Elizabeth wants to use her brain power on things she is good at and ignore everything else.

“... My creativity and compassion are my best qualities. They’re what I’m good at and what I love—and I no longer do anything that doesn’t involve them.”

How Elizabeth got here

- **2003** Mother’s mental illness intensifies; Elizabeth relocates to be close to her parents.
- **2009** Starts hourly workout routines and meditation to calm panic attacks.
- **2011** Son Ethan born.
- **2016** Promoted to creative director.
- **2018** Starts using a personal digital assistant to manage mother’s illness and telehealth services, and to coordinate both work and family commitments.
- **2021** Digital assistant network goes down and Elizabeth subscribes to a backup service after “the two worst days of my life.”
- **2022** Adds human micro-workers to off-load the last of her unwanted tasks.

Her strategies

- **cognitive off-loading** | Elizabeth depends on her personal digital assistant to seamlessly juggle her commitments, complete routine digital tasks, and enlist human resources for micro-tasks like getting groceries.
- **digital dieting** | She carefully chooses the information she lets into her sphere—just enough to know headlines—and compulsively avoids upsetting news.
- **sharing health devices** | Elizabeth uses her mom’s many diagnostic devices on herself, her husband, and her son.
Elizabeth realizes time is her biggest asset, so she goes to great lengths to outsource anything she doesn’t want to do herself. She enjoys her demanding career as creative director at a communications firm, juggling dozens of projects requiring her creativity, but she hires micro-workers to do the more menial aspects of her job, such as scheduling and writing communications. Elizabeth is also deeply satisfied spending time with her husband and 11-year-old son and, together, caring for her aging parents, who live just down the street. Every night, Elizabeth has them over for dinner and family time. Though she enjoys cooking and many aspects of caregiving, she off-loads planning and details—such as picking up prescriptions or ingredients, and making the nutritional calculations for her menu plans—to her digital assistants.
Jacob believes that with help from the right technologies he can maintain his youthful energy and avoid the traditional health care system.

**How Jacob got here**

- **2005** Father survives prostate cancer, struggles with imperfect hormone therapy.
- **2010** Jacob assembles his first Arduino board and realizes that he can truly make anything he wants.
- **2013** His school district in upstate New York bans hand sanitizer and raises awareness of friendly bacteria.
- **2019** Jacob begins tracking personal hormone levels so his natural levels can be recreated later in life when needed.
- **2020** Graduates from Cornell with a degree in human–computer interaction.
- **2022** Moves to NYC, sells belongings, and starts a “co-living” lifestyle.

**His strategies**

- **future proofing** | Jacob tracks and banks his hormone levels with a start-up to create a snapshot of his biology he can reference later in life to restore him to his “natural” healthy state.
- **digital dieting** | With a degree in human–computer interaction, he understands better than most the ill effects of media overload, and his biometric feedback system alerts him to any potential overdose.
- **dropping out of health** | Disenchanted with the medical establishment, Jacob avoids doctors and relies almost exclusively on his own measures of health.
Notorious for his off-the-charts energy level and wide array of projects and hobbies, Jacob moved to NYC determined to avoid the fate of his friends who are slowing down as they approach 30. Jacob is planning ahead, utilizing embedded sensors and microbial optimization to ensure he maintains vitality for decades to come. Sensors collect thousands of data points for a decision-making mechanism programmed to keep his energy high and his brain function higher. Even his frequent pub crawls enhance health by expanding and diversifying his social network and boosting his immune system. His parents worry he sleeps too little and drinks too much, but he feels great and is certain he will always reap the benefits of a fun-filled life.

**Settings for Health**

- **HOME** the connected apartment
- **WORK** optimized workspaces
- **CLINICAL** ubiquitous health interactions

**What Jacob is tracking**

- Serotonin: 283 nanograms/ml
- Cognitive capacity: 82%
- Number of bacteria species: 140

**Hour by hour**

| Time of day | am 5 | 6 | 7 | 8 | 9 | 10 | 11 | pm 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
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| sleep       |      |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |
| eat         |      |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |
| transit (bicycle) |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |
| work        |      |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |
| socialize   |      |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |
| review personal data |     |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |
| go to climbing gym |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |
How Barbara got here

2002  Gets accepted into a computer science program at a public university.

2008  Graduates and forms a small start-up with college friends.

2014  Start-up folds and Barbara transitions to a data analytics job at a major tech company.

2016  Joins a quantified-self group and starts tracking several aspects of her life, including physiological health and social habits.

2020  Buys a home, partially funded by monetizing data.

2021  Pays surrogate to carry her child. Takes a job at a smaller company that lets her work remotely.

2022  Joins a community of quantified parents.

Her strategies

optimizing health choices  | Barbara is a savvy data manager who teaches mothers which data to collect and how to bank and pool it to maximize its value.

cognitive off-loading  | To be a better parent, Barbara off-loads many tasks, letting bots make food choices and schedule social activities for optimal enjoyment with minimal time demands.

taking the fiction cure  | Barbara is creating a customized fiction prescription balanced among media that will maximize her daughter’s physiological and intellectual health, and overall sense of well-being.
As soon as she decided to hire a surrogate to carry her child, Barbara started thinking about how to maximize her daughter's opportunities. She now invests time exploring educational and social opportunities for her child to keep her happy and healthy. Her data literacy gives her an advantage over other parents because she understands the benefits and risks of collecting personal data. Some of the home retrofits Barbara and her partner have made are data based—for instance, installing the appropriate sensors to ensure that the data gathered will be the most valuable for her child. She's already started a data savings account for her daughter and plans to choose carefully when to dip into it.

**Settings for Health**
- **RETAIL** automated shopping systems
- **WORK** anytime, anyplace work
- **ON-THE-GO** self-driving cars

**What Barbara is tracking**

- **Data value appreciation**: 0.08% in 2018, 0.08% in 2022
- **Fetal well-being index**: 85
- **Home health score**: 89

**Hour by hour**

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Robert is trying to use health data to enhance community health—and his own.

**Robert**
- **age**: 60
- **profession**: Manager at Outdoor Gear Store
- **city**: Boulder, CO

"I’m not about to let a freeway ruin the future health of my neighborhood."

**How Robert got here**

- **2002** Stops pursuing freelance writing jobs to take a full-time position at a retail store after the birth of his second son.
- **2008** Joins a local wilderness excursion group with his wife and sons. Goes on frequent hikes and camping trips.
- **2013** Robert and his wife divorce. First son moves out and goes to college.
- **2017** Youngest son goes to college. The public park where Robert took his sons is sold to developers to balance city budget.
- **2021** Several chemical and other processing plants open in neighboring state as a result of reduced regulation.
- **2022** New development plan would place a big-box retailer and extend a freeway to within blocks of Robert’s home.

**His strategies**

- **sharing health devices** | By designing community health devices, Robert brings transparency to the neighborhood’s health risks. This strengthens social connections and community well-being.

- **optimizing health choices** | Through community organizing, Robert manages data that he and his neighbors collect as an asset when needed to advocate for change.

- **creating pre-sick identities** | Robert’s group is using the community’s risk profile to define his neighborhood as pre-sick to request specific resources from the state and federal governments.
Robert’s neighborhood is among the healthiest in the nation—and he’s committed to keeping it that way. When it was announced that a new big-box retailer was coming to his neighborhood, along with a freeway expansion, Robert joined a group that believes the development represents such a threat to the community’s health that it would make the entire population pre-sick. Now, in his free time, Robert facilitates the donation of old personal and home sensors and diagnostic tools so they can be turned into community health monitors by embedding them in public spaces. And he participates in outreach events to engage community members in mapping the area’s risks and resources. On the weekends, his group even plants trees and retrofits public structures to reduce blight and noise pollution.

Settings for Health

- **ON-THE-GO** the digital information layer
- **HOME** the connected apartment
- **CLINICAL** primary care reinvented

What Robert is tracking

- Neighborhood stress score: 67
- Neighborhood air quality score: 48
- Lung capacity goal: 5 liters

Hour by hour

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Regardless of her diagnosis, Melanie wants to focus on staying happy, alert, and connected to her friends and family.

Melanie

age  74
profession  Retired Animation Film Scriptwriter
city  Bend, OR

“Chemo is no fun, and it might not even work; I might as well scrap all that and spend my last years with my grandson exploring virtual worlds together.”

How Melanie got here

2002  Chronic work stress triggers first bout of colitis, and a move from LA to Bend, Oregon, gets her out of the fast lane.

2005  Daughter and newborn grandson flee Hurricane Katrina’s devastation, moving in with Melanie for almost a year.

2010  Time banking extends community ties and assures future support network.

2007  Supplements, diet, and community gardening become key strategies for lowering stress and relieving symptoms.

2012  Alternative healing strategies—acupuncture, fasting, meditation, peer-to-peer health—yield temporary relief.

2019  Final attempts at medical solutions—prescription drugs and cortisone—provide little relief.

2022  Diagnosis of colon cancer triggers her to totally drop out of the health care system.

Her strategies

taking the fiction cure  |  Inventing and embodying alien creatures through augmented sensory realities provides pain relief—and she believes it has a better impact on her health than treatments.  

dropping out of health  |  Melanie has turned her back on both the traditional and alternative health paradigms—“No more health thinking,” she says. 

profile pruning  |  Melanie and her grandson, Donovan, are recasting their online identities in terms of their off-planet world—and capturing an encoded family history at the same time.
Melanie has always been a great believer in the power of the creative process to transform daily experience, so when she was diagnosed with colon cancer, she rejected the treatments she thought would dull her creative edge and set off instead on a final “journey to the stars” with her teenage grandson. Together they’re using sensory-augmented reality tools to create a shareable world of noncarbon off-planet life forms, which she feels, deep down, could actually beat her cancer into remission. Her personal avatar eats digital data, purging invasive digital trails as she goes about her daily routine of community gardening and (most engaging) motion capture of the people on the streets around her to animate her fantasy life forms.

**Settings for Health**

- **HOME** the home health center
- **ON-THE-GO** the digital information layer
- **RETAIL** data-driven supermarkets

**What Melanie is tracking**

- **community garden credits**: 95 credits
- **star journey game level**: 47
- **white blood cells**: 15,000 per microliter, goal: 15,000

**Hour by hour**

| Time of day | 5 am | 6 am | 7 am | 8 am | 9 am | 10 am | 11 am | 12 pm | 1 pm | 2 pm | 3 pm | 4 pm | 5 pm | 6 pm | 7 pm | 8 pm | 9 pm | 10 pm | 11 pm | 12 pm |
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| eat         |      |      |      |      |      |       |       |       |      |      |      |      |      |      |      |      |       |        |       |
| transit (car rides) |      |      |      |      |      |       |       |       |      |      |      |      |      |      |      |      |       |        |       |
| work at home |      |      |      |      |      |       |       |       |      |      |      |      |      |      |      |      |       |        |       |
| gardening   |      |      |      |      |      |       |       |       |      |      |      |      |      |      |      |      |       |        |       |
| videochat   |      |      |      |      |      |       |       |       |      |      |      |      |      |      |      |      |       |        |       |
| motion capture videography |      |      |      |      |      |       |       |       |      |      |      |      |      |      |      |      |       |        |       |
How Charles got here

**2004** Begins college at the University of North Carolina; initially plans to follow his father into medicine, but decides to study computer science.

**2008** Graduates college, but finding few prospects, turns to freelancing. Moves back in with parents in outskirts of Atlanta to help care for his grandmother.

**2013** Dad shows first signs of Alzheimer’s and retires from job as physician.

**2015** Gets married and buys house in parents’ neighborhood to help with caregiving.

**2016** Wife gives birth to son. His dad’s cognitive capacities decline more rapidly than expected.

**2021** Learns biomarkers indicate that he has pre-onset Alzheimer’s. Joins online support group to learn strategies for building cognitive reserves and delaying disease.

**2022** Son undergoes genetic scan showing high likelihood for Alzheimer’s risk.

His strategies

**creating pre-sick identities** | After being diagnosed with pre-Alzheimer’s and with his son given a high probability for the disease, Charles spends time pondering how his future disease will limit his health.

**future proofing** | To optimize his cognitive reserve, Charles is remodeling his house, buying products, and even organizing his son’s nursery based on the latest neuroscience research.

**profile pruning** | After actively participating in pre-Alzheimer’s social networks under his own name, Charles is now trying to figure out how to protect his son’s online reputation.
Since being diagnosed with pre-onset Alzheimer’s, Charles has been re-evaluating his day-to-day priorities. Family has always been important to him, and he has decided to cut back on work to make more time to care for his young son and ailing father. Determined to be there mentally for his son throughout his childhood, he spends at least an hour a day participating in a pre-Alzheimer’s community to learn how to design routines such as frontloading his workday for peak performance and to retrofit his house to maximize brain health. These responsibilities have taken their toll on Charles’s career and marriage; he and his wife are still happy, but they rarely have a chance to escape and relax together.

What Charles is tracking

- **Average recall daily memory test**: 92%
- **Father’s daily memory test**: 24%

Charles

Hour by hour

- **Sleep**: 6 am - 7 am, 10 pm - 11 pm
- **Eat & food prep**: 6 am - 7 am, 10 pm - 11 pm
- **Transit (driving)**: 9 am - 10 am, 12 pm - 1 pm, 4 pm - 5 pm
- **Work**: 10 am - 11 am, 11 am - 12 pm, 1 pm - 2 pm, 3 pm - 4 pm, 5 pm - 6 pm
- **Caregiving**: 9 am - 10 am, 11 am - 12 pm, 1 pm - 2 pm, 3 pm - 4 pm, 5 pm - 6 pm
- **Exercise & brain training**: 6 am - 7 am, 10 pm - 11 pm
- **Participating in Alzheimer’s community**: 9 am - 10 am, 11 am - 12 pm, 1 pm - 2 pm, 3 pm - 4 pm, 5 pm - 6 pm

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