# Flashback

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Introduction

Through several interviews with individuals regarding their relationship with memory, our team determined a common problem: **in retrospect, people want more memories but don't remember to capture them in the moment.**

By brainstorming and iterating through possible solutions, we settled on Flashback, a **digital journal with timeboxed prompts to encourage authentic memory creation and sharing.** Ultimately, we felt the Flashback solution best aligned with our mission statement and provided the strongest value proposition, which is **an engaging way to store and review memories that matter.**
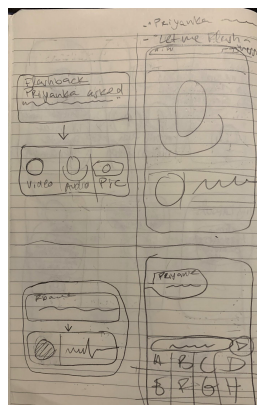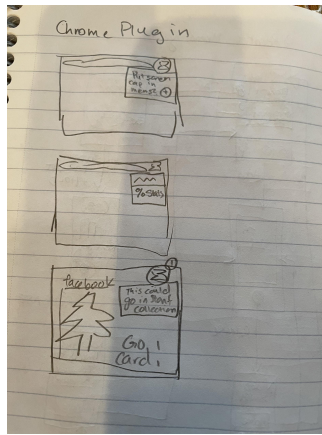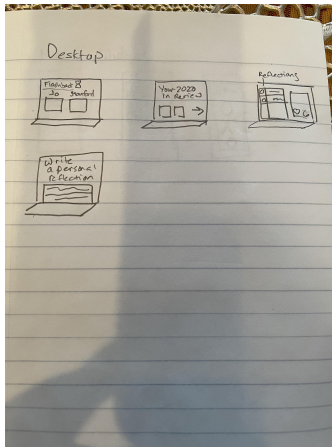
Sketches

Initial sketches

Mobile browser
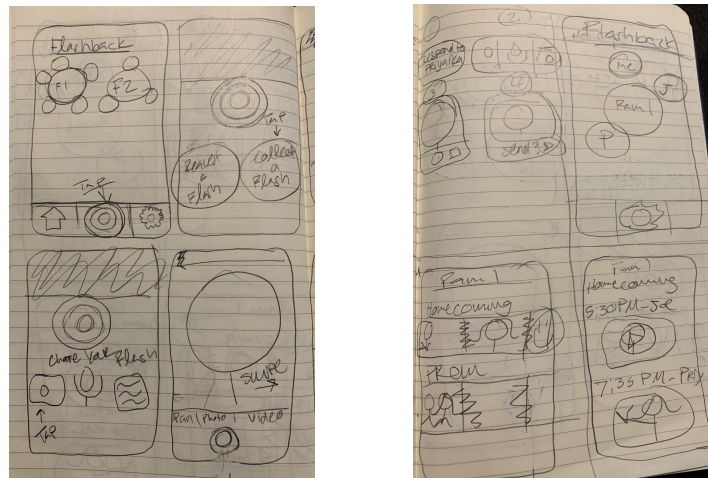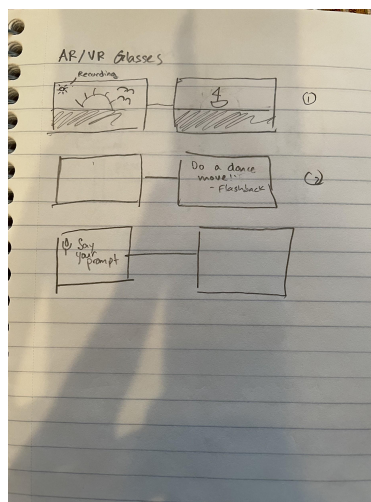

Audio only Device

Smart Watch
Chrome Extension

Naive Desktop app

AR/VR Glasses

Native Mobile App
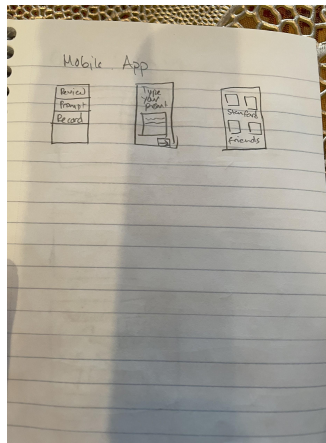
Top two designs storyboarded in more detail:

Ultimately, we decided on a mobile-first app. This is because of the larger market of smartphone users as compared to other digital devices and existing consumer behavior regarding memory collection and storage with their mobile phones (through social media, photo libraries, etc.).

Therefore, we then brainstormed a few more detailed storyboards with contrasting app flows for a mobile-first experience.

Storyboard 1
Mobile Flow where prompts are featured on the home screen.
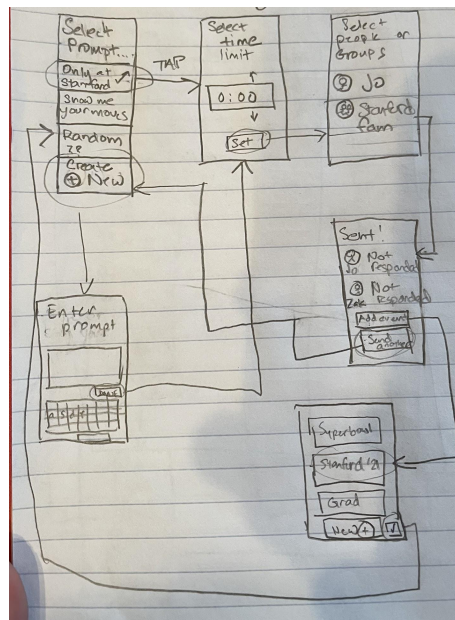
Storyboard 2
Two flows: one to view your old flashes through a highlight system and the other to interact with your groups.
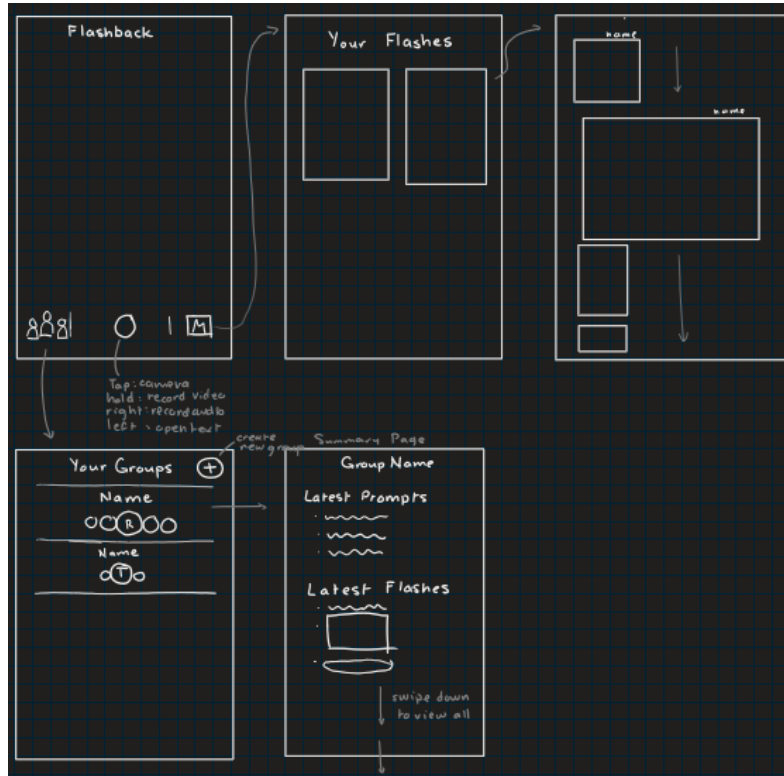
Solution 1

Pros	Cons
Simple, intuitive access to key tasks	Less focus on "group journal"
Simpler UI flow	More functional than elegant
	No easy way to interact with groups

Solution 2

Pros	Cons
Greater focus on social interactions	More complicated UI
More opportunities for "stickiness"	More involved paths to key tasks
Better access to your own memories	Less intuitive flow as well

Ultimately, given the range of pros and cons for each solution, we decided to take the best elements of both designs for our selected interface. This entailed creating a group-focused experience where users are encouraged to engage with their social circles as soon as they open the app. In order to accommodate the wide range of tasks critical to the effective usage of the app, we incorporated an updated toolbar along the bottom of the Flashback screen. With these two major design focuses, we were then able to refine the details into our final selected interface.
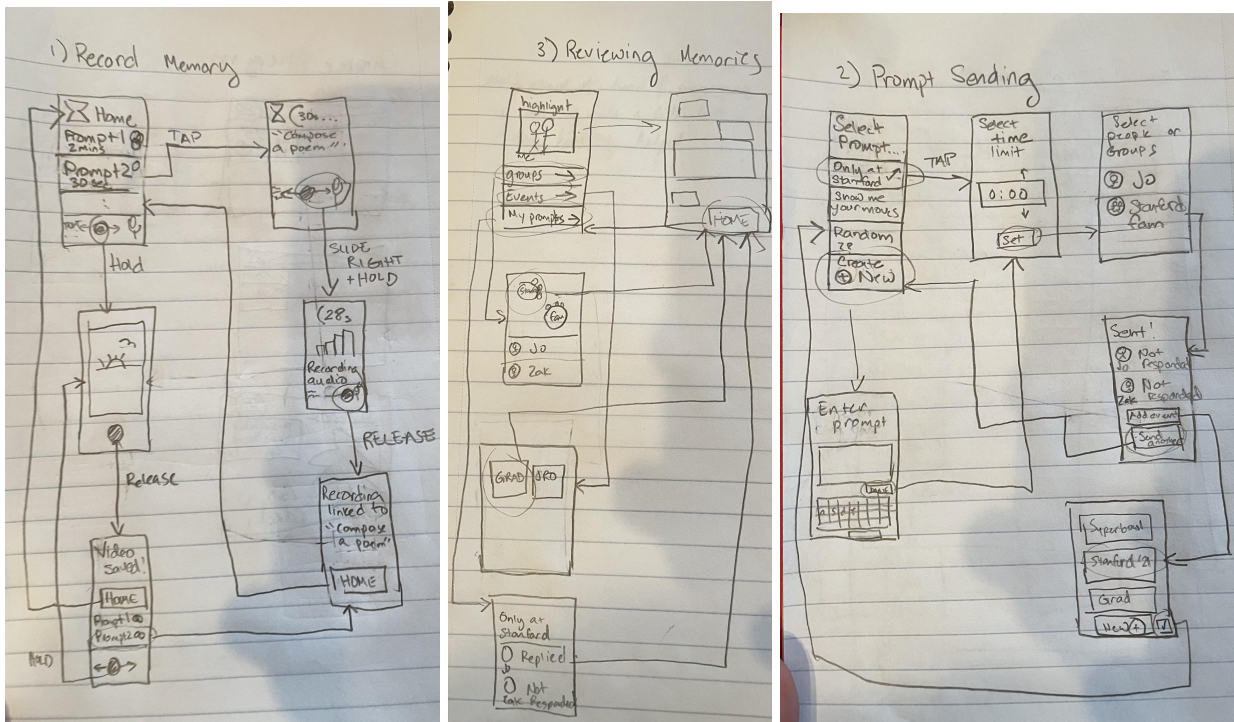
Prototype description & images

To make this app we had to make some modifications to the memory capture knob at the bottom of the screen due to the limitations of paper sketching. Additionally we opted for a few hard coded prompts as examples. We then illustrated the app on paper and used Marvel to test the app out with our participants

Task 2 - Encourage others to record memories that matter to you
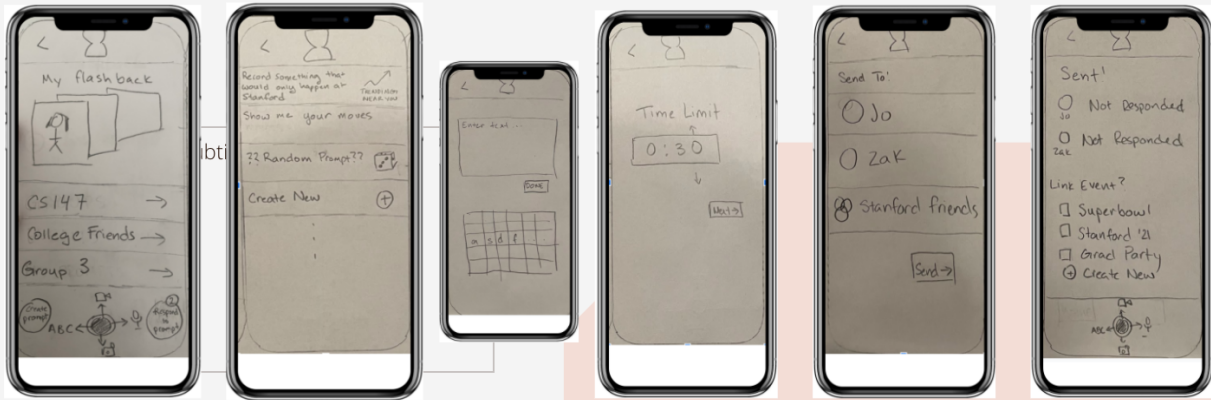
Task 3 - Engage with your flashbacks

Key Interface Element/Screen	Functionality
Groups-based home screen	Allow users to quickly filter through flashbacks by their key friend groups to provide a basic narrative structure to memory review
Record button	Enables quick choice of multimedia via a joystick-esque interface, allowing seamless access to recording a flash

Create prompt	Quick access to prompt creation to share with friends
Respond to prompt	Displays notifications for outstanding prompts
Group page	Sorts memories within the group by event
Time limit	Used to create a time constraint for prompt response for the prompt receiver

Testing Methodology

Participants
- We recruited 3 Gen Z/Millenial, tech-savvy participants between the ages of 19-26, which falls in line with our target demographic of 20-30 year olds. These individuals were recruited through friends.
- These interviews were conducted at home, with 2 interviews occurring in-person and 1 interview occurring remote via Zoom utilizing screen capture. The in-person interviews were conducted on mobile phones via the Marvel app to best simulate the true Flashback experience.

Tasks
- The three main tasks we hoped our participants could accomplish were the following:
    - Record an authentic memory
    - Encourage others to record memories that matter to you
    - Engage with your memories

Procedure
- Each interview ranged from 15-20 minutes. We provided participants with a basic overview of our app and then allowed them to explore it at their own pace. We recorded any strong reactions, especially those of confusion, or quotes, and then concluded by asking for their overall impressions and any specific details that may have stuck with them.

Test Measures
- Test measures were qualitative in nature, with recorded user reactions being the primary way in which we determined task flow ease. While we focused on the big picture, we took note of task completion success rate (Binary success/failure for each of our 3 task flows).
- Each team member rotated through each role (observer, facilitator, note taker).

- Computer was not needed since we used a digital tool (Marvel)

Results

- 2 testers requested notifications
- 2 testers called the app flow "confusing" or "unintuitive"
- 1 tester stated she was expecting "Apple" design practices
- 1 tester was confused by the concept of a "prompt" - she thought it was a reminder for herself, not something to be sent to others
- 1 tester never made it to the "respond to prompts" screen
- Finding out how to record a memory was quick for 2 testers
- 1 tester was very confused by the app flow. "This is the Oregon Trail, but for apps."
- 1 tester was confused by the need for a "time limit"

	Task 1 (Record a memory)	Task 2 (Prompt friend to record memories that matter)	Task 3 (Engage with memories)
P1	Success	Fail	Success
P2	Success	Success	Success
P3	Success	Fail	Success

Discussion

Key Takeaway: UI requires major simplification

Recommended UI Changes:
- Group threads need to be cleaner - wasn't a way to respond directly to the prompts from the "timeline"
- Consider adding a like/comment functionality for responses
- "Time Limit" -> "Time to Respond"
- Importance of Notifications - these need to be prioritized and designed with intention
- The homepage should be extremely simple - we plan to explore allowing ONLY prompt responses from the home screen and hiding other functionality

Overall, we realized we were trying to cram too many features into our UI. While we wanted to allow users to access all flows from the home screen, this paradigm might not be the best for our particular use case. Spontaneous memory capture is the most important feature of our app, so that needs to be more prominent, even if it comes at the expense of easy access to other workflows. The other tasks (sharing and engagement) can be deprioritized given the limited

screen real estate on mobile. Our next version may focus on just a single task, and we will evaluate overall success solely based on participants' ability to complete responses to prompts.

Unfortunately, our experiment did not reveal whether or not the user would respond to notifications to take a memory without entering the app, and it did not reveal what kinds of prompts people would be more likely to respond to well under a time limit. For example, is composing a poem too difficult to do in 30 seconds, and would people even put in an honest effort? We also were not able to determine if users would see this app as anything other than another version of Facebook Groups, partially due to the complex UI which might have distracted from the core functionality of the app. These are questions that we would want to explore in future studies.

Appendices

Additional sketches not used in final design

Appendix — Storyboard 1
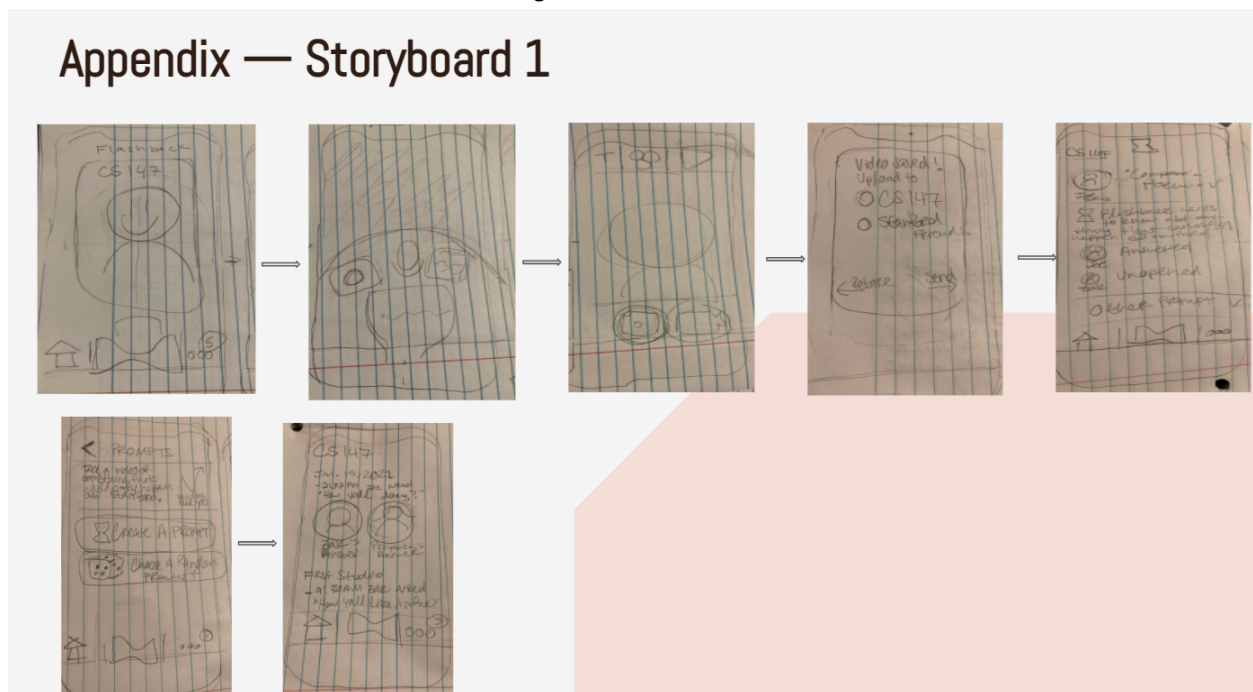
Consent form:
https://docs.google.com/forms/u/1/d/18MZWjdUunik21ZFUJ-hxCzPIutsvdwH6rJ4DJ7k-bx8/edit?usp=drive_web

CS147 Consent Form

Consent Form
This student team is interviewing and observing as part of the coursework for Computer Science course CS 147 at Stanford University. Participants provide data that is used to understand the possible opportunities of the design. Data may be collected by interview, observation and questionnaire.

Participation in this experiment is voluntary. Participants may withdraw themselves and their data at any time without fear of consequences. Concerns about the experiment may be discussed with the researchers or with Professor James Landay, the instructor of CS 147:

James A. Landay
CS Department
Stanford University
650-498-8215
landay at cs.stanford.edu

Participant anonymity will be maintained by the separate storage of names from data. Data will only be identified by participant number. No identifying information about the participants will be available to anyone except the student researchers and their supervisors/teaching staff.

I hereby acknowledge that I have been given an opportunity to ask questions about the nature of the research and my participation in it. I give my consent to have data collected on my behavior and opinions in relation to the CS147 Team's research. I also give permission for images or audio/video recordings of me being interviewed to be used in presentations or publications, as long as I am not personally identifiable in the images/video. I understand that I may withdraw my permission at any time.