









|                              |                             |                             |                           |                                  |                                  |                              |                                  |                                  |                            |      |      |      |
|------------------------------|-----------------------------|-----------------------------|---------------------------|----------------------------------|----------------------------------|------------------------------|----------------------------------|----------------------------------|----------------------------|------|------|------|
| Info<br>Step<br>Counts       | Info<br>Monthly<br>Summary  | Info<br>Monthly<br>Summary  | Info<br>Personal<br>Data  | Info<br>Goals<br>and<br>Insights | Info<br>Ads                      | Info<br>Personal<br>Data     | Info<br>GPS<br>Location          | Info<br>Feed                     | Info<br>Patient<br>Summary |      |      |      |
| Info<br>Data<br>Insights     | Info<br>Daily<br>Goal       | Info<br>Daily<br>Goal       | Info<br>Personal<br>Data  | Info<br>Feed                     | Info<br>Offers                   | Info<br>Feed                 | Info<br>Ads                      | Info<br>Emotional<br>Support     | Info<br>Phone<br>Usage     |      |      |      |
| Info<br>Ads                  | Info<br>Patient<br>Record   | Info<br>Patient<br>Record   | Info<br>Feed              | Info<br>Emotional<br>Support     | Info<br>Wristband<br>info        | Info<br>Emotional<br>Support | Info<br>Emotional<br>Support     | Info<br>Goals<br>and<br>Insights | Info<br>Bills<br>for Data  |      |      |      |
| Info<br>Location             | Info<br>Personal<br>Message | Info<br>Personal<br>Message | Info<br>Personal<br>Data  | Info<br>Personal<br>Data         | Info<br>Location                 | Info<br>Friend<br>Request    | Info<br>Ads                      | Info<br>Patient<br>Summary       | Info<br>Patient<br>Record  |      |      |      |
| Info<br>Monthly<br>Goal      | Info<br>Personal<br>Message | Info<br>Personal<br>Message | Info<br>Bills<br>for Data | Info<br>Emotional<br>Support     | Info<br>Goals<br>and<br>Insights | Info<br>Feed                 | Info<br>Goals<br>and<br>Insights | Info<br>Phone<br>Usage           | Info<br>Patient<br>Summary | Info | Info | Info |
| Info<br>Emotional<br>Support | Info<br>Personal<br>Message | Info<br>Personal<br>Message | Info<br>Bills<br>for Data | Info<br>Emotional<br>Support     | Info<br>Ads                      | Info<br>Feed                 | Info<br>Patient<br>Daily<br>Info | Info<br>Patient<br>Summary       | Info<br>Phone<br>Usage     | Info | Info | Info |
| Info<br>Step<br>Counts       | Info<br>Invitation          | Info<br>Invitation          | Info<br>Phone<br>Usage    | Info<br>Patient<br>Daily<br>Info | Info<br>Ads                      | Info<br>Ads                  | Info<br>Ads                      | Info<br>Personal<br>Data         | Info<br>Patient<br>Summary | Info | Info | Info |
| Info<br>Step<br>Counts       | Info<br>advice              | Info<br>advice              | Info<br>Patient<br>Record | Info<br>Goals<br>and<br>Insights | Info<br>Feed                     | Info<br>Ads                  | Info<br>Goals<br>and<br>Insights | Info<br>Patient<br>Record        | Info<br>Patient<br>Summary | Info | Info | Info |
| Info<br>Step<br>Counts       | Info<br>advice              | Info<br>advice              | Info                      | Info                             | Info                             | Info                         | Info                             | Info                             | Info<br>Patient<br>Record  | Info | Info | Info |

|                              |                               |                          |      |      |                             |
|------------------------------|-------------------------------|--------------------------|------|------|-----------------------------|
| Goal<br>Habit<br>Change      | Goal<br>Social<br>Interaction | Goal<br>Reduce<br>Stress | Goal | Goal | Goal<br>Exercise            |
| Goal<br>Enjoy-<br>ment       | Goal<br>Save<br>Time          | Goal<br>Cope             | Goal | Goal | Goal<br>Patient<br>Metrics  |
| Goal<br>Emotional<br>Support | Goal<br>Collect<br>Data       | Goal<br>Reduce<br>Risk   | Goal | Goal | Goal<br>Earn<br>Money       |
| Goal<br>Sell<br>Product      | Goal<br>Sell<br>Service       | Goal<br>Save<br>Time     | Goal | Goal | Goal<br>Patient<br>Outcomes |
| Goal<br>Max.<br>Profit       | Goal<br>Improve<br>Health     | Goal                     | Goal | Goal | Goal<br>Save<br>Time        |
| Goal<br>Increase<br>Exercise | Goal<br>Improve<br>Diet       | Goal                     | Goal | Goal | Goal<br>Save<br>Money       |
| Goal<br>Step<br>Counts       | Goal<br>Improve<br>Biomarker  | Goal                     | Goal | Goal |                             |
| Goal<br>Reduce<br>Stress     | Goal                          | Goal                     | Goal | Goal |                             |

|                     |                     |               |               |
|---------------------|---------------------|---------------|---------------|
| Friend              | Friend              |               |               |
| Payer               | Payer               |               |               |
| Wristband           | Wristband           |               |               |
| Smartphone          | Smartphone          |               |               |
| Smartwatch          | Smartwatch          |               |               |
| Primary User        | Primary User        |               |               |
| Patient             | Patient             |               |               |
| Health Care Company | Health Care Company | Server        | Server        |
| Family Member       | Family Member       | Cloud Service | Cloud Service |

|                                  |                              |                             |                             |                           |                                    |
|----------------------------------|------------------------------|-----------------------------|-----------------------------|---------------------------|------------------------------------|
| Duties<br>Data<br>Limit          | Duties<br>Data<br>Required   | Duties                      | Duties                      | Duties                    |                                    |
| Duties<br>Financial<br>Penalty   | Duties                       | Duties                      | Duties                      | Duties                    |                                    |
| Duties<br>Limited<br>Access      | Duties                       | Duties                      | Duties                      | Duties                    |                                    |
| Duties<br>Social<br>Pressure     | Duties                       | Duties                      | Duties                      | Duties                    |                                    |
| Duties<br>Technical<br>Duty      | Duties                       | Duties                      | Duties                      | Duties                    |                                    |
| Duties<br>Data<br>Limit          | Duties                       | Duties                      | Duties                      | Duties                    | Duties<br>Contract                 |
| Duties<br>Data<br>Limit          | Duties                       | Duties                      | Duties                      | Duties                    | Duties<br>Pay for<br>Roaming       |
| Duties<br>Contract<br>Obligation | Duties<br>Time<br>Obligation | Duties                      | Duties                      | Duties                    | Duties<br>Release<br>Record        |
| Duties<br>Install<br>App         | Duties<br>Offer<br>Support   | Duties<br>Exercise<br>Goals | Duties<br>Cancel<br>Service | Duties<br>Data<br>Sharing | Duties<br>Pay<br>for extra<br>Data |

|                            |                             |                                       |                             |
|----------------------------|-----------------------------|---------------------------------------|-----------------------------|
| Things<br>Sleep<br>Monitor | Things<br>Sensor            | Things<br>Blood<br>Glucose<br>Monitor | Things<br>Sensor            |
| Things<br>Step<br>counter  | Things<br>Motion<br>Sensor  | Things<br>Button                      | Things                      |
| Things<br>Pulse<br>Monitor | Things<br>Pulse<br>Sensor   | Things<br>Step<br>Counter             | Things                      |
| Things                     | Things<br>Display           | Things<br>Proprietary<br>Software     | Things                      |
| Things                     | Things<br>Sound             | Things<br>Secure<br>Server            | Things                      |
| Things                     | Things<br>Button            | Things<br>Proprietary<br>Hardware     | Things                      |
| Things                     | Things<br>User<br>Interface | Things<br>Hardware                    | Things                      |
| Things                     | Things<br>GPS<br>Sensor     | Things                                | Things                      |
| Things                     | Things<br>U.H.<br>App       | Things<br>U.H.<br>App                 | Things<br>User<br>Interface |



|                               |                            |                                 |
|-------------------------------|----------------------------|---------------------------------|
| Actions<br>Analyze<br>Data    | Actions<br>Analyze<br>Data | Actions<br>Collect<br>Data      |
| Actions<br>Change<br>Goal     | Actions<br>Write           | Actions<br>Automated<br>Renewal |
| Actions<br>Exert<br>Pressure  | Actions<br>Invite          | Actions<br>Analyze<br>Data      |
| Actions<br>Adapt<br>Algorithm | Actions                    | Actions<br>Comment<br>on Feed   |
| Actions<br>Conduct<br>Study   | Actions                    | Actions<br>Analyze<br>Data      |
| Actions<br>Adapt<br>Interface | Actions                    | Actions                         |
| Actions<br>Adapt<br>Goal      | Actions                    | Actions                         |
| Actions<br>Encourage          | Actions                    | Actions                         |
| Actions                       | Actions                    | Actions                         |

|  |                                   |                                  |        |
|--|-----------------------------------|----------------------------------|--------|
| Traits<br>Chronic<br>Health<br>Condition | Traits<br>Secure                  | Traits<br>Private                | Traits |
| Traits<br>Data<br>Limit                  | Traits<br>Minor                   | Traits<br>Elderly                | Traits |
| Traits<br>Free<br>if goal<br>met         | Traits<br>Vulnerable              | Traits<br>Chronic<br>Illness     | Traits |
| Traits<br>3rd Party<br>Server            | Traits<br>Free                    | Traits<br>Diabetes<br>T1         | Traits |
| Traits<br>Health<br>Services             | Traits<br>HIV+                    | Traits<br>Diabetes<br>T2         | Traits |
| Traits<br>Proprietary                    | Traits<br>Female                  | Traits<br>LGBTQ                  | Traits |
| Traits<br>No<br>Interface                | Traits<br>Low<br>Education        | Traits<br>Learning<br>Disability | Traits |
|  | Traits<br>Cognitive<br>Disability | Traits<br>Health<br>Condition    | Traits |

## Information

### Overview

Data as processed, stored, or transmitted by a computer

### Ethics

Special consideration for data privacy concerns

## Actions

### Overview

The process of doing something to achieve an aim

### Ethics

Actions should be carefully examined for motives and for influence on other parties

## Characteristics

### Overview

a feature or quality belonging a person, place, or thing and serving to identify them.

### Ethics

Individual qualities can create vulnerabilities or needs that influence ethical considerations

## Things

### Overview

an inanimate material or software object as distinct from a living sentient being

### Ethics

Unable to take personal responsibility, their ethical implications must be carefully considered

## Goal/ Motivation

### Overview

An aim or desired result

### Ethics

Goals and motivations should be carefully examined as to who or what is advantaged or disadvantaged

## Duties

### Overview

Limitations or actions to which one is morally or legally bound

### Ethics

Obligations can exert pressure on parties to engage in undesired or detrimental actions

## People

### Overview

Living beings, could potentially also be an animal or plant.

### Ethics

Bio-ethical concerns seek to protect the wellbeing, autonomy of living beings, as well general justice.

## Device

### Overview

a thing made or adapted for a particular purpose, especially a piece of mechanical or electronic equipment.

### Ethics

Devices raise ethical concerns about responsibility, especially in regards to autonomous actions they may engage in.

## Organization

### Overview

a commercial or non-commercial business, governing body or multi-person group.

### Ethics

Organizations' ethical concerns can be raised due to varying motives, such as financial profit, as well as governance structures which can reduce personal responsibility.