Overview of POVS and Experience Prototypes

CS147 - Mixed Reality Studio

Introduction

The Team

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The Problem

We are working on improving Stanford campus awareness and education. There is a dearth of easily-available knowledge on the history and day-to-day life of students at Stanford University. We hope we can make progress on improving accessible knowledge about one of three areas we have identified: Stanford student life and activities, Stanford campus history, and mental health at Stanford.

Additional Needfinding

We first interviewed Alec Glassford, a Stanford student studying Computer Science and Journalism, who's a member of the Storytelling Project. Alec spoke about podcasts as a way he's learned about other students. He says that podcasts give people a platform to clarify and reflect on their experiences, and that listening to the audio creates a sense of intimacy between the listener and speaker.

Alec learned about Stanford's history as a part of the SIMILE residential program. He expressed a desire for more members of Stanford's campus to learn about Stanford's history, and about its institutional structures (how decisions are made and what happens in different departments).

Takeaways:
1. Audio's an intimate way to share personal stories.
2. Students feel a need for more people to engage with Stanford history.

We also interviewed Johanna who is a student in Berlin (Germany) who is coming to visit Stanford in a month. She talked about how she is curious about the campus culture and how she would have like to have some resources to experience campus before getting here. She is worried that she might not be able to see everything in the short time she is visiting.

Takeaways:
1. A feature that isn't location-based can help appeal to a wider audience.
2. Furthermore, it can help people fill the holes in their knowledge after visiting Stanford.

Point of View Statements

We left studio Thursday, Oct. 5 with three revised POV statements. For each POV we generated 10-15 HMW statements. For conciseness, only our three favorite HMWs for each POV are included below.

POV #1

We met a family, including a mom, dad, and high school sophomore, visiting Stanford for the first time from Washington D.C. We were amazed to realize the tour they went on was impersonal, shallow, and not interactive. It would be game changing to highlight realer, more engaging aspects of Stanford.

HMW's for POV #1

1. How might we show what the campus looks like during specific (interesting) times of year?
2. How might we have visitors experience a day in the life of students?
3. How might we give a glimpse into the historical past of Stanford on a modern day tour?

POV #2

We met a Stanford tour guide, who is a junior named Seb from the Netherlands studying Computer Science. We were amazed to realize that Stanford students and visitors don't see the full truth about Stanford and the Stanford experience. Struggles and stress are big part of student life. The University tries to focus on superficial aspects instead of showing the "real" Stanford. It would be game changing to expose students and visitors to a variety of students' experiences, both good and bad.

HMW's for POV #2

1. How might we make duck syndrom be more deeply understood?
2. How might we provide easily available resources to students to understand and normalize their struggles?
3. How might we utilize current resources like CAPS and BRIDGE to amplify students stories of struggles?

POV #3

We met several educators, including the Digital Humanist and Academic Director, Gabriel Wolfenstein, and Special Collections librarians Jenny Johnson and Tim Noakes, who work on projects related to Stanford's history. We were amazed to realize how much they would like to change the dominant narrative of Stanford University, because they believe that only focusing on engineering and tech and excluding less positive aspects of Stanford's history (like the history of Chinese railroad workers, Stanford's involvement in war, tobacco, oil, and eugenics, as well as the history of protest movements on campus) is a misrepresentation of the university. It would be game changing to be able to diversify, complicate, or present multiple narratives about Stanford.

HMW's for POV #3

- How might we teach students that Stanford hasn't always been (in fact, has basically never been) just about tech?
- How might we engage students in learning about Stanford's history, both the good and the bad?
- How might we broaden the relationships that Stanford maintains with industry (not just CS)?

Final "How Might We" Statements

From our collection of over 30 HMW statements we selected three we thought were the best, each stemming from one of our POVs.

HMW #1, from POV #1

How might we show what the campus looks like during specific (interesting) times of year?

How might we provide easily available resources to students to understand and normalize their struggles?

HMW #3, from POV #3

How might we engage students in learning about Stanford's history, both the good and the bad?

Solutions to HMW Statements

For each of our final HMW statements we generated many solutions to the problem it presented, using Post-it notes to ideate through possibilities.
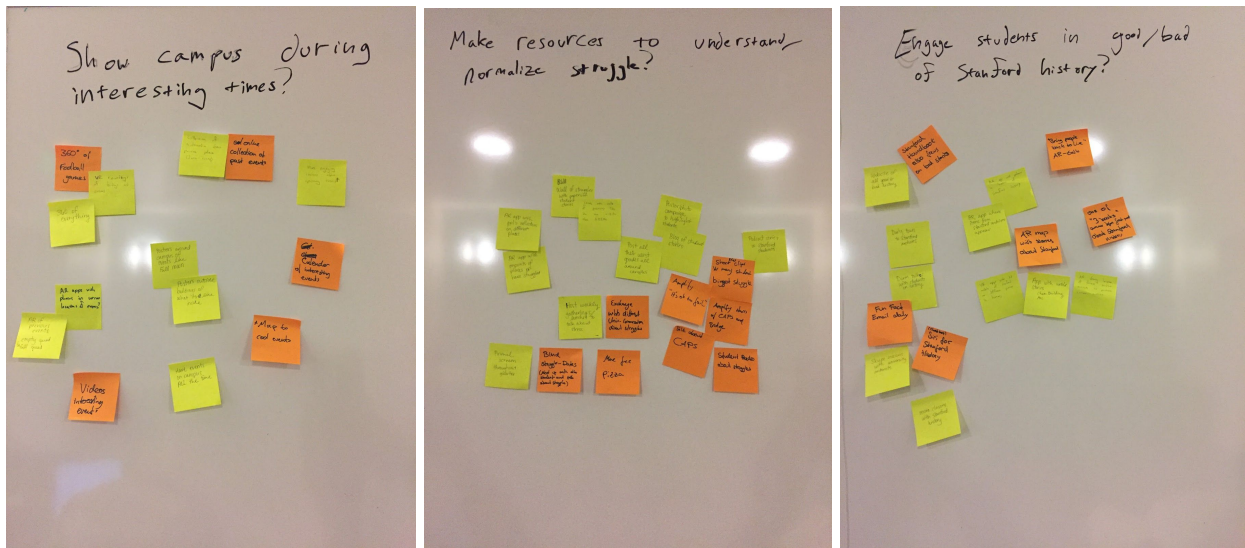
From these plethora of possible implementations we selected three best solutions that we were interested in trying out.

Solution #1, from HMW #1

Create an app with photos, videos, VR experiences, and other multimedia of previous events and private places (dorm rooms, dining halls, etc) on campus. The user can easily sort and select which item they want to view and can use the app from anywhere.

For this app we are assuming that going to a specific location, such as the football stadium if you want to see footage from a previous football game, isn't important to the experience.

Create an AR app with video, audio, VR (360), and text on people's reflections about life on campus. As you walk around campus looking through the phone's video feed, the items appear in the locations where they were told or the experience happened.

For this app we are assuming people will be willing to share deep personal stories and have them be placed on a public application.

Create an AR app with photos, videos, VR (360), stories, and facts about Stanford's history. As you walk around campus looking through the phone's video feed, items appear in their correct locations and can be selected to view more information.

For this app we are assuming that people want to learn about places when they are near them and are willing to walk around for the sake of knowledge.

Experience Prototypes

For each of our solutions we created experience prototypes to test different assumptions.
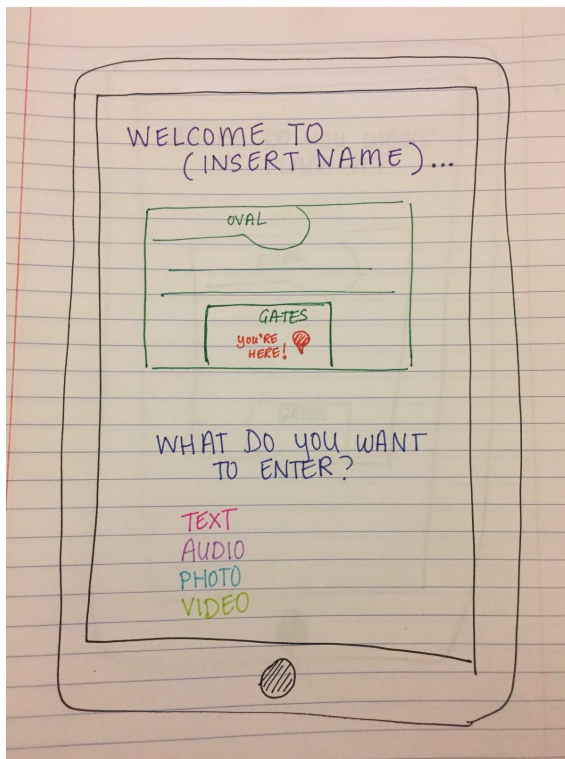
For our first assumption we created a prototype where the user could see different Stanford experiences without leaving their room to test to what extent users would like to experience Stanford from the comfort of their home.

The prototype was just a piece of paper that was cut out in the middle. Through the prototype the user would see different images of Stanford events that were displayed in a Computer Monitor. Whenever the user swiped on the "screen" (the hole of the paper) the image on the

monitor changed. The images included pictures from football games, lecture rooms, students fountain hopping, the *Stanford Tree* etc.

What worked was that the user seemed to be very engaged in the product and loved the general idea. Due to the lack of the 360º however, the user couldn't experience an important feature. The assumption was valid, since the user liked that he could checkout places without moving. However, we realized while observing; that the user went very quickly through the screen, which shows he wasn't as engaged as he could have been.

Experience Prototype #2, from Solution #2

For our second assumption, we created an experience prototype using paper on which a person could select a location and attach a reflection. We tested it on a student-stranger named Jeyla, sitting in the Gates building. She stated that *text* and *photos* made sense to her to upload, but she wasn't sure if she'd include *audio* or *video*.

For Jeyla, "Every place on campus has stories." She described wanting to tag the History Corner with memories from classes, to recollect the event FACES, and to tag Hewlett with the memory of how hard CME 100's final was for her freshman year. She said she'd describe how she cried after the final. She felt comfortable including this experience because she said it was far away enough to no longer be painful. She felt it would be important to include difficult moments and jokes.

Jeyla confirmed our assumption that people would feel comfortable including more personal stories associated with places. We learned that specific places on campus prompt people to think of stories that they'd like to share with others, even people they do not know.

Experience Prototype #3, from Solution #3

This prototype was created to test the assumption that people want to learn about places when they are near them and are willing to walk around for the sake of knowledge. We created an AR phone experience by cutting a hole in a piece of paper and then "ran" the app by holding up printed out photos in the locations they were taken and allowing our tester to walk around and interact with them.

Our tester, Alex, is a professor at Stanford and a casual history buff. He would be considered a typical user as he regularly travels through campus and would have a reasonable interest in learning more about the locations around him.
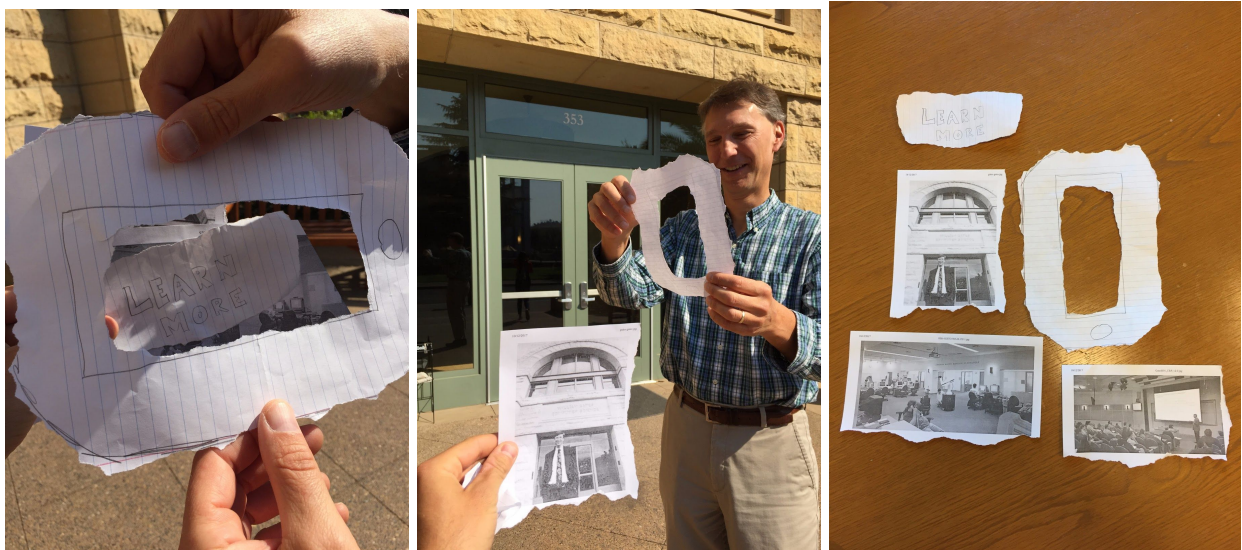
This prototype worked very well and proved our assumption valid, with our tester commenting that, "[he had] thought before that it'd be nice to have an application which taught you about the places you're at". He was able to easily understand the location-based aspect of the app and provided suggestions for interesting additions he would like to see in the final product.

Most Successful Prototype

While our prototypes all confirmed, rather than invalidated, our assumptions, we felt that the third prototype was in many ways the most successful: our broader studio is based around mixed reality, and the possibilities for MR experiences with the third prototype are the greatest. Our second prototype confirmed that people are willing to share personal stories, but it is

unclear if they will be often or even ever willing to share those stories in a format that would make sense to use AR for. Similarly, with our first prototype, though there are people who would prefer to have interesting media from social events available from home, it limits our possibilities in terms of creating a more exciting experience for those willing to walk around.