

unGuided

Whether in a city, museum, or college campus, unGuided will provide users with the freedom to choose their own tour experience.

TEAM MEMBERS

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PROBLEM AND SOLUTION OVERVIEW

There is power in walking through a space that a narrator is describing. Taking an audio tour of Alcatraz while in the actual prison facilities, or listening to a tour guide while walking across Stanford are clear cases where visitors can become acutely aware of their surroundings and the history of the space they occupy. Audio and guided tours can be incredibly immersive and informative. In their current form, however, they present a number of intrinsic problems. Guided tours, for example, are bound by a fixed schedule that the visitors have to plan around which many times results in visitors wasting valuable time waiting for a tour to start, or deciding not to take the tour at all. They are also bound by a fixed path which is repeated over and over. If during this fixed path a visitor is interested on an alternate piece, building, or route, they have to either suppress their curiosity, or quit the tour altogether. Audio tours, on the other hand, are more flexible, but they are usually only available in museums and require the use of dedicated hardware which must be constantly fiddled with throughout the tour. Visitors must hand over collateral (oftentimes something valuable like a driver's license) in order to use an audio tour device, and the number of devices an institution has limits the numbers of visitors who can access the tour.

The goal of unGuided is to let visitors experience a tour when, where, and how they want. There is no starting point and no set path. The user will arrive at their destination, and whether they are walking through the Golden Gate Bridge, the Louvre Museum, or the Forbidden City, they will be able to go on an available unGuided tour. The app will start to narrate based on the device's geolocation, explaining or telling stories about the scenery. Not only will museums, city officials, and schools be able to upload their own official unGuided tour, but so will anyone else with knowledge and passion for a given space. In this way, users can also learn about the place they are visiting or live in from locals with unique insights. UnGuided tours could then be uploaded in many different languages and from many different perspectives.

CONTEXTUAL INQUIRY CUSTOMERS

We decided to interview customers from three categories: visitors, because they would be the actual consumers of our app; tour guides, because they possess expert knowledge on the behavior of visitors and on the current state of tours; and storytellers, because we are seeking to expand the tour experience from beyond simply conveying facts to include the ability to tell people's stories.



Cantor Arts Center, where John, Jane, and Mary were interviewed

Our first interviewed customers are a couple who decided to remain anonymous, but for the purpose of this project we will call them John and Jane. From North Carolina, John and Jane are 45 to 55 years old and they visit museums once a year on average. They were observed and recruited while they were visiting the Cantor Arts Center at Stanford.

Mary, also a pseudonym, was our second interviewee. She is a curator for the De Young and Legion of Honor Fine Arts Museums in San Francisco, and was also observed and recruited while she was visiting the Cantor Arts Center. She is 30 to 40 years old.

We also interviewed DJ Dull-Mackenzie, the Director of Visitor Relations at Stanford University. DJ, 50 to 60 years old, was recruited at the Stanford Visitor Center. We decided to interview him due to his unique knowledge and expert perspective on the Stanford tour.

Next, we interviewed Michelle Ho, the Education Programs Assistant at the Cantor Arts Center. Michelle, 25 to 35 years old, was interviewed due to her experience organizing guided

tours at the Cantor, and because she was a museum tour guide herself during her undergraduate years at Yale University.

Finally, we interviewed Rachel Hamburg, 25 to 35 years old, an MA in English and a former managing editor of the Stanford Storytelling project. She was recruited and interviewed due to her insights in the process of storytelling through podcasts, one of the key influences of our original proposal.

CONTEXTUAL INQUIRY RESULTS



Observing the Stanford Tour

To start our contextual inquiry, we first observed the Stanford tour, given by a Stanford student to a group of around 25 visitors. The student tour guide would adhere to a script which she sometimes filled up with snippets of personal information related to the current tour topic. The guide would also sometimes point to locations, buildings, and objects providing related information. This did not mean, however, that the tour group was near what was being pointed at. In between key points of interest, the guide would fill the gap with general information about the school. In some cases, a specific location would trigger school information which would then interconnect with another discussion. For example, Montag Hall would lead to discussing financial aid and how holistic admissions work, which in turn would lead to tuition and housing costs. It was interesting to note that the guide would sometimes convey information in the form of a question to keep visitors engaged, and when a question was made that she didn't know the answer to, she would make a recommendation of where to obtain that information. We also noted that the guide would be able to put together a disjointed

narrative in a way that would seem coherent, sometimes she would need to cut off a story to talk about the place the group arrived at, and continue the story later. We noted as well that the tour constantly interfered with traffic and quite a few times passing bikes and cars had to stop and give way to the tour. A few times, the visitors in the back of the tour crowd left the sidewalk and moved forward along the street maybe to hear the guide better. We also observed that many visitors were clearly bothered by the intense sun, and that a few of them were using their phones to take pictures or text.



Cantor Arts Center office, where Michelle was interviewed

By interviewing DJ and Michelle we learned that engaging tours are those which include personal details and anecdotes. DJ thinks that good tours should always have a small touch of humor, while Michelle thinks it is crucial to try to hit learning goals by connecting the visitor with the piece through general knowledge visitors can easily relate to. Both DJ and Michelle agreed that the main reasons why visitors leave tours before they are over are time constraints, weather conditions if the tour is outdoors, very large tour crowds, and visitor's interest in an alternate route or piece that deviates from the tour path. When questioned about the Stanford tour demand and average size of one group, DJ stated that they are sometimes overwhelmed by the amount of tourists and prospective students who want to take the tour. "This campus has become the Disneyland of colleges, and many travel companies are constantly contacting us" states DJ. When asked about some of the things that could go wrong in a tour, DJ mentioned the weather, language barriers, visitors wanting to go into buildings when there is no time, the hazard of passing traffic, and challenging individuals who sometimes want to monopolize the tour. Michelle on the other hand mentioned arguments between visitors, small

children crying, and uncomfortable or sensitive topics in some of the art pieces like nudity, the Holocaust, or race. When asked about audio tours, it was interesting to learn that neither Stanford nor Cantor offer audio tours, however, Michelle mentioned that when she was a tour guide at Yale, their audio tours were very popular and in demand.



Stanford Visitor Center, where DJ was interviewed

Interviewing John, Jane, and Mary, the visitors at the Cantor Arts Center, we learned that they usually prefer to explore museums freely as opposed to following a guided tour. Although when they do embark on a tour, they usually stay until it's over, they don't ask questions very often, and they prefer smaller groups because they can get closer to the artwork and the tour feels more intimate that way. All three mentioned that they often look at the information in the placards and many times they find that there is information missing; while John and Jane would like to see more coverage on the artists, Mary would prefer more information about the printer and publisher. John and Jane also mentioned that they usually take audio tours whenever they are available because it allows them to explore the museum at their own pace, and because they can listen while focusing only on the art piece. Mary, on the

other hand stated that she also likes audio tours, although she doesn't care for background music or sound effects in them.

Rachel Hamburg, MA '11, former managing editor of the Stanford Storytelling Project, described several high-level tasks involved in the podcast production process she and others had used—unique from other interviewees in the sense that she described in detail the process of original and deliberate audio content creation and curation; our other interviewees were either potential consumers of content or, as with the tour guides, only had deep knowledge about tours per se. She described to us the labor-intensive interviewing, scripting, and recording that went into telling her “stories” and her motivations. Rachel was involved in this content creation because she sought to speak intimately to another person through storytelling—whether in films, writing, live storytelling—and finding ways to humanize abstract people and events we might otherwise ignore (our first unique high-level task).

Rachel added that, before creating content, it was key to know something about the audience (the second unique high-level task), find an “anchor story,” and build the other content on its theme. She believed interviews (the bedrock content) were the most fun—but had to cut them in postproduction to draw out the most salient clips. Typically the entire interview would be 1.5 hours, so it had to be short enough to tell the story compellingly. She also mentioned that she liked having multiple short anecdotes in each broadcast because it is easier to find students (with limited free time) to participate, shorter segments are more manageable to create, and it is hard to hold people's attention the longer the content is.

Rachel said that the Storytelling Project uses professional audio equipment and desktop editing software to create a professional-sounding product. Scripting for this kind of storytelling is very time intensive (something we didn't think about), and narrators will often do several takes, which will then be edited, to create an ideal product. They also require neutral ambient sound, which is hard to find outside of a studio setting.

She mentioned that their content they only get sporadic feedback, although they would occasionally receive Facebook messages. The Storytelling Project posts podcasts in Soundcloud, which allows for time-based commenting on each product. However, she described the feedback mechanisms as limited: “You don't hear people listening to your stuff unless you're there.”

TASK ANALYSIS QUESTIONS AND ANSWERS

1. Who is going to use the system?

The users of our system could be classified in two categories. First, we have the users that would generate content by creating unGuided Tours. These users would consist of institutions like museums, colleges, city councils, commercial institutions concerned with promoting a certain place, and individuals who identify with their city, school, or with a certain museum or

art institution, and who probably feel comfortable using modern technology. Secondly, there are the users who would consume the unGuided tours. These users would be tourists, travelers, prospective students, and art or history lovers; users who, like our interviewees, seek freedom of movement and choice when experiencing a tour.

2. *What tasks do they now perform?*

Users currently have to choose between planning their visit around a guided tour schedule and taking a tour that has a fixed path and narrative, or exploring the visited place on their own while missing out on a significant amount of interesting information and insight.

3. *What are the desired tasks?*

According to our conducted interviews, users want the freedom to explore things at their own pace. They don't always want to be guided. They want to be able to listen clearly to the information that is being conveyed while focusing only on the observed object. They don't want language barriers, they want access to more information, and they don't want to be part of a large crowd.

4. *How are the tasks learned?*

The guides we spoke to were professionally trained. Although they showed a deep knowledge of the area they were responsible for, this could in theory be acquired by anyone who spends enough time in a place and/or does sufficient research. Customers passively following guides have little to learn, although some like to know more information about a place before they visit it to ask the guide more detailed questions.

5. *Where are the tasks performed?*

The tasks performed can theoretically occur anywhere there is air to breathe, although are actually concentrated in areas of high interest to large numbers of people. That can include ancient ruins, cities, college campuses and museums (like our interviewees), and other points of interest to tourists or casual sightseers. While location in each case is confined to a general area, the task often involves movement through some amount of space.

6. *What is the relationship between customer and data?*

One class of customers has access to most of the relevant data, i.e., the customers on the content creation side are the sources of the information and personal experiences that create the "guide" for the customers who seek that information. When the two sets of customers are in physical contact, the former group is able to verbally and visually share the data with the latter—pointing out landmarks and explaining their significance, sometimes within the context of personal experience (as with a tour guide). However, when the groups are not simultaneously in the place being toured, the tourist only has access to disjointed collections of information found on the Internet or in other media—the "live" experience of the place is missing, and the guides currently have no way to share that in a centralized manner.

7. *What other tools does the customer have?*

Currently, there are no integrated tools that are used as an all-in-one solution. Customers use a variety of tools like pre-recorded audio tours, annotated maps and of course, just following a tour-guide. One important thing we observed: many use the annotated map for planning their tour, but for navigation, they switch to electronic maps on their phone.

8. *How do users communicate with each other?*

In the traditional setting, the communication between the creator and consumer occurs mostly in-person with quite a bit of spontaneity and in-situ improvisation. The tour-guides try their best to make the tour experience a personal and memorable one. As far as communication between tourists goes, it is mostly limited to pre-tour and post-tour activities like logistics planning, carpooling etc.

9. *How often are the tasks performed?*

Creating engaging content is a complex task, but it is mostly a one-time effort. Also, for any particular customer, the task of taking a tour is quite infrequent. But from the tour-provider's point of view, the task of providing people with a tour is a high-frequency, everyday routine.

10. *What are the time constraints on the tasks?*

In terms of consumption, users might be under a time crunch in order to see sights in a given period of time. Often, tours have to be conducted during the day for visibility and safety reasons. From the creation side of the application, time constraints are based on how invested a creator is in using the application. If the workflow is not intuitive enough, the creator may have to spend more time in creating his story.

11. *What happens when things go wrong?*

Sometimes people won't be able to find a tour that fits their interests. The area they are visiting may not have enough user-created content to use with the application. If the creation process is too cumbersome, creators may give up their attempts.

TASKS THAT APPLICATION WILL SUPPORT

Creation (complex; low frequency; high importance)

In order for this application to be useful for consumers, it needs creators in order to develop the content. This will no doubt be one of the more complex aspects of the application but it is essential. If executed correctly, users of all backgrounds should feel comfortable with creating a tour of somewhere they're familiar with. This task was chosen due to its importance as the content generating core of the app.

Discussion (moderate; low frequency; medium importance)

We found that visitors to museums often come in groups. One of the uses of this application would be to allow users to sync up so that they can all be part of the same tour experience. The application would be able to provide prompts and information for users in order to spark discussion. Prompts created by past users for that location could be integrated in order to build a social aspect. “Notice the direction of the brush strokes...” if at museum, “How many workers do you think it took to construct the Golden Gate Bridge?”

This task was chosen because it covers a social aspect of the application.

Discovery (simple; high frequency; high importance)

One of the main tasks that the application should carry out is to allow users to freely go where they choose. The application will keep track of the user’s geolocation and narrate or describe the surrounding contents. In that way, users can customize their own tours. This task was chosen because it constitutes the fundamental concept of the application.

Deliberate planning (complex; moderate frequency; medium importance)

Deliberate planning is users’ ability to map out tours themselves, whether thematic or geographic. For example, a user might want to do a walking tour of “beatnik artists’ favorite places to paint” in Sausalito—or draw out a map following attractions through the Financial District and Russian Hill. In our CI, we found visitors would often like to plan out the timing and locations of their tours, and this feature would augment the ability to see content about a single place at one time.

Popup (simple; medium frequency; moderate importance)

Popup is what we think of as a “passive discovery” function, where a user does is not explicitly touring and is not explicitly seeking points of interest, but might like to know about them when s/he passes by one (marked by an unobtrusive but unsolicited change to the interface). During our CI with Rachel, we found that content is not always distributed in ways that the content consumer can access it easily—even when they might be strongly interested in the topic. It is not central to our application concept, but complements the active tour features.

Take me on a tour (simple; high frequency; high importance)

During CI, we observed many people walking into the Stanford Visitor Center and asking the staff members “Oh! We missed the tour timings... It would be really nice if you could recommend some places to visit and an order to visit them in.” They told the staff-member

what they were interested in: some were interested in art, some in the research labs, and some in student life. We observed that they were literally asking for an approximation of “take me on a tour”. Which brought us to a clear task: “unGuided tours tailored to personal preferences.” We decided that this is a high importance task because it plays a role of core importance in the app, but more importantly, it solves a very real, observed need.

THREE BEST APPLICATION IDEAS



Brainstorming in the basement of Lathrop Library

1. GeoBooks.

Based on the concept of geolocation generated content, we thought of an application that would recommend books based on the user's location. For example, the app would detect that the user lives in the Bay Area and would recommend books like Steve Jobs by Walter Isaacson, or if the user lives in Paris the app would recommend books that take place there, like Les Misérables. The user would then download these books through the app which would then indicate them to go where each chapter takes place so that they will be able to observe the places that are actually being described in the books.

2. GeoJournal

The idea is to annotate places with rich media which helps you relive the experience as when we visit interesting places. Photos, videos and voice recordings get automatically associated with the location and the app smartly notifies the user of the memories and moments of the place whenever the user revisits the place. GeoJournal's sharing aspect would be engaging too. It would detect well-shot photos and suggest you to make them public. Also, when you visit a place, it would surface the most popular pictures and other media associated with that place which was shared by others. This would help in discovering some not-well-heard-of ways of having fun and enjoying the beauty of the place.

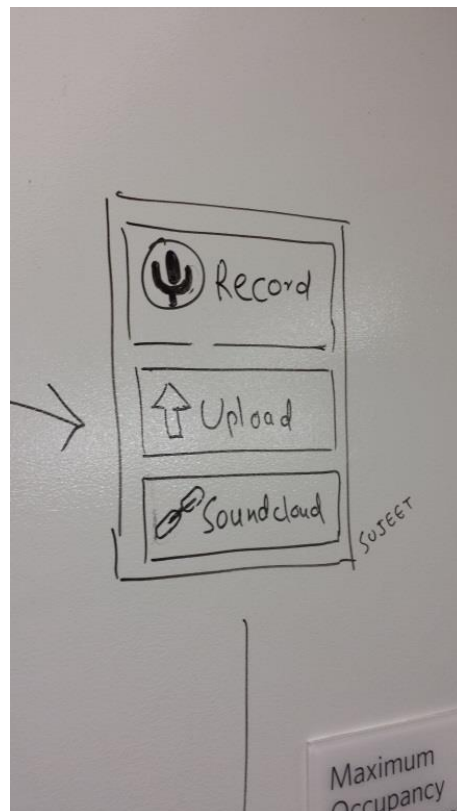
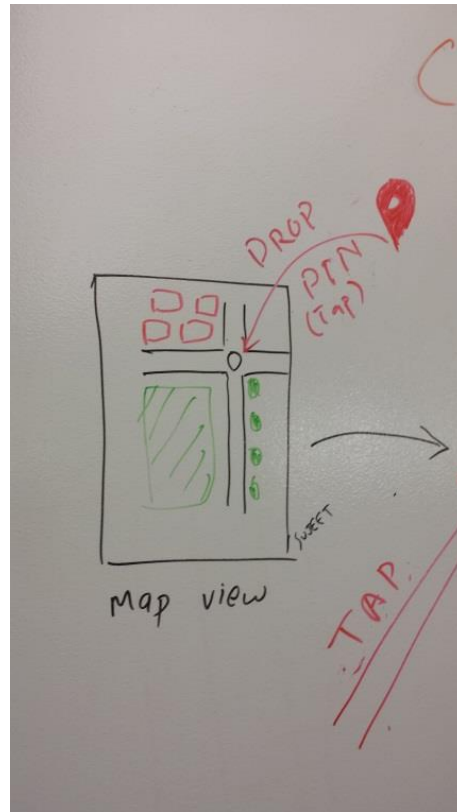
3. unGuided.

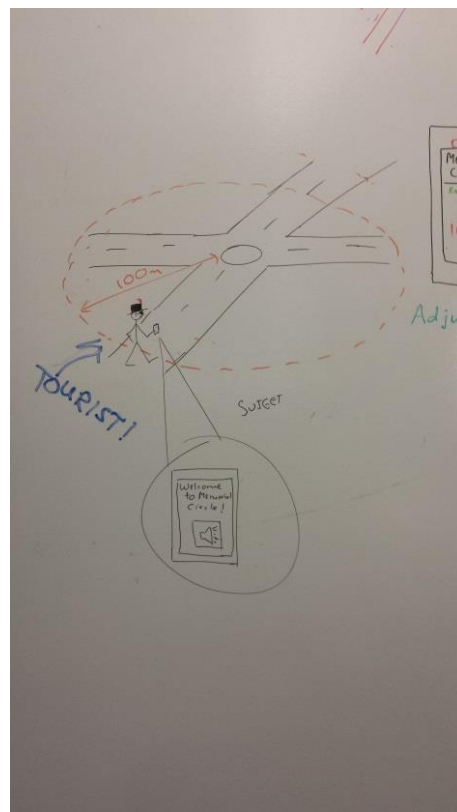
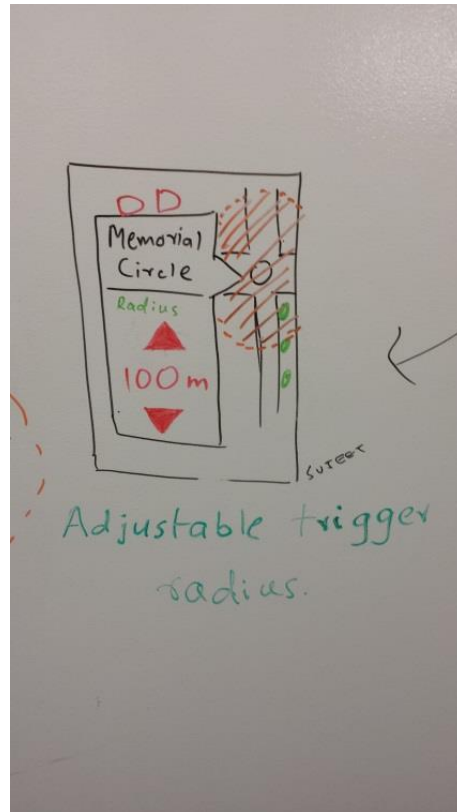
The idea behind unGuided is to allow visitors to explore a place as they see fit. As opposed to following a tour guide through a set path, with unGuided the tour follows the visitor wherever they go by keeping track of the user's geolocation. Whenever the user enters the radius of an interest point, the application will interact with the user whether by audio or augmented reality providing interesting and insightful information about the key point. We also intend to extend the traditional tour concept into the realm of storytelling so that tours are not just a transaction of data and facts but also an immersive narrative experience. Also, by allowing users to create their own tours, it is our hope that many tours will be uploaded: in different languages and from different perspectives.

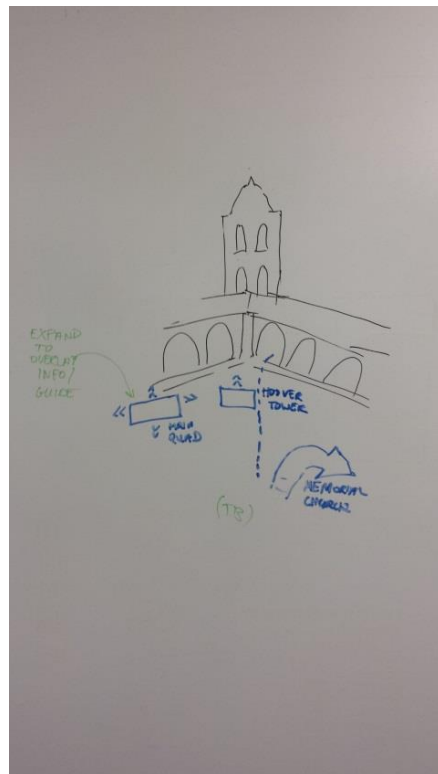
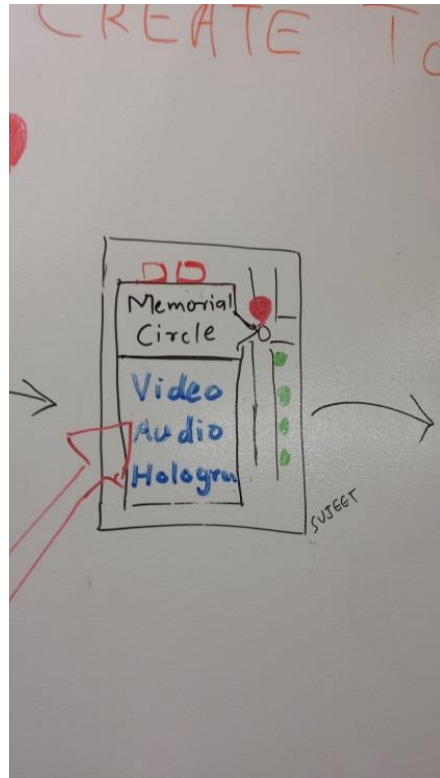
App	Significance	Feasibility	Interest
GeoBooks	Medium	High	Low
GeoJournal	Medium	High	Medium
unGuided	High	Medium	High

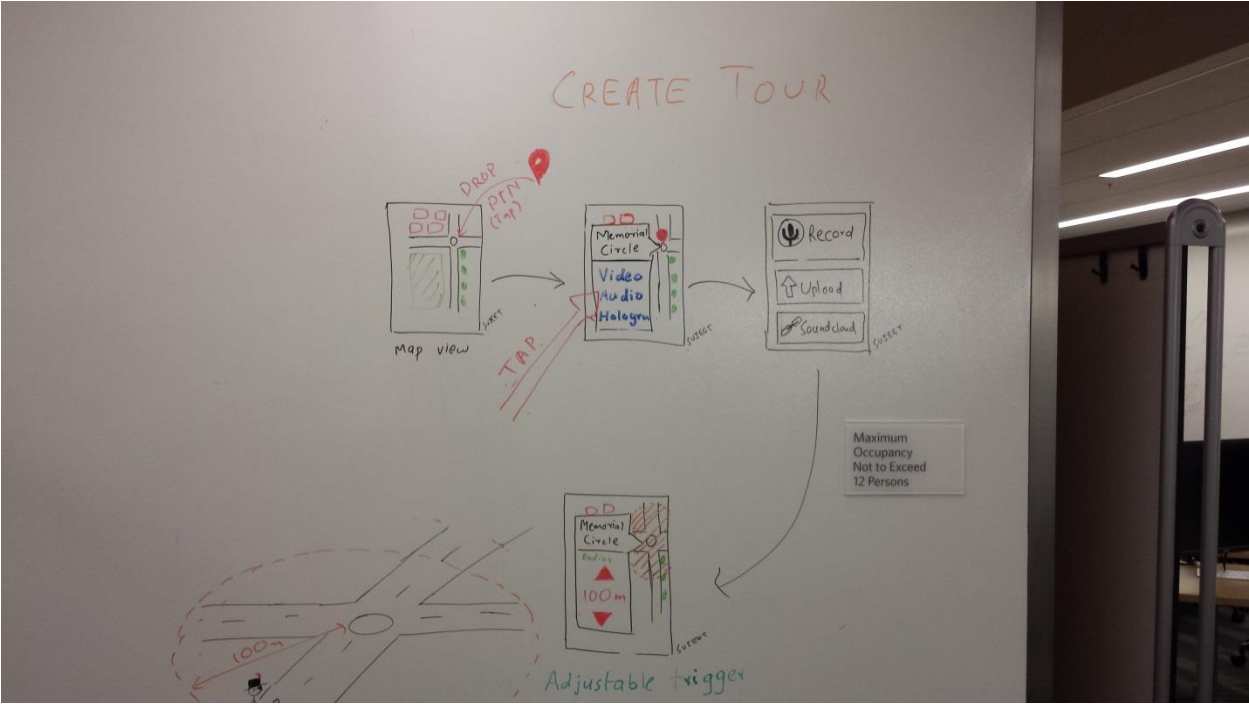
Based on our above analysis, we would like to move forward with the "unGuided" concept. Our CI shows that it would be highly significant to the user base of potential consumers and might provide a welcome (albeit complex) mechanism for content creators to add to the knowledge and personality of a place through more "personal" connections. While feasibility is moderate, we would like to focus on designing an application that would be of very high interest--and we believe an engaged group of potential customers is key to downstream success.

SKETCHES









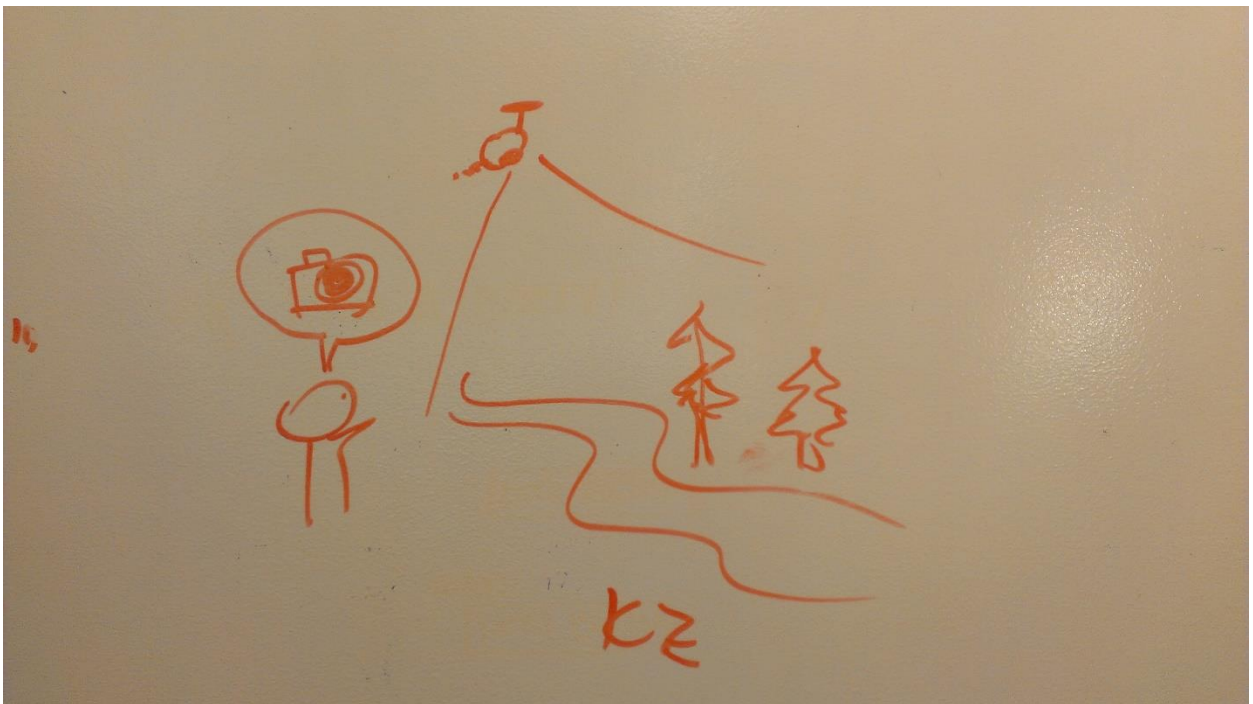
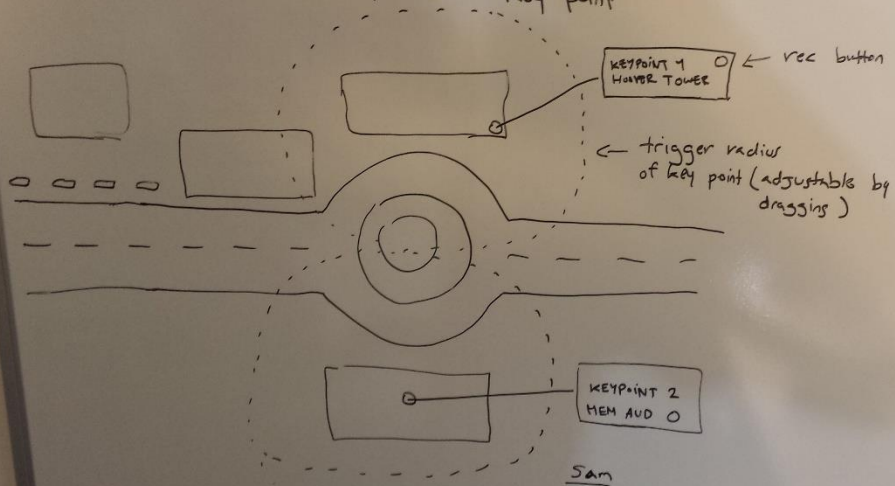
RATE	Pick	CREATE
NAME	KEYPOINTS	RATING
Stanford's Official Tour	1748	☆☆☆☆☆
The Farm according to John	134	☆☆☆
Check out the Engineering Quad	73	☆☆☆☆
Stanford from a Cuban's perspective (In Spanish)	56	☆☆☆☆
Explore Novel Nation (In Chinese)	48	☆☆☆☆

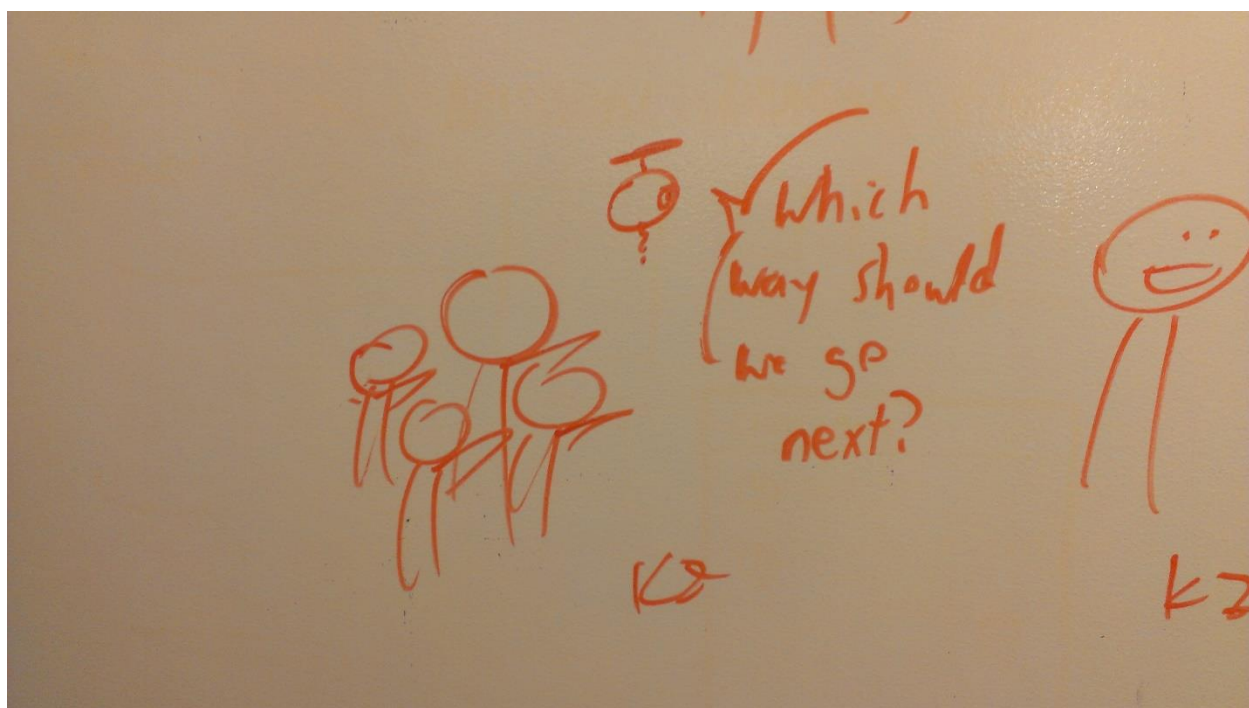
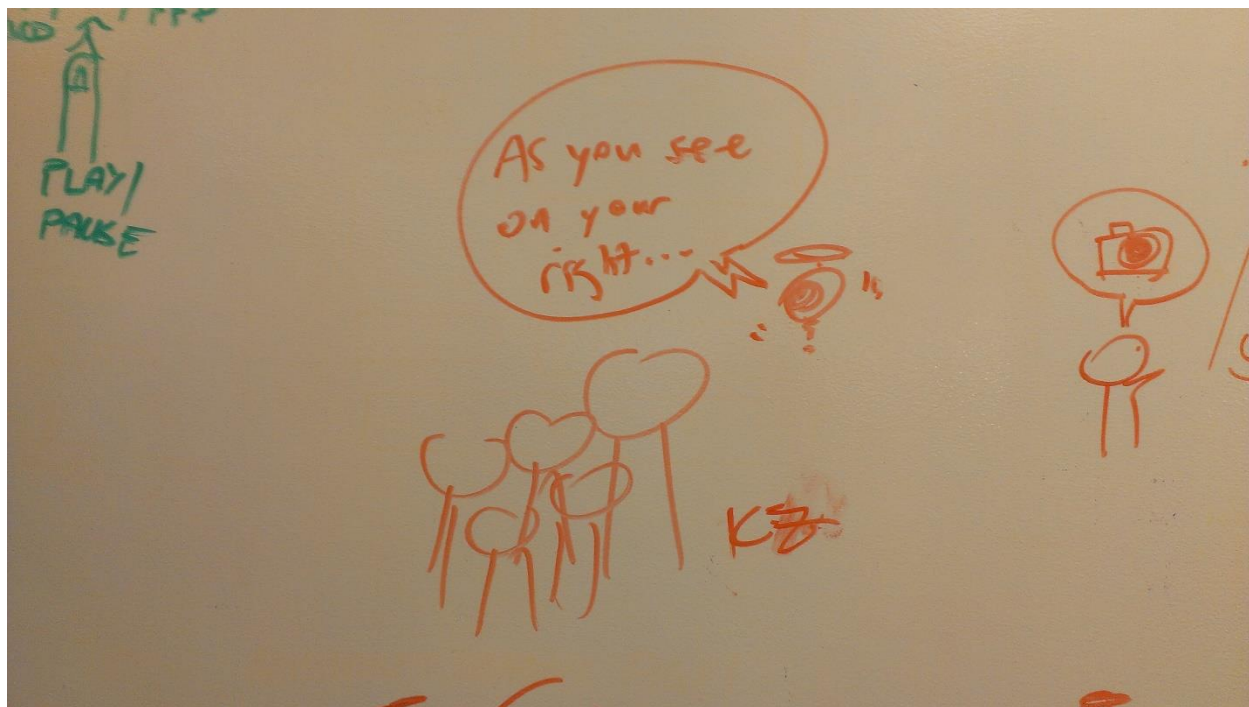
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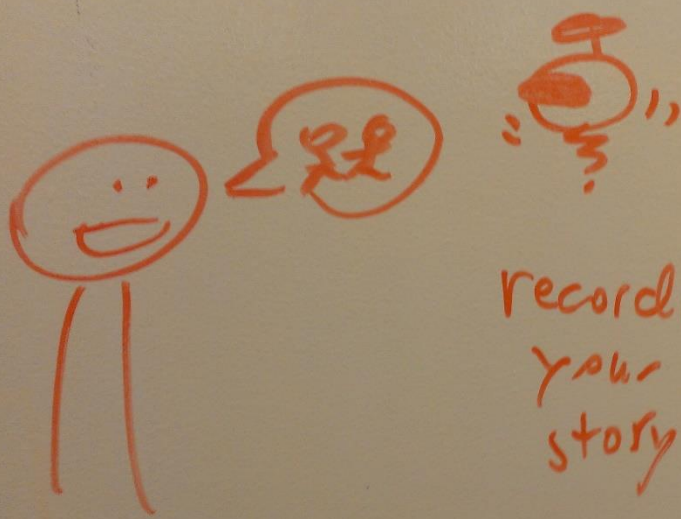
Sam

CREATION VIEW (USES A MAP APPROACH)

press and hold on the map to set a key point







recording
your
story

KZ