

# Affinity Diagram for Evaluation:

## The system provides greater peace of mind to caregivers

### Monitoring hub provides a valuable peek into care-receivers lives

- P1: (monitoring hub) It's always good to get a peek into what's going on in their lives
- P6: Something that I wouldn't have thought of but I really like is just like even seeing how charged their phone is. That is an easy thing that could potentially cause a lot of problems.
- P6: The limiting factor of the monitoring hub is that you need these external devices to collect the data. But if you had those devices it could be really useful. For example if someone had health issues such as high or low blood pressure, or if they had arrhythmia with their heart, or they are diabetic and their blood pressure gets uploaded each time they check it that would be helpful too.

### Broadcast feature provides an additional layer of security to the caregiver/care-receiver

- P1: The broadcasting would be a really valuable feature.
- P2: Having a speaker broadcast feature is almost another layer of verification that you know they need help.
- P6: I do think that taking over a smart speaker in their house sounds a little crazy but it could also be very useful to have that capability to check in if he loses his phone or forgets to plug it in.

### Although there are privacy concerns for this system within the general population, these concerns are not as relevant within the caregiver/care-receiver relationship

- P1: Privacy goes out the window for both parties, for both the caregiver and care-receiver, privacy is the least of their concern... I can't emphasize that enough. Privacy is not an issue for a parent whose child is helping them. It's only in that context. I already have full control over her money and medical care. Privacy goes out the window because my mom is so glad that she doesn't have to worry about all her finances and such. That's just how it is.
- P4: I think the concern is the more control you have the more it can become a privacy issue. I think something like this ... the potential it could be potentially abused. In the context of an aging parent I think it would be really helpful.

- P5: People might be a little confused or uneasy about sharing certain information to each other; however, I'm sure there are people where this would be great for.

### **The system provides a convenient and efficient way to mediate technical assistance**

#### **Remote Control feature is powerful and convenient for technical assistance**

- P1: To have access to screen sharing with her would just be really powerful for me as a caregiver. You are really on to something.
- P1: Being able to show how to do things quickly with remote control is really great for teaching her how to do things. If I go behind the scenes and do stuff she doesn't know what I did behind the curtain and that's not good either.
- P1: It's difficult to communicate if you are not right there sitting with her. My mom has a little bit of a hearing problem. But what this allows you to do is that you can just step in and do it without being there. If you are sitting there you can just take the phone and do it or show her. With this you can do it remotely and I would say it's very valuable.
- P3: I would be extremely likely to use this as a caregiver because I can't imagine a more direct way to interface with them. Otherwise you would have to rely on an email or phone call and that just creates another layer of explanation that you have to get into.
- P4: I think it is handy. Definitely even my non-senior parents there have been many occasions when I wish I could be inside their phones to give them technical assistance.

#### **Settings controller provides a valuable safeguard to caregivers**

- P1: Just being able to check through her settings to make sure nothing got switched off or whatever is really good.
- P2: It's a good thing that you are able to check on an older person's settings because occasionally something happens to their settings that they aren't aware of.
- P4: Being able to assist with settings is really helpful.

### **The system is beneficial to the lives of care-receivers**

#### **The system is empowering to care-receivers and promotes independence & autonomy**

- P1: You don't want your mom to be able to fish... you're going to give her fish and let her fish. You want to create the environment in which she will operate in.

- P4: Being able to assist with someone's day to day activities... You are kind of enabling someone to have a sense of independence on both sides... as a caregiver you are not physically needed all the time and as a care-receiver you can get assistance more quickly if you need it and you will probably have more of a sense of independence too that can more easily whatever you're trying to do when you are trying to do it so you don't have to feel frustrated trying to wait for someone. You don't feel frustrated feeling dependent on another person so that's all really helpful. From a caregiver perspective, if your parents are elderly or are forgetful just having the ability to check in on certain things.
- P6: I do think it's good that you can't see their messages or calls so it doesn't feel so much like a nanny state or feel like they are being spied on. It makes them feel like they are still living on their own but is just making it easier for caregivers to them.

### **Features and navigation of the application are not immediately evident to caregivers**

#### **Meaning of icons for navigating pages isn't immediately clear**

- P1: Struggles to identify exactly what all the main navigation items at the bottom means when initially interacting with the application. The structure of the app isn't immediately evident.
- P3: I think one would need a brief tutorial on its onset to tell me what all the icons mean.
- P4: The applications and direct connect icons are not clear from first glance. The settings controller and monitoring hub are much more understandable.

#### **Some capabilities of features are not immediately evident when first using application**

- P1: Initially confused about the task of showing albums to mom. Tries to go to photo albums within the application page rather than screen control.
- P4: Did not see lock setting at bottom of settings menu. I did not even look at it.
- P2: Wasn't sure what the remote control vs broadcast feature was.

### **Design ideas:**

- P3: Over time It would be nice to enable the caregiver to modify the organization of the app so for example highlighting most frequently used features and enabling shortcuts.
- P3: I think one would need a brief tutorial on its onset -- a brief user guide to tell you what all the icons mean.
- P3: DI: In the tutorial or setup it would be good to have the care-receiver phone virtually simulated so you can learn how the caregiver app interacts with it. This way you don't need to have the care-receiver's phone in hand to see how it works.
- P5: DI: make sure the care-receiver can see where the caregiver is tapping during remote control.
- P6: DI: I think you would have to run a beta period with users and I think a lot of people would come up with suggestions or ways in which they like to use it to help improve the overall experience for everyone.

### **General care-receiver OS Feedback:**

- P2: I like that the care-receiver interface is more bold, simplified and minimal.
- P6: Thinking of my grandfather or lives by himself and can't see very well. I think having those really big standardized icons would be useful for him and having it simplified for him so he could interact with it easier.
- P6: The ability to have easy buttons to see that are clearly marked and the same size is really useful. Some people are just not really good at complex things.
- P6: I think it's super helpful. I think older adults get confused sometimes just with the complexity of their phones with all the things they can do. So I think narrowing it down what they can do while still having all the functionality there but just making it easier to access I think that that's super helpful.

### **Design ideas care-receiver OS:**

- P2: DI: I think it would be useful for example within the care-receivers phone to have texts and certain things read to you rather than having to read it. (text to speech integration)
- P2: I think it's important for the voice assistant to perform complex tasks such as "Can you read Jennifer's text message?"
- P5: On the interface for the care-receiver instead of relying on back or home button at button maybe it would be better to have big red buttons to go back.

**Quotes:**

- P2: I think the concept is pretty cool. It gives the ability to feel like you have some say over your loved one.
- P1: I like the concept, I can't emphasize enough it would be truly helpful. So when I'm old my kids could talk to me in this way to keep things simple.