual action to larger impact. We had noticed it time and time again in our interviews that our users feel disconnected from their consumption habits and the environmental impact that has. Through secondary research, mainly through reports done by the Waste and Resource Access Programme in the UK, we were able to calculate the waste, water, and carbon that the average item of clothing has depending on its weight. Although eventually, we would want these numbers to be more specific, we believe this will still be relevant to start building those connections. After each transaction a user has, they will receive an impact receipt in their messages. It will tell them the average amount of water, waste, and carbon that they have save by borrowing rather than if they had bought a new item.





Impact Receipt data based on research completed by the Waste and Resource Access Programme.

## Impact Receipt

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# User Feedback



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“ So when will this be available in the App store? You should come present this at our chapter meeting, everyone would be obsessed.”

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Overall, we got overwhelmingly positive feedback from the users about our final designs. Our users asked repeatedly when it will be available in the Apple App Store. Although they did feel like much was missing from the pilot site we had used to get feedback from the core functions, it was all answered in the final designs. Because we were not able to test out all the features of the final designs, we cannot confirm that the added features of the final designs will increase the amount that our users would share and therefore reduce the amount that they buy as we were not able to test them besides usability testing. This was a shortfall of having a purely digital final intervention when we did not have the technical resources to create a fully functional app.

We were however able to use the visuals and explanation of the impact receipt to facilitate a discussion

about the environmental and social impact of clothing production. They mentioned how the main ways that they currently consider the environment are by recycling, using reusable water bottles, and choosing non-polluting methods of transportation. With clothes however, they felt the disconnect between when they were buying an item of clothing and what they knew of the negative impact of shopping. They were often aware of many of the issues caused by fashion but they were not front of mind when making purchasing decisions and therefore did not impact their purchasing habits. One user said “people are dying because I want to wear this shirt” and felt that by having a more consistent reminder about the impact would be helpful to know. Another user said, “I know that borrowing is something good for me, and now I know it’s even better.”

## Learnings Conclusions

Always keep in mind the user benefit. Even if our original intention is to reduce the consumption of clothing, our intervention had to be beneficial to the user even though we originally saw them as the problem. We do feel as though we got our users to think differently about sharing.

After our first digital prototype was unsuccessful at being adopted by users, we learned from the experience and iterated on it, instead of throwing the idea out the window and trying something else. Being able to receive feedback and make your intervention better by incorporating that feedback into the next version lead to our success.

It is vital to keep the goal and intention in mind. We questioned the validity of our concept of getting college girls to share clothes more as a meaningful social innovation, but it served our end goal perfectly so we stuck with it and feel that it could be a really impactful project as we move forward.

## Next Steps

Our next steps would be to continue prototyping the additional features of the final app design. For example, we only used one group to prototype, but it would be helpful to start working with multiple groups to test better how to increase the sharing networks.

We will also continue working to get the app developed. Through the work we completed in the Entrepreneurship class, we are working to gain seed funding for development. We have developed strategies for scaling and there are currently no other platforms focused on facilitating borrowing so there is potential for this platform to be disruptive.





Thank you

for more info visit:

[WWW.CLOCLOSET.COM](http://WWW.CLOCLOSET.COM)