POVs and Experience Prototypes

Team Merfrog

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Introduction

Our studio theme is **Mixed Reality**. This studio focuses on finding ways in which Virtual and Augmented Reality can be used to solve current needs. Both Max and Kristen are Computer Science majors, and Elisa is a Symbolic Systems major.

Our domain of interest is **Informative Visualization**. We are interested in providing people with supplemental visual information to aid them in their everyday life.

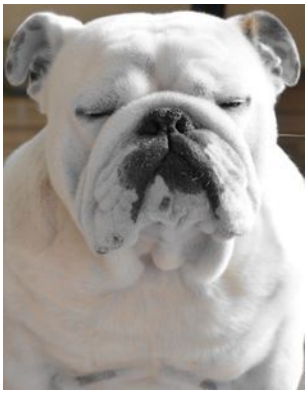
Preliminary Point of View

We met with Lauren Kim, a professional golfer in the Palo Alto area. We learned that the decisions that she makes during a tournament depends on her knowledge of the course beforehand. It would be game-changing if we could use Mixed Reality technology to help people like Lauren make more informed decisions.

Additional Needfinding Results

Using our initial point of view as a focal point, we narrowed down our domain of interest from a method of utilizing technology (Informative Visualization) to a real-world problem domain that we can directly address. Being able to visualize something before actually seeing or experiencing it would be really useful in online shopping. Using this new focus we narrowed down our interviewees to consumers as well as employees of local stores.

We sat down for lunch with **Eleni Spanos** to interview her on her online shopping experience. Eleni defines herself as an “extreme user” of online shopping as she uses sites like Amazon to shop 3-5 times a week. While she frequently goes online to shop, she says that her main issue with online shopping, specifically to clothing, is that you can never tell the quality of what you're purchasing unless you're familiar with the brand. She pointed out that often the color would not be accurate or that the sizing would be unpredictable.



We talked to **Travis**, a young adult who was waiting for his girlfriend outside of Victoria’s Secret with his French Bulldog. He declined to share his photo or his last name, but he was engaged in our discussion about his experiences shopping. Travis explained that he does not shop much, but when he does shop, he usually accompanies his girlfriend and only makes purchases when he is running out of clothes. He does not find shopping to be stimulating, especially when he is waiting for his girlfriend.

We talked to **Enoch Park** about his experiences shopping. Enoch does not shop much, since he finds it pretty boring. He mentioned that he doesn’t mind online shopping as much, and he uses online shopping sites like Amazon to buy books, stuff for school, and sports gear. Enoch also noted that he sometimes goes to stores in person and then buys the item on Amazon because it is cheaper.

We met with **Rachel Berryman**, a Macy’s employee, about her experience working in retail. She interacts daily with customers who are either looking for items or finalizing their purchases. Rachel expressed her frustration with the current system in place for keeping inventory. She mentioned that people will often come into Macy’s with a specific item in mind, and yet she won't be able to locate the item because other customers will misplace items that they had tried on.

We also held several other short interviews with people at the Stanford Shopping Center, including young mothers, middle schoolers, and a post-grad at the Naval Academy. These discussions helped us narrow our scope to improving the efficiency/enjoyability of the shopping experience.

POVs and HMWs

First Point of View

We met with Rachel Berryman, an employee of Macy's. We learned that the shopping experience for many Macy's customers can be disorienting and frustrating, especially when a customer has a specific item in mind but is unable to find it in the store in a timely manner. It would be game changing if we could make it easier for customers to find items in stores.

How might we...

- Make it easier for customers to find items in stores?
- Make shopping a more enjoyable experience?
- Help customers ensure their coupons work with what they want to buy before getting to checkout?
- Help employees/managers keep track of inventory and relative clothing locations?
- Eliminate lines in stores?

Second Point of View

We met with Travis, a man waiting outside of a Victoria's Secret for his girlfriend. We learned that Travis does not enjoy shopping at all, but he prefers in-person shopping to online shopping since he does not trust online reviews. It would be game changing if we could develop a system which people like Travis could use to minimize the amount of time that they spend in a store.

How might we...

- Direct shoppers like Travis to exactly what they want?
- Make a system for improving the reliability of online reviews?
- Find stores that would appeal to people like Travis better (i.e. a store with exactly what Travis is looking for and nothing more)?
- Help Travis reduce the amount of time he spends in a store?
- Make shopping more bearable by gamifying the shopping experience?

Third Point of View

We met with Eleni Spanos, someone who defines themselves as an extreme online shopper. We learned that she has a difficult time purchasing clothing online since the sizing is unpredictable. It would be game changing if we could determine how clothing would fit on you before purchasing it online.

How might we...

- Make it easier for people to find clothes online that fit?
- Help shoppers visualize the items before purchase?
- Crowd source sizing information?
- Make online shopping a social experience?
- Help her find stores that sell clothing that fits how she likes?

Best HMWs

1. HMW make it easier for people to find clothes online that fit?
2. HMW make shopping more bearable by gamifying the shopping experience?
3. HMW make it easier for customers to find items in stores?

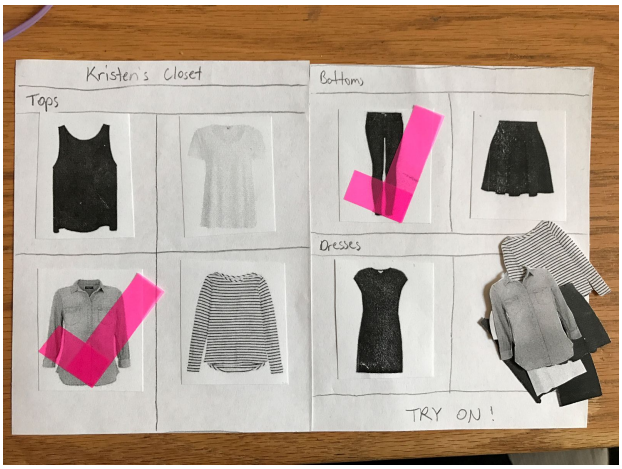
Prototypes

Prototype #1

We started this prototype by assuming that people would want to share their current wardrobe and clothing on their "wish-lists" with friends. We also assumed that people would want to be able to virtually try on clothes within their friends' virtual closets.

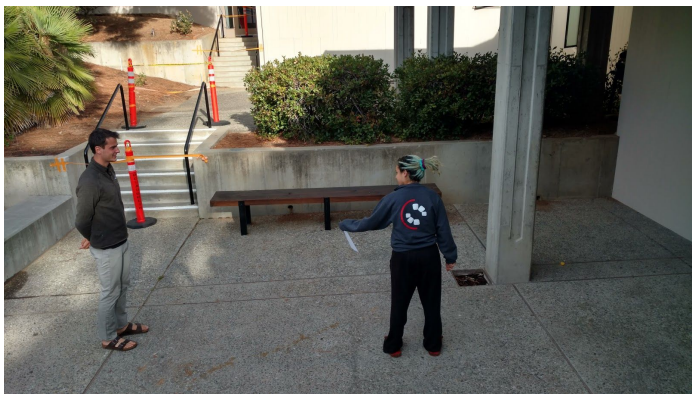
With these assumptions, we created a paper prototype that also utilized the user's phone camera to simulate an Augmented Reality experience. The user was able to look through some items in a friend's virtual closet, and select the clothes that they wanted to try on. We then had the user open the camera on their phone and stand in front of a mirror. Next, we overlaid paper cutouts of the clothes the user picked out onto the image of the user in the camera's viewfinder so that it looked like the user was wearing those clothes.

We received mixed feedback on this prototype. The user enjoyed the experience and said that it was something that she could see herself using. However, one thing that our user had a few questions that we had not considered: If the user liked a friend's outfit after they tried it on, would they ask to borrow it? What if the user wears a different size than their friend? This made it clear that we hadn't really thought through the end goal of this product. Our assumptions were valid, but the results showed that there were some important things that we hadn't considered.



Prototype #2

Assumptions that we made for this prototype were that people would want to know sizing information and quality before they try on an article of clothing, that people would trust crowdsourced reviews, and that people don't trust the store's standardized sizing.



We made the prototype using a blank sheet of paper, a pen, and the imagination of a creative user. We tested it by asking our user to recall the last time he tried on an article of clothing that with which he was disappointed, then we had him draw down his article of clothing. We asked him to pretend he was wearing the jeans he had drawn (via holding it in front of a mirror, AR style), then we added review bubble features to the jeans that would pop up next to the jeans that he is wearing (as seen to the right). He seemed generally enthused by the idea of "interactive" reviews but was concerned that style advice and fitting is too subjective to successfully crowdsource reviews. Our assumptions were valid but we ultimately crossed the idea out due to little demand.

Prototype #3

For this experience prototype, we began with the assumption that people shopping take the time to look at the clothes on mannequins. Additionally, we assumed that people like to see how clothes go together and not just individual items. And lastly, we made the assumption that people would want to change the clothes on mannequins if they could.

With these assumptions, we created an experience prototype that would simulate a user using AR to swap articles of clothing on a mannequin. One of us stood still, pretended to be a mannequin, and held articles of clothing up to their body. We then had the user look through a camera and explained to them that the clothes they were seeing were being rendered through AR and placed on the mannequin. When the user would swipe on an article of clothing we would swap the item for one of a different style.

We received positive feedback from this experience prototype. The idea of being able to quickly see possible outfits while just passing by a store was very appealing. Our assumption that people would want to see outfits was validated, however we overestimated the amount of time people would be willing to take to look at mannequins. Additionally, it was noted that simply displaying the clothing may not be enough. It may be beneficial to show sizing options as well as brand names.

Results

After analysis of our three experience prototypes, we decided that Prototype #3 was the most viable solution. Our test user for Prototype #1 brought up many valid questions about the practicality of our concept that we hadn't considered. Prototype #2 lacked the muster that other review-based websites had; there simply wasn't a need to include an AR aspect to user-based reviews, especially when many shoppers don't listen to other fashion opinions.

Using the feedback we gathered from experience Prototype #3, we ended this assignment with a new assumption: *People want to see what a store has to offer before they even step foot inside.*