

Usability Study I:

Armoir



Alex Weitzman || Ellen Roper || Janna Huang || Starr Jiang

The Team



Alex Weitzman



Ellen Roper



Janna Huang



Starr Jiang

armoir

find that missing piece





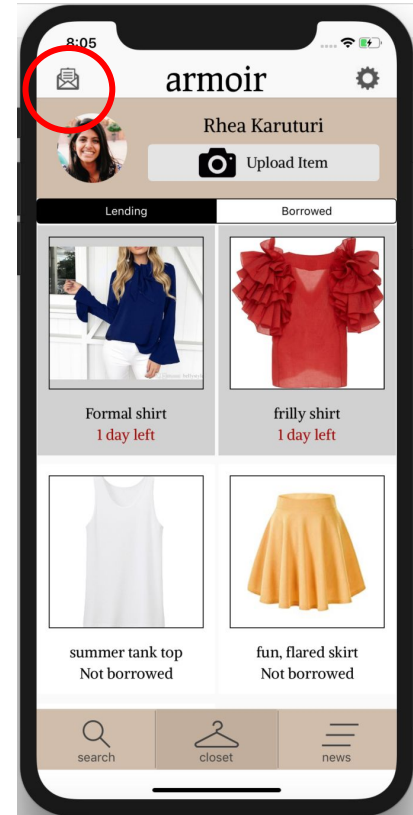
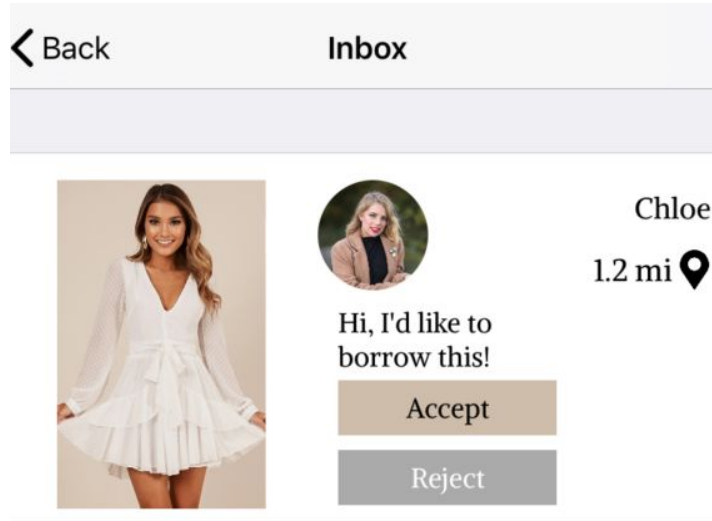
Overview

1. Prototype Changes
2. Methods & Tasks
3. Test Measures
4. Results
5. Discussion

Prototype Changes

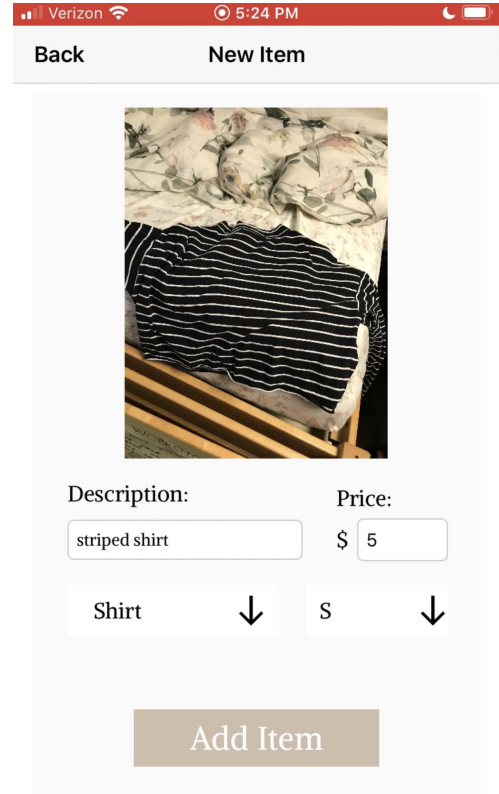
Prototype Changes

- Added Inbox feature



Prototype Changes

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- Added camera functionality for uploading photos



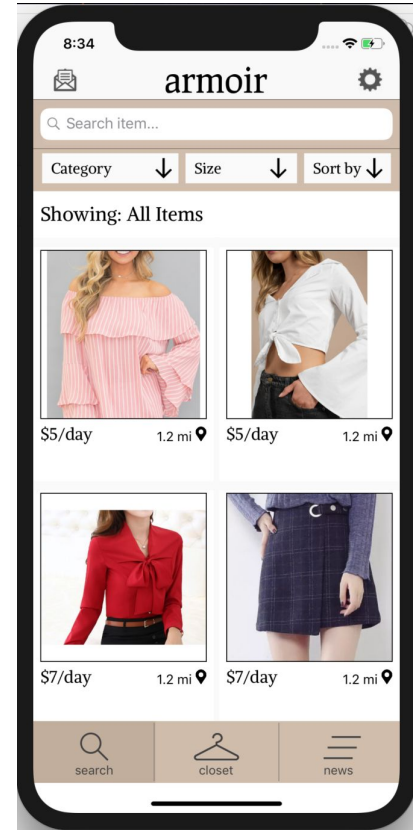
Prototype Changes

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- Added camera functionality for uploading photos
- Cosmetic changes:
 - Made bottom bar smaller and simplified icons



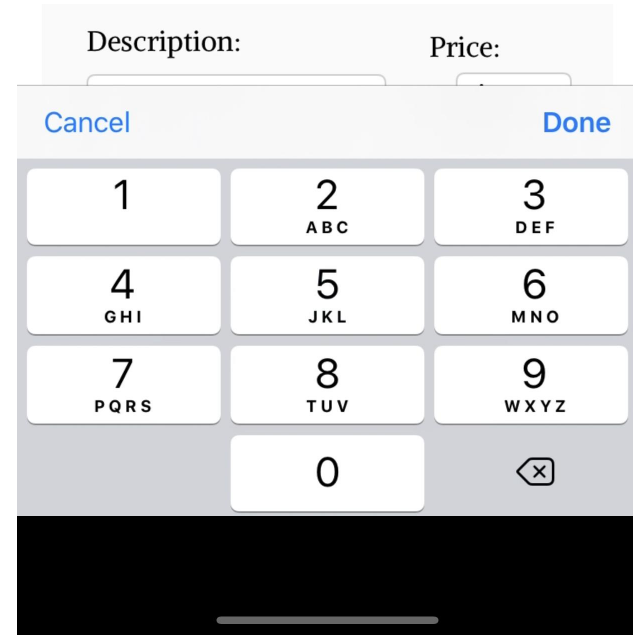
Prototype Changes

- Added Inbox feature
- Added camera functionality for uploading photos
- Cosmetic changes:
 - Made bottom bar smaller and simplified icons
 - Fixed stretched photos



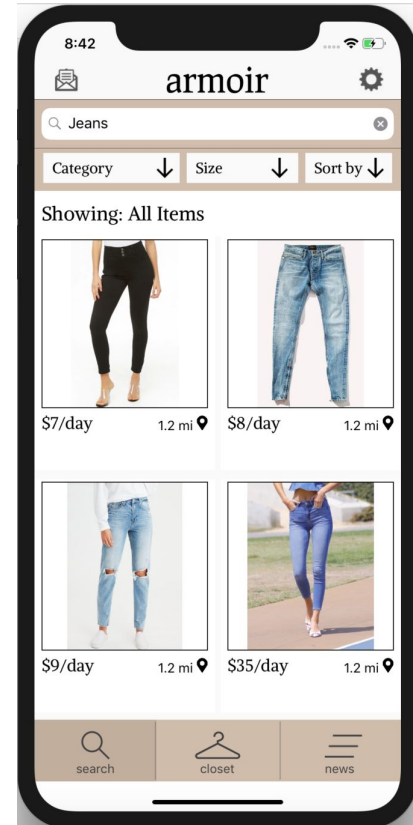
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 - Adjusted keyboards



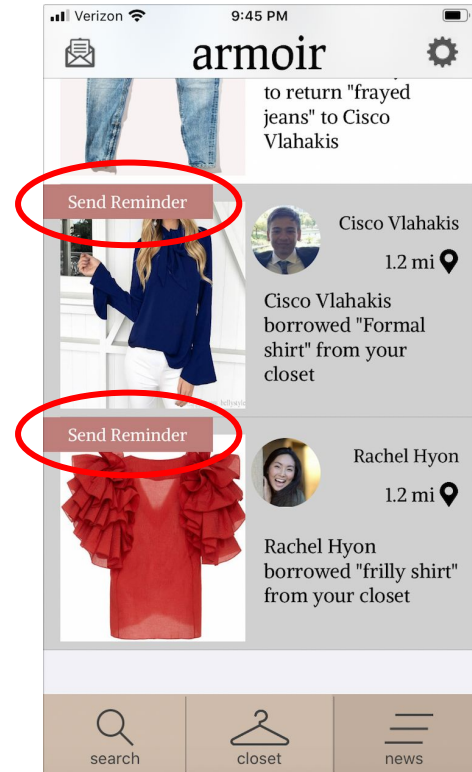
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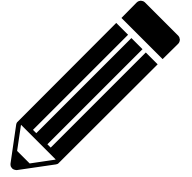
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- Functionality: search, closet
- Added Send Reminder buttons





Method

Participants

College students living in same community



Annie,

She/Her

Junior

Has bought clothing on
Facebook Free & For Sale



Anqi,

She/Her

Junior

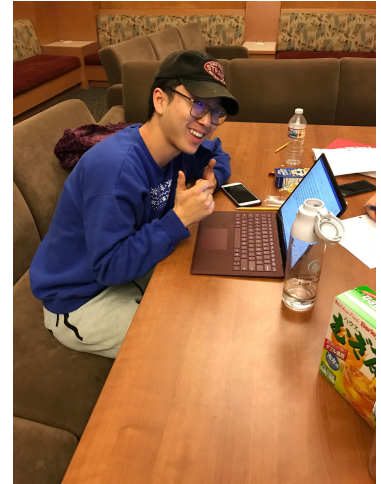
Has shopped on
Depop



Lenny,

He/Him

Hesitant about online
shopping, used to work at
Men's Wearhouse



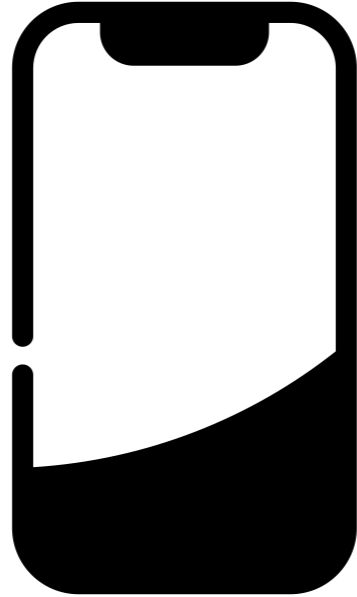
Ryan,

He/Him

Has not bought
clothing online

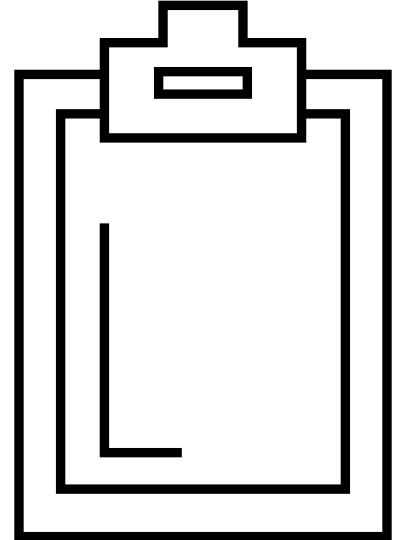
Apparatus

- iPhone with screen recorder
- Filmed with iPhone cameras
- Firebase for registering clicks
- Ran tests in participants' rooms/closets



Procedure

- Pre-written script for short demo of system
- Signed consent form for data collected
- Handed out 5 tasks on separate index cards for participants to complete
- Debriefing interview
 - Follow-up questions on completing tasks
 - Thoughts & feelings while using app



Original Tasks



Simple: **Explore clothes**

Medium: **Borrow clothes**

Complex: **Lend clothes**



New Tasks

Focus on tasks in lender/borrower interaction

#1: Explore and request to borrow clothing

#2: Upload clothing to your account

#3: Approve borrow requests

#4: Keep track of exchanges

#5: Keep track of exchanges

Tasks



Borrower

#1: Explore and request to borrow clothing

“Find a pair of jeans and request to borrow them”

What we looked for:

- *How did users search - Keywords? Size? Type?*

Tasks



Lender

#2: Upload clothing to your account

“Upload an item of clothing from your closet”

What we looked for:

- *What items did participants choose?*
- *How did participants choose the price they set?*

Tasks



Lender

#3: Approve borrow requests

“Approve a request to borrow a clothing item”

What we looked for:

- *Could users find the new inbox feature?*

Tasks



Lender

#4: Keep track of exchanges

“Send a reminder to get clothing back”

What we looked for:

- *Is this process intuitive & easy to find?*

Tasks

Borrower



#5: Keep track of exchanges

“Check when your borrowed clothing is due”

What we looked for:

- *Where did users go to find this information?*

Test Measures

- Completion of each task
- Time to complete each task
- Errors made while completing task
- Critical Incidents (+/-)
- Thoughts/feelings while completing tasks

Results: At A Glance

Task	Average Completion Time	Fastest Time	Total Errors	Completed
1	37.29 s	34.39 s	1	4/4
2	67.18 s	34.61 s	2	4/4
3	20.05 s	5.8 s	7	4/4
4	68.2 s	30 s	16	1/4
5	7.8 s	3.4 s	0	4/4

Results

Task 1: Find a pair of jeans & request to borrow them

Average Completion Time: 37.29 s

Fastest Time: 34.39 s

Errors: 1

Completed: 4/4

Results

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Average Completion Time: 37.29 s

Fastest Time: 34.39 s

Errors: 1

Completed: 4/4

Results

Task 2: Upload an item from your closet

Average Completion Time: 67.18 s

Fastest Time: 34.61 s

Errors: 2

Completed: 4/4

Results

Task 2: Upload an item from your closet

Critical Incidents:

- Desired guidance about how to take good photos
- 2 participants expressed it was unclear that they were supposed to upload clothing from their own closets because they only saw professional-looking clothing on the app
- Confusion as to price being price/day or flat rate

Results

Task 3: Approve a request to borrow a clothing item

Average Completion Time: 20.05 s

Fastest Time: 5.8 s

Errors: 7

Completed: 4/4

Results

Task 3: Approve a request to borrow a clothing item

Critical Incidents:

- Attempted to find it in news first
- 2 participants wanted some sort of confirmation that request went through
- 2 participants were easily able to find it and stated that it was intuitive

Results

Task 4: Send a reminder to get clothing back

Average Completion Time: 68.2 s

Fastest Time: 30 s

Errors: 16

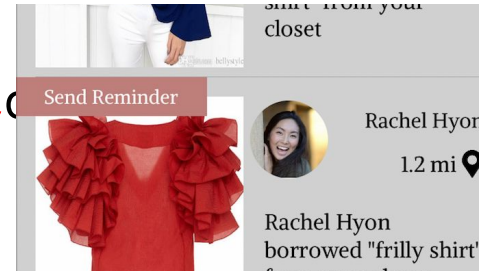
Completed: 1/4

Results

Task 4: Send a reminder to get clothing back

Critical Incidents:

- All participants were confused
- “This is stressful”
- 3 participants did not recognize the “Send Reminder” as a button
- 2 thought the entire cell was a button
- All but 1 needed a hint, only success was accidental



Results

Task 5: Check when borrowed clothing is due

Average Completion Time: 7.8 s

Fastest Time: 3.4 s

Errors: 0

Completed: 4/4

Results

Task 5: Check when borrowed clothing is due

Critical Incidents:

- Even split between going to closet vs. going to news tab to find the information
- Testers were quick to complete this task in every trial

Debrief

Takeaways



Inbox should be for personal, **one-on-one conversations** as a way to correspond individually with people to handle logistics. News should be **objective information** like how many days are left



Maybe there should be a **third tab for returns** where people can see, like, their items that are being borrowed for the sake of handling return logistics

Discussion

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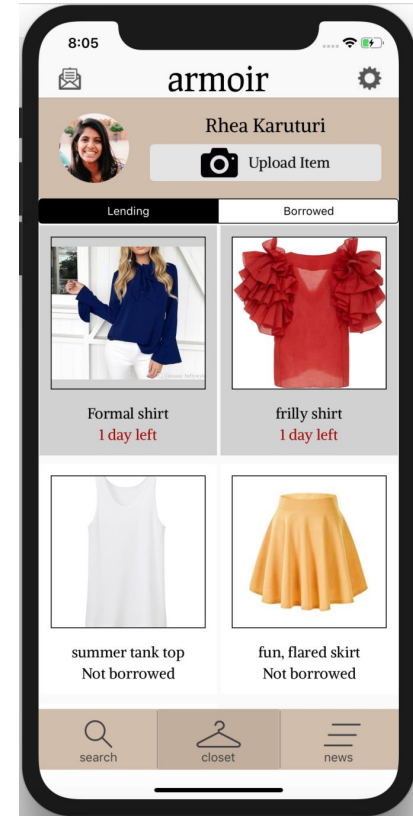
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- People grasped the concept of the app easily and were generally able to intuitively navigate it
- Task 4 (send a reminder) was by far the most challenging, and people found it somewhat stressful to accomplish
 - 4/4 people tried to or expressed a wish to send a reminder through the Closet page
- Users were open to the idea of having multiple day loans and setting price/time span themselves

Potential Changes

Send Reminders

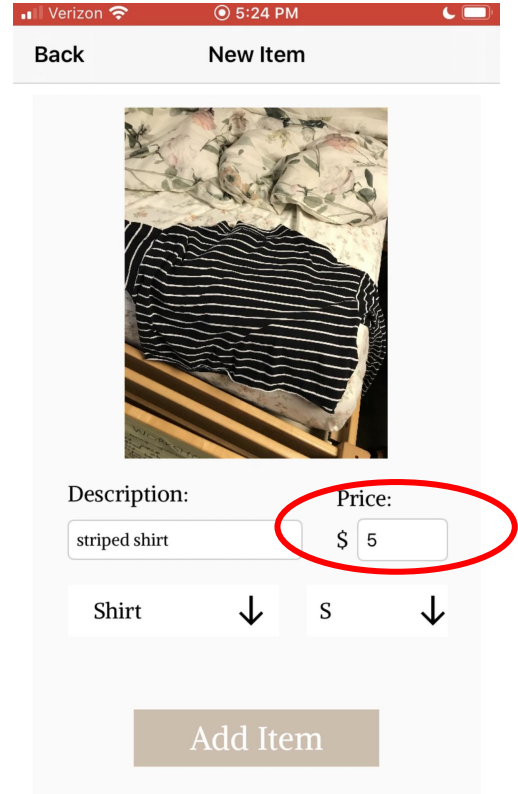
- Send reminders by clicking on a lent out item (in the Closet page) rather than navigating to a separate News page
- Make buttons more obvious



Potential Changes


Loan Timeframes

- Option to set loan-out times and price accordingly



Verizon 5:24 PM

Back New Item



Description: Price:

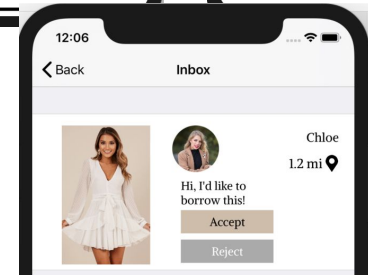
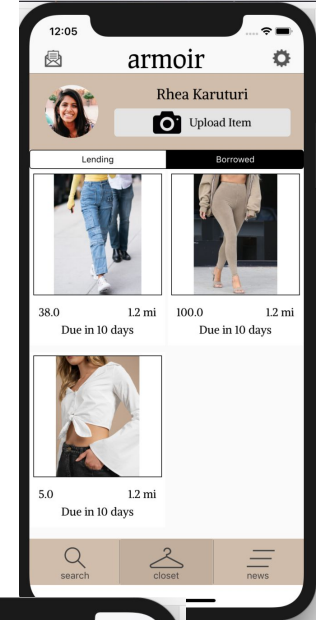
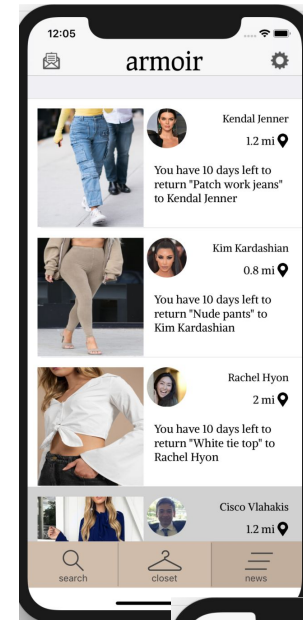
Shirt ↓ S ↓

Add Item

Potential Changes

News vs. Inbox vs. Closet

- Clarify which does what function
- Consolidate News & Closet?



Potential Changes

Add Onboarding Support

- Provide a guide for users to upload their clothes through explicit/implicit norms
- Create account screen and customize closet

Potential Changes:

Future Testing

- Test on different student housing communities (Co-Ops, Self-Ops, Freshman dorms, Greek organizations)
- Require more complicated tasks such as tagging and filtering searches

Summary

- Usability tests with 4 subjects, chance encounters in a four-class dorm
- Most tasks were achievable; Task 4 (Send Reminder) was most challenging and needs to be amended in further iterations
- Redesign needed for clarification on News, Inbox, and Closet tabs

Questions?