

Concept Video Writeup

Our video: <https://www.youtube.com/watch?v=l5gaESd1drY>

1. Team Name/Value Proposition

unGuided: Place personal stories and local knowledge in the hands of visitors, presenting a uniquely rich custom tour experience created by many personalities in many places.

2. Team Members

Kevin Zhai - Manager / Design

Tyler Brown - Documentation

Sujeet Gholap - Development

Samuel Gonzalez Portilla - User Testing

3. Problem and Solution Overview

Tours—guided in person, with audio, or other forms of media—can be exceptionally immersive and informative in ways that a purely “self-guided” tour cannot match. In current form, however, they present a number of intrinsic problems. Guided tours are bound by a fixed schedule, which requires visitors to make rigid plans. In many cases, visitors ignore the benefits of a tour because waiting bores them or they feel it wastes time. Preplanned guided tours are also bound to a fixed path; while following this path, if an alternate artifact, building, or route catches a visitor’s interest, they often must suppress their curiosity or quit the tour altogether. Audio tours per se are more flexible, but are rarely available outside of museums and require dedicated and unfamiliar hardware that requires manual input. Museums regularly require visitors to hand over collateral (often a government ID, which can be an inconvenience) to rent an audio tour. The number of devices an institution has also limits the numbers of visitors who can simultaneously access the tour. Finally, the above tours are often highly scripted and provide a limited perspective on what they seek to describe. Our solution is to, through a mobile application, let visitors experience a tour when, where, and how they want created by a variety of sources. There is no starting point, no set path, and no required perspective. The user can arrive at his or her destination, and using a mobile device’s geolocation, hear and see unique, crowdsourced stories about the places they visit—built by anyone with knowledge and passion for a given space.

4. UI Sketches for Two Interface Designs

Idea 1 shows a smartphone interface (Figures 1a-1d) and Idea 2 shows a wearable augmented reality/Google Glass-like interface (Figures 2a-2d). See captions for details.

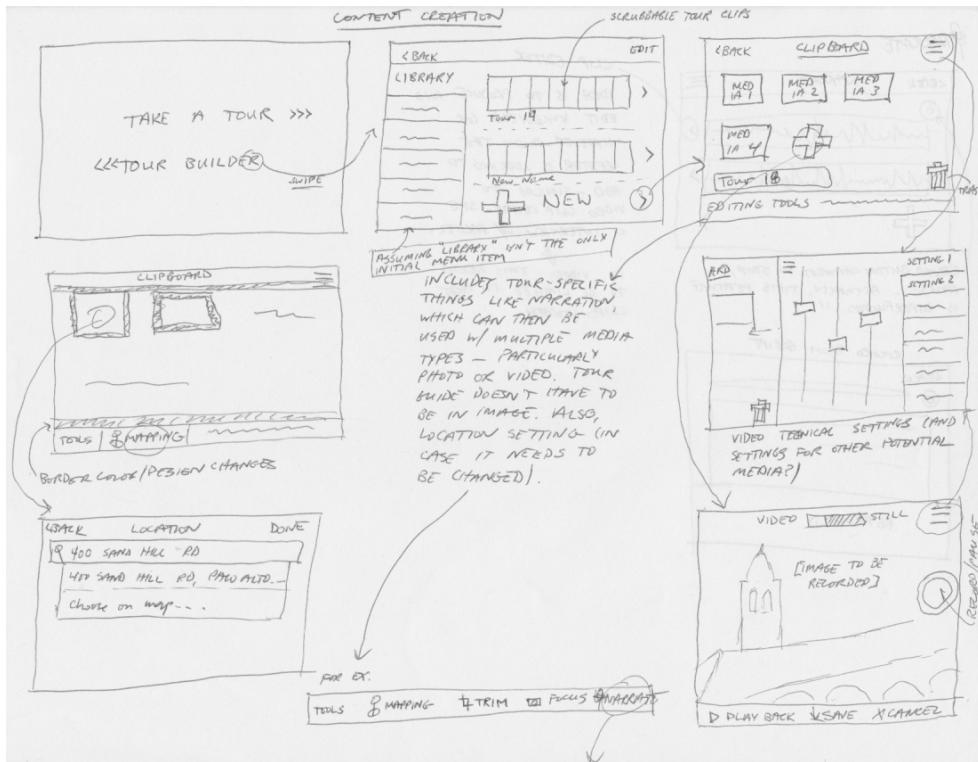


Figure 1a: Shows an implementation of the “creation” task, including clip management, recording, and technical settings.

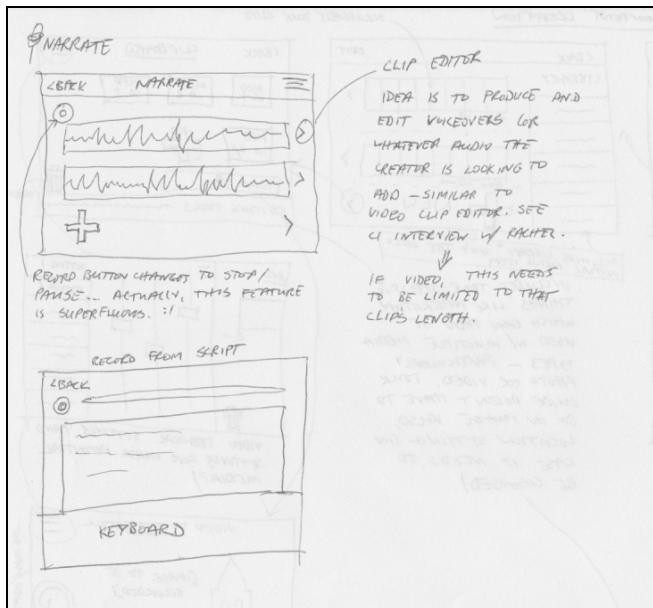


Figure 1b: Extends the “creation” UI, accessed via the toolbar in Figure 1a (see arrow near the bottom), to narrating a tour.

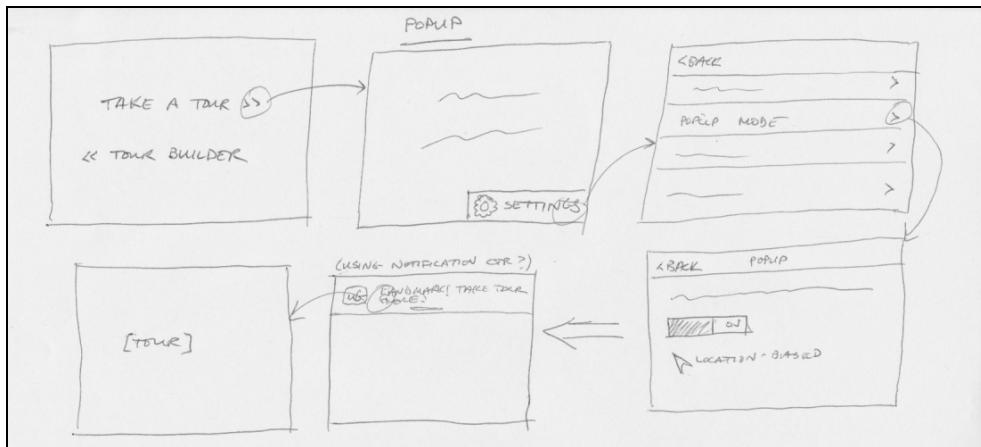


Figure 1c: Show an implementation for toggling the “popup” (or “serendipity”) task in an attempt to combine it gracefully with the more directed tour mode.

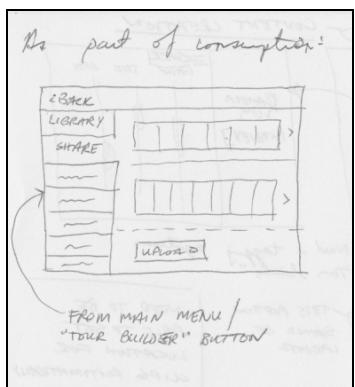


Figure 1d: Suggests a UI for sharing completed tours within a broader menu tree.

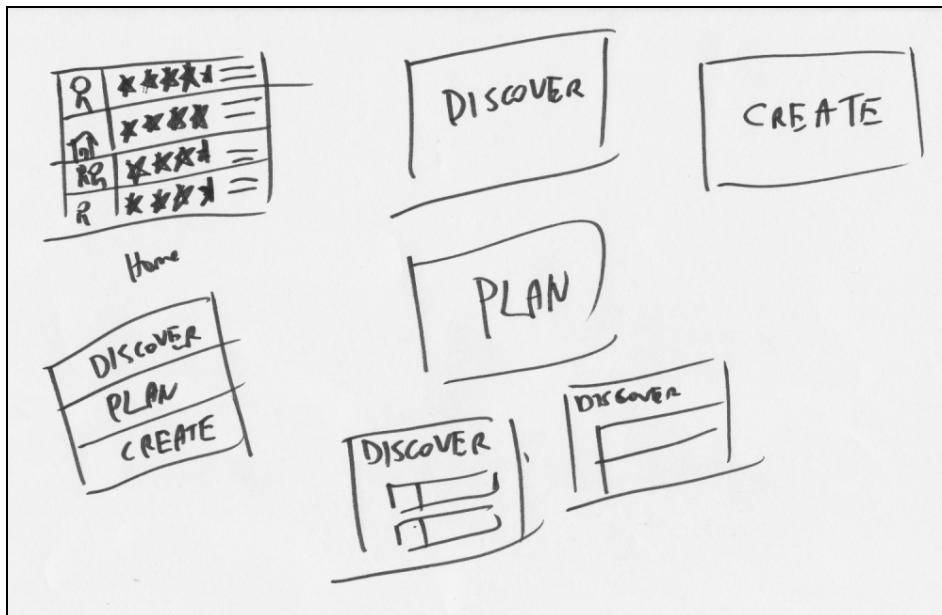


Figure 2a: Some very rough literal “views” of accessing each task.

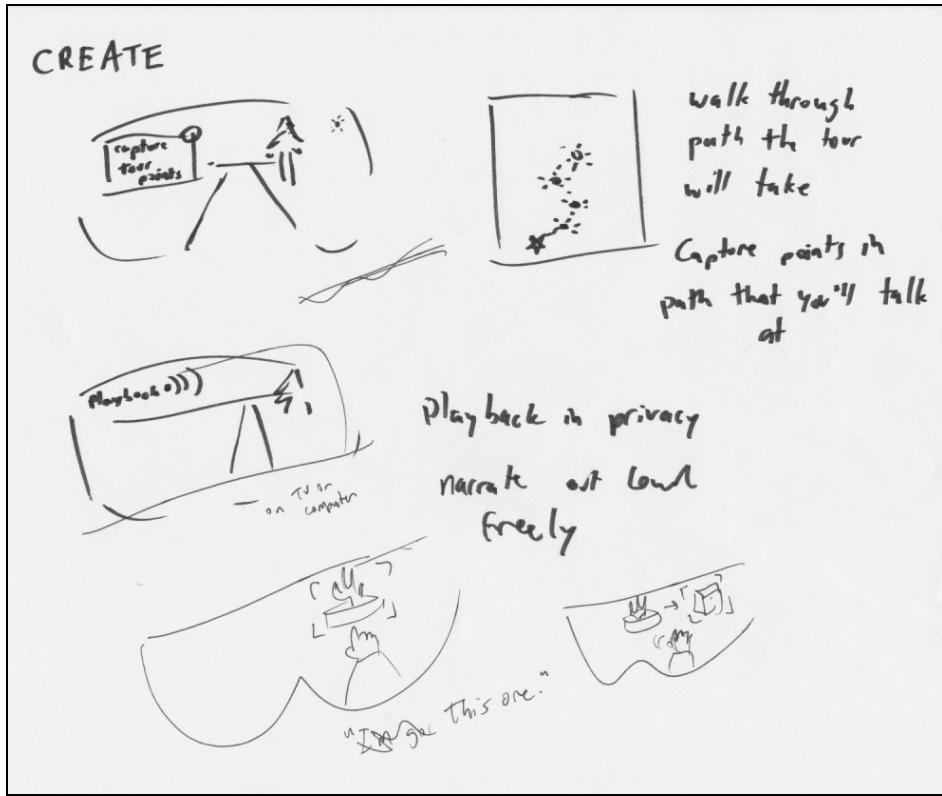


Figure 2b: Shows “creation” task from the user’s perspective, combining the Glass recording interface with private playback and editing on a separate, tablet or television-like device.

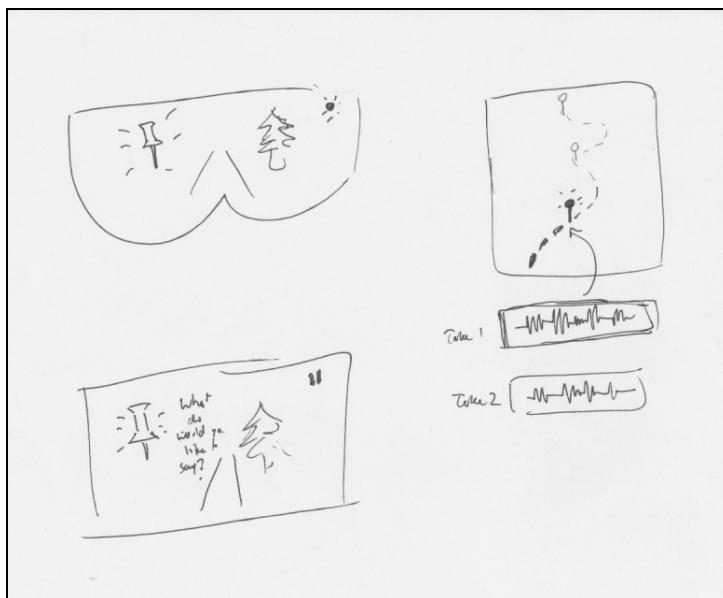


Figure 2c: An extension of the “creation” task, including mapping via augmented reality and the ability to have multiple takes associated with each location.

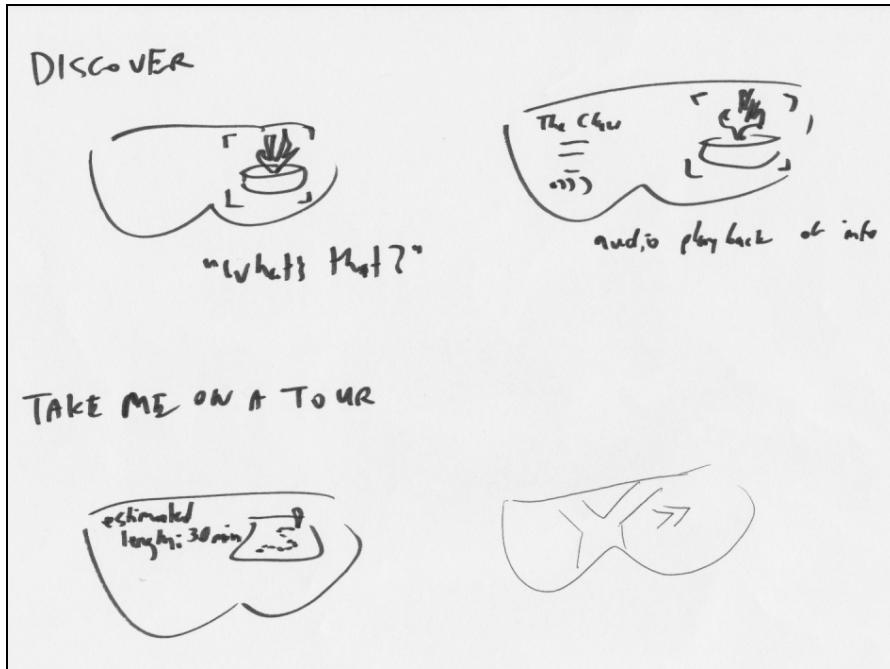


Figure 2d: The “discover” function, implemented with a combination of voice activation and an augmented reality perspective on artifacts within a tour. Also suggests a preview for a tour on a preset path.

5. Selected Interface Design

We chose to pursue a mobile/smartphone interface between our two options above (in addition to a third option, an augmented reality/drone interface, that we do not picture) for several reasons:

- Unification of creation and consumption: From our CI, we had a pretty good idea about how tour-takers could use our application with their wearable or in an augmented reality setting. However, we had difficulty narrowing down a viable, easy-to-use interface applicable to both creation and consumption of interactive tour content. Also, phones make the creation of textual information, i.e., note taking and annotating, simple.
- Ubiquity of mobile phones: Augmented reality and wearable UIs could add significant flavor to the tour that would not be possible on a phone (which has a screen that cannot viably cover the entire field of vision). However, that value-add does not sufficiently offset the much wider audience a mobile app can access.
- Sensory versatility of mobile phones: Although wearables or, e.g., a personal drone, might outshine mobile application in the possibilities they provide for graphics, but they fall short when it comes to providing audio and haptic experiences.
- Ease of implementation: Mobile apps are relatively simple and cost-effective to create.

Table 1: Functionality Summary

Creation (for a particular spot in the tour...)	Add video, photos Add audio Add textual info Set radius of activation: when a user walks into an area, activate particular part of tour
Taking a tour	Navigate to a spot Get notified if went too far from the tour area When at a spot, access the media related to it Check-in from a spot Add personal pictures at a spot
Discovery	Recognize landmarks and points of interest in camera's view Offer navigation to recognized points of interest
Discussion	Rate a tour Review a tour

6. UI Scenario Storyboards

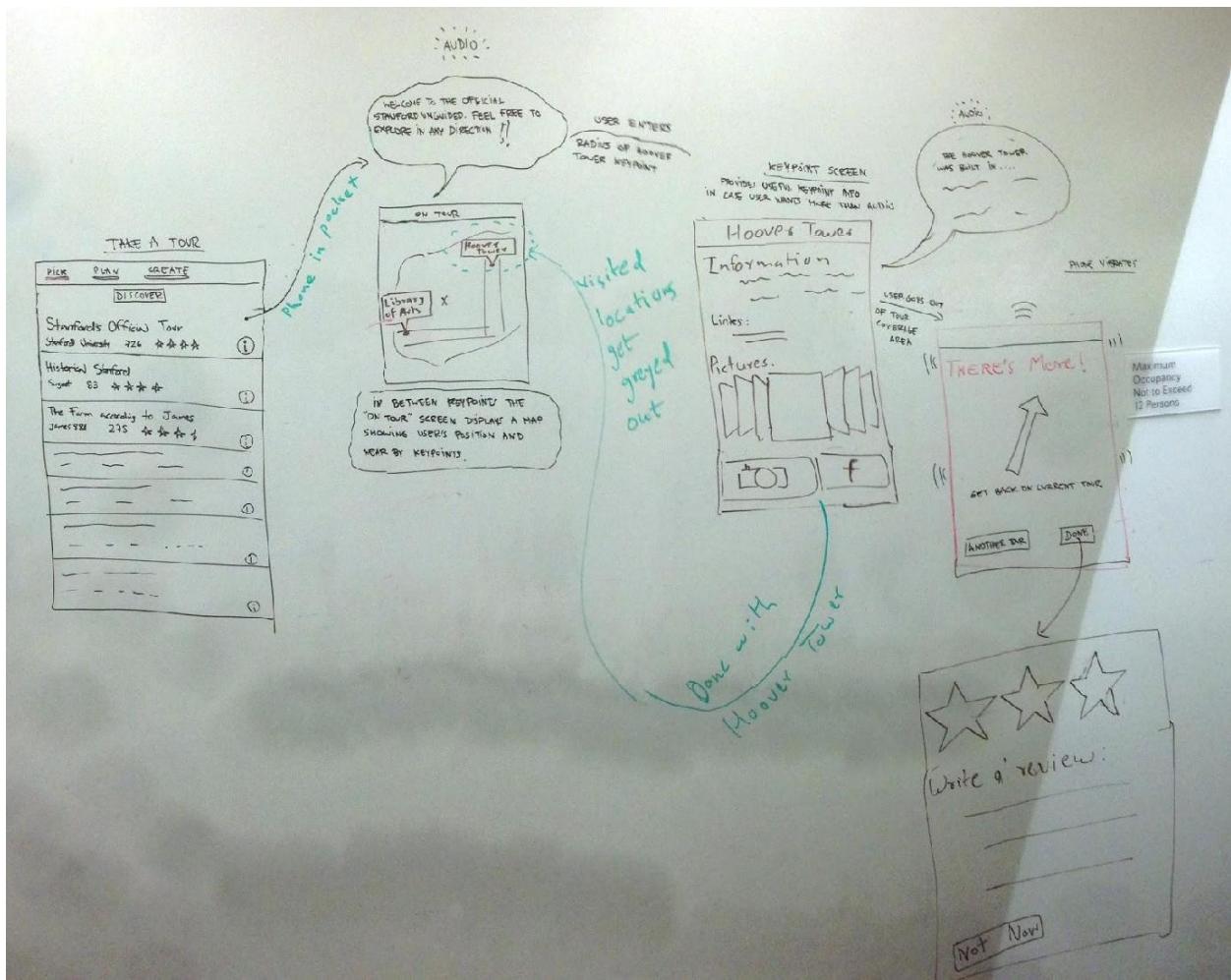


Figure 3a: Scenario 1: "Take a Tour"

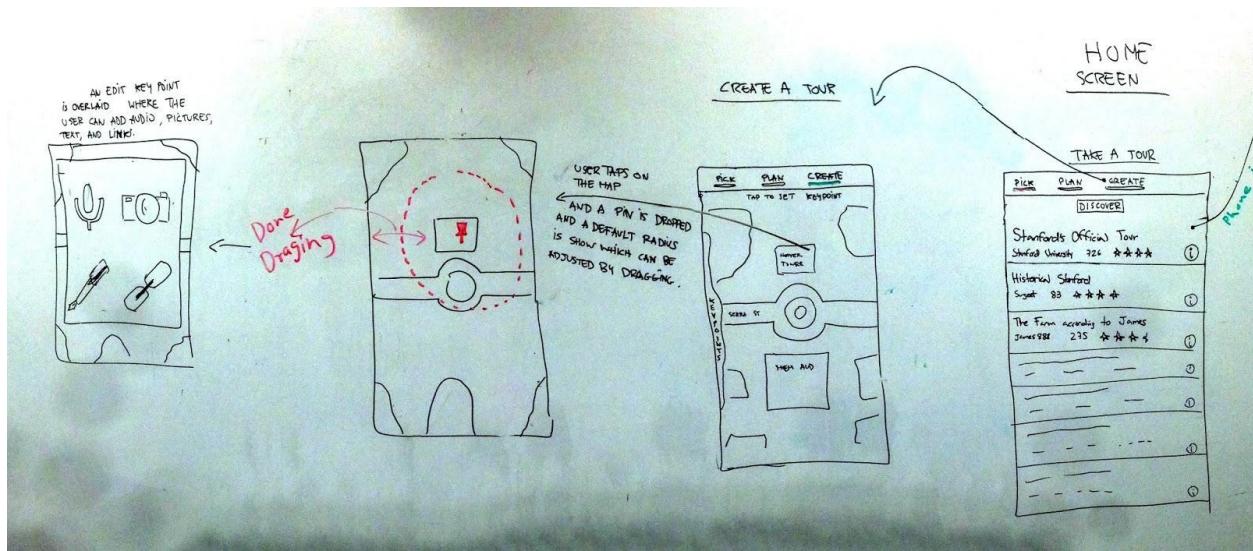


Figure 3b: Scenario 2: “Create a Tour”

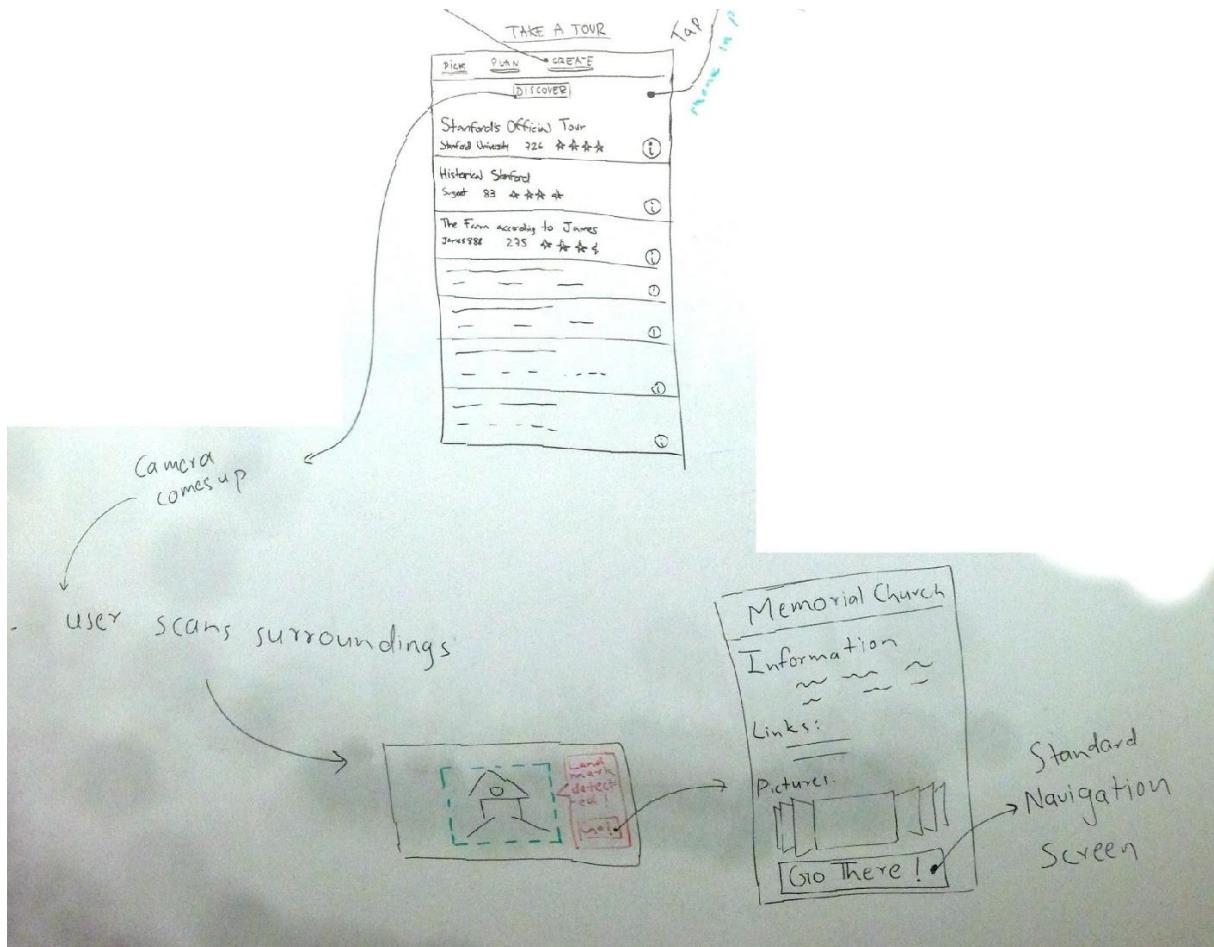


Figure 3c: Scenario 3: “Discover”

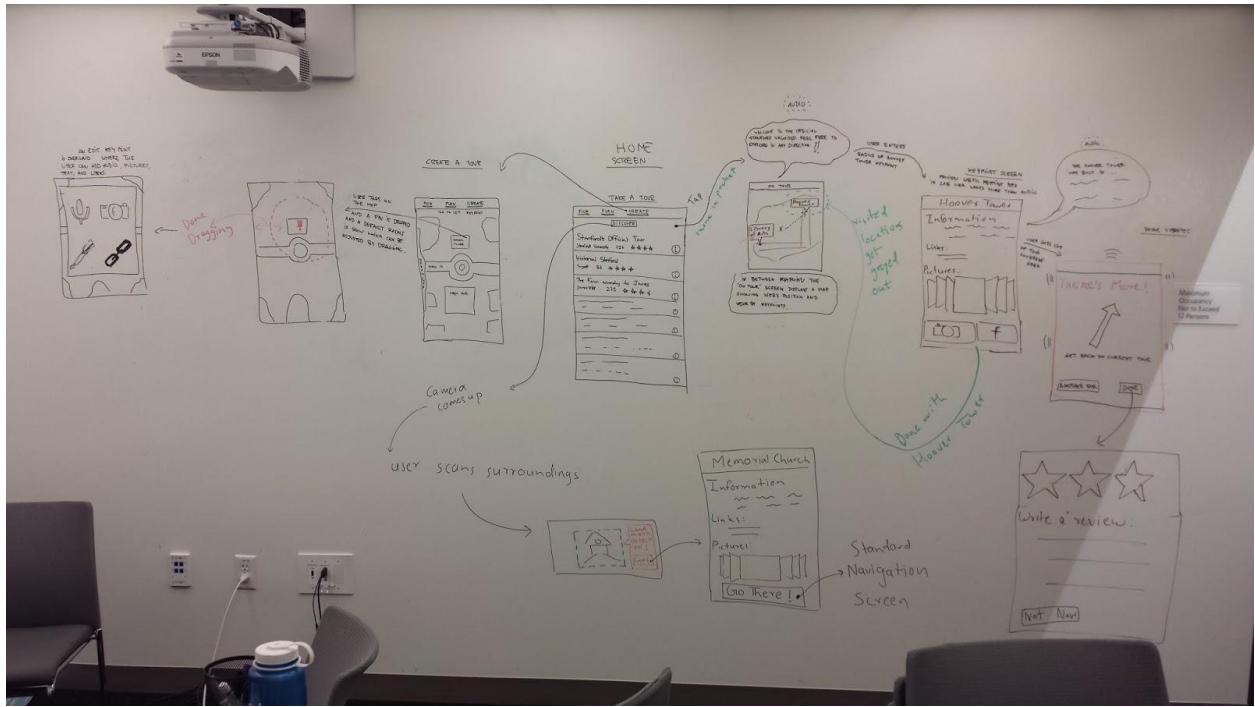


Figure 3d: All three tasks interconnected in one storyboard.

7. Video Planning Storyboards



Figure 4: Our video planning storyboard. 6-9: Creation, 15-16: Take a Tour, 17-22: Discover. Other shots set up the story or provide transitions. See Appendix for our shotlist, which outlines our video planning in more detail and describes the shots in this figure.

8. Concept Video Description

What was difficult?

Since a significant amount of our application's function is audio-based, a challenging aspect of creating the video was telling a logical, meaningful story without spoken words—by a narrator or a character—or, for that matter, printed words in excess of our UI shots. To remedy our problem, we attempted to illustrate the tasks using our setting, the actors' facial expressions and body language, and the occasional hint from the UI. Another part of planning and production that we found complex was logically connecting the “create a tour” task with the “take a tour” and “discover” tasks (we wanted the viewer recognize that one actor was taking a tour that another actor had previously created). To accomplish this, we showed both actors visiting the same places in the same sequence, making sure that the tour followed its creation. Interestingly, we also had some disagreement about how the “discover” task should work in tandem with a preset tour, so we were forced to hash that out as part of the video.

What worked well?

We felt that we were very effective at focusing on the story being told, and not on the app's UI per se—even though some very basic UI interactions had to be shown to make sense of the story. Our brief use of highly oversimplified UI mockups allowed us to focus on tasks and the story we were telling instead. In addition, our team's skillset and division of labor fit well together even as we interacted at the same set of whiteboards throughout the UI storyboarding and concept video production process.

How long did it take for each phase?

The longest part was design prep. We spent approximately two days coming up with a story that made sense to us and that we thought would work well, which coalesced in about three hours of work afterward negotiating the best storyboards and drawing up much of what made it into this document. (However, per the previous paragraph, the UIs shown in the video took us about 10 minutes to produce after working through detailed scenarios beforehand). The shooting and editing phases were completed over the course of an afternoon and evening.

Appendix

Scene	Action	Shot type	Location	Props
1	Establishing dorm shot	wideshot	student's dorm	Pennant, cap
1	Student's sad face looking up at wall	MCU	student's dorm	
1	Flag on wall	CU	student's dorm	
1	Sad -> idea -> pulls out phone	medium	student's dorm	
2	Arrived at frosh dorm	wideshot	frosh dorm	phone, cap
2	Narrating into phone	CU	frosh dorm	phone, cap
3	Video, gesturing to show the bike crash	wide	circle of death	phone, cap
4	Narrating into phone	wide	Main quad	phone, cap
4	Student happy with creation	medium	Main quad	phone, cap
4	Screenshot: tour created	CU	Main quad	phone, cap, screenshot
4	Student content	CU	Main quad	phone, cap
5	Tourist hailing a taxi	wideshot	somewhere with a door	suitcase, tourist sign, SFO sign
6	Tourist using phone in car	CU	in car	car, phone, tourist sign, earbuds
6	Tourist clicks take tour	CU	in car	earbuds
7	Tourist arrives at frosh dorm	wideshot	frosh dorm	phone, tourist sign, earbuds
7	Tourist listens to audio, nodding reacting	CU	frosh dorm	earbuds
8	Tourist looking at video, comparing to real life	medium	circle of death	phone, tourist sign, earbuds
9	Tourist taking picture of Main Quad, earbuds in		Main Quad	earbuds
9	Screenshot: you're done! keep exploring?	CU	Main Quad	
9	Tourist sees Hoover Tower	from tourist's shoulder	Main Quad	phone
9	Tourist walks towards Hoover Tower from main quad		Main Quad	
10	Tourist looking up at Hoover Tower	wideshot	Hoover Tower	phone, tourist sign
10	Takes picture	CU	Hoover Tower	
10	Screenshot: discover info	CU	Hoover Tower	phone, screenshot
10	Tourist looking at info, student walks by	wideshot	Hoover Tower	
10	Tourist looks satisfied	CU	Hoover Tower	
11	Student hanging out in room	wideshot	student's dorm	pennant, cap
11	Phone on table buzzes, student picks up	medium	student's dorm	phone
11	Screenshot: Congrats! Your tour got 5 stars!	CU	student's dorm	phone, screenshot
11	Student smiles	CU	student's dorm	cap