

## Assignment 8: Peer Review

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### Review of Assignment 1: Term Project Proposal

#### Users

I would like to know more about your users. What are they like as a group of people? Are they technology evangelists and early adopters? Are they buying smart devices because they think they're cool or are they buying them because they expected the devices would make their lives easier? I think there are a lot of unanswered questions here that could prove to be very revealing of your users.

#### Problem to Solve

You mentioned that each smart device has their own app out of the box, but I think the problem may be much more complex than having one app for each device. Something that I think you might have glossed over was the reason why there are different services for each device. Many internet of things devices use different technologies to connect to the web and control interfaces. For example, some smart lightbulbs such as Lixx lightbulbs use WiFi while others use communications methods to talk to a gateway device that then uses WiFi or ethernet to reach the world wide web. Often times, it's these technical designs that explain why many companies are led to create specialized services for their specialized technology. I would agree there's definitely a problem to be solved but I think the complexity behind the problem could be elaborated upon a bit more.

#### Pleasurable State

I think you did a good job at how you want the pleasurable state to be accomplished but I would like to hear more about what it feels like for the user to be in that pleasurable state. You describe getting all of these smart devices under one control interface so everything's easier to use, so the first few feelings that come to mind for me are "control" and "intuitiveness." What does it mean for the user to feel like they're in control of the smart devices they were once too anxious to use frequently? What does it feel like to be able to connect a new smart device fresh out of the box and already know where and how to control it?

#### Frequency and Duration

I think you did a good job here; the frequency would usually be short. Many times, a user knows exactly what they want to do with an IoT device and they simply use the control interface to send a command and that's it. It may happen often throughout the day but it's definitely short in duration like you mentioned.

#### Economics of the System

A few things here. Be careful to not say your app controls Bluetooth smart devices. Many home based smart devices are not Bluetooth powered. They usually use communications protocols

such as ZigBee or Wifi because these devices need to take advantage of the home WiFi connection for internet connectivity and the home is too big with too many obstacles to reliably support a BT connection to a cell phone. Many portable smart devices use Bluetooth because they need to tether to the phone for internet connectivity on the go. Either way, I'm not sure this really relates to the economics of the design. I can definitely see providing sales to users for companies that sponsor the application. A few other ideas could be a freemium model or you could track users analytics and sell that data to companies for advertisement targeting.

### Competitive Apps

I think you did good here. I actually use the Apple Home dashboard myself. When I bought a few smart lightbulbs, I had to set them up in the native app first, then set them up in Apple Home Kit. So what you're describing definitely resonated with me and I think mentioning Google and Apple as competitors was the way to go.

### The Essence of the Project UX Needs

I can understand the essence of your project but I had a little bit of trouble imagining it. I think this section could be a bit better if there was a better description of what the most important or significant part is that ropes users in, like "one button setup" or something of that sort.

### Hardware & Environment

These two sections make sense to me. If it's an app-based tool then of course it's going to see support for iOS and Android. I think one thing you might have missed here is whether or not the phone needs to support Bluetooth or anything like that. Would the phone need to have a data plan? If so, what sort of data plan? Would it need WiFi connectivity? How new does it have to be? These sorts of questions and answers could also be useful.

## Review of Assignment 2: User Personas

### Sherry

I think you did a good job describing Sherry but she seemed sort of generic. The gist I got from Sherry's persona was that she's a busy person who likes tech and has little time. I think the problem I had with this was that this describes so many people and that means there's a lot of people out there who are willing to use smart devices without your app. So my main concern is that from looking at Sherry's persona, I don't really know what would make her want to use the app as opposed to say, a 25 year old dad who has little time and is also into tech. Would there be anything you could add to Sherry's persona to make her purpose of adopting of your app make more sense and stand out more?

### Ben

I feel like I can understand Ben a bit more than Sherry. I don't see that he's that strapped for time but I do see that he's a technophile and I feel that Ben adopting your app out of curiosity and a strive for better tech is much more believable than Sherry adopting the application. I'm wondering why Ben owns both an iPhone and a Google Pixel? And I think I would have liked to

have read a little bit more about where his tagline “I’ll have my own company eventually” comes from and how that might relate to how he uses and sees your application.

## Review of Assignment 3: User Stories

### Interview with User & Questions based on the interview results

I think the interview seemed to go a little too into specifics question wise. I feel like the iRobot and Bluetooth speaker examples are very narrow and could have potentially made the interviewee avoid other more revealing responses regarding their general experience controlling IoT devices. Maybe rather than asking “Tell me about your pain points about using your iRobot vacuum and Bluetooth speaker”, something like “Tell me about the last time you had difficulty controlling a smart device” could have elicited some more interesting responses. I’m worried that after this interview the only thing really suitable to design to would be an iRobot vacuum and a Bluetooth speaker, but your solution was supposed to control everything via a new standard app. I think your follow up questions were similar in this respect. However, I think your follow up questions did well in building upon the interviewee’s original answers. I liked seeing the user elaborate a bit more on their pain points in relation to the iRobot vacuum and Bluetooth speaker.

### Short Stories

I liked your stories and I thought story three was especially useful. I’ve actually wanted to do that many times before and was unable to because there was no app that would simply turn everything off or on. I think there were some parts of the actual story text that weren’t really needed though, like “Notification is meaningless when I’m in the office” doesn’t really seem to relate to well to what the user is trying to accomplish in the beginning of the story here, “When my vacuum is stuck, I can simply stop it or move it around remotely.” Story four seems pretty large and I might be inclined to think of a more specific story for that one or maybe split it up into a few stories, that’s really just my opinion though.

### User Stories

Your user stories looked much like my user stories before I went back review them after some help from the TA. The feedback I got was that I focused way too much on implementation details. I think your user stories may be doing a bit of that too especially in places where you mentioned clicking on a button with a specific label. I got some really good advice and was directed to write my stories trying to leave out the implementation details and instead put in things that help us understand how the user is feeling because ultimately the user is going to come back because the experience makes them feel better whether it be from less stress or more comfort. I think adding some more of this aspect to your user stories could help the user stories resonate with reader much better and let us know why they use your app rather than simply how they use your app.

## Review of Assignment 4: Mockups

I thought your mockups were really well put together and very easily understandable. I personally preferred the first storyboard set just because it felt simpler and more intuitive to

me. The only thing I think I might have done differently is I probably would have had the shortcuts on the home screen somehow. If a user knows they want to use a shortcut then it makes the most sense to put that shortcut as the first thing they see. The user creating a shortcut is kind like them telling you, "hey, I'm going to do this often." So why not make it super easy for them to do by adding it right to the home screen rather than them having to click shortcuts first then the shortcut's button use the short cut?

## Review of Assignment 6: Security Plan

What are the security requirements? how are credentials obtained?

I think you did a great job of going into detail on how exactly this would work. I'm a little worried that there's no social auth though. I'm wondering what reasoning you have behind thinking users would not want to login using their Google or Facebook accounts? Also, what happens if the user get's a new phone number and then if that users old phone number is assigned to another new user on the platform? I think these are all things to consider potentially. I think it was pretty good that you mentioned the authentication with each devices service as well in order to access that device's API, that's a pretty important security aspect that enables the app to work.

How intrusive is it? What's the effect on productivity? What's the users hassle budget?

I have to agree with you here that most users would probably just sign up with their mobile phone number. I think signing up with a mobile number is definitely one of the easier ways to signup. However, sometimes users may have to wait to get the verification text and that could be a big hassle. I think if you want to go one step further and make it even simpler and less intrusive then you could integrate social auths such as login with Facebook and login with Google. Otherwise, there's really no getting around the user having to enter some sensitive information for those other cloud IoT accounts. But as long as it stays under the user's hassle budget then it should work out. I think we could use a little more elaboration on the hassle budget though too. What is the limit where the user will drop off if there's too much hassle? Is it if it's more of a hassle than setting up a new product? Or is the barrier greater than that?

In what way might a layered approach be less burdensome?

I liked how you implemented the layered approach in your app. Users can choose not to register at all for limited functionality which I think is nice. And when any especially destructive changes are made a login confirmation is prompted. As far as I understand it, this is a sensible and secure way to implement a layered approach at a minimal cost to security.

What regulations apply to this application?

When I read this portion, I was curious as to why the Massachusetts regulation holds enough weight for it to be listed here as opposed to the Computer Fraud and Abuse Act or the Identity Theft Assumption and Deterrence Act. It is pretty hard to find these regulations sometimes though and even harder to tell if they apply or not. I think you addressed the most important one right now though which is GDPR and that could very well have a large impact on how your application is built and works.

How much is the user required to think?

I thought the phone number registration helps to have the users think less as well. It may not always be the quickest but it's very easy and painless for the most part. I liked how you mentioned you want a simplified ToS and Privacy Policy, which is always a great user experience. I think adding illustrations to the security information and maybe even the ToS and Privacy Policy could be a very creative way to get users to read them, I liked that too!

Good Job!

~ Brett