HEYPOINT

Creating presence digitally in your friends' environments

Derrick Chen, Yinlin Zhao, Lisa Ing

Meet the Team



Derrick Chen



Yinlin Zhao



Lisa Ing

Solution Sketches

CS 147 Solution Ideas

- Audio message tagging



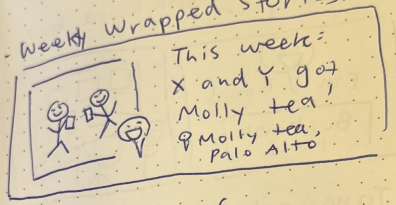
- AR/VR (like OG proposal)



- Sticky notes (digital)



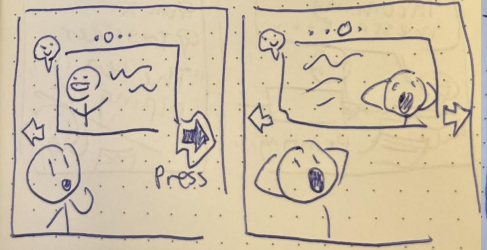
- Weekly Wrapped Stories



- Pin Newsletter

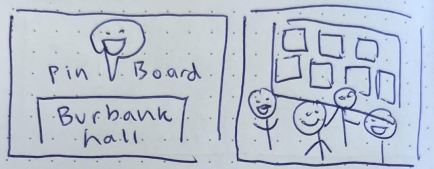


- Multislide tags



CS 147 Solutions con.

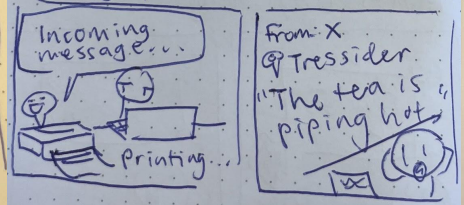
- Create a bulletin board hub w/ your friends



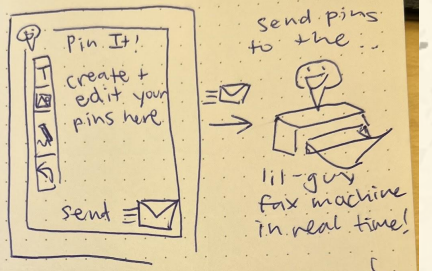
- Tamagotchi-like buddy



- Lil-guy fax machine

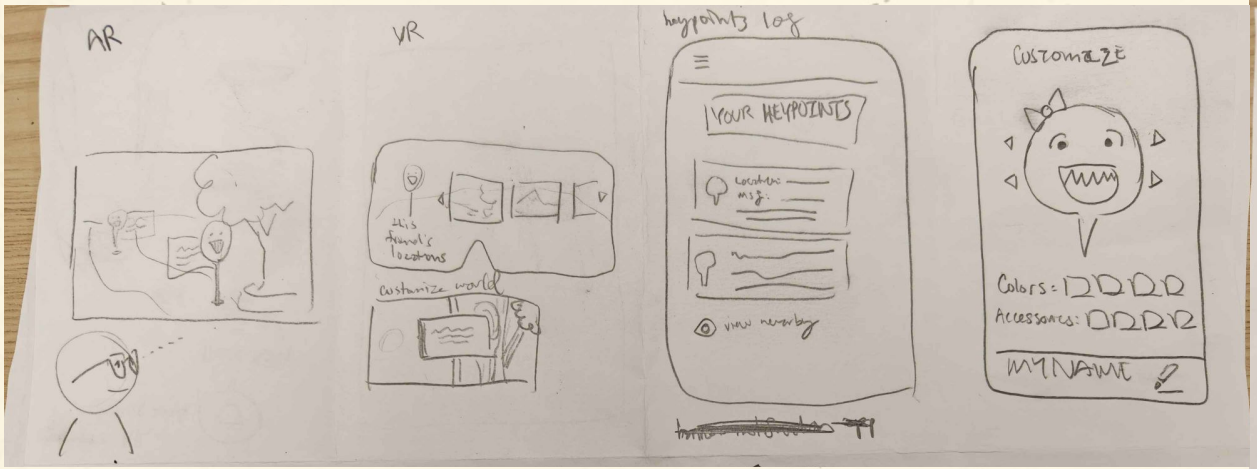


Lil-guy fax machine concept sketches

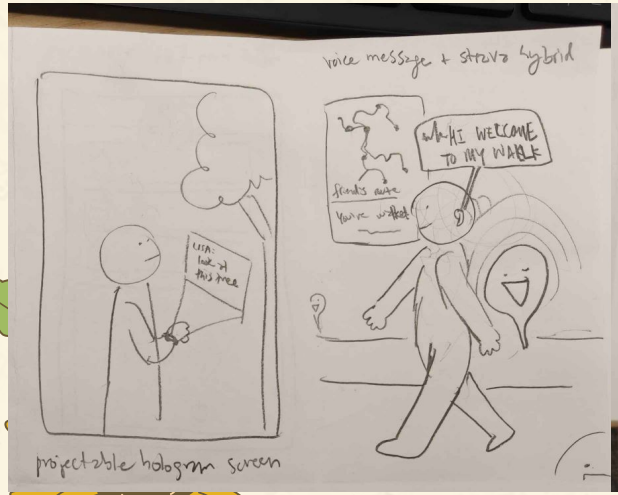


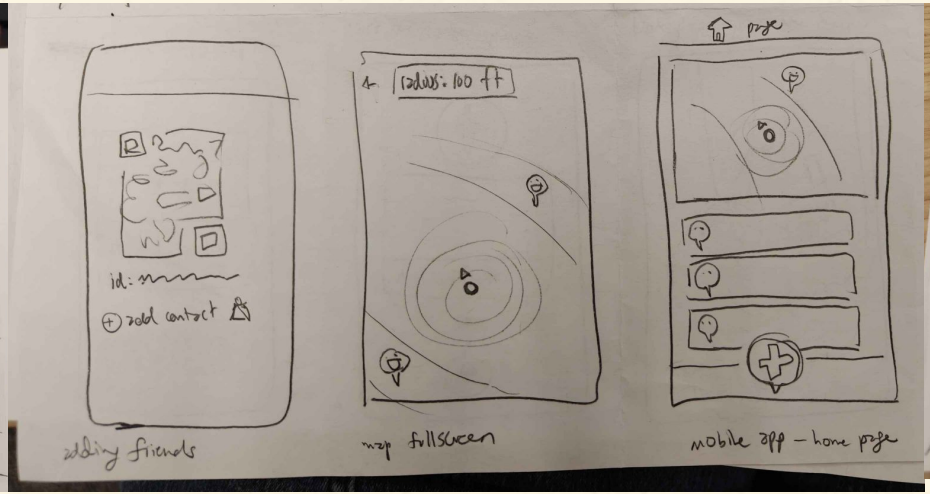


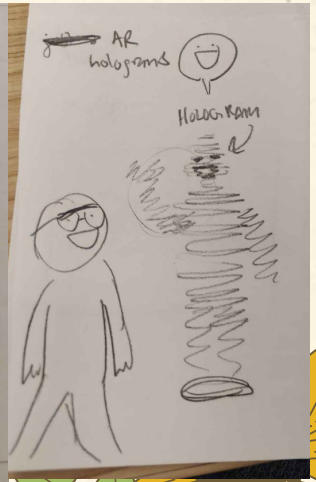



AR
VR
this friend's locations
customize world
heypoints log
YOUR HEYPOINTS
view nearby
Customize
Colors:
Accessories:
MY NAME


00:00
HEYPOINT
Loc: only look at this tree
banner notifications
your message
voice message - home


voice message + strava hybrid
Hi WELCOME TO MY WALK
friends nearby
You've walked
LISA: look at this tree
projectable hologram screen

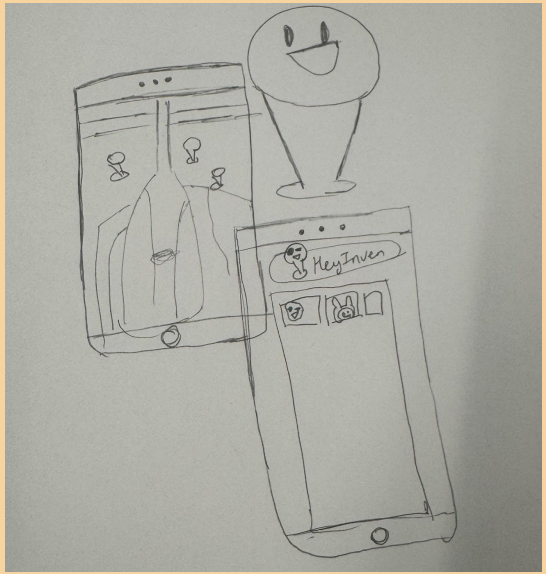

id:
add contact
adding friends
radius: 100 ft
map fullscreen
page
mobile app - home page


AR holograms
HOLOGRAM


you just posted a waypoint
Click to open
MAP
we need here
Lilysent you flowers
Interactive Story Exhibit
real time street hologram
catch waypoint

Solution Analysis

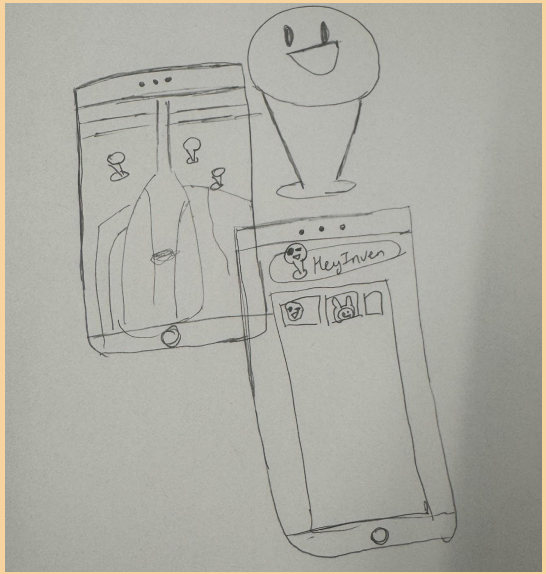
Mobile App



Pro

- **Universal:** Mobile phones dominant technology
- **Versatility:** allows for multiple functionalities across screens
- **Intuitive:** Familiar mobile features lead to ease of onboarding
- **Interactive:** locate other pins and place our own pins in one interface

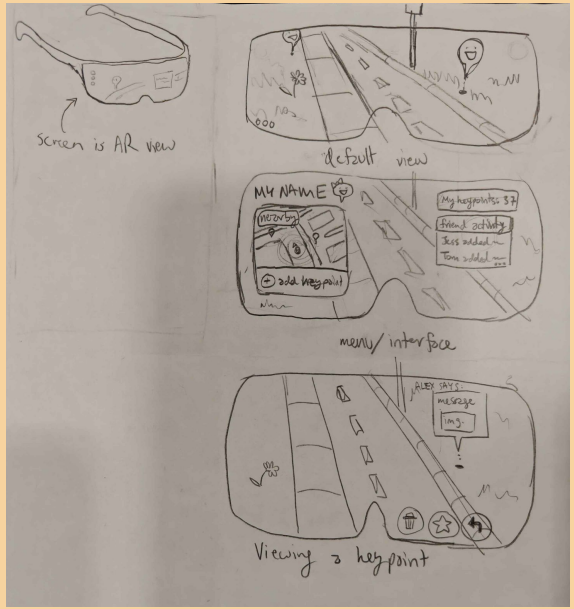
Mobile App



Cons

- **Surveillance:** Requires you to share your location
- **Overreliance:** Overuse of the application draws attention away from facilitating offline experiences
- **Exclusive:** Can exclude others from messages
- **Inconvenient:** Requires users to download yet another mobile app

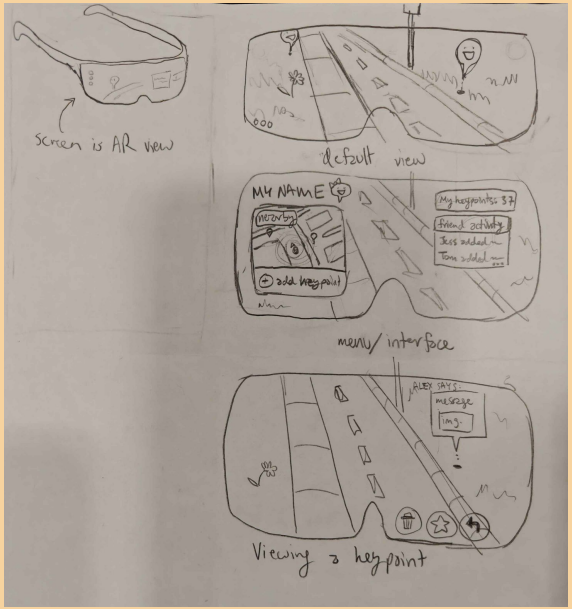
VR HeadSet



Pro

- **Immersive:** Real-time experience through the eyes of digital world
- **Versatile:** Access to many forms of multimedia (3D visual projection, text, audio)
- **Efficient:** Allows direct access to view
- **Presence:** VR direct stimulates the presence of objects and physicality

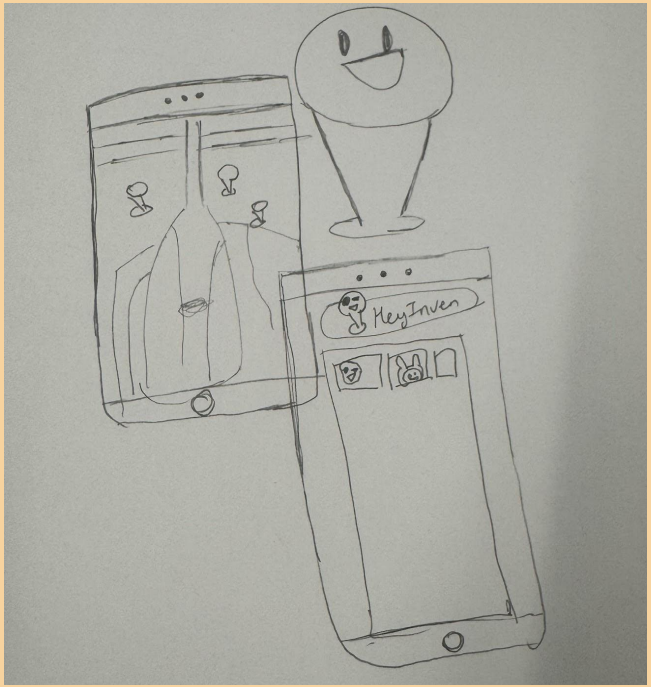
VR HeadSet



Con

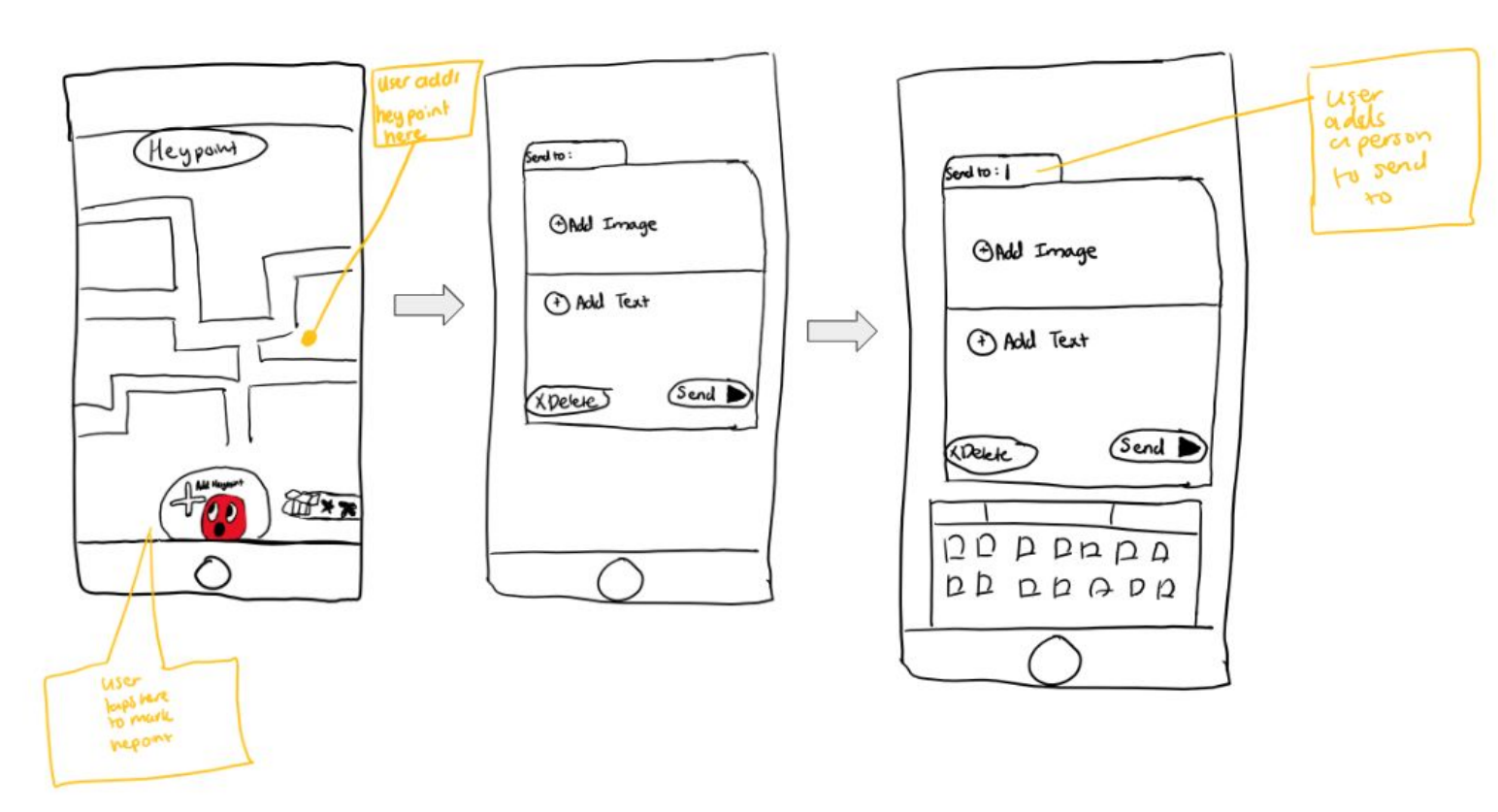
- **Expensive:** VR Headsets can be pricey
- **Esoteric:** VR appeals to a niche audience
- **Overstimulating:** Can cause motion sickness and nausea
- **Inconvenient:** Not very convenient to walk around with a VR headset

Final Decision

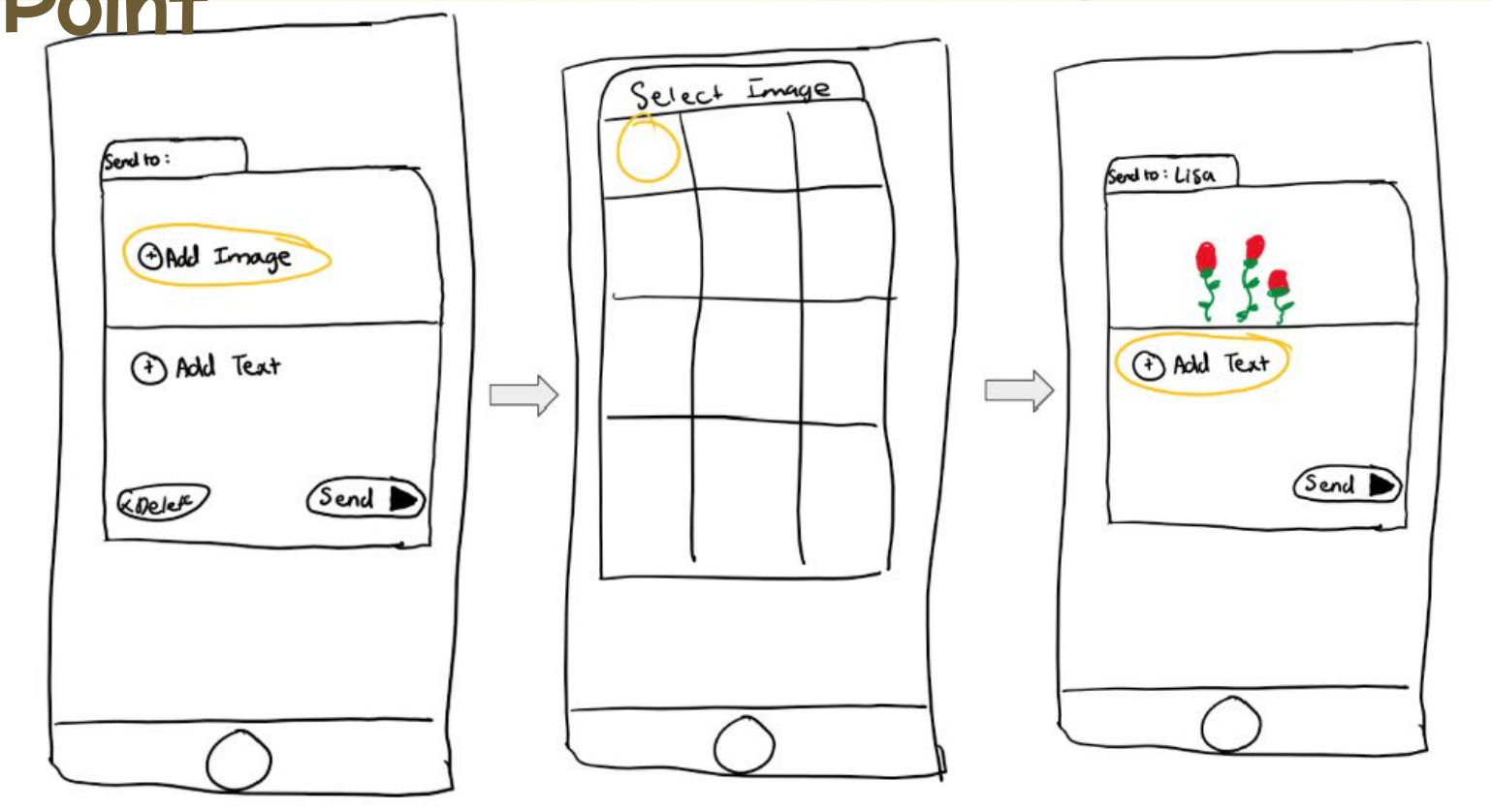

KeyInven

Task Flows

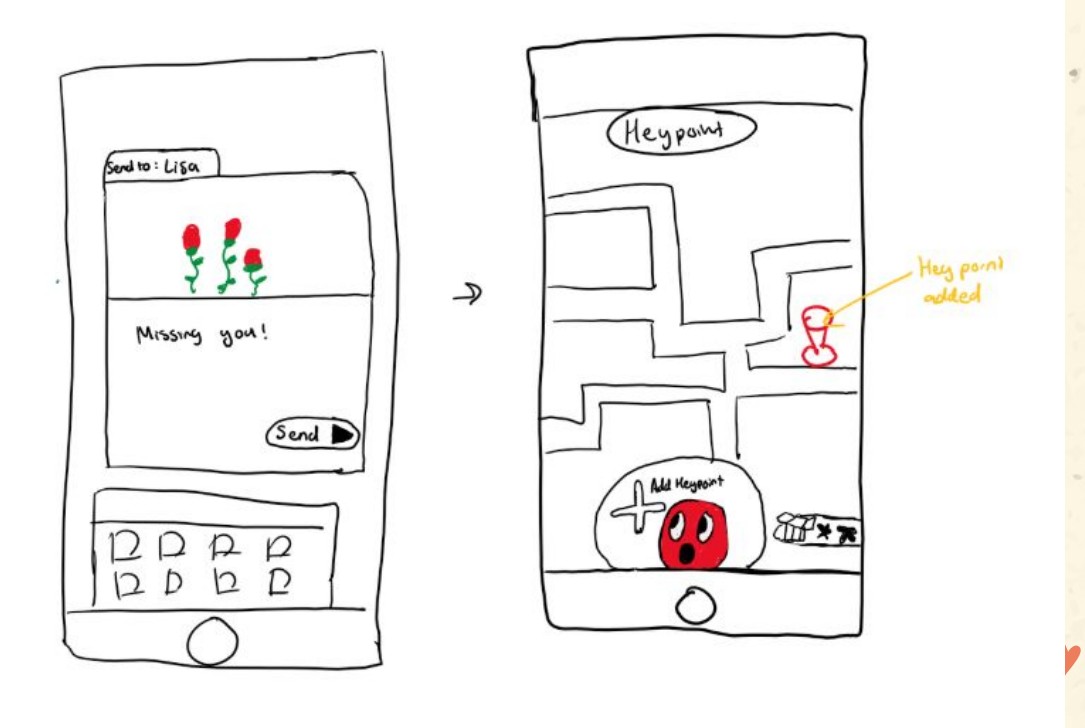
Simple Task (Task 1): User creates a HeyPoint



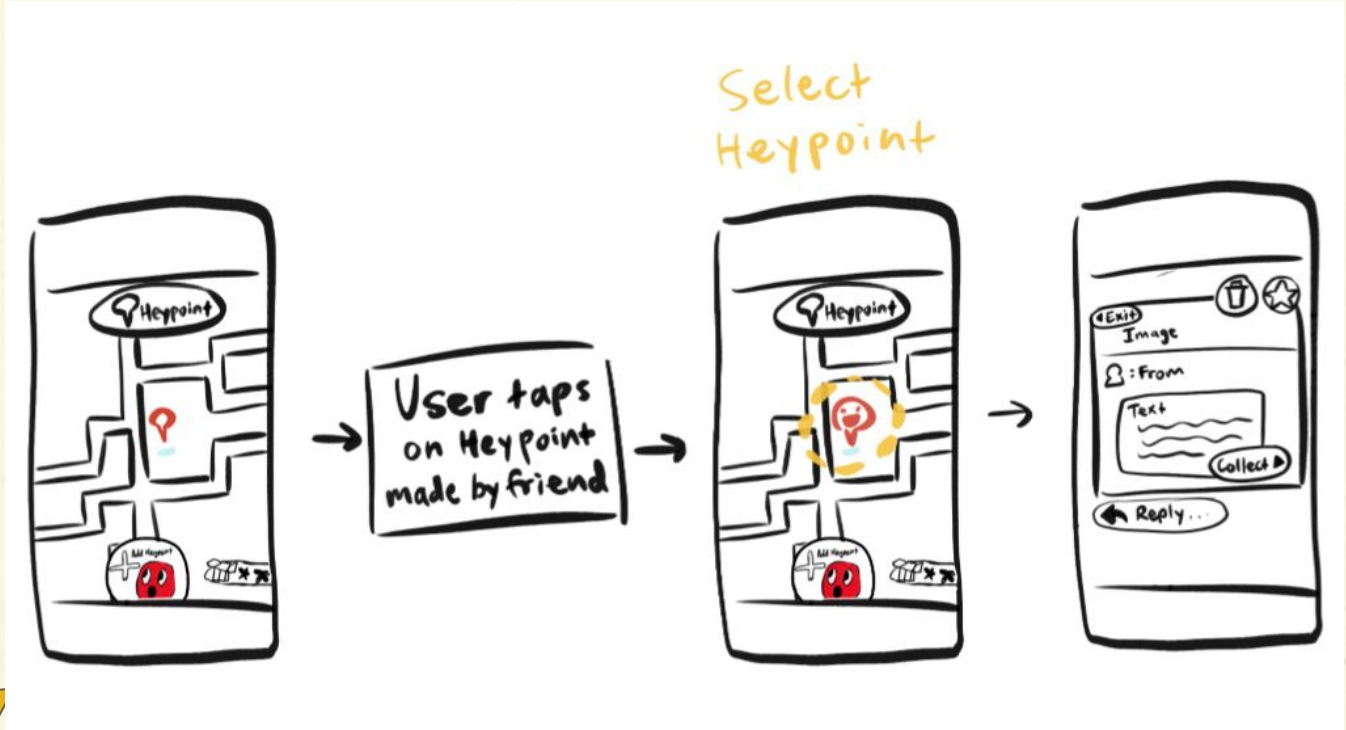
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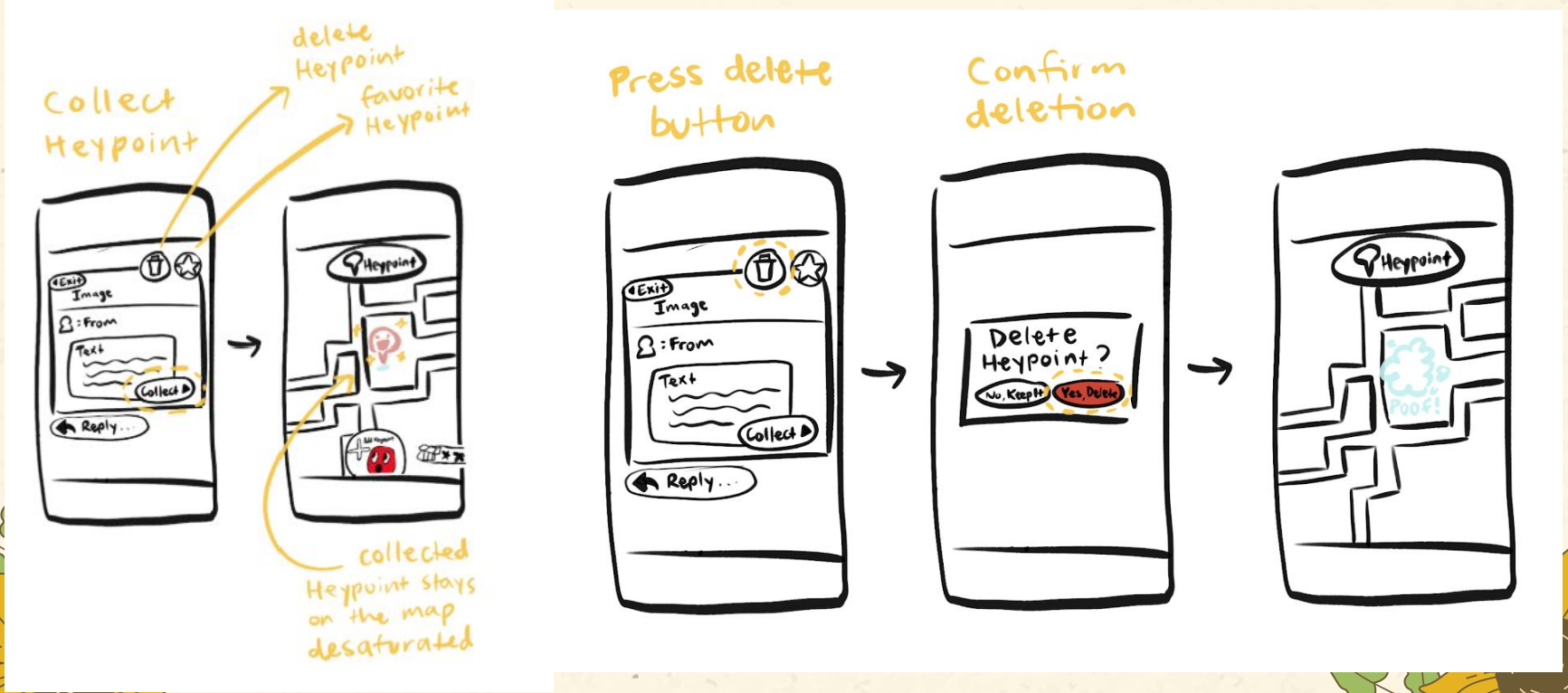
Simple Task (Task 1): User creates a HeyPoint



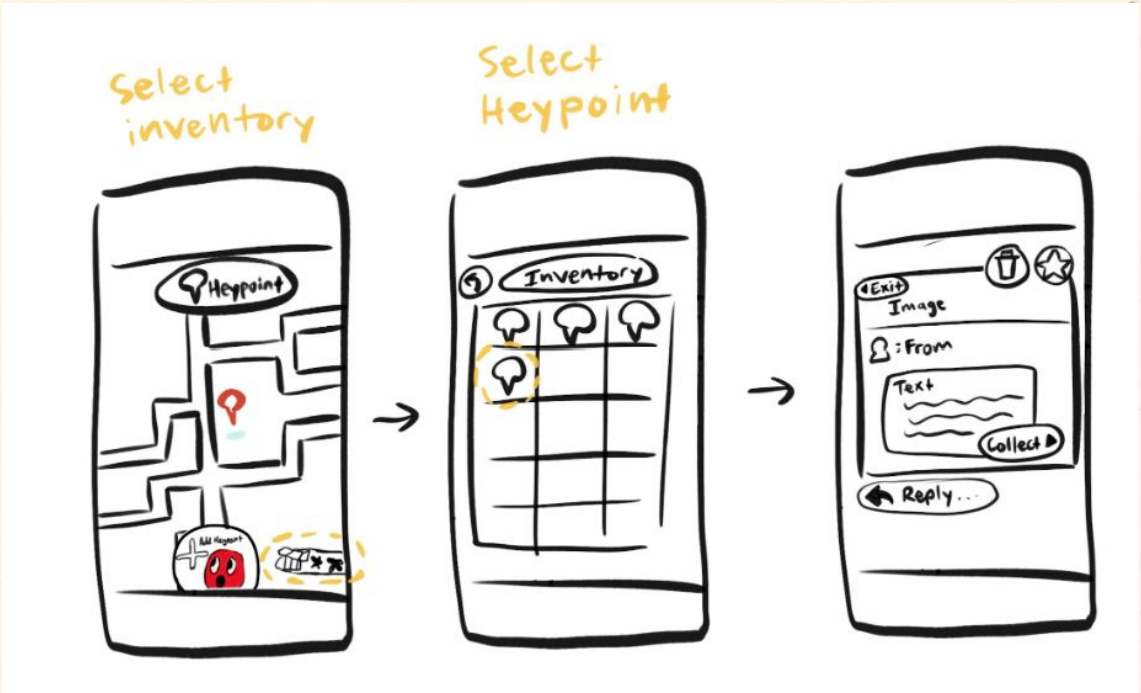
Moderate Task (Task 2): Viewing a Heypoint



Complex Task (Task 3): Managing HeyPoint Ecosystem



Complex Task (Task 3): Managing HeyPoint Ecosystem



Testing Methodology

Usability Testing Goals

Robust:

- Aim For <3 misdirections
- Metric: Misdirections

Efficient:

- Users do not spend more than 1minute 30secs on tasks
- Metric: Time ellipsed in tasks

Functional:

- Users are not are able to complete tasks
- Metric: 0-4 Usability range

Testing Methodology

Participants:

2 Stanford Seniors, 1 Stanford junior

Team Roles:

Recorder – Lisa
Facilitator – Derrick
Computer – Yinlin

Environment:

Tested on a round table in Old Union
And in participants dining hall

Set-up:

1) Gather all materials
2) Go through each task and read the tasks
3) Record each task time and wrong paths taken
4) Write down observations of each tasks

Read out Loud:

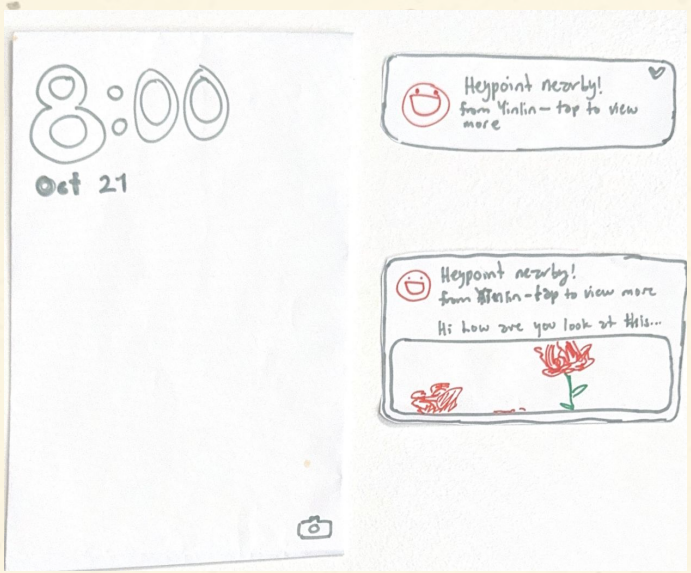
You are testing a paper prototype of an app we are creating. This app is under low-fidelity still has some parts that will not be developed yet. This paper prototype is used for helping create digital media around the location you are in for your friends. This paper prototype is not testing you or your intelligence. I will give you a few tasks please talk-out-loud what you think things do and feel free to touch. One person will act as the 'Computer' and the other be a facilitator

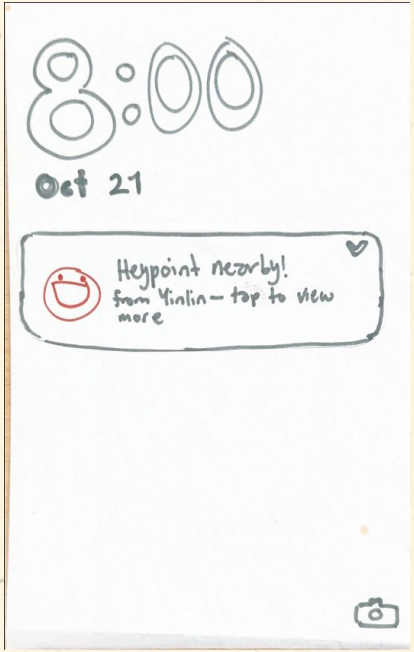
Tasks:

1) You see this [object/item] and it reminds you of your friend. Show us how you would use this app to preserve this
    i) What assumptions is the user making about the buttons?
    ii) What aspects of it are confusing?
2) You are walking and suddenly you receive a notification pop up, walk me through how you would interact with this notification
    a) Guiding Questions:
        i) What do users want to do with the interaction?
        ii) What are the next steps the user assumes should happen?
3) You want to look over all of the HeyPoints that you have collected so far and look over them to save on your map. How exactly would you do this?
    a) Guiding Questions:
        i) Is it obvious to go into the inventory?
        ii) What are the first assumptions the users make?
4) When you are going through the map, how would you discover new heypoints from your friends?
    a) Guiding Questions:
        i) Is it obvious to go into the inventory?
        ii) What are the first assumptions the users make?
5) How would you walk through deleting a HeyPoint?
    a) Guiding Questions:
        i) Is it obvious to go into the inventory?
        ii) What are the first assumptions the users make?

Apparatus: Paper Prototypes

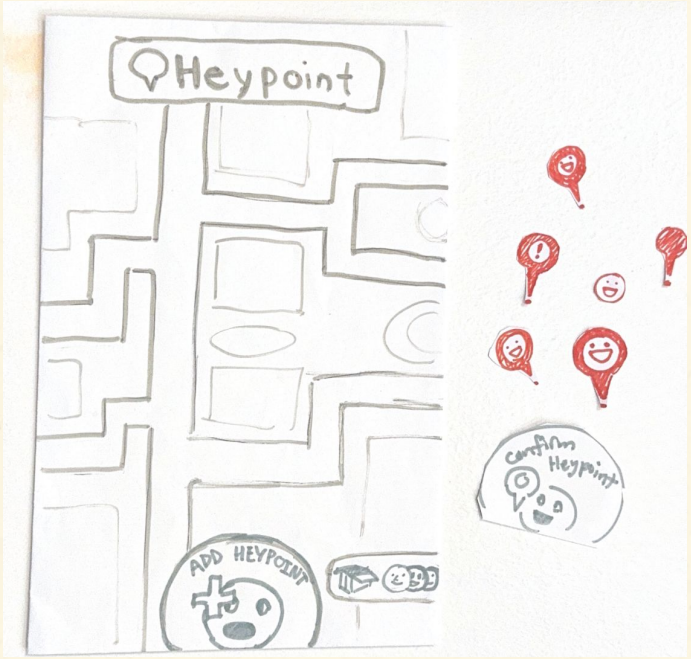
Method: Being nearby a HeyPoint

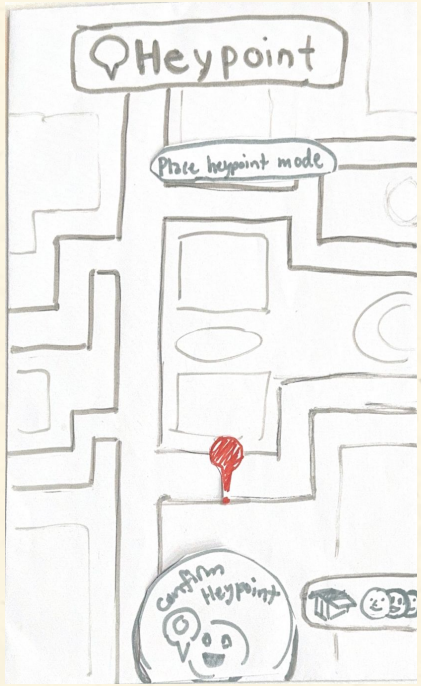




Apparatus: Paper Prototypes

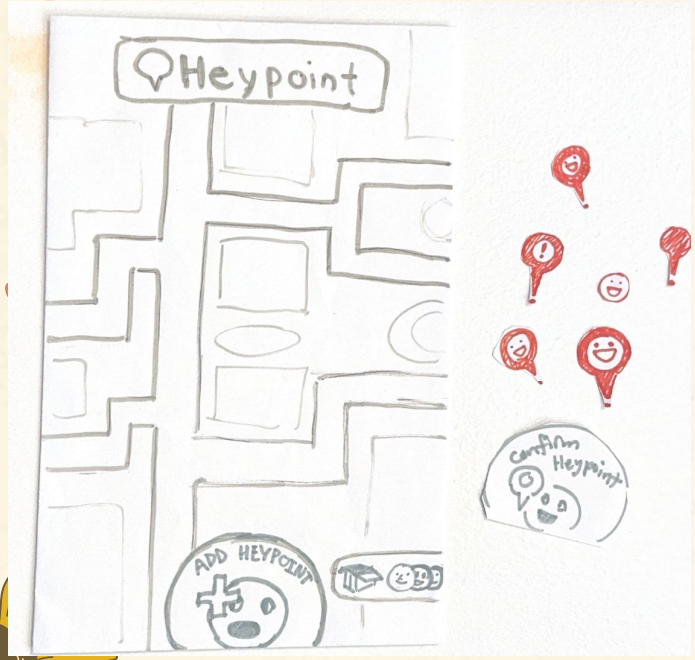
Method: Placing Heypoint

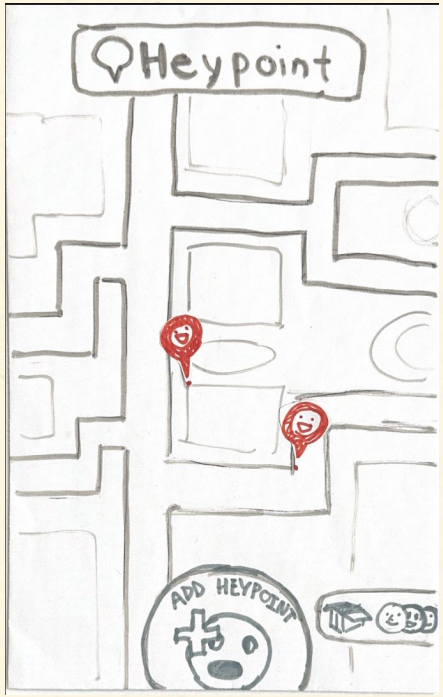


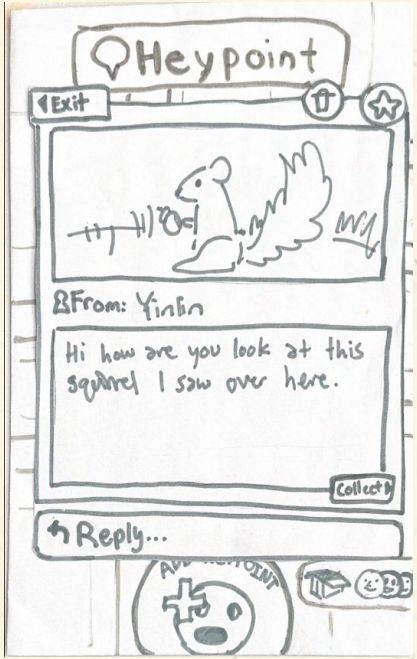


Apparatus: Paper Prototypes

Method: Viewing a Heypoint

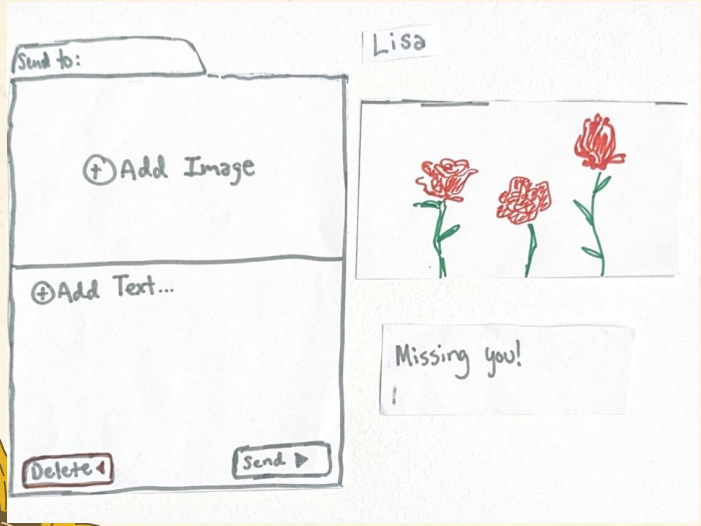






Apparatus: Paper Prototypes

Method: Creating Heypoint

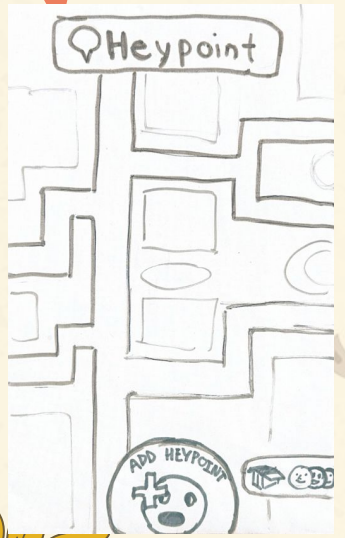


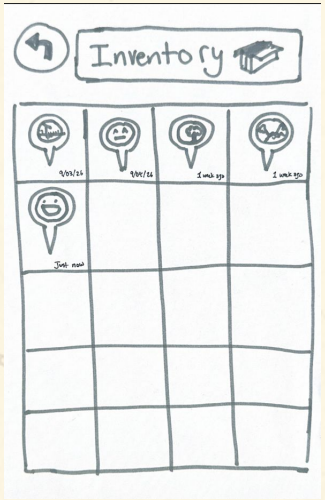




Apparatus: Paper Prototypes

Method: Content Management









User Results

Participant One:



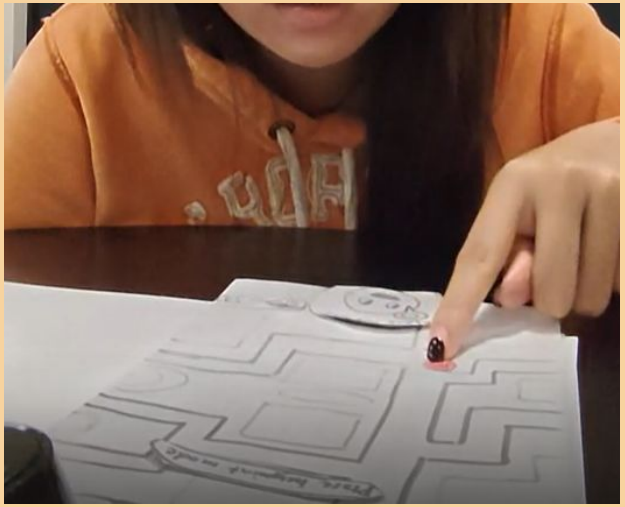
Task	Timestamps & Time Taken	Number of clicks	Number of misdirections	Rating (0-4)
Task 1	1:23 – 2:00 37s	4	0	1
Task 2	3:02 – 4:00 58s	3	0	1
Task 3	4:52 – 5:30 38s	3	1	1
Task 5	6:33 – 6:55 22s	3	0	1

Participant One: Key Takeaways

- Users found it more intuitive to drag the pin around over pressing to create HeyPoint
- Adding three states of HeyPoints for user clarity
- Critical Moment: User was confused about the current inventory



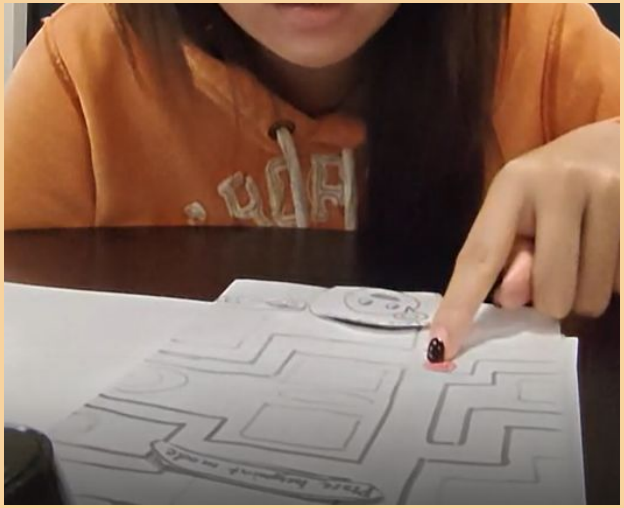
Participant Two:



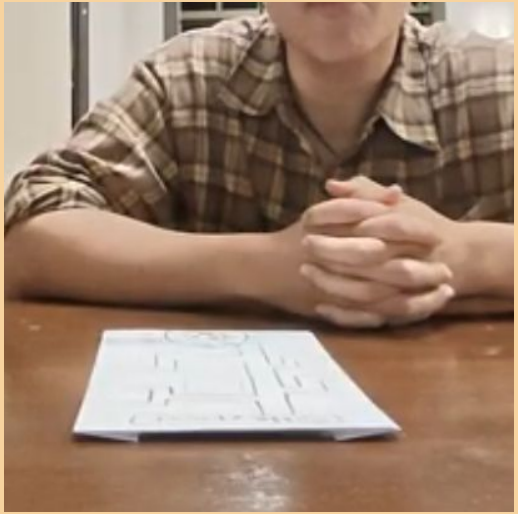
Task	Timestamps & Time Taken	Number of clicks	Number of misdirections	Rating (0-4)
1 (creating heypoint)	1:42-3:20 (98 sec)	6	2	3
2 (interacting with notif)	3:53-5:01 (68 sec)	4	1	1
3 (viewing stored heypoints)	5:33-6:00 (27 sec)	2	0	0
4 (discovering new heypoint)	6:41-7:35 (54 sec)	6	1 (but major as we did not get back on track)	4
5 (deleting heypoint)	6:08-6:22 (14 sec)	2	0	0

Participant Two: Key Takeaways

- User gets stuck on ‘Adding HeyPoint Mode’ and need extra guidance
- User Understood proximity and had to be close to HeyPoints
- Critical Moment: User was misdirected into creating a HeyPoint instead of looking for new ones



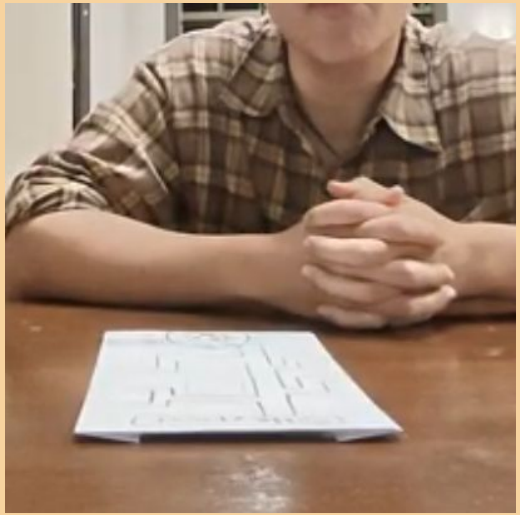
Participant Three:



Task	Timestamps & Time Taken	Number of clicks	Number of misdirections	Rating (0-4)
1	2:15 - 4:09 (1 min 54 s)	8	0	0
2	4:53 - 6:21 (1 min 28 s)	5	0	0
3	6:38 - 7:13 (35 s)	3	0	0
4	7:34 - 8:15 (41 s)	2	0	0
5	8:20 - 8:50 (30 s)	4	0	0

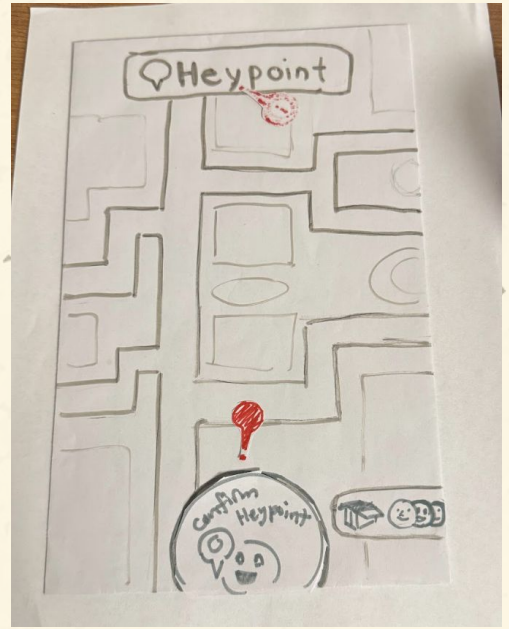
Participant Three: Key Takeaways

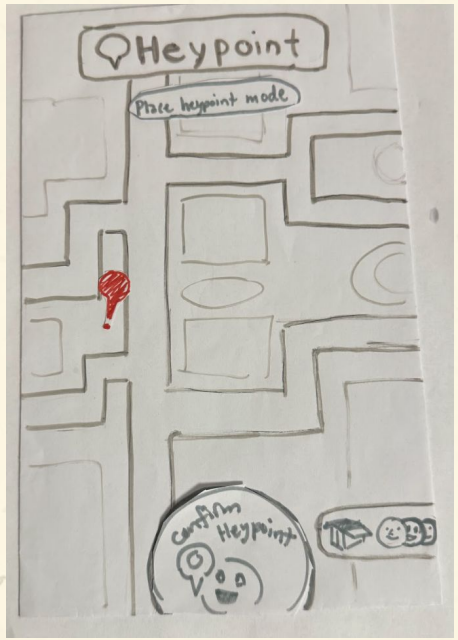
- User is confused on who has access to HeyPoints (Private vs Public)
- Adding a feature to locate User
- Critical Moment: HeyPoint discovery from friends was a point of friction because of similar color



Design Decisions

Design Decision: Drag and drop States to create a HeyPoint





Design Decision: Color Coding HeyPoints to signify created, collected

Previous Color Schema



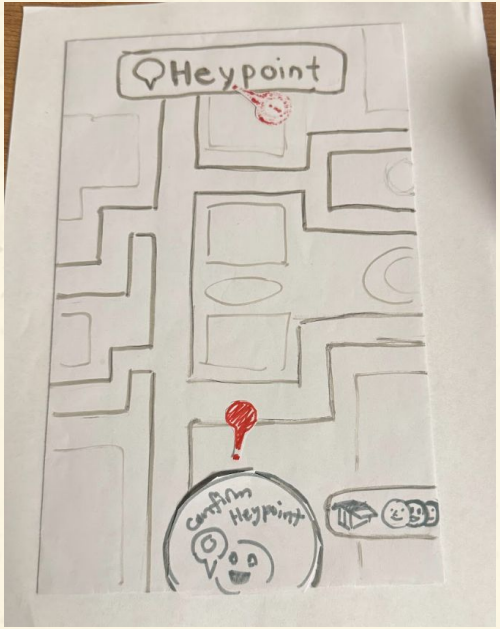
Discovered Undiscovered Placing HeyPoint

New Color Schema



Discovered Undiscovered Placing HeyPoint

Design Decision: Adding a blue locator for the User





Final Takeaways

Final Takeaways:

1) All users understood that HeyPoints should be captured via proximity
2) Experimenting with color more with HeyPoints to convey states
3) Taking advantage of the full screen and ensuring pop ups are clear
4) Clarifying favoriting feature
5) Centralizing a design system and visual language that is coherent

Shortcomings:

1) Unable to properly simulate full walking experience due to the amount loose paper around
2) Limits the amount of media and accessibility (e.g taking a photo)

Thank You!



Appendix

- Sketching Report (on Slides (here)
- Task Log/Critical Sessions (here)
- Consent Forms (here, pdf)
- Prototype Artifacts (here, here)
- User Testing Videos (here)