

UNREEL

GR 19 - Low Fidelity Prototype



Project Name: UnReel

Team 19:

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Problem/Solution Overview:

Many young adults want to reduce their social media usage, but existing screen-time tools feel isolating and easy to ignore. There is little social accountability built into current solutions. Unreel transforms screen-time reduction into a shared, competitive experience by allowing friends to set goals, create challenges, and track progress together.

One-line value proposition:

“Let friends hold you more accountable to achieve collective reduction of social media usage.”

Outline of Slide Deck

1. Sketching Solutions
2. Selected Interface + Rationale
3. Low Fi Prototype
4. Task Flows
5. User Tests
6. Results and Discussion
7. Insights
8. Appendix

Sketching Solutions

Designing Realizations of App

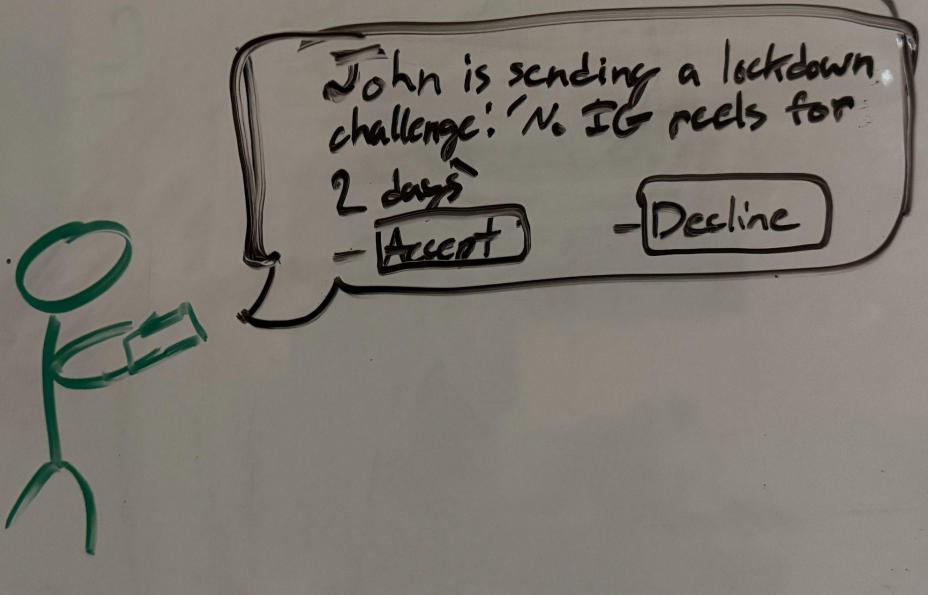
Sketching Explorations

Initial 10-15 brainstorming solution ideas:

1. Phone App
2. Smartwatch App
3. Bracelet
4. The Totem
5. The Phone Jail
6. The Chatbot App
7. Goals App
8. Money Pot App
9. The Launch Keys App
10. The Gray-Out

Top three concept sketches: Phone App, Smartwatch App, Chatbot App

Two chosen realizations: Phone App, Chatbot App

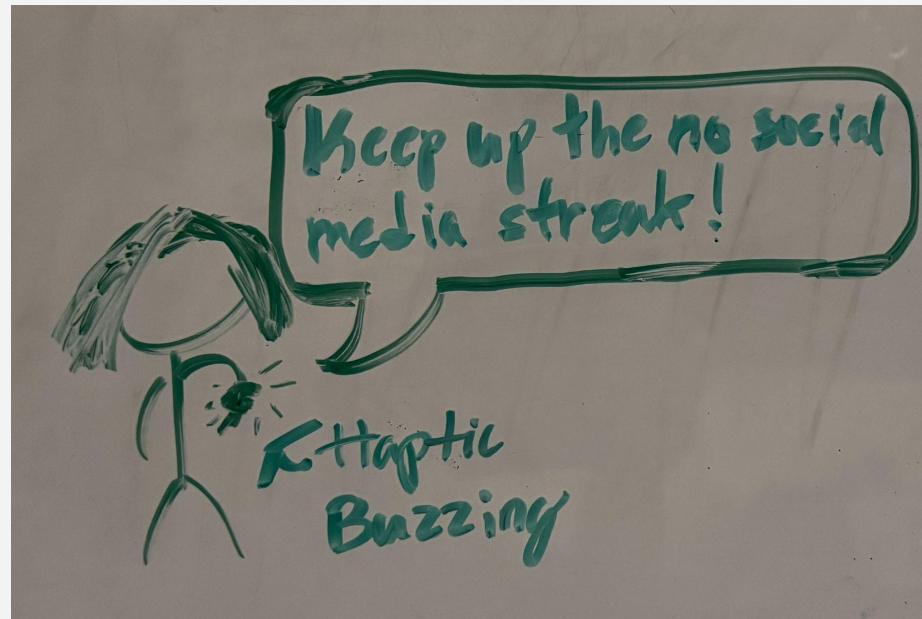


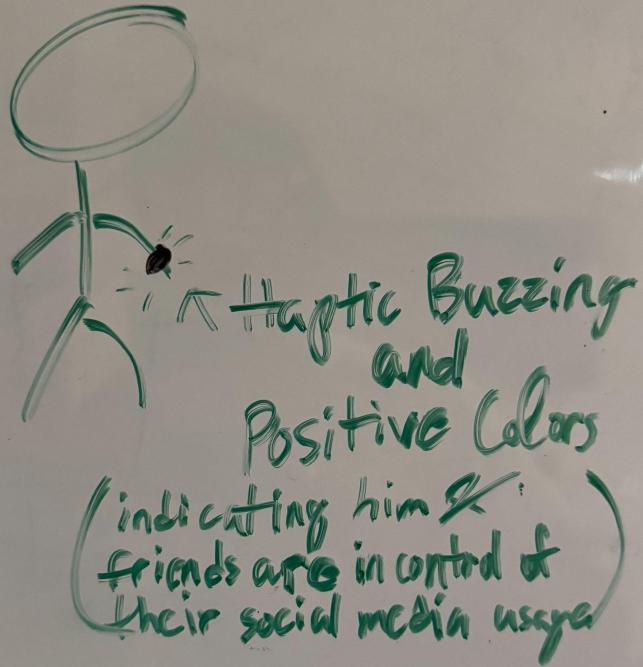
Phone App

Using a phone app to control social media limits, view progress of your friends, and set social media challenges (like group blocking of specific apps for a specific duration)

Using a smartwatch app to control social media limits, view progress of your friends, and set challenges, but also allow for haptic features like buzzing notifications to help track your progress and compare against your friends.

Smartwatch App



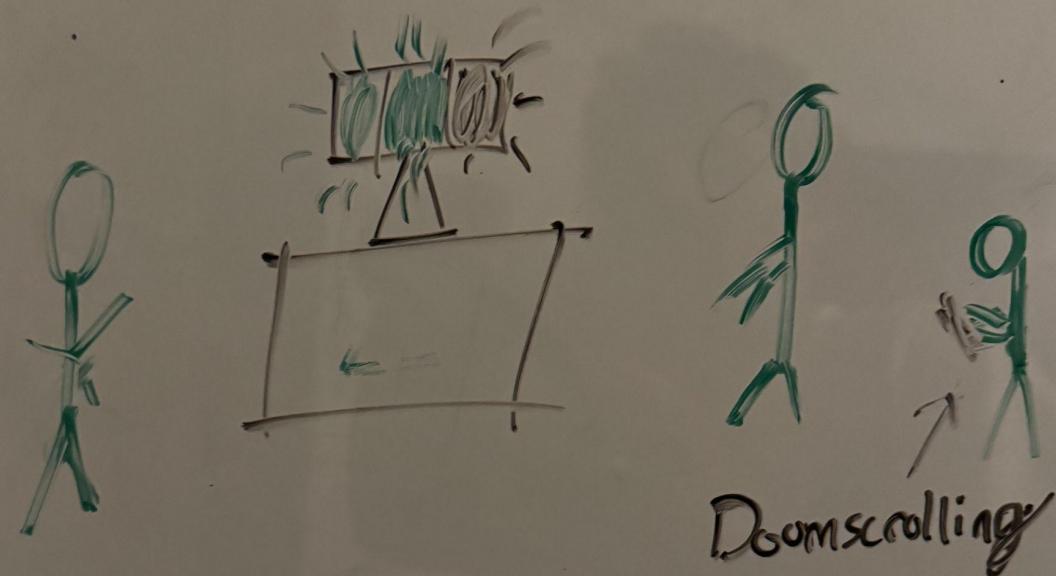


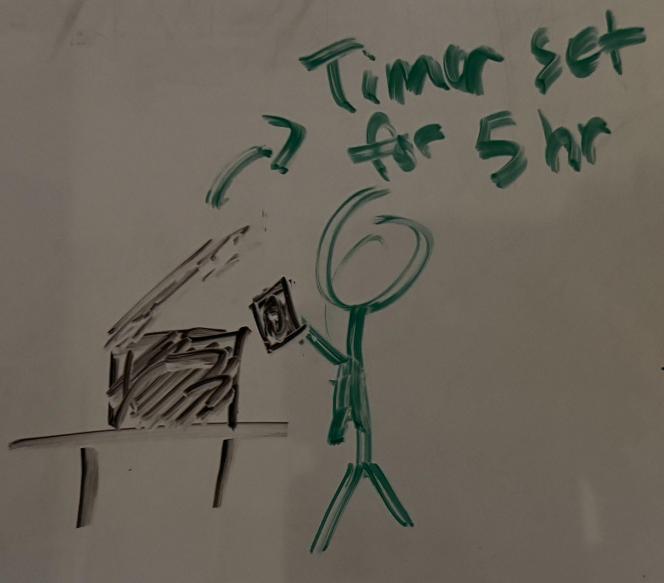
Bracelet

Similar to the smartwatch, but can customize colors for scrolling duration and quality (can be configured through a phone app).

A WiFi-connected lamp for your room. Glows green when you are within limits. And turns red if anyone in the group is doomscrolling (a specific bulb/section of the lamp for each person), making their actions physically visible to everyone in the room.

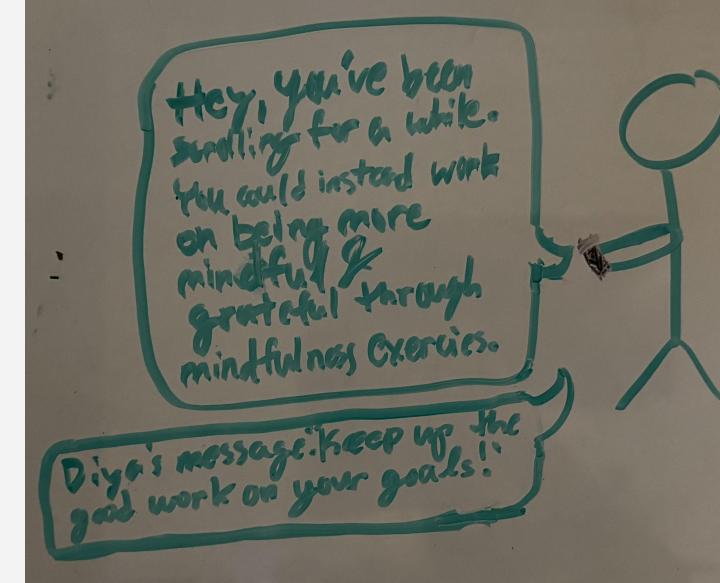
The Totem





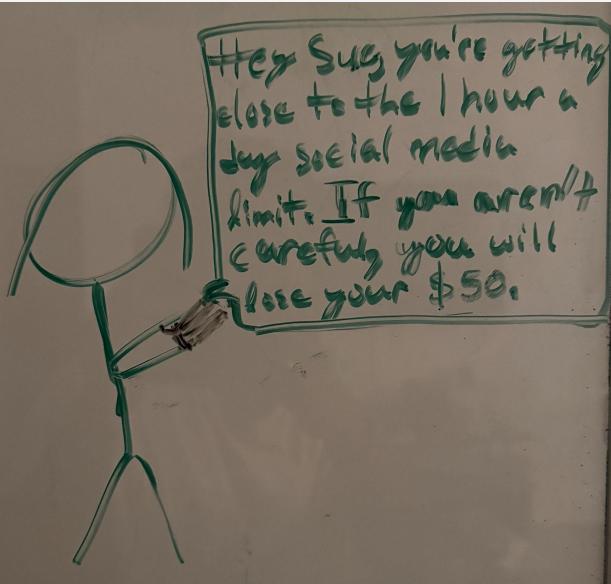
Phone Jail

A physical box connected to your friend group. You put your phone in. It physically locks and will not open until the group's agreed lockdown timer expires.



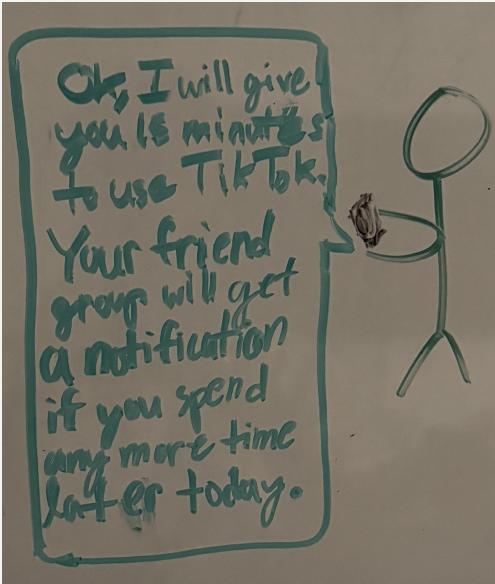
Goals App

Input your goals and features like how long you want to use social media before getting reminded. The app monitors your activity and uses AI to make suggestions about tasks you can do to work on your goals instead of scrolling. Friends can also monitor your progress and provide support.



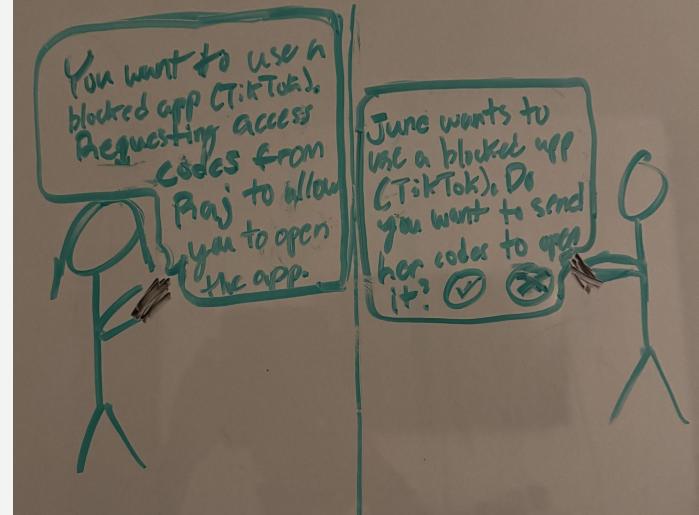
Money Pot App

Participants pledge money into a digital pot to agree to usage limit. Users that stay within limits keep money, else their money is forfeited to player with least screen time



Chatbot App

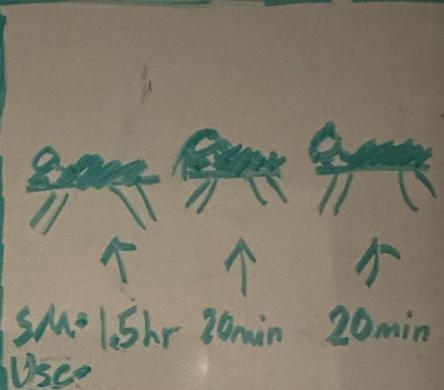
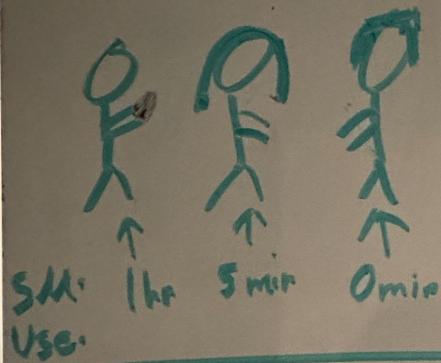
Use a chatbot to block select apps and convince it to use an app you want. Friends get alerted to any sense of 'gaming the system' and take temporary control over your social media access.



Launch Keys App

To open a banned app like TikTok past your limit, you must request a "key" from a friend in the group. They'll receive a notification and must approve it to grant you temporary access.

Daily collective screen time: 2 hr



Time of Day: 11am

Notes: Since 1 person in the group has already started scrolling for $\frac{1}{2}$ the daily limit, everyone's social media screens have begun shifting to grayscale.

Time of Day: 11pm

Notes: Since the limit has been hit, the social media app screens have turned black-and-white. Since there is less attraction to greyscaled social media, the overall social media of the group reaches the set daily limit.

Gray-Out

A group-synced display setting. As the group's collective screen time increases, everyone's screen saturation gradually decreases. By the time the group hits their collective limit, everyone is viewing their phones in black-and-white. The goal is to make a less pleasant experience on social media for the whole friend group if one person doomsscrolls.

Concept Sketch: Phone App

Concept Sketch 1:

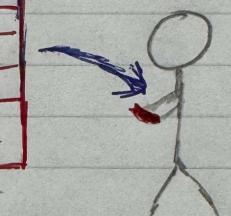
Josh is sending a challenge: "No IG for 1 day". Accept or Decline?



User can accept or decline challenges from people in their friend group.

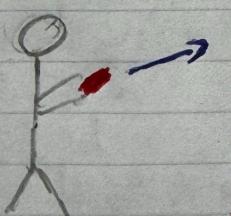
Concept Sketch 2:

User can create new goals for themselves & add features (related apps, strictness, etc) to allow for customization of the goal.



Edit Goal
Name _____
Time _____
Strictness _____
Apps: _____

Concept Sketch 3:



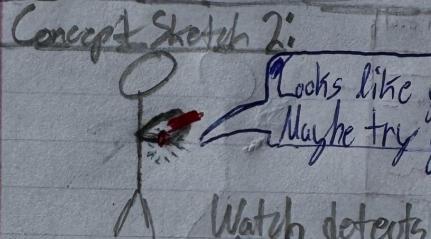
← Edit challenge
Name _____
Details _____
People _____
Public
Leaderboard: Private

Users can use personal goals to create group challenges. They can add any of friends to the group challenge, along with other related features.

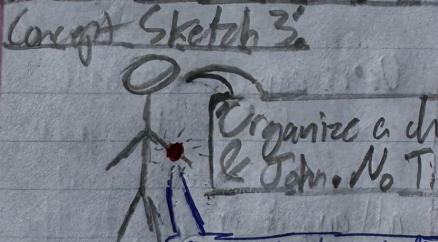
Concept Sketch: Smartwatch App



Watch app givesaptic notifications along with visible notifications about user's reduction in social media usage.



Watch detects excessive scrolling and either sends a general check-in message or alerts a friend to check in with the user.



"Done. Sent a challenge request to him."

User uses watch to send a challenge to his friend via a voice command which the watch processes and confirms with the user.

Concept Sketch: Chatbot App

Concept Sketch 1:



I want to use TikTok for 30 mins to relax.

That seems like too much. How about 15 min?

User

Chatbot

User tries to open a 'blocked' app (defined in app settings by the user) & has to interact with a chatbot and convince it to open the app for a set time.

Concept Sketch 2:



You've been taking too many 'breaks' on TikTok & seem to be gaming the system. If this continues, your trust score will temporarily go down & you'll need permission from friends to continue using the app.

Chatbot recognizes potential ways to 'game' the system and threatens to inform friends while also temporarily locking them out.

Concept Sketch 3:

User gets temporarily blocked after 'gaming' the chatbot, so their friends have to unlock the app for the user.

I need to check Instagram for messages.

Your trust score is too low. Try asking June.

User

Chatbot

Sketching Explorations (cont.)

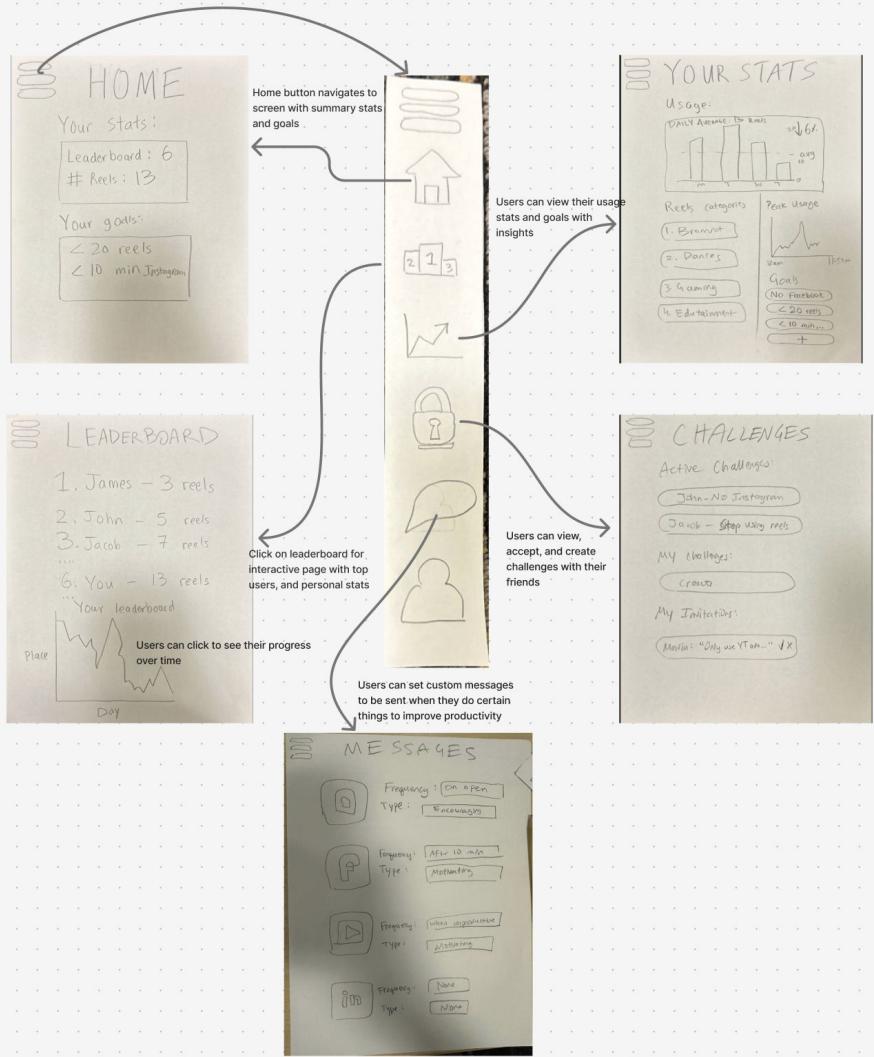
Our chosen two realizations: Phone App and Chatbot App

Why?

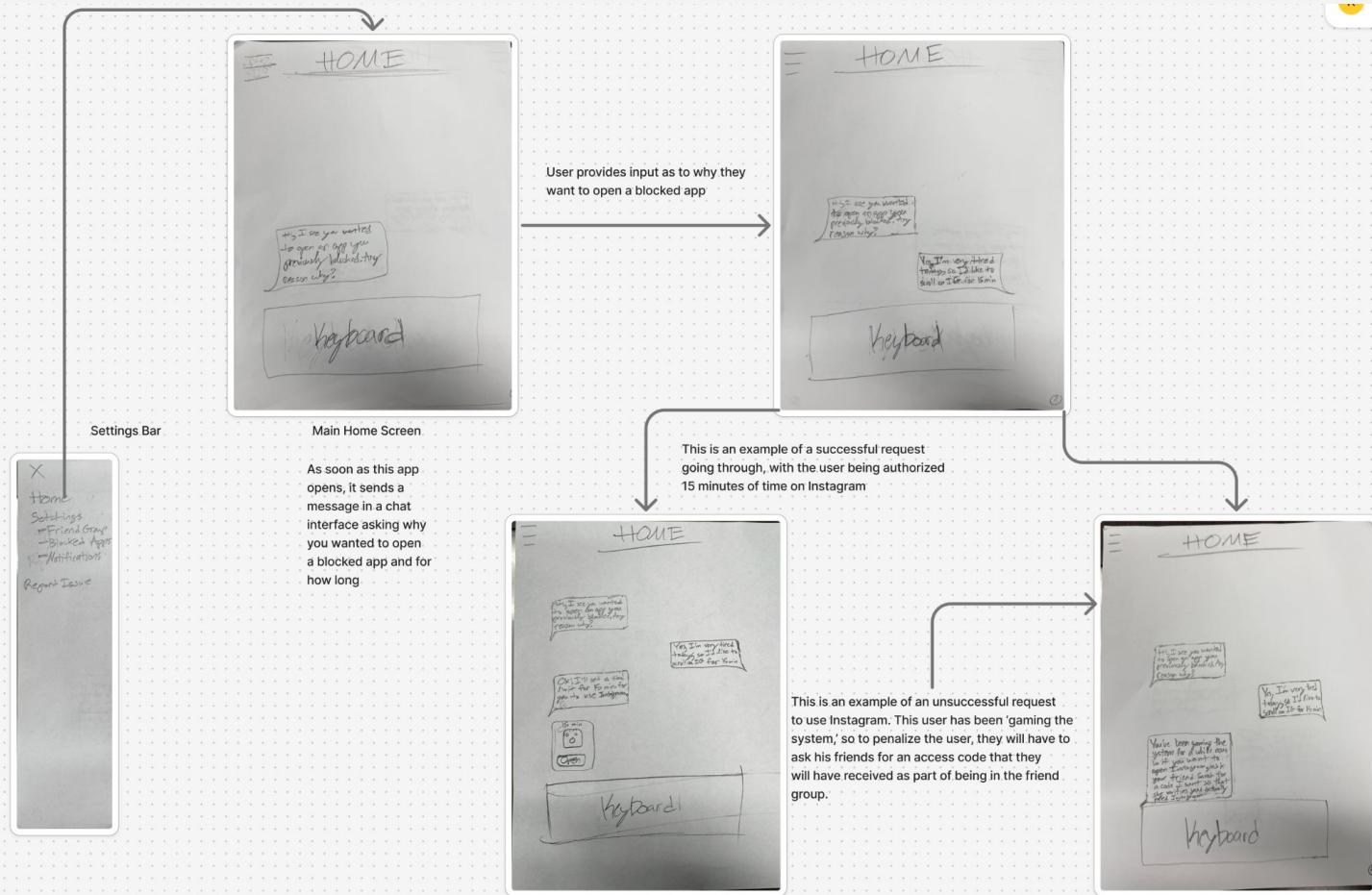
- Our main problem we're trying to solve is inherently tied to social media, so having any other physical device will make it easy to turn off or remove
- Our value proposition is inherently tied to having friends have a strong role in helping manage each of their social media habits, so making sure friends have a strong role and not just remain a feature is a big part of our chosen idea.

The phone app and chatbot app are the two best ideas that address our issue we want to solve while staying true to our value proposition.

Key Screen Sketch: Phone App



Key Screen Sketch: Chatbot App



Selecting an Interface

How do we want to present our app?

Comparison of the top two realizations

Phone App

Pros

- A dashboard shows group status at a glance without needing to ask.
- Hard blocks = no cheating

Cons

- App becomes useless if friends aren't consistent in updating
- Easy to fake stats by keeping an 'allowed' app open

Chatbot App

Pros

- Explaining why you need an app forces mindfulness and stops doom scrolling
- The AI can judge context better than a rigid timer

Cons

- Bypassable with select phrases
- Requires deep monitoring of screen activity to detect if the user is lying.

Evidence that shaped our decision

Data from previous tested experience prototypes (GR2)

Experience prototype 1: Make a finite feed on Instagram that requires physical action to reset

- Result: Participant did push ups until physical exhaustion, not behavioral change
- Insight: Stopped due to inability, not desire to reduce usage.

Experience prototype 2: Compare the social media usage of friends to gamify its reduction

- Result: 2/3 participants reduced usage. Participant A's usage reduced by 78%, B by 43%
- Insight: Competitive nature encouraged participants to decrease usage.

Experience prototype 3: Allocate screentime to users based on offline activities they do

- Result: Participants completed tasks but only when they were convenient
- Insight: Unreliable for behavior change due to external conditions (being in public).

Finding: Out of the three prototypes, prototype 2 is the most effective and shows that social competition is the most effective intervention. The phone app provides the best design that matches prototype 2, while the chatbot cannot deliver the same effect.

Design Decision: Phone App

Why we chose the Phone App

1. Accessibility
 - Everyone already has a phone
 - Easy adoption through word of mouth and social media
2. Social Accountability
 - GR2 showed that competition among friends reduces social media usage
 - Aligns with our value proposition the closest
3. Rich feature set
 - Leaderboards, personalized goals, group challenges, visual stats, and trends (both individual trends and group trends)
4. Easy to Use
 - Few taps to see progress (vs texting a chatbot)

Low Fi Prototype

Creating a rudimentary workflow

Building a Low Fi Prototype

Construction

- Materials: paper, pencils, whiteboard
- Designed flows on whiteboard
- Individual screens drawn on standard paper
- Cut-out widgets used for pop-up overlays

Design Choices

- Screens sized larger than a real phone to support clear interaction during testing
- One menu used for navigation to allow for centralized control

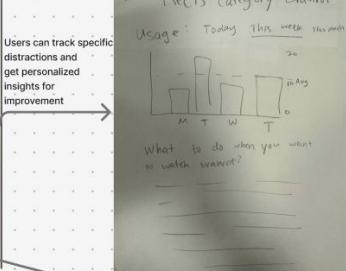
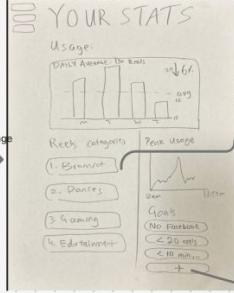
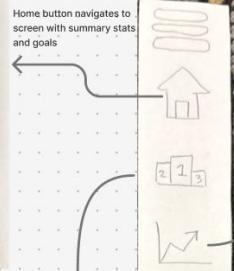
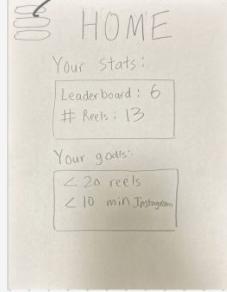
Building a Low Fi Prototype

Features + Pages

- Home screen (landing page)
- Pages for Stats, Leaderboard, Challenges, and Messages (key features)
- Separate pages for creating/editing goals and challenges (for tasks)
- Pop up widgets for editing name and friends (for tasks)
- Central menu (for navigation)

Operation

- One team member acted as the “computer,” manually swapping screens
- Facilitator guided the session and prompted participant to think aloud
- Observer recorded time and critical observations



← EDIT GOAL

NAME:

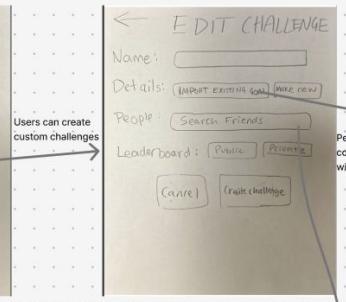
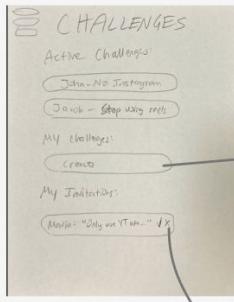
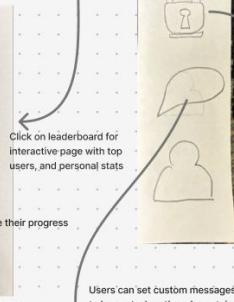
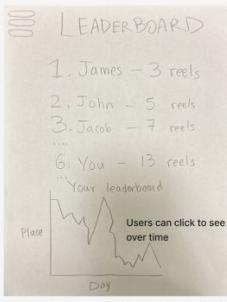
TIME: minutes

STRICTNESS: EASY MEDIUM HARDD

APPS: Instagram Facebook Twitter

MESSAGES: (NONE) (1HR) +

CANCEL ADD GOAL



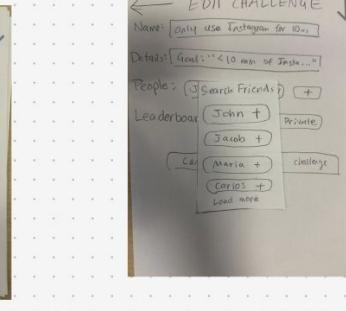
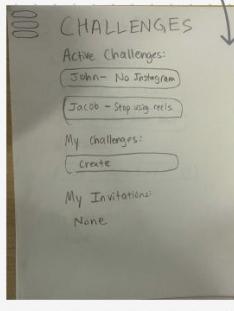
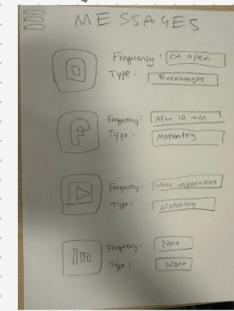
← EDIT CHALLENGE

Name: Only use Instagram for 10 mins

Details: Goal: ≤ 10 mins of Instagram

People: Search Friends +

Leaderboard: John + Private
 Jacob + Challenge
 Carl + Challenge
 Maria + Challenge
 Carlos + Load more



Task Flows

Designing key tasks in our app

Simple: Accepting/Declining Challenges

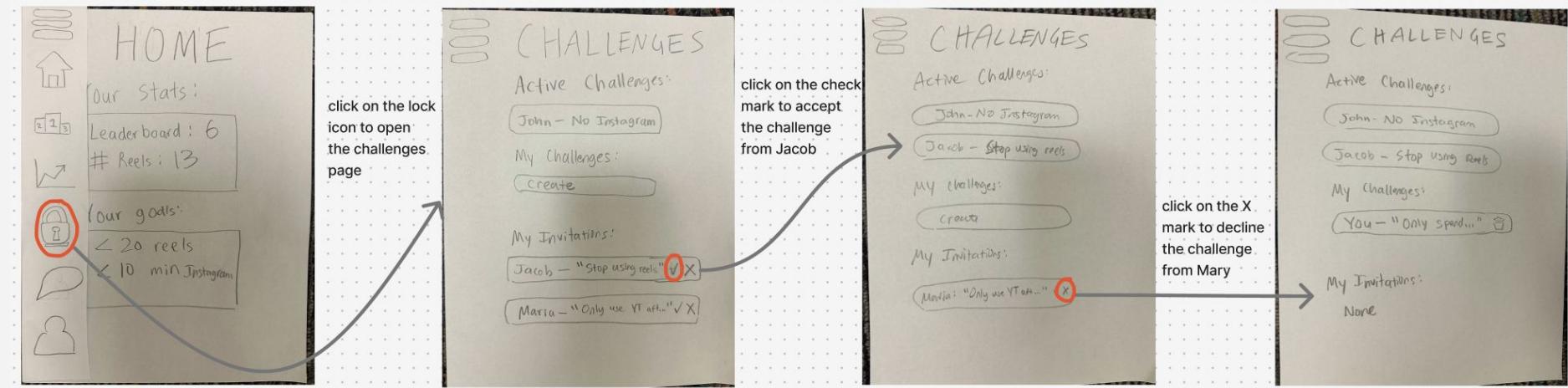
Procedure

1. Navigate to the challenges screen
2. Accept the challenge from Jacob
3. Reject the challenge from Maria

Rationale

This task is fundamental to achieving the goal of reducing social media usage – challenges keep users accountable. It is simple because it leverages intuitive UI elements and is comparable to similar tasks on other platforms.

Simple: Accepting/Declining Challenges



Moderate: Creating a new goal

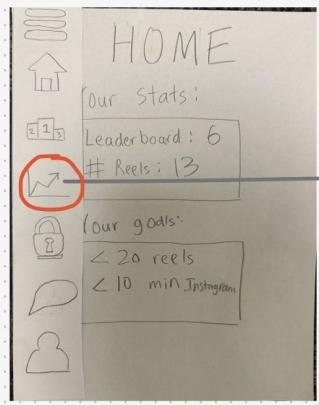
Procedure

1. Navigate to the Stats page
2. Find the Goals section and add a goal
3. Set the name to be “No Facebook”
4. Set the time, app, and types of messages
5. Add the goal
6. Navigate back to the Stats page to ensure the goal shows up

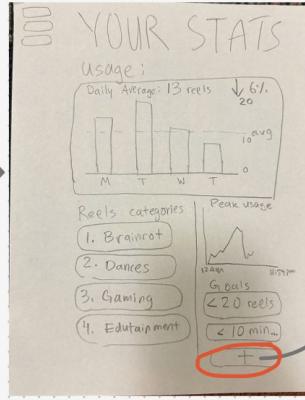
Rationale

Users can reduce social media usage through setting their own usage goals and getting personalized help. There is some customization required, which makes this more complex.

Moderate: Creating a new goal



Select the stats icon to open the page



click the plus icon to open the goal editing menu

← EDIT GOAL

NAME:

TIME: weeks/month/yr

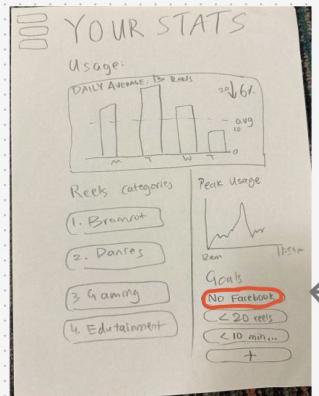
STRICTNESS: EASY MEDIUM HARD

APPS: Instagram Pinterest YouTube

MESSAGES: NONE DAILY

CANCEL ADD GOAL

edit the name using the keyboard



hit the back button after saving to ensure the goal is added

← EDIT GOAL

NAME: NO Facebook

TIME: weeks/month/yr

STRICTNESS: EASY MEDIUM HARD

APPS: Instagram Pinterest YouTube

MESSAGES: NONE DAILY

Keyboard

add in the time, strictness, apps, and messages information

← EDIT GOAL

NAME: NO Facebook

TIME: weeks/month/yr

STRICTNESS: EASY MEDIUM HARD

APPS: Instagram Pinterest YouTube

MESSAGES: NONE DAILY

Keyboard

Difficult: Create a custom challenge from a goal

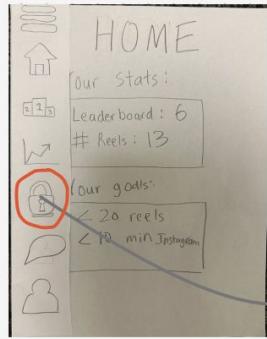
Procedure (given to participants)

1. Navigate to the Challenges page.
2. Create a new challenge.
3. Name the challenge.
4. Model the challenge after an existing goal from the dropdown.
5. Add 2 friends to the challenge - John and Jacob.
6. Set the leaderboard to public and create the challenge.

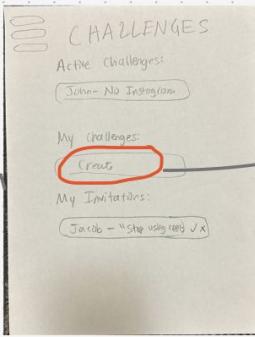
Rationale

Group challenges rooted in personal goals are essential to reducing usage. Configuring a custom challenge and adding friends adds complexity.

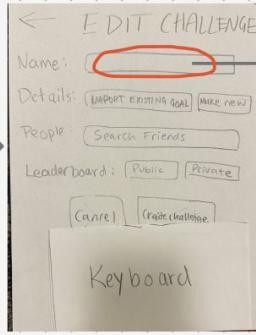
Difficult: Create a custom challenge from a ~~~1



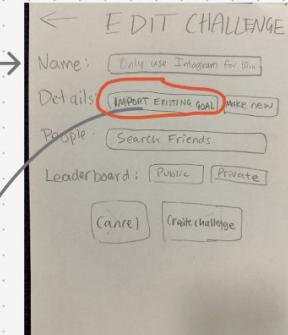
Choose a visibility mode
Create the challenge



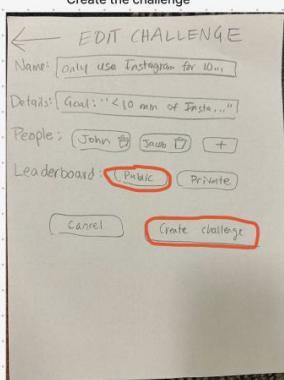
Create a new challenge



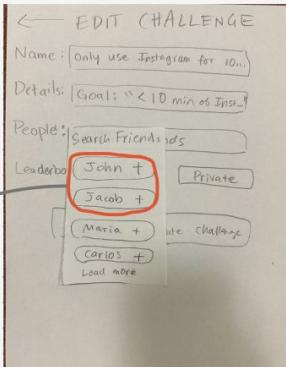
Add the name



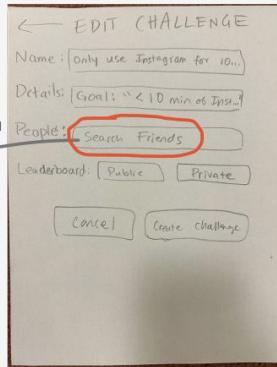
Click "import existing goal" to choose from a pre-existing goal for the challenge structure



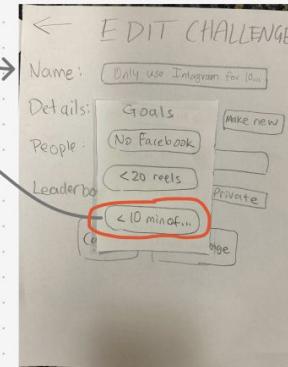
Tap the + next to each name to add the friend to the challenge.



Find friends to add



Choose a goal



User Tests

Testing out key features of our app

Participants

Participants

Red (18) - Student, SBCC

Blue (18) - Student, UCSB

Green (22) - Software Engineer, Santa Barbara

Recruitment + Compensation

- All report 1+ hours/day of social media use
- Recruited on campus / Downtown SB
- No compensation for participants
- Testing lasted 30-45 minutes for each user

Rationale

All participants fall within our target user base:
individuals who want to reduce screen time and
have a strong social network of friends with the
same goal.

Environment and Apparatus

Environment

We conducted user testing in public settings:
Library, dining hall, outdoor seating area

We tested in the same environment participants
were recruited to reduce pressure on them

Apparatus

Paper prototypes (all pages)
Pop up widgets (paper)
Sheet protectors
Iphone timer for recording time
Notebooks for logging information

Test: Red

Location: Library

Test: Blue

Location: Dining Hall

Test: Green

Location: Office

Procedure

Before the tests

We wrote a standardized testing script
Practiced what we would do before sessions
Defined usability goals and key metrics to track
Tested internally to ensure we could support
scrolling, pop-ups, and dropdowns

Procedure

Introduced project to the users with rationale
Brief demo of interaction mechanics (tap, scroll,
how to transition b/w screens)
Assigned tasks, one at a time
Asked them to think aloud and interact only with
dedicated person
Logged time per task, misclicks, hesitations,
quotes (for our key metrics)
Collected their final thoughts and ratings of
difficulties and usage in the future

Team Member Roles

Facilitator: Karthik

1. Explained purpose of study
2. Obtained signed consent
3. Demonstrated how tapping, scrolling, and pop-ups would be simulated
4. Instructed participants to think aloud
5. Read task scenario
6. Allowed participant to navigate independently
7. Recorded: time to complete, misclicks, clarification questions

Notetaker: Pranav

1. Track misclicks
2. Note critical incidents
3. Note feedback from participants

Computer: Wilson

1. Replace phone screens as buttons are pressed

Usability Goals + Key Metrics

Usability Goal 1 - Efficient

Users should be able to complete tasks with minimal friction

- We want to make sure the leaderboard, stats and challenges in the app are not hidden and the smaller widgets to complete tasks are not too hard to access
- Measure: time to complete tasks, hesitation, number of misclicks/task
- Key metric: average task completion time per task type

We want: 20 s, 45 s, 90 s completion time for the tasks respective, and about 2 misclicks per task

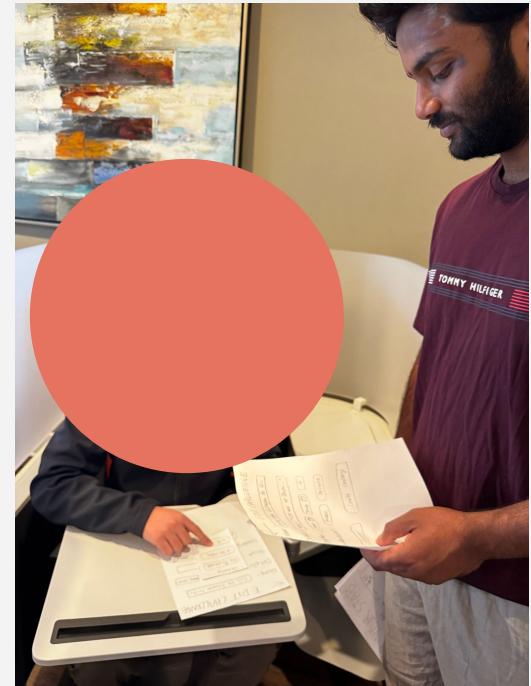
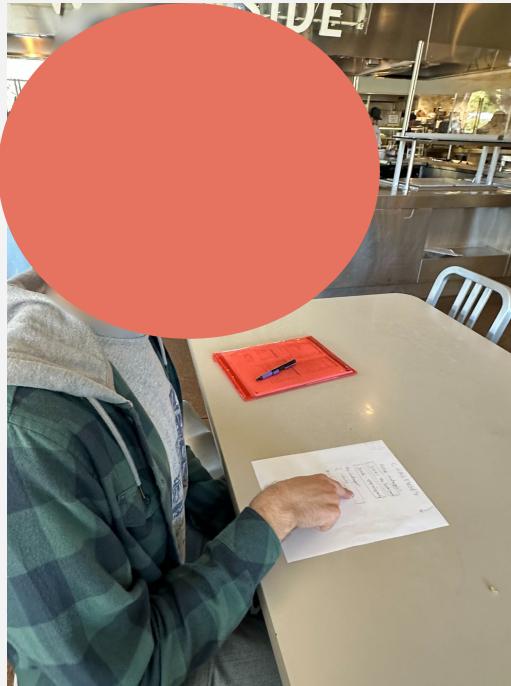
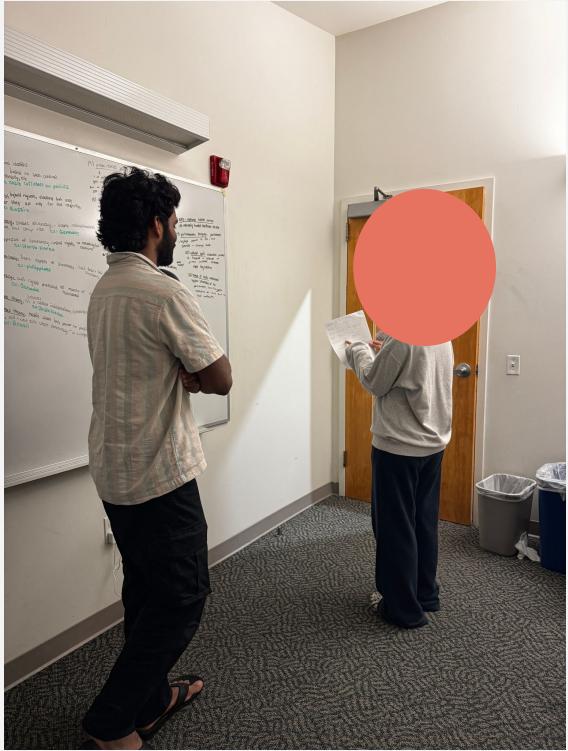
Usability Goal 2 - Learnable

Users should be able to understand the difference between Goals, Challenges, Stats, and other metrics easily.

- We want to make sure the different aspects of the app make sense in context and users understand how to use each part to complement the others
- Measure: navigation errors, verbal confusion, number of questions
- Key metric: rating for the feature/app, difficulty rating

We want: 1/5, 2.5/5, 4/5 ratings for the difficulty for each task and questions about differences between features to be minimal

Our User Interviews



Results & Discussion

Data - RED

Raw Data

Simple Task

Completed in 18 s

0 misclicks

Immediately understood  and  icons

Moderate Task

Completed in 1 min 12 s

Miscliked before finding “Stats” tab

Asked what we meant by “strictness”

Complex Task

Took 2 min 40 s

Attempted to add friends before selecting goal

Got confused between search and dropdown for editing challenge

Bottom Line Insights

Task completion: 3/3

Average Misclicks: 1

Self-reported difficulty:

Simple: 1/5

Moderate: 2/5

Difficult: 4/5

Likelihood to use app: 8/10

Critical Incidents

Confused about where the goals are located (Stats vs Challenges pages)

“This makes it feel competitive, I like it.”

Data - BLUE

Raw Data

Simple Task

Completed in 14 s
0 misclicks

Moderate Task

Completed in 58 s
Immediately found the “+” icon on the page
Did not click “Save” after making goal and
had to restart

Complex Task

Took 1 min 5 s
Tried to select template first before naming
challenge
Did not understand how the search bar
worked (clicking the + icon next to friends)

Bottom Line Insights

Task completion: 3/3

Average Miscalcks: 0

Self-reported difficulty:

Simple: 1/5

Moderate: 2/5

Difficult: 3.5/5

Likelihood to use app: 7/10

Critical Incidents

Expected the list of friends to be automatic, along
with other menus to populate based on past data,
not to be as customizable from the user

“This is kinda how my fantasy football app works”

Data - GREEN

Raw Data

Simple Task

Completed in 22 s

Initially scanned the entire screen to look for challenges before clicking on the menu

Moderate Task

Completed in 1 min 29 s

Looked at graph before adding goal

Did not understand how the message feature worked

Complex Task

Took 3 min 20 s

Looked for “Import Goal” in Stats first

Confused about the difference between public and private leaderboard

Bottom Line Insights

Task completion: 3/3

Average Miscalcks: 2

Self-reported difficulty:

Simple: 2/5

Moderate: 3/5

Difficult: 4/5

Likelihood to use app: 6/10

Critical Incidents

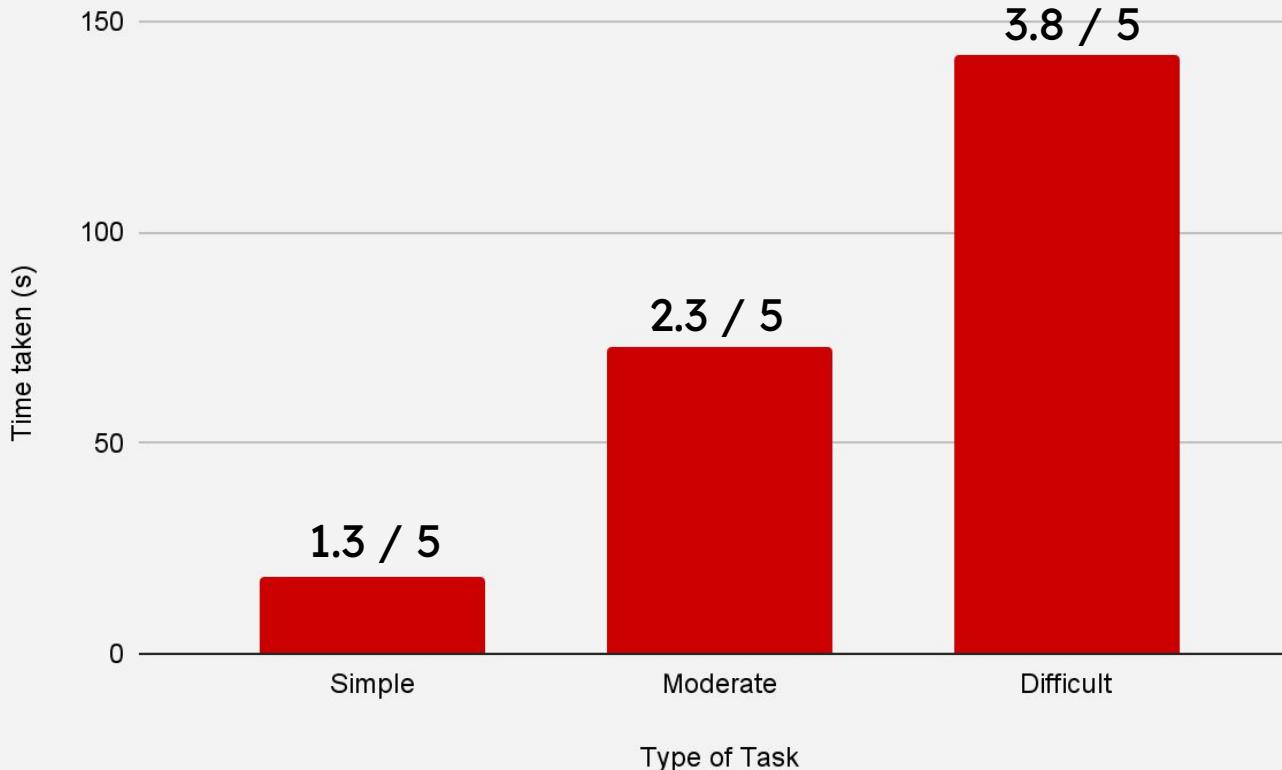
Expected confirmation screen after challenge was created instead of just the updated challenges page

“What do these trends do? Are they for the goals?”

Insights

What did our user tests tell us?

Average time taken to complete tasks +



Scores represent the average difficulty of each task, as given by the users

Insights - synthesis of data

Tasks

Simple Task

The simple task is intuitive and does not require much new thinking across all of the participants

Moderate Task

The moderate task is doable but the terminology needs to be clearer and the navigation can be smoother. The icon for stats might need to be changed for clarity.

Complex

The connection between goals and challenges should be clearer. Adding friends should be easier and could be automated based on past habits.

What does this mean?

Design changes

Move “Create challenge” button to the top
Add helper text for the flow of creating challenges
Add confirmation screens after creating goals/challenges
Rename stats / change the icon to reduce ambiguity
Visually separate the Goals and Group Challenges and explain how they are connected
Replace “strictness” with more positive framing

Limitations of Testing

We had a small sample size (3 users)
Testing environment (outdoors / public) may affect their focus.
This was tested in the context of 1 user, but the app relies on multiple user-interactions

Progress towards our goals

Goal 1 - Efficiency

Data

3/3 participants completed all tasks independently

Simple task completed quickly by all users

Moderate task required minor hesitation but no intervention

Complex task completed successfully, but with some pauses and confusion

Average misclick count was low (1)

No user required direct instruction to finish tasks

Insight

Our core tasks are functional, but more complex task flows need simplification, both with UI redesign and flow, to reduce confusion

Goal 2 - Learnability

Data

All users understood basic navigation structure
2/3 users initially confused personal goals vs. group challenges

Leaderboard was intuitive and immediately understood

Stats page required explanation for 1 participant

Usability ratings were moderately accurate

Users expressed interest in competitive aspect

Insight

The overall mental model of the app is forming correctly, and participants can see how the tasks lead to the goal, but terminology and flow need refinement for clarity.

Appendix

Metrics and Data

Pros and Cons of the Top 2 Realizations

Phone App

Pros	Cons
Instant Visibility: A dashboard shows group status at a glance without needing to ask.	Easier to Ignore: Visual dashboards can become 'wallpaper' and fade into the background.
Hard Commitment: 'Group Block' features are binary and fair (no negotiating, just rules).	Rigid Constraints: A hard block can cause resentment if a user has a genuine need.
Few Steps: Tapping a button to sync status takes 1 second, making it easier to build a daily habit.	'Cheater' Problem: Users can fake stats by keeping their phone open on an 'allowed' app.
Scalable Features: Easier to build motivating loops like leaderboards, streaks, and history graphs.	Network Effect: App becomes useless if friends stop updating their status.

Chatbot App

Pros	Cons
High Accountability: Explaining why you need an app forces mindfulness and stops doom scrolling.	'Gaming' the System: Users may use phrases that make the AI unlock apps every time.
Dynamic & Adaptive: The AI can judge context better than a rigid timer.	High Frustration: Having to argue with a bot just to check a quick message can be infuriating.
Social Shame: Lying to the bot mimics the feeling of breaking a promise to a friend.	Privacy Concerns: Requires deep monitoring of screen activity to detect if the user is lying.
Novelty: Negotiating with an AI feels like a game, keeping users engaged longer than a static tool.	Texting Fatigue: Adding another text conversation to the day can feel like work rather than help.

Script for Tests

INTRO: We are testing a prototype for a class project focused on reducing social media usage through social accountability. This is a test of our design. There are no right or wrong answers. We would like you to think aloud as you navigate. Please say what you're looking at, what you're trying to do, and anything that feels confusing. We may take notes and time certain actions. This session will take about 30-45 minutes.

ASK: Do you use social media regularly?
Approximately how many hours per day?

[show paper] This is a paper prototype. Tapping will be simulated by touching the screen. Pop-ups and confirmations will be placed manually. We will not guide you through the tasks unless absolutely necessary.

ASK: difficulty and experience of each part after recording relevant data and key observations

SIMPLE: Imagine your friend invited you to join a social media reduction challenge. Your goal is to check your active challenges and accept one and decline one.

MODERATE: You want to reduce your Facebook usage this week to None. Please create a new personal goal limiting your usage.

COMPLEX: You want to create a group challenge with friends to reduce screen time together. Please create a new challenge to reduce Instagram usage using an existing Goal and add two friends to the challenge.

END:
What parts felt the most confusing?
How would you describe the difference between a goal and a challenge?
On a scale of 1-10, how likely would you be to use an app like this?

Critical Incidents

RED

Looked under Profile before finding “Stats”
Said: “Wait... where do my goals live again?”
Paused ~6 seconds before tapping Challenges
Tried to add friends before selecting challenge template
Missed “Create Challenge” button initially (looked top-right)
Asked: “What does strictness actually mean?”
Interpreted strictness as punishment rather than enforcement
Confused personal goal vs group challenge hierarchy
Expected leaderboard to update immediately after accepting challenge
Looked for confirmation popup after challenge creation
Asked: “Is this public or just my friends?”
Said: “This makes it competitive, which I like.”

BLUE

Immediately tapped leaderboard first
Did not press “Save” after editing goal (assumed auto-save)
Missed friend search field on first attempt
Attempted to type challenge name before selecting template
Thought challenge automatically inherits goal rules
Expected friends list to auto-populate without search
Assumed accepting challenge activates a lock
Looked confused when no confirmation appeared
Asked: “Did it actually create it?”
Backtracked to check if challenge was saved
Said: “This feels like fantasy football for screen time.”
Expressed strong interest in ranking aspect

Critical Incidents

GREEN

Scanned full screen before interacting (10+ second delay)
Carefully inspected graph before adding goal
Looked for “Import Goal” under Stats instead of Challenges
Confused about difference between: Personal goals, Public + Private leaderboards
Asked: “What’s the difference between public and private here?”
Expected confirmation message after creating challenge
Asked: “Is there a success message?”
Looked for undo option after creating challenge
Asked how long-term trends are tracked
Wanted to know how real screen-time data integrates
Questioned how accurate leaderboard is

AGGREGATED DATA

3/3 users hesitated during complex task
2/3 users confused goal vs challenge distinction
3/3 expected stronger confirmation messages and interactions
2/3 expected autosaves
2/3 looked for “Create” button on top
1/3 misunderstood strictness feature

More Data from Interviews

User	Simple (s)	Moderate (s)	Difficult (s)	Avg Mispicks	Likelihood (1–10)
Red	18	72	160	1	8
Blue	14	58	65	0	7
Green	22	89	200	2	6

Thank You!