

SI 582: Intro to Interaction Design - **Design Synthesis**

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10/22/2016

As I reflect on my design process thus far, I realize that every time I felt stuck or confused during each iteration, it was all because of the same problem: struggling to find that perfect balance between designing using my own values as a prospect user and designing objectively as a dynamic user.

That is, when coming up with solutions or drawing specific steps of an interface, I caught myself at multiple times thinking in the perspective of myself. It was very easy to fall back into and follow along the thoughts of “how would I want this problem to be solved” or “how would I use this product” instead of focusing on the community I am designing for. It is definitely a dangerous zone as I can see some of the solutions I came up with, “The Apple Watch,” for instance, were based on my own experiences of using the device to remind myself to stand every hour for health benefits. I have assumptions that users would react the same way I did, and so I drew each stick figures’ process according to how I used the product. When in reality, Apple Watch is not an accessory that the majority of the users in my intended community own. And even if they do, when prompted to stand up, most users tend to ignore and find the function annoying, because they don’t necessary share the same value as I do when it comes to choosing self-care and time. What this implies is that the solutions may be too specific and personal.

On the other hand, I found that staying completely objective might also harm the design process. For example, the “Company Policy” solution was based on the generalization of how upper level management in companies would be willing to step in and help with employees’ health. I tried to withhold my own experiences in thinking through the issue from the perspectives of the bosses I worked for. Nevertheless, I feel that those experiences could actually benefit me. That is, knowing that it is highly impossible for a company to see employee’s personal health as a corporate responsibility. Hence, in this case my experiences would actually benefit the solution, as I would know what strategy to disregard and what to focus on. It is this struggle between how much I can design subjectively that throws me off at points during the design process.

I am glad, however, that the next step of the process is to talk to potential users. So far, with the lack of user research, I don’t feel as confident with design solutions for the inner struggle between what values I should persist from my own experiences. Hence, I want to get to know more about office jobholders—their values—to find whether or not they also have a sense of urgency with long sitting hours. If not, what measures would be appropriate to push or motivate them. I have come up with the personas based on a spectrum of different traits that I encountered in my professional career—and I wonder if I am acting too much like a user than a designer. One of the personas, Jenny, for instance, is scared to take breaks because she feels like her employer would regard that as slacking off. I built that assumption based on my general belief in an office, especially in an Asian cultural setting. In fact, In Asia, working long hours and skipping lunch breaks are considered equivalent to your dedication for your work. Most bosses promote based on these long hours—does that same value holds in a here in the states? While going board on designs (outside of technology) and not getting into specifics were great experiences, it also made me realize the important of research. I believe showing potential users in the community my solutions and learning more about their experiences can truly help with knowing if my value aligns with those I intend to design for.

SI 582: Intro to Interaction Design - **Narrowed Concepts**

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Interview Questions

Hello, for my SI582 Interaction Design Project, I am designing a technology intervention tackle the problem for employees who have 9-5 jobs that have to sit desks all-day long, which could lead to many negative health effects.

1. *[Have them share their thoughts]*

So the idea is to have them stand up for short intervals 1-2 hours at a time to break up the long sitting hours. Here are some solutions I have come up with, would you mind taking a look and telling me what you think about them?

2. *[Give them time to look over the solutions and share thoughts]*
3. Do you have a favorite one, or if none stood out to you, what would you recommend?
4. For this one solution, how valuable would this be to you in your job?
5. For this one solution, do you think it's practical to implement for you? Why or why not?

Solutions

- A. The Shaky Chair
- B. The Office Pet
- C. The Company Policy
- D. The Sticky Notes
- E. The Smart Computer
- F. The Standing Desk
- G. The Apple Watch
- H. The Fitness App

Who I Interviewed

I attended the Grace Hopper conference in Houston Texas this past Wednesday to Friday (10/19-21) and was fortunate to meet a lot of users who loved to be interviewed:

- Danran, Airbnb Software Engineer
- Jensen, Yelp Software Engineer
- Christina, IBM User Experience Specialist
- Shelly, Conference Receptionist
- Thomas, Conference Receptionist
- NT, Food Station Cashier

Raw Responses

Note: may not be word by word as I jogged down some notes and went back and fill it in.

Danran:

1. "Omg I definitely know what you are talking about! I just graduated last spring and started working full time. I definitely am starting to feel the back and neck pain! Fortunately though our company is pretty flexible on where you work so sometimes I sit on a bean bag, although that probably is still bad for you right"
2. "Your drawings are super cute"
"I love that this is part of a class—the steps you show here feels like what a designer would should me for Airbnb to implement"
"Can you imagine someone actually using the fitness app? Just randomly pulls out an app and start exercising at their desks? Actually I would probably totally be up for it but I think everyone would laugh at me."
"The Company Policy one and The Sticky Notes is quite interesting, but I think it's a little unrealistic. I mean company policy maybe I can see if company realizes that this may help them increase productivity in the long run? But the sticky notes one just seem like too much work. I feel like I would just never talk to my co-workers. It seems to be creating one problem to solve the other"
3. "My favorite one is probably The Office Pet one. It is adorable!"
4. "I guess I am not sure if it's going to be valuable for the job specifically, but its super cute and if it works like you said it would, it's going to help me with the back and neck pain, then yea I think it would totally be valuable in a personal way"
5. "Hmmm... I think you really have to think through the logistics. Like for it to be practical I think I definitely have to have some control over how regularly it would need a walk, and I guess how loud it is going to be...like if you imagine everyone have one at the office, wouldn't that be sort of annoying? And like would it be guiding the walk? Or would I have to drag it around? Probably a lot more details before I can determine if it is practical"

Jensen:

1. "Oh cool hahaha I have always heard sitting too long is bad for you, but I feel fine so far so never really paid too much attention"
2. "These are great"
"Gotta say I would be super annoyed at the Smart Computer one though. At the step where the computer shuts down for one minute I would probably swear and just pull out my phone to wait until it shows again"
3. "I guess the Apple Watch one. Others seem pretty forceful. I own an Apple Watch so I know what you are talking about here, at the time it reminds you to stand up for a bit but won't force you to do so. I think that's better"
4. "I own it right now, so yea I think it's definitely valuable—since Apple Watch can do a lot more"
5. "I mean it is already part of my daily routine, I will say it is pretty practical since I probably wouldn't purchase something that's only purpose is to stop me from sitting long hours."

Christina:

1. "Interesting project! Have you heard of those standing desks? Yea we have some of those at the company, but I don't use it. I tried it for like half an hour once and then sat back down"
2. "I love all these solutions—great UX practices to go beyond software and just generate ideas! The steps are very well structured too. I think my favorite is probably the chair. I think I might need the motivation to physically remind me every time."
3. (she answered it)

4. "Yea so as UX strategist I move from places a lot to meet with different teams to present my user stories or figure out requirements, but there's definitely times where I sit at the desk and all I do is design and wireframes. And I think those times are probably the times that the chair would definitely be valuable to just as a reminder to take breaks"
5. "I think it's pretty practical in terms of using it but hard to adopt. Since you probably have to change all the chairs in the company. You know it's like that IDEO shopping cart, it's design is great but hard to replace what its already out there"

Shelly & Thomas (interviewed together):

1. "Great, you should come up with a solution for us right now, been sitting here all day"
2. S: "I like the pet one! Adorable, probably wouldn't work for this setting"
T: "I think it could work, I mean its Grace Hopper, who doesn't love a smart robot dog. How much would it be though?"
3. T: "Shelly's favorite is the dog. I think my favorite is probably the chair since we are not using computers here and others don't quite fit the situation"
4. S: "I think it would probably slow down the process of check-ins if say, the dogs or the chair want Thomas and I to both take beaks at the same time, so probably some sort of coordination and planning is required"
T: "Usually when I feel like I am sitting too long I would stand up and stretch, so I guess it wouldn't add too much value but maybe for others it could"
5. S: "It's probably not that practical for the dog. I think my boss may think it's a kid's toy and wondering why I am bringing it to work. I can see the chair work though"

NT:

1. "OK"
2. "You are very good at sketching"
"The Company Policy one is a little similar to now. You see the other cashier spot that is standing with no chair? We are required to switch off shifts to that one at a time table"
3. "I think they are all very great. If I have to pick one I think maybe the sticky notes? It would be fun to pass notes to other cashier stands, could be a little game"
4. "It would be fun; customers probably will be confused at times when I am not at the desk though"
5. "If my boss implements it I will follow it"
"Otherwise probably not going to happen. We may play it for a while and then would just slowly forget"

Synthesis:

Through the user interviews, I have gained many insights into what the current solutions excel and lack, and will continue to narrow down the concepts by focusing on the following:

- Need to think about solutions that would work in different scenarios (The Smart Computer, for instance, wouldn't work for users who sit all day but do not use a computer)
- Need to focus on mass adoption (The Office Dog, for example, wouldn't work for the entire office—would be impractical if everyone had one)
- Be part of an existing item, users rarely would purchase an item with the sole purpose of "reminding them to stand up every hour"
- Involving upper management is ideal but unrealistic—focus on other solutions
- The solution should not "annoy" the users too much that it would disturb their daily routine
- It should be easy to use without too much explanation
- Customization is important (allowing the users to be able to set their preferences of the reminders")

SI 582: Intro to Interaction Design - **Brainstorm**

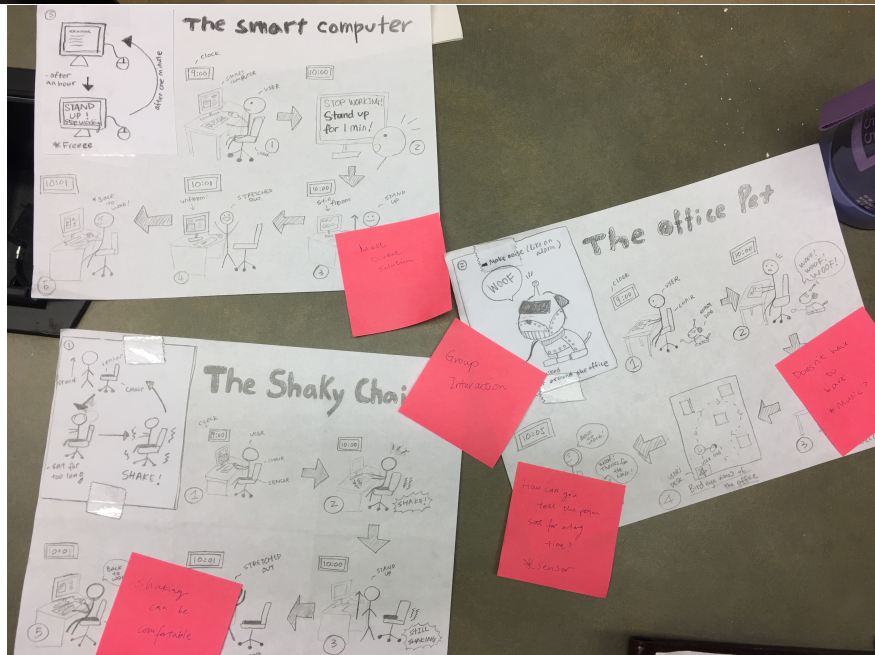
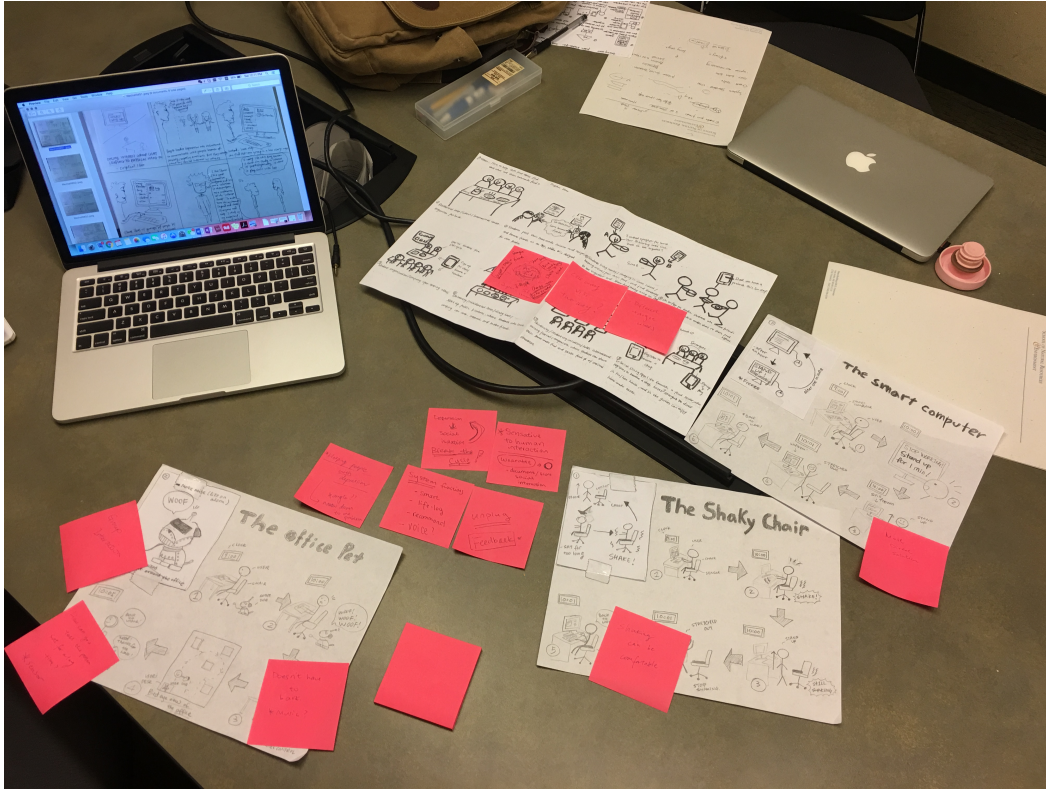
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10/22/2016

Classmates: Kehan Liao < khliao@umich.edu >, Jingshu Zhao < jszhao@umich.edu >

Time: 10:30am – 12:30pm Saturday 10/22/2016

Place: NQ1278



It is also super helpful to talk through your idea with someone else and hear their takes. I showed Kehan and Jingshu the three ideas I narrowed down (the office pet, the shaky chair, and the smart computer) and talked about what users' concerns were during the interviews. Together we brainstormed about potential alternative for those concerns. Kehan and Jingshu was very good at not only solving specific user concerns but also point out potential challenges that I would encounter throughout the design process.

The Office Pet:

- In regards to users feeling that "it may be hectic when everyone is the office had a dog," a potential solution they came up was to have one dog for a group of people (one team, or a whole office, for example) and hence the dog would just go to different users at designated time.
- We talked about how group interactions with the pet would have to carefully thought through
 - o How would multiple users customize their settings on the same object?
 - o What possible compromises need to be thought through?
- The question: "How can the dog tell the person is sitting for a long time?" was also raised.
 - o Possible solution is to have some sort of sensors to track the user's position (wearable?)
- The pet can do more than reminding people to stand up (can possibly think of more functionalities)

The Smart Computer

- Most practical and direct solution
- Agree that it may cause annoyance to the users,
- It is practical in that it tracks how much users are using the computer but may not necessary mean they are sitting – same question with the dog – how can computer tell users have been sitting for a long time?

The Shaky Chair

- Maybe do a pillow instead of a chair to lower the cost concern
- Pillow can bring it anywhere
- Concern is that the movement of the "shake" would have to be problematic for the users – if it just slightly vibrated, users may ignore it
- Suggest that could make noises until users' stand

I think throughout this week's exercise I am going to explore either the dog or the chair (pillow) idea moving forward.