

# Adoption & Utility

To what extent does the system adjust or allow adjustment for individual preferences?

How easy are such adjustments to locate and to manipulate?



Concerns

CA&U-01

# Adoption & Utility

Will this product be capable of delivering perceived value if the user fails to consistently manually enter data?

If not, what rewards does the user receive for data entry?



Concerns

CA&U-02

# Adoption & Utility

Does this product depend on non-primary users such as doctors to accept this product?

If so, how have you verified that they will be willing to do so?



Concerns

CA&U-03

# Adoption & Utility

Does the product in any way add to user daily work load?

If so, what indications are there that the benefits are sufficient for time invested?



Concerns

CA&U-04

# Adoption & Utility

Can the user gain benefits when they use product without having to have invested effort on previous occasions?

If not, how much effort will they need to invest, and why will the user do so?



Concerns CA&U-05

# Adoption & Utility

How much effort per day will users have to invest in order to attain benefits?

How is this request for user time justified?



Concerns

CA&U-06

# Adoption & Utility

Is this product meant for frequent usage?

If so, can it support user needs without requiring significant cognitive effort?



Concerns

CA&U-07

# Adoption & Utility

If this product requires continual use to deliver benefits, how much effort does each use require?



Concerns

CA&U-08



# Adoption & Utility

Is this product meant as a daily usage tool?

If to what extent do benefit surpass required effort?



Concerns

CA&U-09

# Adoption & Utility

How useful for your user is the information presented?

What actual user problem does it solve?



Concerns

CA&U-10

# Adoption & Utility

Does the system offer explicit actionable information? If not, why not?

Could the user be better served by more processed data?



Concerns

CA&U-11

# Adoption & Utility

If the system displays significant retrospective data, in what ways does this assist actual user needs?

If less data were visible by default, would the user still be able to complete their task?



Concerns

CA&U-12

# Adoption & Utility

Are any extra elements such as sound effects adding to the user experience?

Can they be customized or turned off if they are intrusive?

If they add essential information, are there alternate ways for the user to receive this information?



Concerns

CA&U-13

# Adoption & Utility

Does the product assist with an actual user need?

What is this need?

How is the user assisted with this product?



Concerns

CA&U-14

# Adoption & Utility

Can the system offer benefits with a glance from the user? If not, why not?



Concerns

CA&U-15

# Adoption & Utility

Can the system offer benefits in a glanceable manner?

How intuitive is such use?



Concerns

CA&U-16



# Adoption & Utility

Are elements such as gamification appropriate to the context of use?

How can this be verified?



Concerns

CA&U-17

# Adoption & Utility

Does your product add to daily workload?

If so, what rewards does the user receive to justify time and effort?



Concerns

CA&U-18

# Adoption & Utility

Does your device or systems allow the user to alter, adjust, or exchange components to meet their needs or preferences?

If not, how is this justified?



Concerns

CA&U-19

# Adoption & Utility



Concerns

CA&U —

# Emotional Impacts

Could this system or interface create feelings of stigma or vulnerability in specific situations? e.g. date, job interview, public space, etc.

How could it be made more sensitive?



Concerns

CEI-01

# Emotional Impacts

How does the interface display sensitive or undesired?

How does it alert user to important situations, without creating undue stress?



Concerns

CEI-02

# Emotional Impacts

How does the UI signal to the user non-favorable or undesirable information?

Has the UI been tested with such information?

How could it be more sensitive to user's vulnerable states?



Concerns

CEI-03

# Emotional Impacts

Are design element colors sensitive to the feelings of the user?

Has the use of alert colors like red been properly tested for emotional reaction from users?



Concerns

CEI-04



# Emotional Impacts

Are the design choices such as color, sounds, and interface motivating or demotivating?

How has this been tested in a way appropriate to intended usage?



Concerns

CEI-05

# Emotional Impacts

Have you adequately researched how the information or feedback you provide impacts your users emotionally?

What strategies do you have in place for delivering data in a way that minimizes undue stress?



Concerns

CEI-06

# Emotional Impacts

How might your product or service create stigma in specific contexts?

How might this stress be lessened?

Is it possible to design to allow the user to discontinue and continue usage in such situations?



Concerns

CEI-07

# Emotional Impacts



Concerns

CEI-\_\_

# Cognition

Does the interface help to access or jog users existing knowledge? If not, how could this be improved?



Concerns

CCog-01

# Cognition

If the system offers retrospective information, to what extent does such retrospection serve user needs? Is this data always needed or just in specific cases?



Concerns

CCog-02

# Cognition

Could information presented give a false impression of actual data? (For example, interpolated graphs or averages that conceal deviation)



Concerns

CCog-03

# Cognition

If the user becomes confused by the system, what means are in place to help them understand it?



Concerns

CCog-04



# Cognition

Does the interface present all information needed for task simultaneously, e.g. a single screen? Why not? Could it be changed to allow this to happen?



# Cognition

How much effort is required for the user to interpret the interface? Could the complexity be reduced without reducing essential function?



Concerns

CCog-06

# Cognition

In what ways does this interface prevent confirmation bias?



Concerns

CCog-07

# Cognition

Could this product add to confusion or delays in critical situations, such as with complicated or multiscreen interfaces? If so, how is this risk justified?



Concerns

CCog-08

# Cognition

Could users become unnecessarily dependent on this product for decisions?  
Could the product assist them in making such decisions with minimal interactions?



Concerns

CCog-09

# Cognition

Does this product support in-the-moment decisions without undue effort?



Concerns

CCog-10

# Cognition

Does this product help users to correct and adjust their decisions according to specific contextual need?



Concerns

CCog-11

# Cognition

Does this product help users to access knowledge they already possess in a fluid and flexible manner?



Concerns

CCog-12



# Cognition

Are interface elements easy to understand and assist user's in assessing how their actions could impact outcomes?



Concerns

CCog-13

# Cognition

Does this product assist users in recognizing problems or irregularities? How does it assist them in understanding the nature of the problem?



Concerns

CCog-14

# Cognition

How does this product help users to question, explore, and test their assumptions? Could this process be better supported?



Concerns

CCog-15

# Cognition

In what ways does this product help users to identify and make sense of patterns?



Concerns

CCog-16

# Cognition

In what ways does this product help users to form new ideas about how best to manage challenging situations?



Concerns

CCog-17

# Cognition



Concerns

CCog-\_\_

# Consent & Control

Which aspects of the system are you most concerned about? What would you change if you could?



Concerns

CC&C-01

# Consent & Control

Does the proposed system have a system of consent which helps the user to easily control who, when, and for what purpose each of their different data types will be used? If not, how do you justify this? How could you implement such measures?



Concerns

CC&C-02



# Consent & Control

Does the proposed system have a system of consent which helps the user to easily control who, when, and for what purpose each of their different data types will be used? If not, how do you justify this? How could you implement such measures?



Concerns

CC&C-03

# Consent & Control

Does your business model involve using individual's personal data for targeted marketing or use by 3rd parties? If so, how do you protect the user from any harms that may result?



Concerns

CC&C-04

# Consent & Control

Is the information collected by your system visible to any stakeholder other than the primary user? How do you:

- mitigate feelings of surveillance
- enable user to pause monitoring
- allowing user to control how data is presented



# Consent & Control

Does your product provide user data to medical personal? If so:

- what controls does the user have to manage when and which data is visible?
- could such controls be modified quickly during an appointment to allow discussion of a specific topic?



Concerns

CC&C-06

# Consent & Control

Does your product or service make use of GPS data? In which ways do you protect the user from vulnerability, such as being identified, or having that data associated with their medical data?



Concerns

CC&C-07

# Consent & Control

How transparent is how the user's data is being used and who might have access? How could you better inform the user?



Concerns

CC&C-08

# Consent & Control

Why should the user trust your product? What assurances can you promise, and how can you guarantee they will be followed?



Concerns

CC&C-09

# Consent & Control

Are there information flows  
seem overly unbalanced or  
exploitive?



Concerns

CC&C-10



# Consent & Control

Are there any stakeholders that the user is unaware of?



Concerns

CC&C-11

# Consent & Control

Do you consider the patient the primary stakeholder? If not how is this justified?



Concerns

CC&C-12

# Consent & Control



Concerns

CC&C-\_\_

# Behavior & Action

Can the interface help users to react quickly in crucial situations? If so, in what ways could the system assist in the user reacting without needing this device?



Concerns

CB&A-01

# Behavior & Action

Does the system try to enforce a structure on the user, such as a set daily time schedule? If so, how is this justified? Can the user easily adjust it?



Concerns

CB&A-02

# Behavior & Action

Could this product in any way interfere with user action in critical situations? If so, how could such risks be minimized?



Concerns

CB&A-03

# Behavior & Action

Does this product help users to act quickly in critical situations? How could it better assist in such instances?



Concerns

CB&A-04

# Behavior & Action

Could this product interfere with the user engaging in necessary actions? If so, how is this justified?



Concerns

CB&A-05



# Behavior & Action



Concerns

CB&A\_\_\_\_

# Smartphone



## Sensors

GPS  
Fingerprint  
Barometer  
Three-axis gyro  
Accelerometer  
Proximity  
Ambient light  
Camera  
Compass

## Notes

Monthly costs



**Devices**

**Dev-01**

# Smartwatch



## Sensors

GPS  
Altimeter  
Heart rate  
Accelerometer  
Gyroscope  
Ambient light  
WiFi/ LTE

## Notes

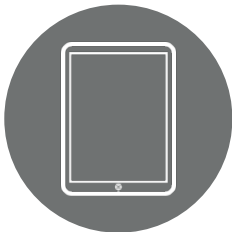
18 hr. battery life



**Devices**

**Dev-02**

# Pad



## Sensors etc.

Camera  
Ambient light  
Accelerometer  
Gyroscope  
Compass  
Barometer  
Fingerprint scanner  
WiFi/Blue Tooth

## Notes

3G (some models)



**Devices**

**Dev-03**

# Laptop



## Sensors etc.

Camera  
Microphone  
WiFi/Blue Tooth

## Notes



Devices

Dev-04

# Cloud Computing



Notes



Devices

Dev-05

# Cloud Documents



Notes



Devices

Dev-06

# Cloud



Notes



Devices

Dev-07



# IoT Health Device



Notes



Devices

Dev-08

# IoT Health Device



Notes



Devices

Dev-09

# Network Data Base



Notes



Devices

Dev-10

# Desktop Computer



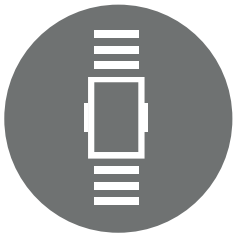
Notes



Devices

Dev-11

# Fitness Band



Notes



Devices

Dev-12

# LAN



Notes



Devices

Dev-13

# Networked Drive



Notes



Devices

Dev-14

# Local Drive



Notes



Devices

Dev-15



# Server Farm



Notes



Devices

Dev-16

# IoT medical device

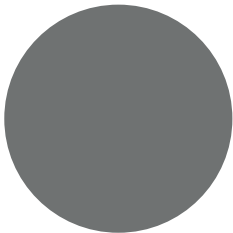


Notes



Devices

Dev-17



Notes



Devices

Dev-18

# Medical



Notes



Services

Ser-01

# Health Coaching



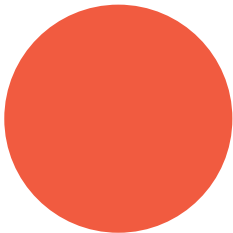
Notes



Services

Ser-02

# Clinical Support



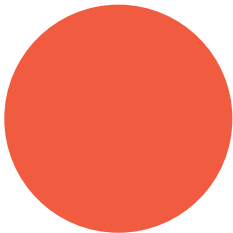
Notes



Services

Ser-03

# Education



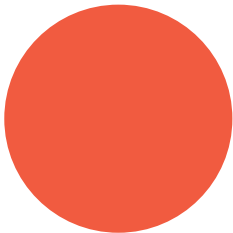
Notes



Services

Ser-04

# Remote Monitoring



Notes



Services

Ser-05



# Diagnosis



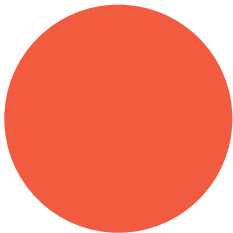
Notes



Services

Ser-06

# Medical Evaluation



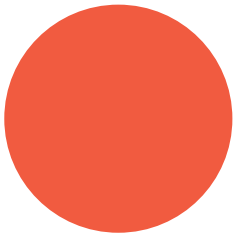
Notes



Services

Ser-07

# Analytics



Notes



Services

Ser-08

# Big Data Analytics



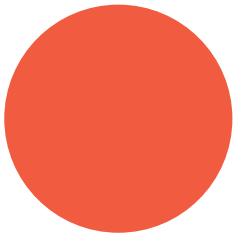
Notes



Services

Ser-09

# Peer Support

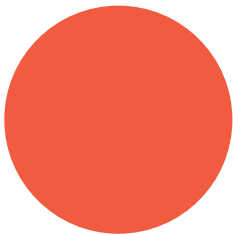


Notes



Services

Ser-10



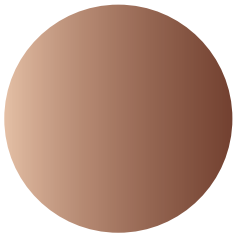
Notes



Services

Ser-\_\_

# Patient



Age:

Gender:

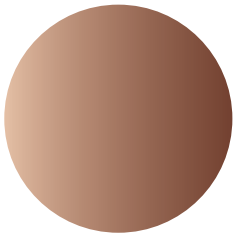
Needs/ Vulnerabilities:



Stakeholder

SH-01

# Family



Age:

Duties:

Needs:

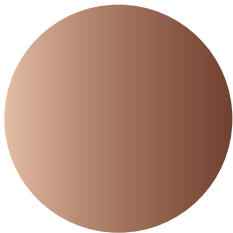


**Stakeholder**

**SH-02**



# Friend



Age:

Gender:

Responsibilities:

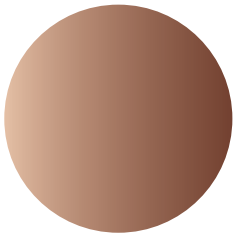
Needs:



**Stakeholder**

**SH-03**

# Parent



Age:

Duties:

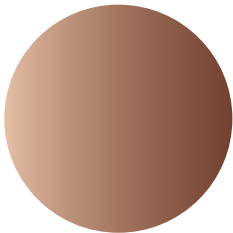
Needs:



Stakeholder

SH-04

# Co-Worker



Duties:

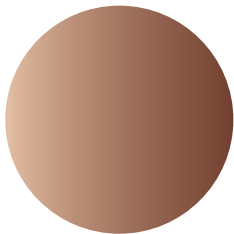
Needs:



Stakeholder

SH-05

# Medical Worker



Responsibilities:

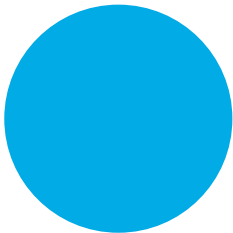
Concerns:



Stakeholder

SH-06

# Startup



Goals:

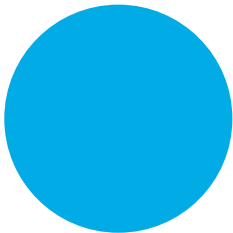
Duties:



Company

Com-01

# Health Insurer



Goals:

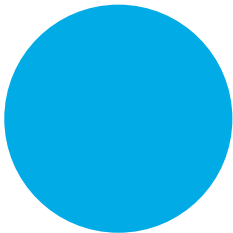
Duties:



Company

Com-02

# Tech Company



Goals:

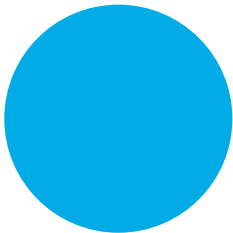
Duties:



Company

Com-03

# Care Provider



Goals:

Duties:

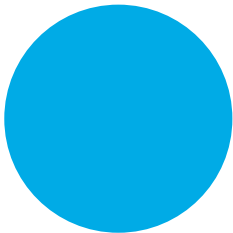


Company

Com-04



# Corporation



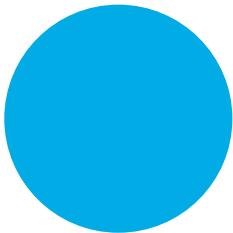
Goals:

Duties:



Company

Com-05



Goals:

Duties:



Company

Com-\_\_

# Data Stream



Exercise		
Step counts		
Blood glucose		
Behaviors		
Locations		
GPS		
Insights		
Medical Records		
Sensitive data		
Advice		
Sleep		
Goals		
Peer support		
Financial data		
Alerts		
Encryption		
Messages		
Advertisements		



Attributes

Atr-01

# Goals



Habit Change		
Social Interaction		
Stress Reduction		
More Exercise		
Save Times		
Coping		
Emotional Support		
Sell Product		
Maximize Profit		
Collect Data		
Sell Service		
Improve Health		
Improve Diet		
Improve Biomarker		
Reduce Risk		
Earn Money		
Improve Outcomes		



Attributes

Atr-02

# Actions



Analyze Data		
Change Goal		
Exercise		
Eat/Drink		
Sleep		
Pressure		
Encourage		
Comment		
Collect Data		
Invite		
Adapt Algorithm		
Reflect		
Exercise		
Sense		
Read		
Control		
Take Medication		



Attributes

Atr-03

## Traits

[illegible]

# Emotions



Fear		
Anger		
Sadness		
Joy		
Disgust		
Surprise		
Trust		
Anticipation		
Suspicion		
Shame		
Envy		
Love		
Worry		
Concern		
Vulnerability		
Stress		
Calm		
Humor		
Hatred		



## Responsibilities

[illegible]





# Data



Exercise		
Step counts		
Blood glucose		
Behaviors		
Locations		
GPS		
Insights		
Medical Records		
Sensitive data		
Advice		
Sleep		
Goals		
Peer support		
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Messages		
Advertisements		



**Attributes**

**Atr-01**