## Summary of Key Findings

Through our design research, we've found that, in general, the people that we spoke with don't have problems with overbuying clothing or organizing their existing clothes. They feel that keeping track of the clothing that they wear regularly is not difficult. We identified that the few areas that people do tend to struggle with are keeping track of clothes that they seldom wear, and then not knowing whether to get rid of them; and figuring out how to dress appropriately with consideration to weather and special events.

## Participants

## Carina

Carina is a civil engineering student at the University of Washington. She lives with her parents and has her own room. Our contextual inquiry took place in front of her closet -- a standing wardrobe -- where she gave us a quick tour. A unique finding that we uncovered is that she's a very sustainable shopper. She still wears most of her clothes that she bought 3 or 4 years ago in addition to new pieces that she has obtained throughout the year. She also claims that she has a very clear map of what items she currently own and where they are. Carina organizes her clothes based on style (i.e. tank tops, sweaters, shirts, jeans). A big struggle that Carina has is trying to find the right thing to wear that matches her mood, the weather, and the event that she is attending. Since she is a civil engineering student, Carina doesn't attend special events often so when a situation arises like a dinner date, she is at lost for what to wear because she doesn't own the appropriate item.

## Jen

Jen is a working professional at a car dealership. She lives at home with her parents but has the basement all to herself. The contextual inquiry took place in her room where she gave us a tour of her closet. An interesting finding was that she checks the weather every time before picking something to wear. Jen usually doesn't spend a lot of time in choosing her clothes unless it is an important event she needs to dress up for. She shops quite often, sometimes even once a week or even more when she is stressed. She has a well organised closet with sorted according to style (homewear, skirts, shirts etc.). As an indecisive person, Jen she has a problem with picking clothes for events and gets discontent with clothes over time or if they go out of style. She usually only uses $50 \%$ of her wardrobe and wants a product which could tell her how she looks in a particular outfit.


#### Abstract

Alice Alice is a first-year student at a small college in Minnesota. She lives in a dorm and has a roommate. I spoke with her via instant messaging. She considers herself fairly well organized with her clothing, and doesn't usually have trouble remembering what she owns when she goes to shop for new clothes. She did note that she finds herself subconsciously buying clothing which is similar to what she already owns, but she doesn't consider that to be a problem since


she knows that they're in a style that she already likes. She says that the only difficulty she really encounters is remembering which clothes she owns but doesn't wear often. As a Seattle native now living in a much colder area, she has to be more aware of the weather when choosing her clothing for the day and going outside, and typically checks the weather report before deciding what to wear.

## Rachel

Rachel is a junior studying Informatics at University of Washington. She doesn't usually struggle when she is trying to buy clothes but she struggles after going shopping because she thinks she buys too much and ends up having to return most of them. Due to her habit of shopping online, she tends to end up with many duplicates and triplicates of the same type of clothes. Since she has a lot of clothes, she often struggles to find them, especially socks. She thinks she spent too much money on socks because she keeps losing them after laundry.

## Themes

The high-level themes that we've identified are that all of our participants struggle most with picking out what to wear. They often consider weather to be the largest deciding factor, followed by personal "mood." Furthermore, our participants care about finding the right pieces in their closet to wear for special events such as birthday parties, dinner date, and business related gatherings. They struggle with pairing things together and will try on different outfits until they found the right match. This process can be quite time consuming, particularly if they own many different combinations of clothing that they could try together. This is especially bad during busy days (which often coincide with special events). In cases where participants are dressing themselves for school or work, things that they attend on a daily basis, then the process is quite fast and efficient since most of our participants generally have a good sense of what they have and where their used clothes are. This leads us to understand that our design need not tell the person where to find their clothes, but rather, should include some way to suggest clothing for the day based on the weather and on special events. Maybe it could sync with a person's calendar and give suggestions for what to wear based on some type of "formality rating" that a person assigns to an event--or could decide the formality based on somehow interpreting the event title and/or description.

Another high-level theme that we noticed is that participants are generally organized with items they frequently wear, knowing exactly where things are. However, they sometimes have difficulty keeping track of items that they don't wear as much. These items tend to get buried which perpetuates the cycle of being unused and causes participants to re-wear the same clothing. This also relates back to the first theme: unused clothing might not come to mind when dressing for a special event, so they would not think to wear it. Therefore, we still think it is important to have a way to directly track which clothes a person owns, even those that are seldom used. In particular, it would be helpful to build into the design some way of tracking how frequently an article of clothing is used without the person needing to enter such information
manually, so that we can track usage patterns without requiring that they interact with the design on days when they don't need extra help, which might seem like wasted effort.

## Task Analysis Questions

## 1. Who is going to use the design?

The design would be primarily used by college students and young professionals who don't have a lot of time deciding what they wear, or don't have any idea what they want to wear for certain types of weather, or for particular events.
2. What tasks do they now perform?

Tasks include picking out clothes to wear considering different factors such as weather or the occasion. People also have to sort and arrange their clothes in the closet, do laundry, purchase new clothes and discard old ones.
3. What tasks are desired?

After our research, we believe that our participants would like to have recommendation of what to wear at different occasions and in different weather. They usually struggle with choosing what to wear at a certain special occasions, such as dates, business meetings or parties.
4. How are the tasks learned?

These tasks are learned by people over the course of their life from observing family members and peers. Some tasks are also learned through trial and error; e.g., wearing clothing inappropriate for an occasion, or being rained on because they forgot to check on the weather.

## 5. Where are the tasks performed?

Since we primarily focus on college students and young professionals, the place where the tasks performed would be in their dorm, and for recent graduates, at their home or apartment, likely in a small bedroom.
6. What is the relationship between the person and data?

Since the problem focuses on individuals, the data will be specific to every individual to give accurate results. However, many formal events require that people wear similar clothing (e.g., suits or dresses), so we can likely make certain assumptions about what type of clothing would be desired for certain events.
7. What other tools does the person have?

People usually take recommendations from websites like Pinterest, Tumblr and Instagram, and based on what other people (such as their friends) have been wearing or recommend to them. However, it is difficult to follow a person's style when it is for different occasions or they live in different climate. For example, it is difficult for someone to follow a style from California when they live in Washington during the winter. Furthermore, everyone has slightly different ideas of what looks good so adapting another person's style can be difficult.
8. How do people communicate with each other?

People share their styles on Instagram, Facebook, and Pinterest for other people to see, and they learn other people's styles. People also communicate with their friends about current trends that they follow and clothing that they plan to wear, over text messaging or platforms such as Snapchat (which in particular has the advantage of being a low-effort way of sending photos, since they are automatically deleted).
9. How often are the tasks performed?

The tasks are performed every day in the morning to varying extents. On a normal day, weather is likely the greatest consideration, but during special occasions the tasks might become more complex since people have greater trouble figuring out what to wear. Sometimes, tasks are performed multiple times per day, e.g., if someone needs to dress up for an event in the evening.
10.What are the time constraints on the tasks?

For many people, getting dressed in the morning (or in the evening, for certain special events) can be quite tightly constrained if they have to leave for work or school by a certain time. Some people might make up for this by preparing outfits the night before, but this is cumbersome and easy to forget.
11. What happens when things go wrong?

When people can't keep track of what they own, they end up with a lot of clothing items that both take up space and are no longer performing a useful function. If they don't dress appropriately for the weather, they risk being more susceptible to becoming sick or might just be too warm/cold. And if they dress inappropriately for a formal or semi-formal event, they risk not being taken seriously by their peers.

