

off / track



An Experimental Diploma Project
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The Oslo School of Architecture and Design

off / track >>>

Abstract

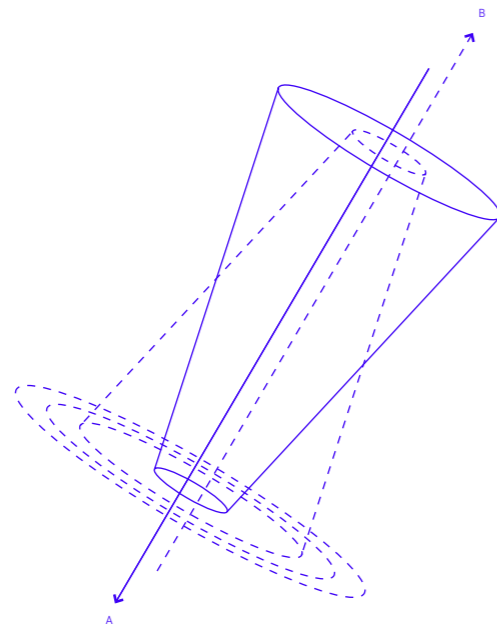
We have more ways to see data about ourselves than ever before. Self-tracking products can now tell us how we've slept, how productive we've been, how much we've exercised and much more.

What have we been choosing to measure? What does what we measure say about what we value?

In this project, I explore the values embedded in our seemingly neutral self-tracking tools. Drawing from a mix of design research methods and academic discourse, I articulate a list of values or biases that underlie existing products. I find that these values, which center around individual health and optimization, ignore the community and contribute to a culture of self-perfectibility.

In order to surface and challenge these values, I develop an oppositional list of values and develop discursive design concepts aimed at materializing them.

Through this project, I want to encourage a greater plurality of self-tracking devices, and engage other designers, makers and product developers in conversations on being critical of and intentional about the values that are embedded in our work.



Amelie Dinh
Oslo, December 2019

The Oslo School of Architecture and Design
Masters of Design Diploma Project

Photos and visuals by Amelie Dinh,
unless noted otherwise.

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1.

About off / track

An Introduction to the
Project

Welcome to *off / track*.

This section outlines my motivation,
approach, methods and other
foundational project information.

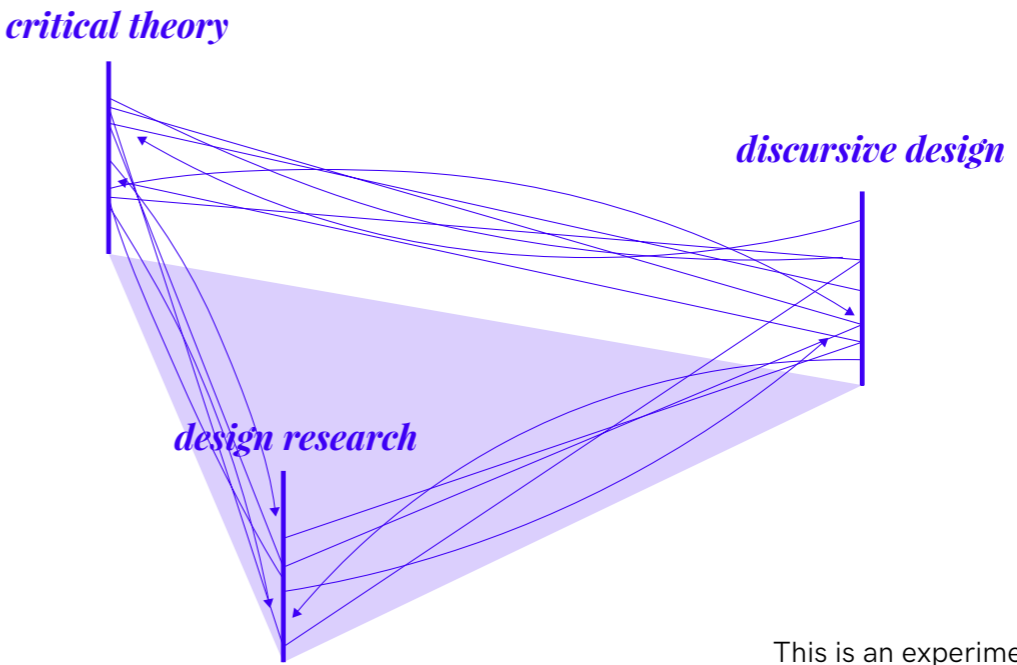
Motivation

What Kind of Project is This?

I have an ongoing interest in the social and cultural dimensions of established technologies. While I feel that there are many ethical conversations taking place around emerging technologies, self-tracking has established itself in our lives and in our devices, and as a result, it seems that we have stopped taking critical perspectives towards it. This project begins with asking not what could happen with new technologies, but what has happened with the technologies we have.

I am also interested in the personal scale of self-tracking. Many of our emerging technologies are operating on a massive, systems-level scale, often obscured from us as individuals. Self-tracking is uniquely personal, and allows me to explore questions around identity construction in the digital age.

My personal goal was to take this diploma as an opportunity to explore. I come to design with a background in the humanities - I completed my BA in philosophy and political science. This project is my way of exploring how to merge critical theory, research and practice, and in doing so, developing my own ways of contributing to the design field.



This is an experimental design diploma that moves between theory, research and practice. Informed and influenced by critical theory, and drawing from traditions of design research and discursive design, this project analyzes the current world of self-tracking technology, challenges its normative tendencies, suggests alternative concepts, and offers this work up for conversation within the design community.

This project deals in present terms, analyzing and generating for the present day. It examines current self-tracking practices, explores why we might want to explore new directions, and asks how we can redirect the existing technology. In that way, the project does not focus on product or UX design. It proposes a social reevaluation, rather than technological innovation or usability.

The Approach

Multiple Frameworks

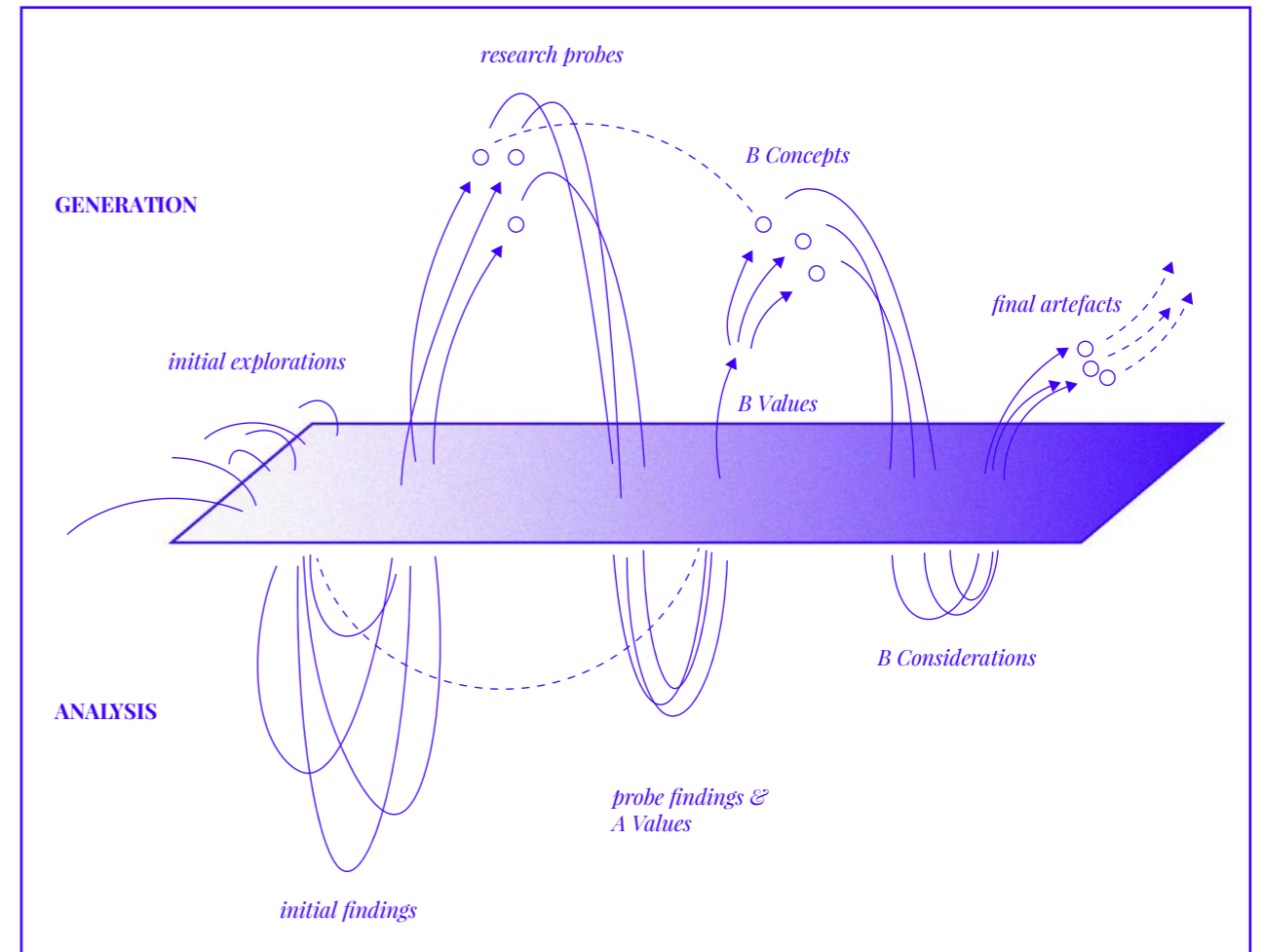
I do not position this project within a specific design domain, and instead describe this project as experimental because I did not follow an off-the-shelf design process. Informed by critical theory, design research and discursive design, I took my own approach, experimenting with the interplay of these frameworks, seeing how I could push one up against the other, and exploring their connections and what can come from moving between them.

Leaning Into Nonlinearity

I engaged with and interwove research and critical theory throughout my process. My approach went back and forth between researching and analyzing what exists and generating new work; I used research and theory to inform my work, and pushed my work back up against research and theory.

These “learning loops” were part of a broader, sense-making process, where I first explored the landscape, and then became more precise, focused and articulate as I moved forward.

In this way, my process was not unidirectional. My learnings shaped and enabled shifts in my process. My learnings were also sometimes tangential threads that I would notice, leave, and come back for later to tie into concepts down the line. In this way, my approach to this project has been iterative, propositional, critical, probing and playful.



The Methods

My research and analysis methods included:

Desktop Research

- Reading media coverage of and cultural writing on self-tracking technology as a way to understand the discussion
- Reading academic work in Sociology, Science and Technology Studies, and Media Studies on the topic

Conversations

- Interviews with people who both use and do not use self-tracking devices
- Expert interviews with diversity & inclusion experts and academics exploring critical perspectives on technology
- Public talks on the future of data, both as audience member and panel participant

Observations

- Observing collaborative workplace environments
- Using self-tracking products myself
- Observing others' self-tracking habits

Probes as Research

- Creating and sharing early discursive concepts as a way to gain knowledge

Mapping

- Horizon scanning, insight mapping, affinity diagrams

I further describe my methods at each stage of the project in subsequent sections.



On a futures panel, sharing ideas from the project on self-surveillance and our relationship with our own data. Photo courtesy of Designit Oslo.

Scope

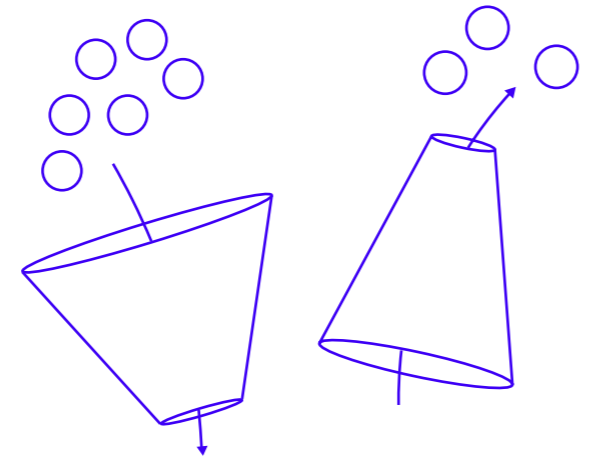
off / track focuses on everyday self-tracking tools (wearables, apps, services) used for personal interest's sake. In this way, it does not look at self-tracking technologies used for formal health care.

This project also does not look at removing self-tracking technologies altogether. Because I am designing in a context where self-tracking devices are being produced in greater numbers, and in a context where we are generating and seeing more and more data about ourselves, I ask not if the self-tracking world should exist at all, but what else it could look like.

This project has largely focused on self-tracking in the Western context; the majority of my readings and sources are American, Western European, or Australian. Within this context, I have endeavoured to find a wide-range of perspectives - from the ultra-rich looking to use self-tracking to extend their life spans, to calls for queering self-tracking.

I recognize that other cultural contexts have been taking their own approach to self-tracking applications. This has fallen outside of the scope of this project.

Aesthetic Approach



Visualizations

In this project, I have aimed to get to simplicity on the other side of complexity; through my explorative approach, I have embraced the topic's intricacy, and then endeavoured to strip down to the logics behind self-tracking. I have aimed to develop clear, precise concepts, language and communication in order to influence the dialogue around me. As such, the project's visualizations are "boiled down" to the essentials, and use simple, precise shapes and styles.

Discursive Concepts

The discursive probes and concepts that I have produced mimic existing aesthetics in order to position my concepts within the domains I am trying to challenge, and to play to the viewer's present understanding of self-tracking technology. I describe this contextualization further in subsequent sections.



this way to off / track >>>

2. *Initial Explorations*

Parts 1 & 2

In this section, I present my initial understanding of current self-tracking products and practices. At this stage, I was interested in exploring how self-tracking impacts how we understand ourselves, the motivations of those who self-track, and any possibilities and opportunity areas.

I go through two phases in this section: first, an initial research and analysis phase that leads to some early findings; then, motivated by those initial findings, the generation and circulation of a set of research probes resulting in a second round of findings and reflections.

Part 1

Research Sprint

In order to try and understand self-tracking as it currently exists, I did a brief research sprint, which included:

- a review of existing products

- a review of academic articles, newspapers, magazine articles, looking at historical examples of self-tracking and charting the evolution of this discussion through the 2010s

- collecting and reviewing data on myself, including my productivity and fitness

- interviewing people both locally and abroad who self-track, used to self-track, and never self-track, with the goal of getting a diverse range of perspectives

- an exploration of dedicated Reddit threads, Slack channels and chat forums

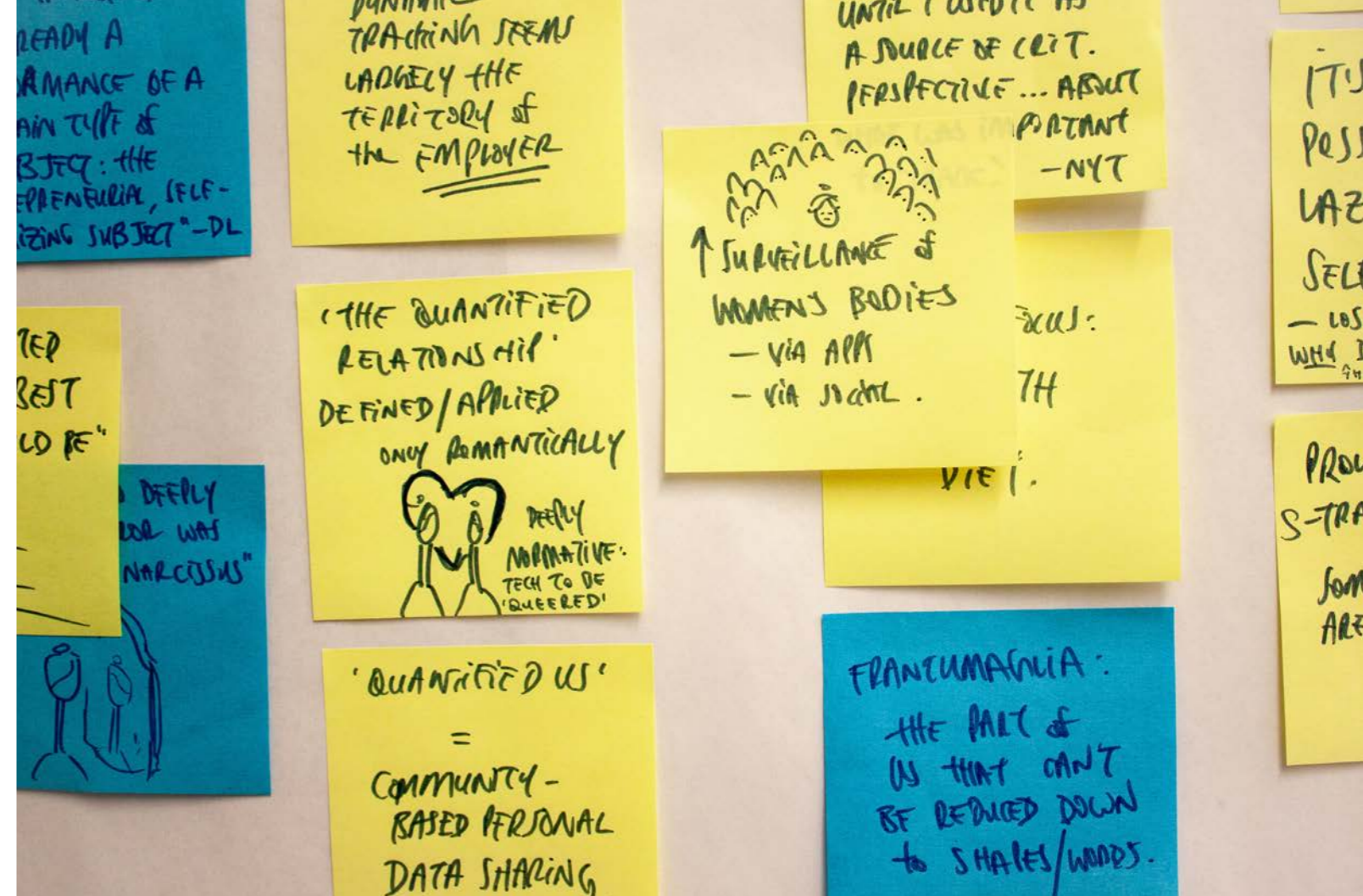
- attending related talks and lectures

I also mapped a sample of popular existing products by various parameters, such as:

- what they track (e.g. your body, your diet)

- how they track (e.g. products that track passively by using sensors or other data collection to track your activity vs. products that require you to actively log your activities)

- why they track their product messaging and value proposition



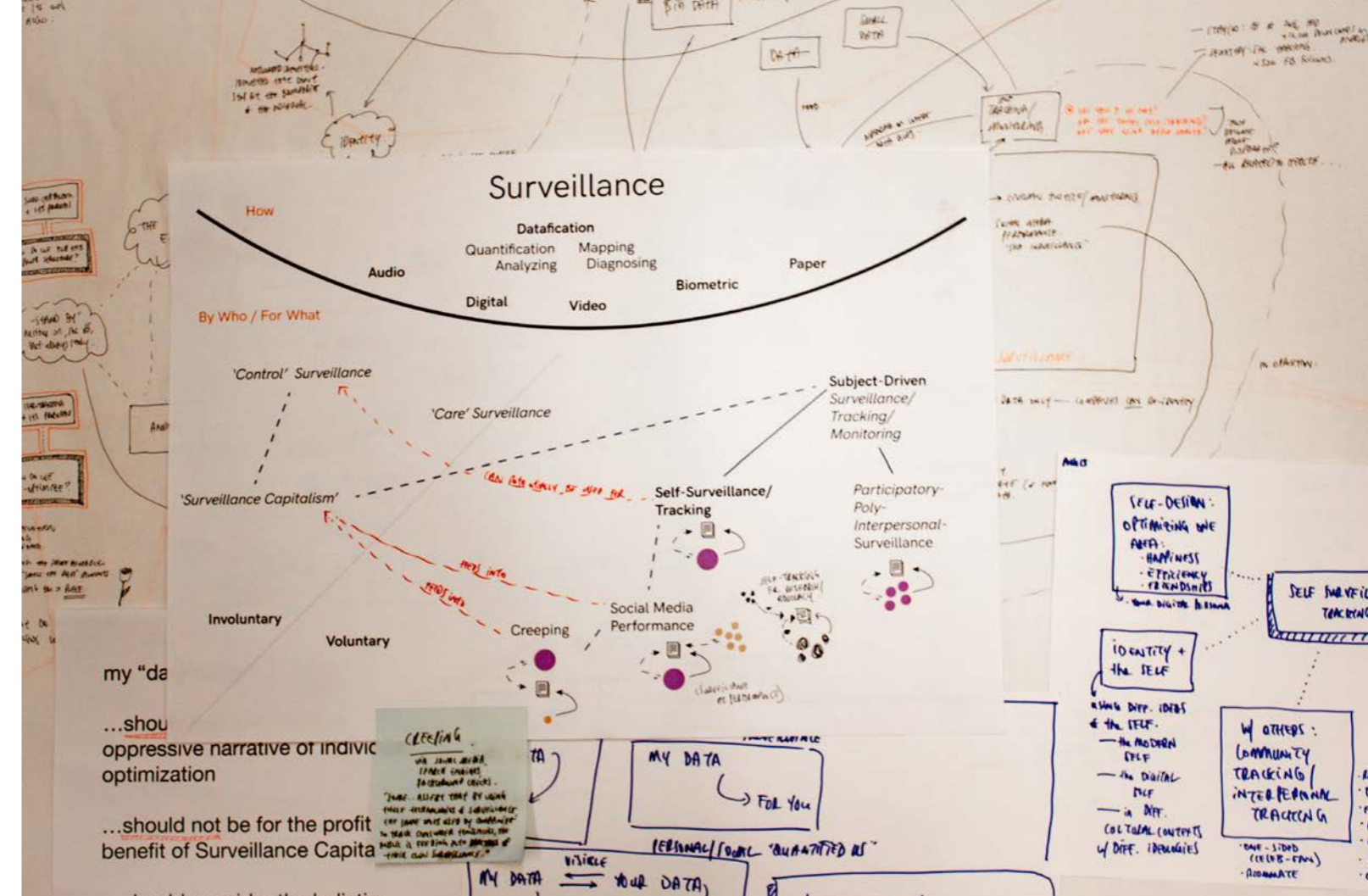
Part 1

A Note on Self-Tracking and Surveillance

I also looked at self-tracking as it related to broader themes of big and small data, surveillance, surveillance capitalism and self-surveillance.

I was interested in the ways self-tracking data relates to big data and surveillance. Unlike surveillance tools, the data from self-tracking largely goes back to the user, though some self-tracking tools aggregate and anonymize the individual data into larger data sets that are distributed elsewhere.

Self-tracking tools are interesting in that the dynamics of control are less asymmetrical than other types of data collection; with self-tracking, the user gets to see their own data, whereas in surveillance or digital data collection, the user often does not have clear insight into what is collected and then distributed about them. I returned to the distinction between self-tracking and surveillance throughout the project.



Part 1

Initial Findings

My findings from this initial research were broad. Here, I highlight three key findings around the affordances of self-tracking.

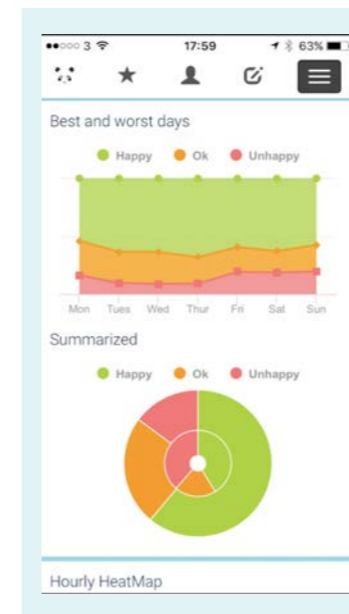
Self-Tracking Provides New Perspective & Materiality

“Data gathered about us by our devices becomes an artifact that is separate from us and can be viewed at a distance”

Jill W. Rettberg, Professor of Digital Culture, University of Bergen (Rettberg 68)

"I have a confidence that what I can learn can change things and then change me and then change my environment."

Male, 28, Interviewee



Mood Panda is an app that allows you to track your daily emotions. It materializes and visualizes your emotions in order to give you new perspective ("Mood Panda").

A central motivating factor for people who self-track is the feeling that the data gives them a new and better way to understand themselves. Self-tracking materializes parts of their life that were previously immaterial - e.g. putting a number to the amount of steps you've taken in a day - and this gives them the ability to reflect in a new way and possibly behave and understand themselves differently.

Part 1

“Objective” Data > Subjective Experience

“...data visualizations were interpreted by research participants as more ‘factual’ or ‘credible’ insights into their daily lives than their subjective experience. This intertwines with the deeply-rooted cultural notion that ‘seeing’ makes knowledge reliable and trustworthy.”

Minna Ruckenstein, Associate Professor at the Consumer Society Research Centre and the Helsinki Centre for Digital Humanities (Ruckenstein 77)

Self-trackers often perceive the data that comes from these trackers as authoritative. Studies by Ruckenstein show that participants are willing to rely on the perceived authority of the data, particularly when it comes to their health.

Through my interviews, I found that there is a range in how much those who self-track will allow the data they receive to take precedent

over their own experiences.

Anecdotally, they have shared that they feel that they have slept better or run faster if their tracker tells them they have. One interviewee commented, “If I think I’ve been having a fast run, and the tracker tells me I haven’t been, then I definitely believe the tracker over my own perception.”

Self-Tracking Focuses on the Individual

“Social connections...influence our long-term health in ways every bit as powerful as adequate sleep, a good diet, and not smoking.”

*Harvard Health
("The Health Benefits of Strong Relationships")*

The vast majority of self-tracking products I found focused on the individual - the individual’s health, activities, diet and resources. Very few products looked at what happens *in-between* individuals. The products that did give the data to someone else, be it employers, the authorities, or social media companies.¹

The self-tracking tools I found that did concern themselves with social connections were mostly related to tracking romantic milestones (e.g. anniversaries) or sexual

activity (e.g. number of instances). Uses of the term “Quantified Us” mostly referred to public or social sharing of individual data - *Strava*, a popular running app where individual runners can share how far they have run, is one such example.

I found this focus on the individual interesting, as there are many self-tracking tools related to health, and social connections can be considered as part of our health. With social connections being such a significant part of our wellbeing, why were so few products aimed at this part of our lives?

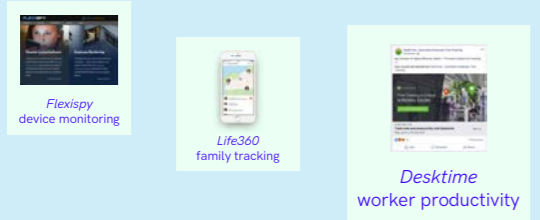
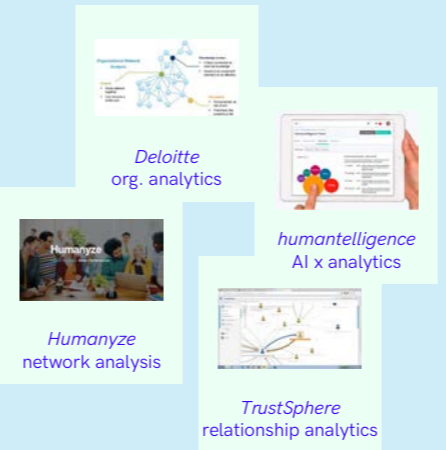
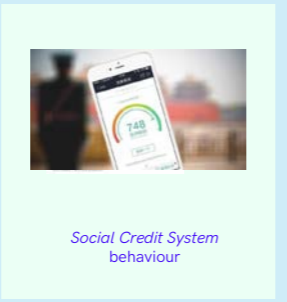
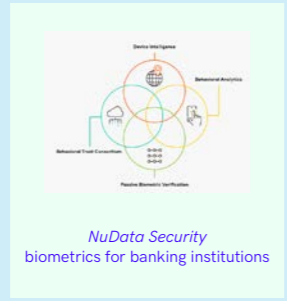
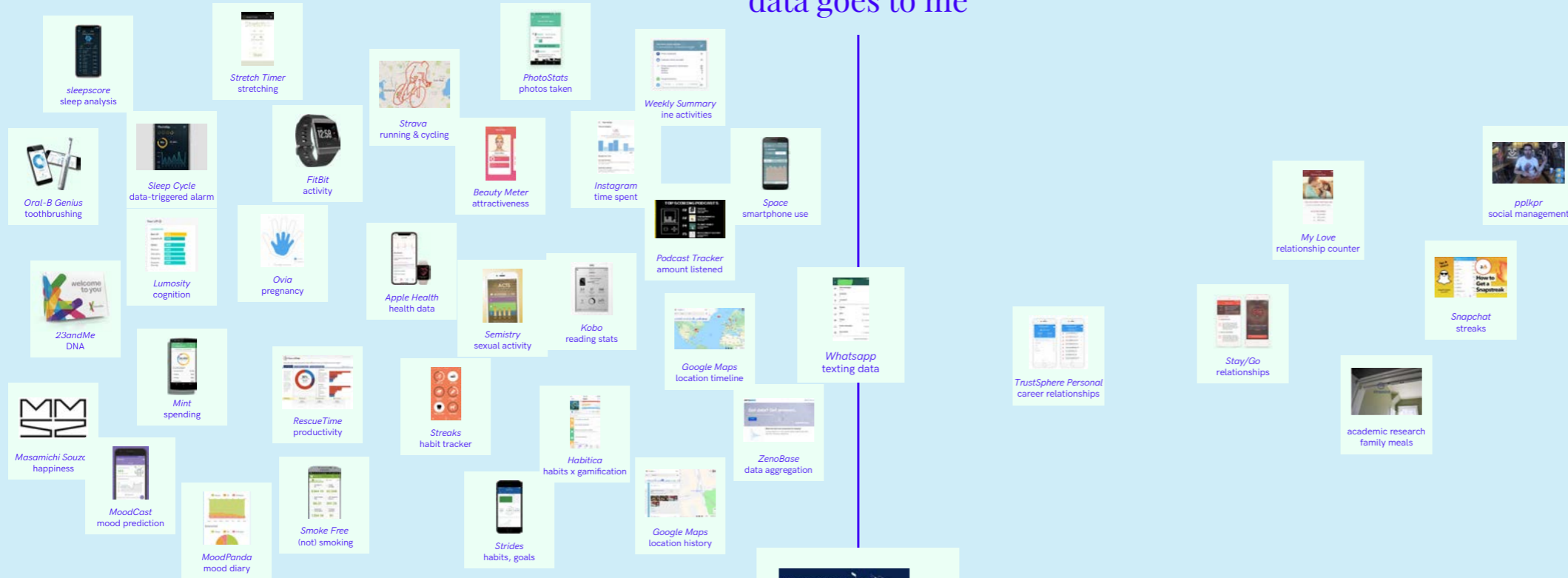
¹ [Notably, Lauren McCarthy has done some work on biometric data and social relationships as part of her art practice.]

data goes to me

data about me

data about us

data goes to someone else



Self-tracking works on the logic that at least some or all of the data comes back to the self-tracker. In a survey of existing products, I found that products that return the data to me largely focus on the individual. Significantly fewer products look at social relationships and dynamics.

Products that do look at social relationships mostly do not return the data to the me. Many are HR products, like Organizational Network Analysis, which analyzes digital activity of employees to map group dynamics.

Because the data goes to someone else, they are not self-tracking products. They can be understood as forms of monitoring or surveillance.

This led me to ask - what would it look like to aim self-tracking at our relationships? To gather data about us, for me?

Part 2

Explorative Probes as Research

To learn more about the possibilities, limitations and considerations of quantifying relationships, I created 3 rapid research probes.

The probes were designed to explore multiple self-tracking parameters and possibilities:

Parameter

Possibilities

Format

Digital tracking on your phone
An external service
A dedicated, physical tracking device

Social Relationships
and Contexts

Personal - One-on-one relationships
Social Groups - families, communities
The Workplace - structured dynamics

Who is Tracked and
Who Sees the Data

Data about me for me
Data about us for us
Data about how you are with me

Product Positioning
and "Pitch"

As a way to optimize relationships
As group or community betterment
As confrontational, or a way to "get the receipts".

The probes are discursive concepts, quickly produced and presented to people of varying age, gender and experience with self-tracking as a way to gain knowledge and spur discussion on how else we could be using this technology.

They were collaged from existing services and products, using popular aesthetics from existing websites in order to create a sense of believability and in order to place the concepts in the present.

I produced them as product websites in order to explore not only the concept, but how the concept would be pitched. As I was looking for reactions on a concept level, I put the concepts in the broader context of the website instead of using product sketches that might draw reactions related to specific product form or appearance. In interviews, I or the interviewee scrolled through them, reading the content out loud, and discussing the interviewee's reactions.

Part 2 - Probe 1

iOS Relationships

What if we extended current self-tracking trends to relationships — and built relationship data into the trackers that now come with our phone?

playing on Apple Health's existing product positioning, *Relationships* is included in the four categories that play a significant role in your overall health

“Maintaining and caring for both close relationships and loose acquaintances is essential to living a longer, healthier and happier life.”

The *Relationships Dashboard* provides an overview of your socializing trends based on digital activity, including a “Weekly Socializing percentage”

The *Relationships* feature aims to optimize your social life in the same way it optimizes your sleep and nutrition. “Once you have a better awareness of how your relationships tick, you can make more informed decisions on how and with who you invest your time.”

Individual Relationships data provides a more detailed breakdown of dynamics with a specific person, including rates of responsiveness, a “give/take %”, and an editing rate that indicates how much you hesitate or edit your messages before sending them

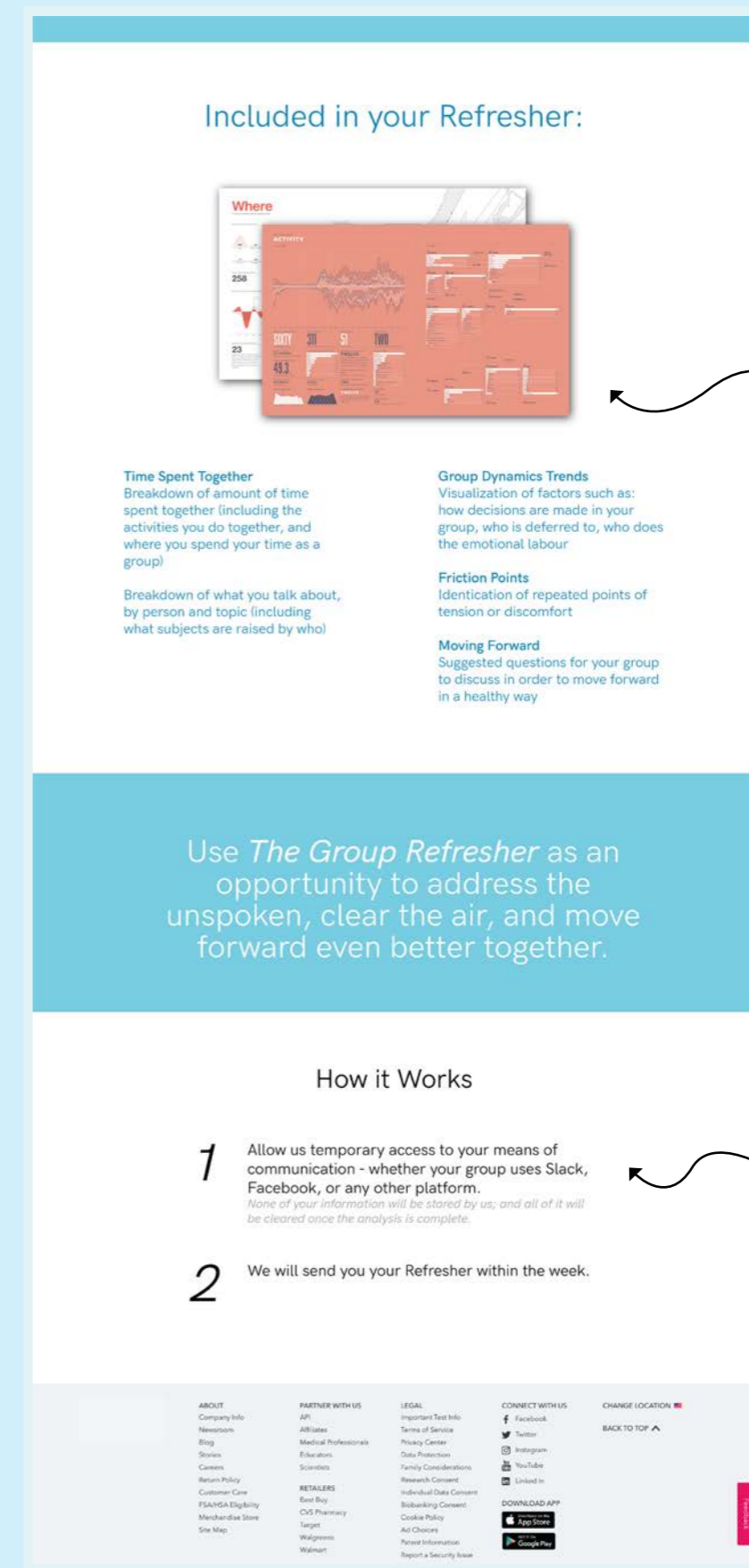
Part 2 - Probe 2

The Group Refresher

Our digital behaviour can be reviewed and analyzed by Google and Facebook, or by our own employers. What if we saw our own group behavioural analytics?



The Group Refresher is positioned as a service, an annual group dynamics audit that can assist with catching relationship friction points early "before they calcify and become divisive"



The Group Refresher visualizes your group's dynamics, identifies friction points, and provides questions for a group discussion in order to move forward in a healthy way

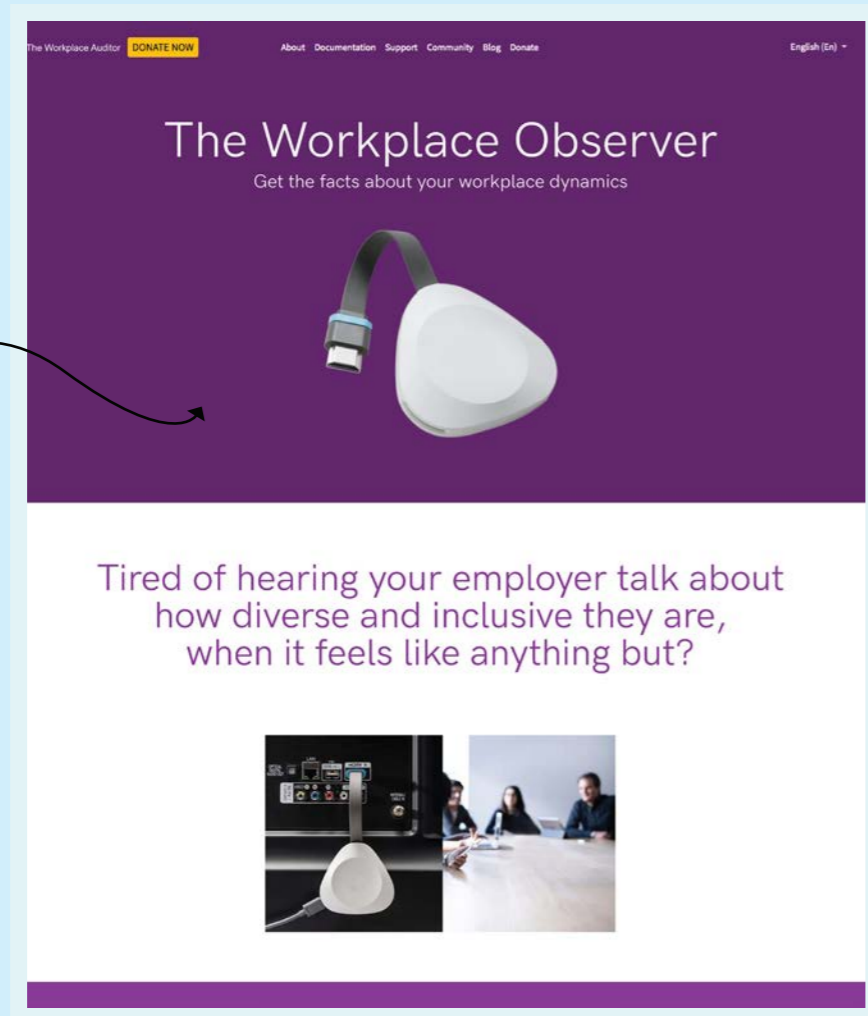
The service requires access to group communication channels (e.g. a WhatsApp group thread)

Part 2 - Probe 3

The Workplace Observer

What if we used self-tracking to materialize and provide new perspectives on often-disputed workplace dynamics?

The Workplace Observer is a physical device aimed at tracking workplace interpersonal dynamics related to diversity and inclusion



The tracker quantifies small manifestations of workplace power, such as who speaks the most at meetings, and who typically does the office "housework"

A screenshot of the Workplace Observer website content page. The top section has a purple background with the heading 'Get the facts.' and two paragraphs: 'It can be hard to convince others that some voices are being heard more than others in a workplace environment.' and 'The Workplace Observer can be brought to meetings to gather data that can help you quantify workplace dynamics across gender.' Below this is a large image of the physical device. The middle section is titled 'The Workplace Observer Tracks:' and lists several metrics: 'Interruptions by Gender' (Get a breakdown of how many times women are interrupted by men, men interrupted by women, and same-gender interruptions), 'Airtime Split by Gender' (Who speaks during meetings? Get a breakdown of minutes spoken by gender), and 'Turn-Taking' (Get a count on how many turns each person takes, aggregated by gender). To the right, under 'The Video Function can also collect information on:', it lists 'Eye Contact' (Who receives eye contact from the speaker?), 'Body Language' (Who does the speaker face when speaking?), and 'Administrative Tasks' (Who sets up the room? Who takes notes? Who gets refreshments, and who cleans up afterwards?). The footer includes a 'SUBSCRIBE TO OUR NEWSLETTER' button, a link to 'Get monthly updates and opportunities from the Tor Project:', and social media icons for Facebook, Twitter, Instagram, LinkedIn, and YouTube.

The tracker quantifies physical behaviour and activities, as well as conversational patterns

Part 2

Probe Reactions & Findings

I received the strongest reactions from the *iOS Relationships* and *Workplace Observer* concepts.

The *iOS Relationships* concept elicited some strong, negative reactions.

"[the Weekly Socializing percentage] is dehumanizing. It's just another way to beat yourself up."

Woman, 32

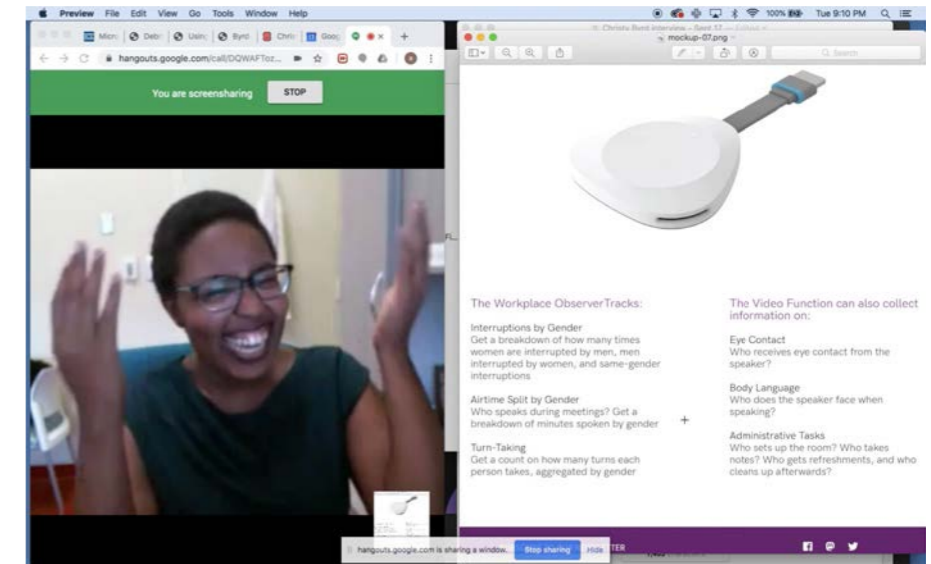
"F--- this is way too much. This makes me feel sad - is this the way we're headed?"

Male, 40

On the other hand, the *Workplace Observer* had significant appeal, particularly to the women that I spoke to.

"I see how this could be useful. Where do I get one?"

Woman, 38



"This is hilarious! ...These are all things we know are already happening - but the body language is interesting, and might provide surprising data."

Christy Byrd, National Center for Institutional Diversity, whose research work explores topics such as equity & diversity and racial identity

Part 2

Embedded Value Systems

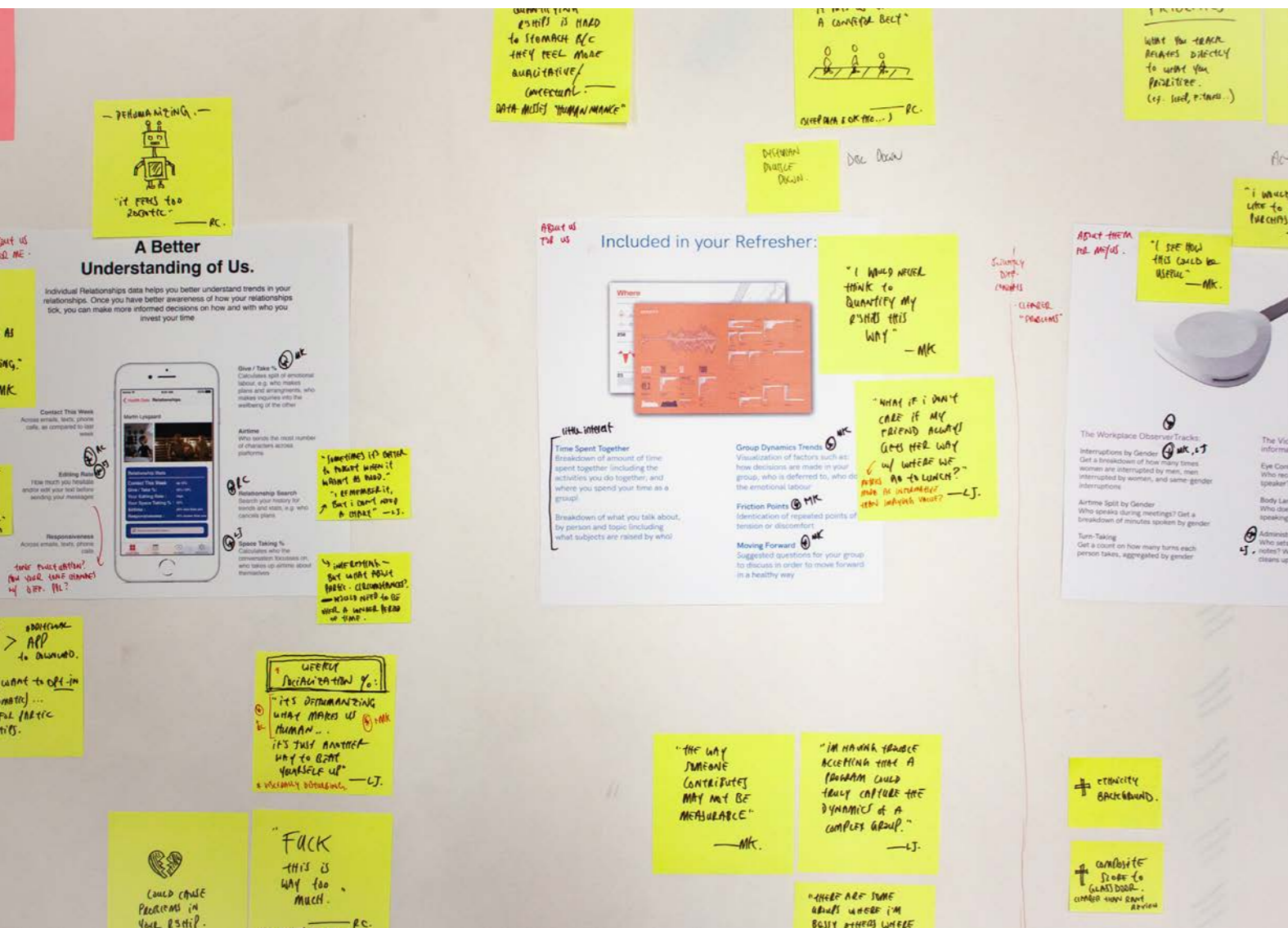
Without taking the positive/negative reactions at face value, I was intrigued by the difference in the response between the two concepts. It seemed that people were responding to the fundamental logic of each concept - one which focused on the optimization or automation of our relationships; the other as a way to challenge bias and power. I began to think of self-tracking tools as carrying underlying values, values that were materialized in the metrics they track. This led me to the next stage of investigation - what other values underlie current applications of this technology?

In this section, I developed two sets of findings.

In the first set, I found that self-tracking can provide new perspective on oneself, that users often see the data provided back to them as authoritative, and that there are few self-tracking devices that look at interpersonal dynamics.

This led to the production of three probes exploring what it would look like to self-track for interpersonal dynamics.

In sharing those probes with others, I found that the reaction to the *Workplace Observer* was different than the previous two because it wasn't about optimizing relationships, but about materializing bias and power. This made me think that existing self-tracking tools enact some kind of value set - of which optimization might be one value - and if I could draw out these embedded values, I could propose concepts based on alternative social logics or value systems.



3.

Looking for What's There

Mining Existing Products
for Embedded Values

I had begun the project with the desire to explore possibilities around self-tracking and found that I needed to look at the underlying values of these products that might, on the surface, feel relatively neutral.

This section is based on two assertions:

1. There are values embedded in our self-tracking technology
2. As self-tracking has become more ubiquitous, we are less conscious of these values

Through an analytical process, I developed a list of values that I propose are embedded in existing self-tracking tools. My intention is to use this material as a starting point for imagining alternatives.

Assertion 1

Embedded Values in Self-Tracking

Through my research probes, I had explored different forms that self-tracking technology could take on. The reactions I received ranged from distaste to enthusiasm - largely impacted by the values that drove each concept.

In conversation with Bruno Oliveira Martins, senior researcher at the Peace Research Institution of Oslo, he commented, "Many of the dynamics of society at large are reflected on technology. It's not just the technology itself - it's the process through which the technology is conceived, designed and consumed. Society impacts technology, technology impacts society - it's circular, and it's self-reinforcing."

With our current technology, we have the possibility to track a huge spectrum of data about ourselves. What values or social logics underlie the self-tracking tools that we have been producing?

"Digital technologies can take many forms and have many effects, depending upon the social and economic logics that bring them to life."

*Shoshana Zuboff, author of
The Age of Surveillance Capitalism
(Naughton, "The Goal is to Automate Us")*

"We come to understand ourselves in a new way through the representations of ourselves that we create to be consumed."

*summary of the work of Lee Humphreys
MIT Press ("The Qualified Self")*

Assertion 2

A Less Deliberate Quantified Self

If there are values underlying our self-tracking technology, how critical or deliberate have we been of these values? Especially as technological advances have significantly lowered the threshold for self-tracking?

For insight on this, I spoke to Eric Boyd, former chapter head of *Quantified Self Toronto* and keynote speaker at the first Quantified Self conference.

In the early 2010s, the idea of the *Quantified Self* - of "self-knowledge through numbers" - was simultaneously a philosophy, a movement, and a tech trend. It promised clarity — that by collecting data about yourself, you could not only know yourself better, but become a better version of yourself.

Quantified Self chapters opened around the world. Makers and technologists were actively deciding what they wanted to measure, and spending the resources required to hack those tools together themselves. As products became more readily available, there were countless newspaper features of reporters testing different products. But as developments in technology and the smart phone made self-tracking easier and easier, self-tracking dissipated into the mainstream, declining as a defined movement. You no longer had to be a maker in order to self-track, and as such, you no longer needed to be as deliberate with what you were tracking and why. Self-tracking comes with our phones' operating systems now, and additional self-tracking products are just a tap away.

"...Sometimes the way our values permeate technology just happens - and the fact that it "just happens" is extremely relevant."

*Bruno Oliveira Martins, Interviewee,
Senior Researcher, Peace Research Institute Oslo,*

"It's now easy to be lazy about self-tracking."

*Eric Boyd, Interviewee,
former Toronto chapter leader of Quantified Self*

Values Extraction

At a talk at The Oslo National Academy of the Arts, James Bridle commented on the adoption of technology, indicating that during the build up or anticipation around an emerging technology there is a small window for us to engage with the technology critically before it becomes ubiquitous and taken over by capital. With self-tracking reaching ubiquity, I wanted to reopen that window of criticality and identify the values that had been “decided for us”.

Methods

I spoke with Bruno Oliveira Martins from the Peace Research Institute of Oslo about the interplay between social values and technology, and ways to identify underlying values.

In order to “extract” these existing underlying values, I:

reviewed product pitches and messaging, mining for values-oriented language

reviewed product features for signals of priorities and social values

interviewed people who use self-tracking tools

surveyed academic research

surveyed cultural writing (e.g. Wired, etc.)

reviewed online communities of self-trackers (e.g. message boards, Slack channels, etc.)

“There’s a tiny window for critical engagement before it’s all decided for us”

James Bridle, artist and writer, public lecture, Nov 26, KHiO

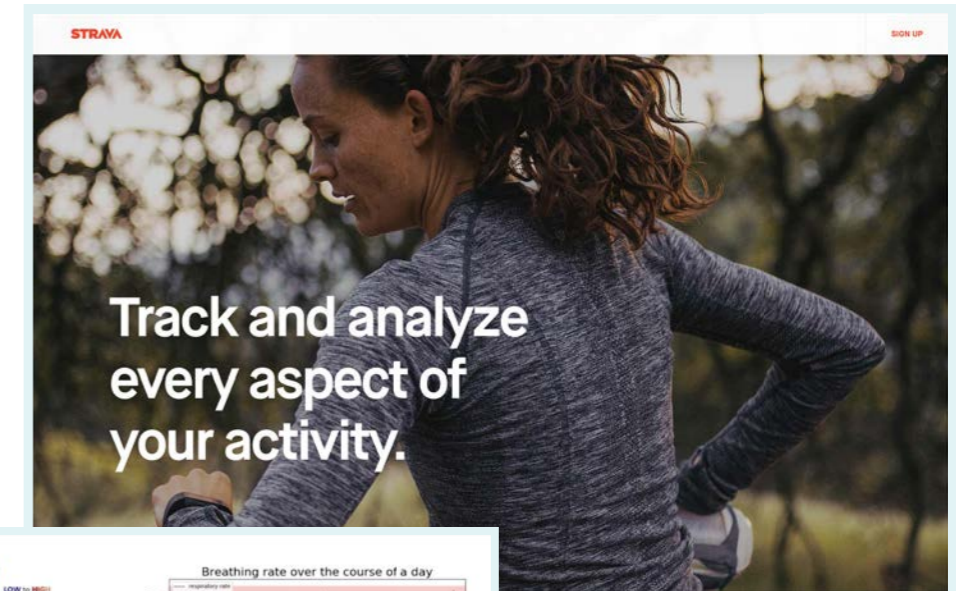
“...when [product developers] are advertising a product or talking about it casually, you can get from the language the values they are after, and the ones they don’t care about.”

Bruno Oliveira Martins, Interviewee

the “A” Values

I have identified four values that I understand to be underlying existing self-tracking products. I have collected these values under “A”.

demystification of your body and your activities



Strava website (“Features”)

DOES MY STOMACH ANTICIPATE MY MEALS?
Benjamin Smarr
Benjamin Smarr has been collecting glucose, body temperature, heart rate, and stomach activity data to see how his body responds to scheduled meals, and whether it keeps the schedule when he fasts.

TRACKING BREATHING TO CONTROL MY FOCUS
Shamay Agaron
Shamay Agaron has been using a breath measurement instrument, the Spire, to understand more about his patterns of focus.

A scroll through the “Show & Tell” section on quantifiedself.com shows the deep interest of self-trackers in demystifying their bodies and activities (“Show & Tell”).

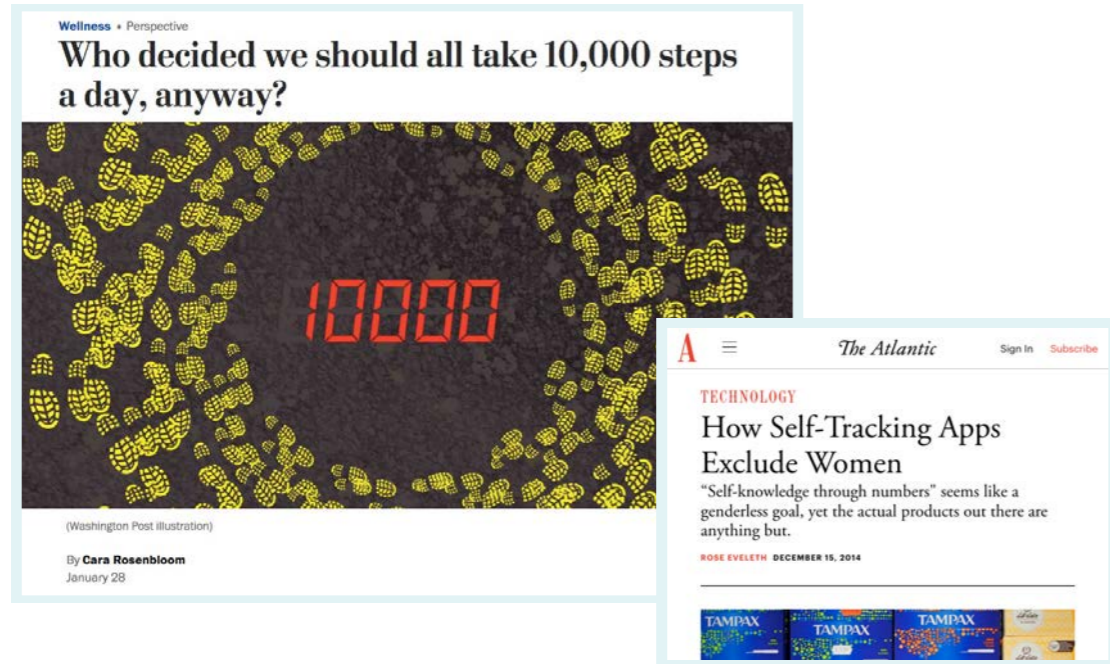
Self-tracking as a practice is predicated on the idea that there are elements of ourselves that are unknown or mysterious to us - and that data can help provide clarity. This is reflected in the *Quantified Self* motto, “Self-Knowledge Through Numbers.”

A running theme in pitches for self-tracking products is that the product will demystify and give you control over elements of your life. This demystification is sometimes positioned as complete - e.g. “understand every aspect

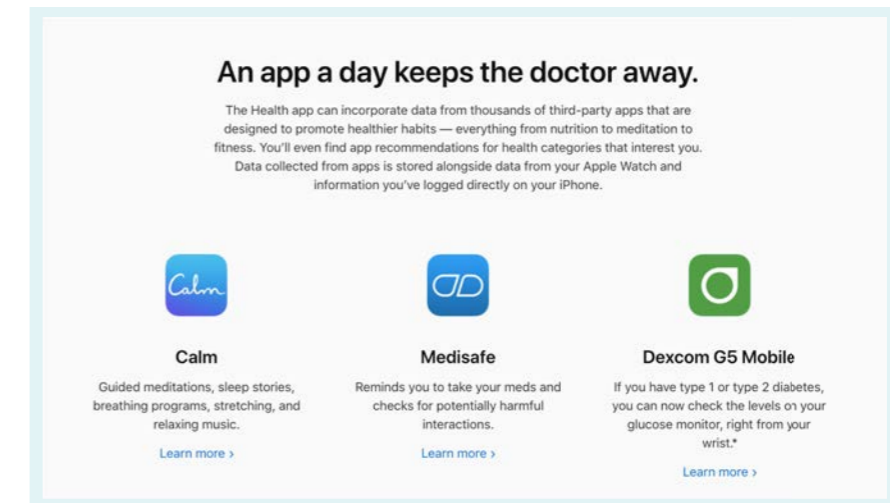
of yourself” - but most commonly focuses on your body and your activities.

There are few products that speak to our own internal logics, even though we know that it is possible to gather such data (Facebook, for example, understands our browsing behaviour, our tendencies as consumers, and even when we might end our relationships - it is just hard for us to access and process that data).

a generalized, universal user



individual health-focus



Apple website ("Health")

“This is one of the streams that quantified-self apps are traveling down—the road to universal data collection. The idea that there is a list of variables that everyone can, and should track.”

*Rose Eveleth, The Atlantic
("How Self-Tracking Apps Exclude Women")*

“The two mainstays of every Quantified Self meeting were diet and exercise. They dominated our conversations.”

*Eric Boyd, Interviewee,
former Toronto chapter leader
of Quantified Self*

“Everything I self-track is related to my health.”

*Male, 28, avid self-tracker,
interviewee*

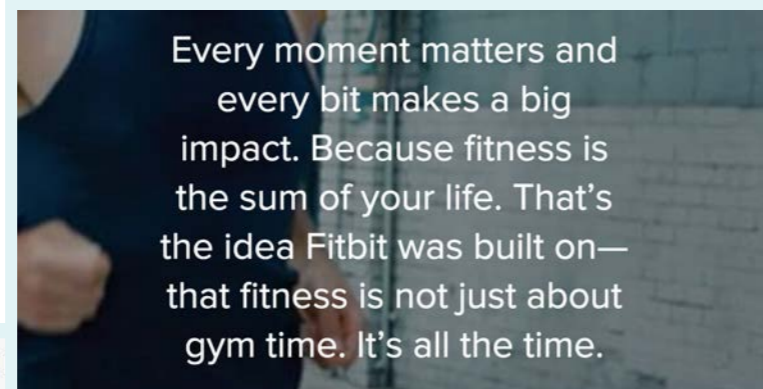
Multi-functional products often indicate that they can give you a comprehensive view of yourself. These products are working on the logic that everyone needs to or wants to be measuring the same things.

These generalizing logics often apply to the metrics as well - the most common example is the 10,000 steps widely associated with being the minimum threshold for an active day for all users.

Rose Eveleth wrote about this in *The Atlantic* in 2014, during the peak of media interest in the *Quantified Self*. *The Washington Post* wrote the article above on 10,000 steps in 2019 - the theme persists to this day. Self-tracking tools continue to position themselves as being based on universal, generalizable principles, and as providing hard facts and accurate descriptions that can apply to everyone.

The majority of self-trackers and self-tracking products, including today's most popular products like the FitBit and Apple Watch, focus almost entirely on health. With the exception of a few relationship trackers, which largely focus on helping you remember anniversaries or milestones, health is approached as an individual concern.

optimization, productivity, efficiency



RescueTime [Sign In](#) [Try for Free](#)

"If you want to become your most productive self, you need to understand how you spend your time. There's no better tool for doing that than RescueTime."

- PC MAG editor's choice

RescueTime website

FitBit website ("Why FitBit")

"The very act of self-tracking is already a performance of a certain type of subject: the entrepreneurial, self-optimizing subject"

Deborah Lupton, Sociologist and Media Studies Researcher, University of New South Wales (Lupton, "Beyond the quantified self")

The drive towards these three values can be best seen in the product messaging. Whether it's tracking your spending, your physical activity, or how you use your time, the theme

of individual optimization consistently remains - and optimization is typically applied in capitalistic terms (e.g. doing more, producing more, being more efficient).

Reflections on the "A" Values

"It gives me anxiety that I am failing as a person if I'm not optimizing."

Female, 38, occasional self-tracker, interviewee

This list has evolved over time, and I have incorporated feedback along the way. The "A" Values do not reflect every single self-tracking application - but I believe they capture central themes. There is a lot of subjectivity and complexity in identifying underlying values. However, by distilling the field down to these few values, they become possible to work with as material in my design process.

The existing approach to self-tracking is highly valued by some - these devices can help those using them feel empowered, in control, and can encourage a greater mindfulness of their bodies and activities.

However, for others, these devices promote a culture of self-perfectibility, a culture where we should always be optimizing. They contribute to a cultural narrative where the individual is the focus, the default unit of

measurement, and has all the required tools and necessary control for self betterment. In this sense, it becomes the fault of the individual if they fall short. We have the tools to be better, as well as the data - why are we not yet optimal? The individualistic, "entrepreneurial" nature of current self-tracking reflects the capitalistic environment from which these products have sprung (Lupton).

The focus on health, resource management and productivity may be because these topics feel universal and apolitical - metrics everyone can agree on, or see value in. However, the prioritizing of these measurements reveals an implicit bias. Our technological devices are not just market products - they are social artefacts, reflecting and producing our values and norms. What other values could our self-tracking applications reflect?

The “A” Values

demystification of your
body and your activities

a generalized, universal
user

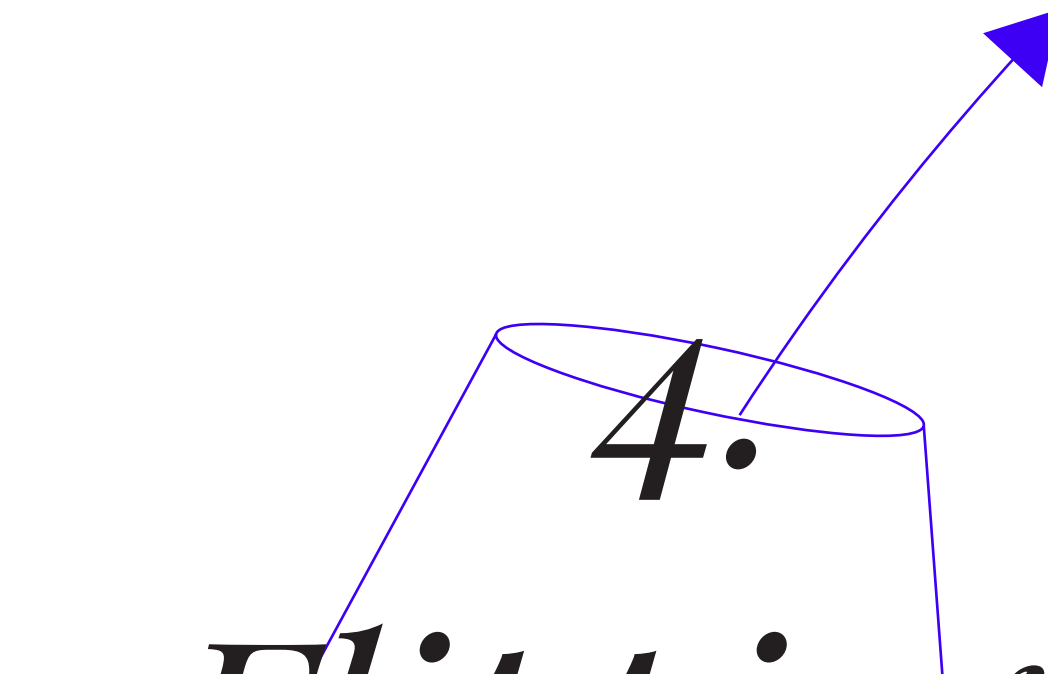
individual health-focus

optimization,
productivity, efficiency

In this section, I extracted values embedded in existing self-tracking products, and collected them under list “A”. I also question the culture of self-perfectibility that these devices contribute to.

I feel that these normative biases have limited applications of self-tracking, and that as designers, makers and product developers, we could challenge these norms and encourage a greater plurality in the values that products take on.

In order to encourage this plurality, I felt it important to exemplify what alternative values might look like. In the next stage, I use these “A” Values as the starting point to develop a set of “B” Values.



4.

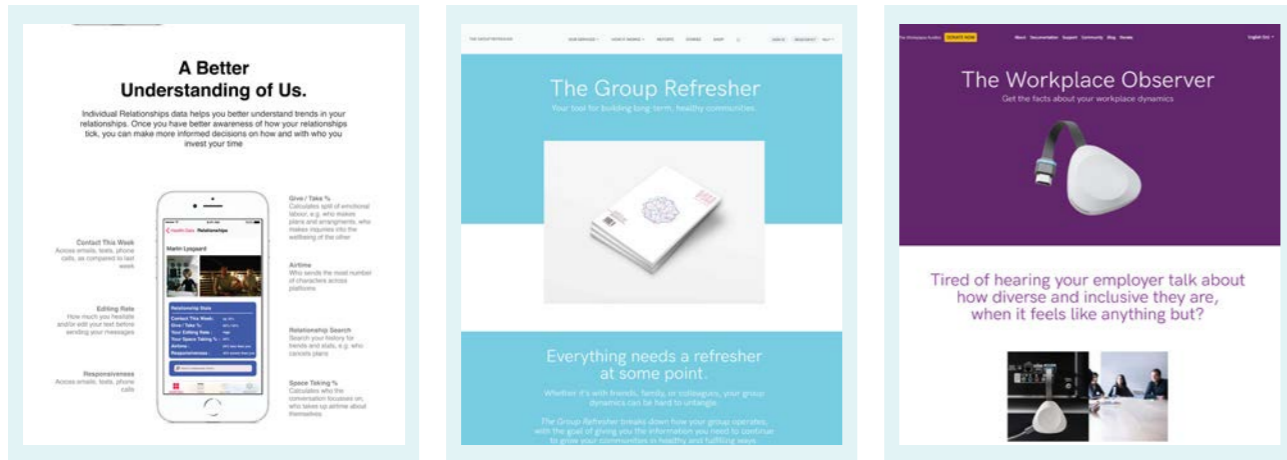
Flipping the Script

Articulating an Alternative
Set of Values

Towards what other values could we orient self-tracking tools? I had extracted values from existing products and found myself critical of the result. I wanted to draw the attention of other designers, makers and product developers to the implicit norms around self-tracking, and opted to do that by challenging "A". What would happen if I generated my own values, and used those as foundational material for developing alternative product concepts?

In this section, I walk through my approach and considerations in developing my own list of values, and what resulted.

Drawing From Initial Probes

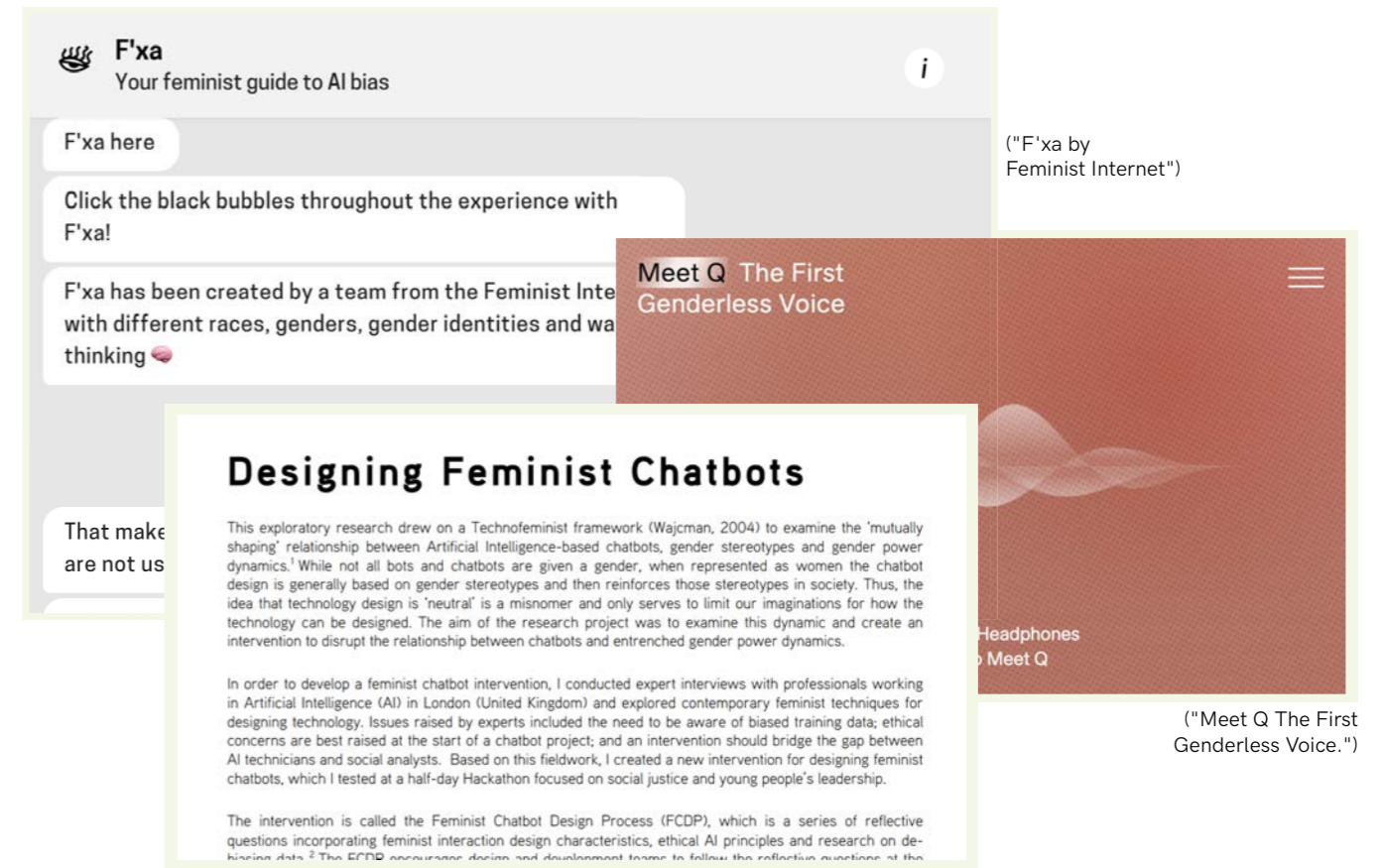


In developing my own list of values, I drew from some of the learnings from my first set of probes. Specifically, I was interested in the responses to *The Workplace Observer*. From those I interviewed, there was a strong interest in using self-tracking to materialize power and biased interpersonal dynamics.

I also saw this direction as a way to aim towards something other than optimization. My other probes, specifically the addition of

relationship data to the Apple iOS, had played into the optimization narrative by positioning themselves as tools to better manage your personal relationships. Doubling down on the optimization narrative felt like a narrow path that continued the current trajectory. Because I was interested in challenging the values of existing products, I turned away from this direction and leaned toward creating a hopeful, provocative alternative.

Intersectional HCI



(Josie Swords)

Because I was looking at power, bias, and interpersonal dynamics, I wanted to draw from other work that had done the same. I referenced traditions of human-computer interaction (HCI) that engage with identities like gender and race - or "Intersectional HCI" - and projects such as Josie Sword's *Feminist Chatbot Design Process*, Feminist Internet's *F'xa*, and *Q, the First Genderless Voice*.

I also reviewed critical perspectives on self-tracking as it currently exists and is practiced. In *Are you (self-)tracking? Risks, norms and*

optimization in self-tracking practices, the authors suggest a queering of self-tracking, writing, "We understand queering as carrying forward the legacy of anti-normative criticism by activists and academics, performed through the questioning and destabilizing of social norms... Such criticism seeks to make it possible for new worlds - new utopias - to emerge" (En, Pöll 37-57).

I drew from this critique and others with the goal of tying some of these themes into a set of foundational values.

The "B" Values

The "B" Values I developed are as follows:

1. **Revealing Unconscious Bias**
Instead of focusing on optimizing your body or your resources (time, money), what if we used self-tracking to check your behavioural blindspots and reveal something about how you interact with the world around you?
2. **A Particular, Subjective User**
Self-tracking is inherently personal - it is a way for us to see externalized material about ourselves. This value recognizes that the self-tracker and the people around them are coming into situations with their own identities, frameworks, and relationships with power; as a result, different people may have different self-tracking needs. How can self-tracking reflect an individual's position and identities?
3. **Community Health-Focus**
With this value, I move from a focus on the individual to a focus on the interpersonal and the community. As cultural critic and essayist Wendell Berry wrote, "I believe that the community - in the fullest sense: a place and all its creatures - is the smallest unit of health and that to speak of the health of an isolated individual is a contradiction in terms" (Berry).
4. **Accountability, Recognition, Repair**
Broadly, self-tracking can aim to provide information and feedback that can help individual's recognize and be more accountable for their own behaviour, with the aim of possibly repairing interpersonal connections.

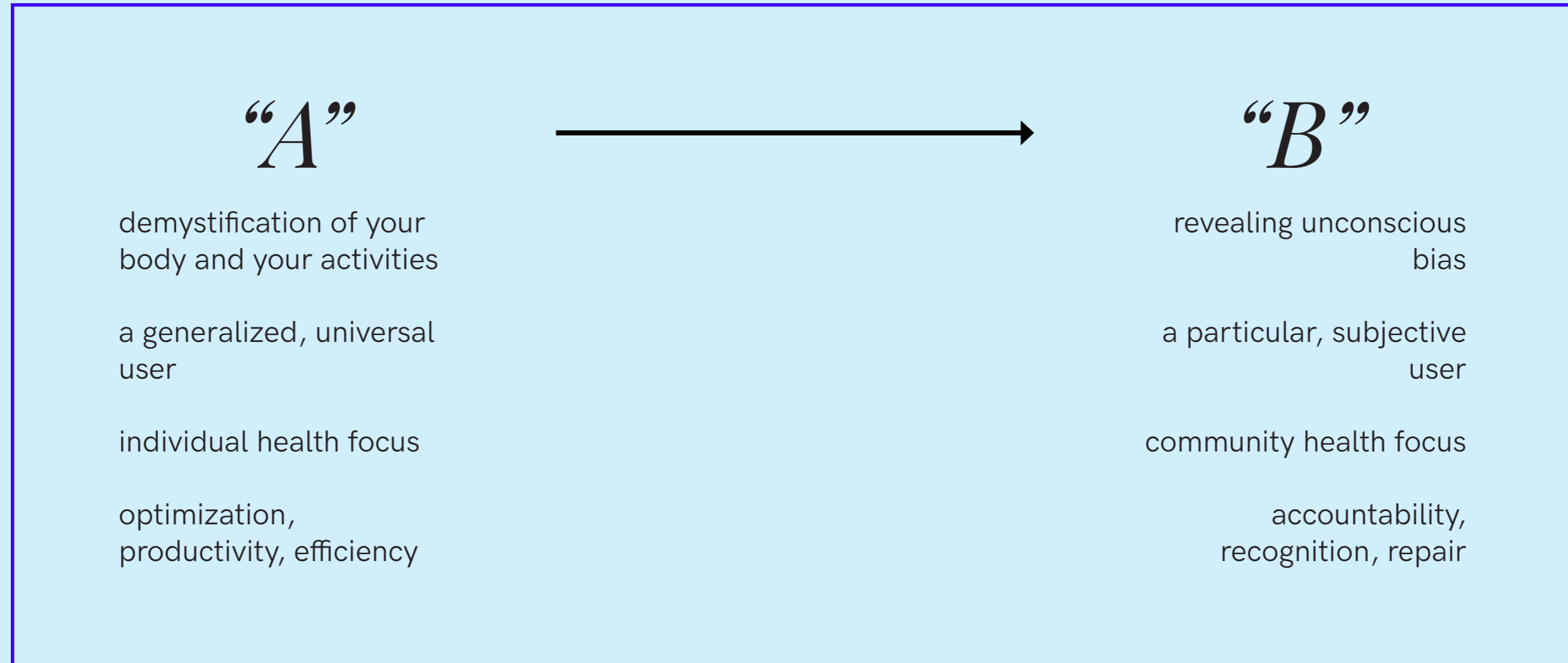
These values can also be viewed within an intersectional framework. Specifically, they relate to the idea that there are identities (e.g. based on gender or race) that are privileged in our society. Can self-tracking help privileged individuals recognize the ways in which their privilege operates, understand how they may be contributing to these power structures, and give them the data to reflect and possibly contribute to repairing these dynamics?

"The values that you have identified are often those that are left behind by the capitalist way of thinking, which focuses on you doing better, on doing things faster..."

Community-health, accountability, recognition, repair - these are often left behind, or have to happen elsewhere."

Bruno Oliveira Martins, Interviewee

Being Oppositional



Instead of developing an oppositional set of values, I could have amended or added to the “A” list of values. However, I felt that I could better provoke and draw attention to the “A” values by developing an oppositional alternative. Showing contrast and tension can help surface the possibility of greater plurality; and so I produced a dichotomy for

both analytical and discursive purposes.

That being said, A and B are not mutually exclusive. They can and do overlap. These lists are not authoritative, not complete, and not the only options. They are two of many possible lists.

I came out of this process with a set of alternative principles, developed with the intention of being oppositional in order to make existing, tacit values more visible.

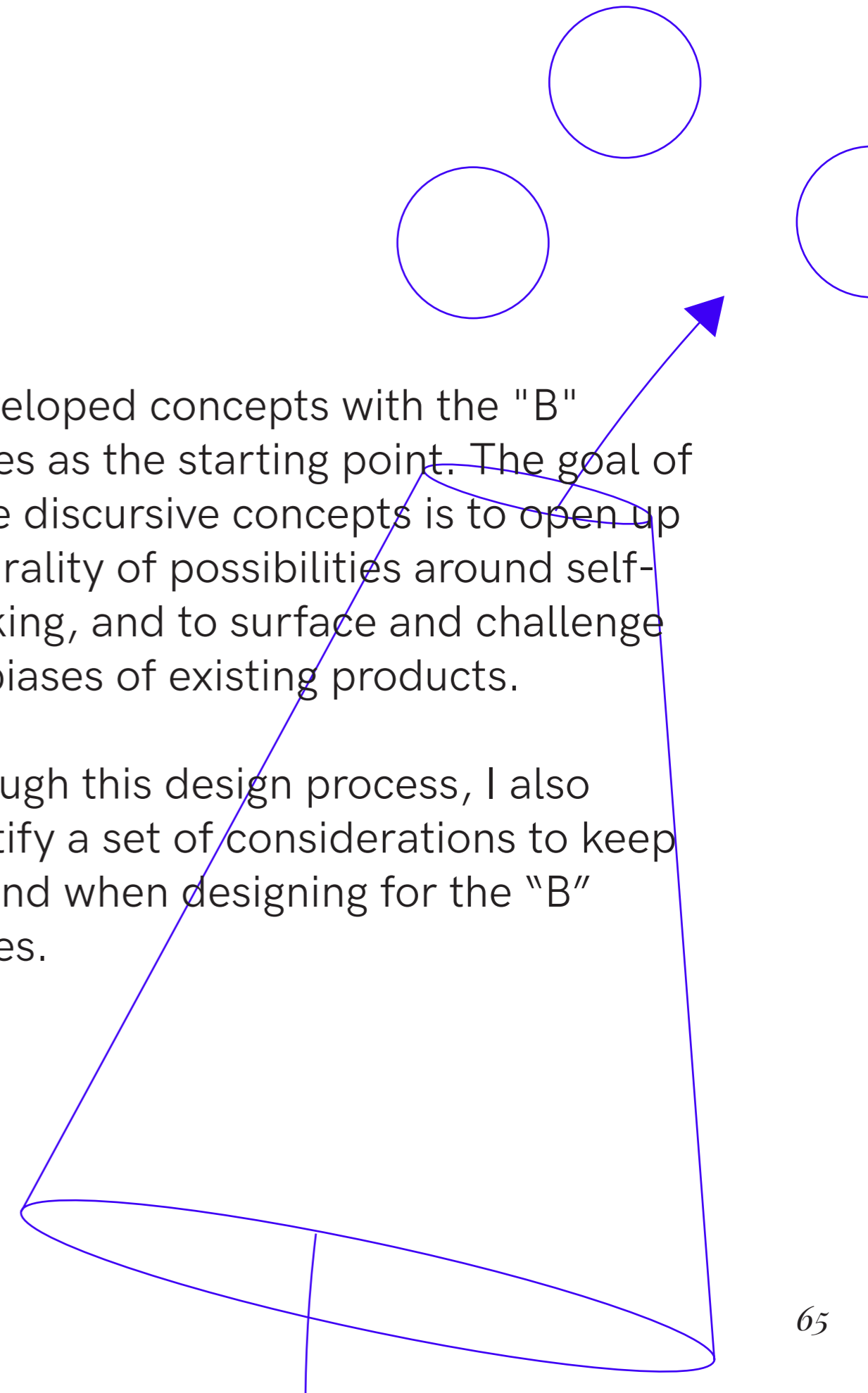
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Designing for "B"

Alternative Concepts for
Alternative Principles

I developed concepts with the "B" Values as the starting point. The goal of these discursive concepts is to open up a plurality of possibilities around self-tracking, and to surface and challenge the biases of existing products.

Through this design process, I also identify a set of considerations to keep in mind when designing for the "B" Values.



A Discursive Approach

I took a discursive approach to this design process. I did so because my intention was not to produce fully formed self-tracking products for the market - but rather to generate discussion on current self-tracking practices and exemplify alternative possibilities.

I also wanted an approach that would allow me to address the role of values in technology. As more traditional design methodologies can leave social values unarticulated, I worked discursively, taking a values-centric approach that could help surface values and push them to different boundaries.

Finally, I took a discursive approach because societal values are socially constructed through shared, public discussion. As such, I felt producing work that could generate discussion would be appropriate.

My design context was the present. I did not design for the future or for an alternative present. I designed for a re-orienting of existing technology in existing contexts. In that way, I was walking the line between present believability and fiction.

Workplace as Context

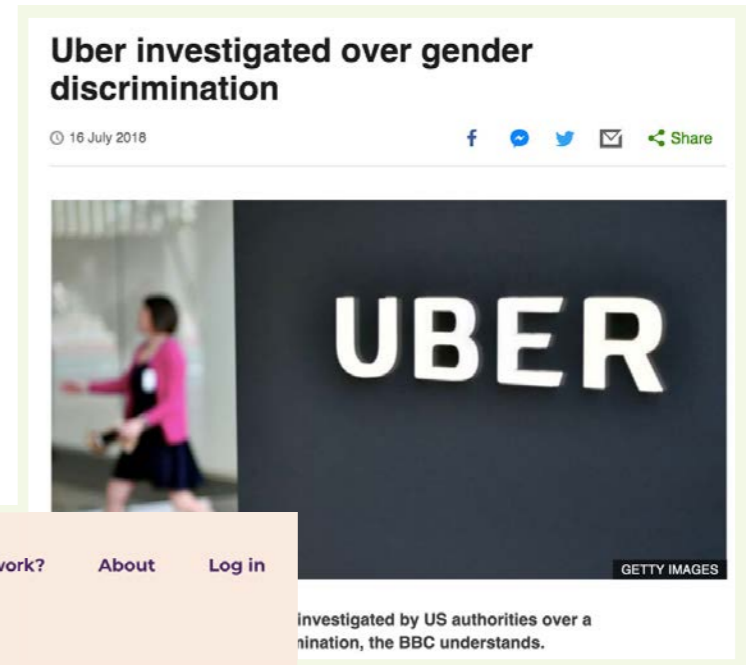
To facilitate the ideation process, I wanted to choose a conducive context for design.

The workplace is a place where many of the A/B values are at stake. It is an environment where there is a focus on productivity, efficiency and the optimization of the individual - as well as a growing number of devices to track and quantify this - but where there have also been ongoing discussions about identity, inequality, bias and power.

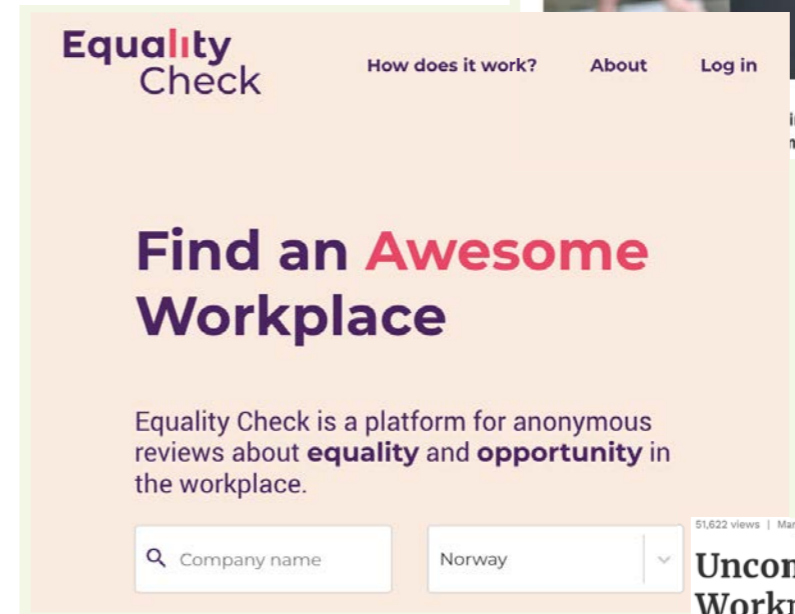
The workplace is a site of often inescapable interpersonal dynamics - where interpersonal relations are inherently structured, and often exist within a constructed company culture. I felt this would be a fruitful context in which to play with bias, accountability, community health and subjectivity.

I use the workplace context as an example backdrop to enable a richer, deeper design process - however my concepts are not limited to the workplace. It is not the only domain that the "B" Values could exist in, and not the only domain in which the forthcoming concepts could circulate.

Finally, there is a huge array of work environments. I designed for the Western office environment - workplaces with centralized offices, desks and team meetings. Specifically, I designed for workplaces that are concerned about company culture, that position themselves as progressive, and attract or are beginning to attract a diverse and progressive workforce.



BBC ("Uber investigated")



Equality Check website



Forbes (Berger, Laura)

Self Tracking & Subtle Bias

With overt discrimination becoming less and less acceptable, research suggests an up-tick in the role of subtle discrimination in the workplace. Subtle discrimination has been defined as “negative or ambivalent demeanor or treatment enacted toward social minorities on the basis of their minority status membership that is not necessarily conscious and likely conveys ambiguous intent” (Jones, Arena, et al.). Subtle discrimination can be enacted in how managers distribute tasks, in the types of roles team members are asked to play, or in day-to-day conversation.

In reviewing articles on how to avoid committing acts of subtle discrimination in publications such as *Psychology Today* and *Behavioural Essentials*, I found that almost all of them recommended an increase in self-awareness - in being more attentive to your own habits. Similarly, on how to handle workplace bias, articles often suggest gathering quantitative evidence, or “collecting the data”.

I became interested in the possibility of leveraging some of my initial findings around self-tracking - as materializing and giving new perspective on your own behaviour, and as a “check” on one’s subjective interpretations - to this context.



New York Times (Henry, Alan)

“Due to rising pressure to appear egalitarian, subtle discrimination pervades today's workplace... [A]n abundance of empirical evidence suggests subtle discrimination undermines employee and organizational functioning, perhaps even more so than its overt counterpart.”

Subtle Discrimination in the Workplace: A Vicious Cycle.
The Journal of Industrial and Organizational Psychology
(Jones, Arena, et al.)

Ideation & Concept Development

As part of my ideation process, I referenced other types of workplace tracking and surveillance and tested existing technologies. I also ran workshops with other designers to gather their ideas and perspectives and refine my concepts, and observed a day-long collaborative workshop at a local office workplace.



Throughout the process, I made a few key design decisions to inform my concepts.

1. Staying in the Physical Sphere

I decided to track in the physical sphere (e.g. tracking people's movements) instead of the digital sphere (e.g. people's online activity) because I wanted the concepts to operate on the same plane as the most common existing self-tracking tools (e.g. FitBit, AppleWatch).

There is also a lot of existing work being done in parsing the digital sphere for workplace dynamics; there are a variety of bots that have been designed to address problematic language in communal digital spaces, such as Slack, and consultancies now offer tools like Organizational Network Analysis (ONA), that, by tracking the digital activity of a company's employees, offer visualizations of influence and power in a workplace.

The digital sphere is data-rich, but I felt that by focusing on the digital sphere, a lot of the small, physical, and often telling micro interactions in the workplace were missed.

2. Sticking with the Individual within the Interpersonal

Self-tracking typically operates on an individual level - *data about me, for me*. With the B value of "community health focus", I did consider changing this to *data about us, for us*. I considered, for example, a "Strava for Meetings", where team meetings were measured for healthy collaboration, and results were posted regularly to a social feed.

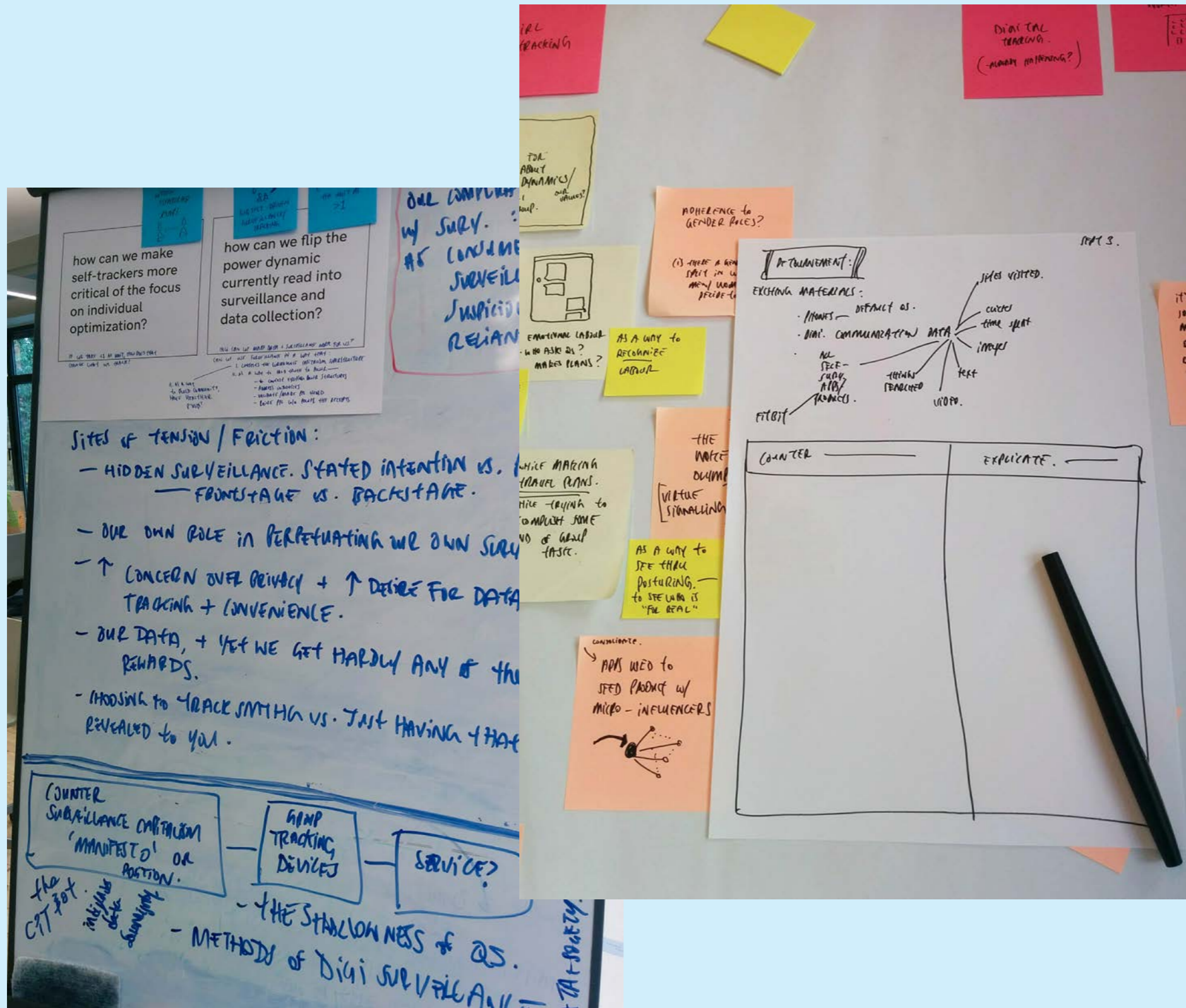
However, in this more public form of tracking, my concern was that the data would become a way for management to surveil and evaluate employees, folding back into the efficiency, productivity and optimization narrative. By keeping the data for individual review, my intention was that the concepts would allow for self-reflection, not managerial policing.

3. Tracking the Person, not the Room

For similar reasons, I aimed for the tracker to be on or with the individual, and not rigged up somewhere in the room or workplace environment. There are a growing number of products being introduced to track the behaviour of employees by setting up trackers in spaces. The data for these tools goes back to the employer, and not to the individual, which means it is not a self-tracking mechanism. If the trackers are to enable self-reflection, I felt it important that the individual opt in to using it.

4. Keeping an Eye on Surveillance

I wanted to find ways for the devices to surveil others as minimally as possible. Concepts were researched for feasibility, in terms of what can be measured without blatantly violating the privacy of others, though I was interested in playing with the grey area that so many other tracking and surveillance technologies live in.



this way to the concepts >>>

off / track presents

***the office
detox
collection***

discrete self-trackers for materializing bias in the workplace



Unconscious bias in the office continues to be a challenge. Power and privilege in our working environments can be manifested in who has a voice, who is seen and who gets heard.

The ***Office Detox Collection*** is a speculative line of discrete, interpersonal self-trackers dreamt up to address all too common gender or ethnicity-based dynamics.

the interruption tracker

Tracking Interruptions

Uses pitch, volume and frequency measurements to track instances of interruptions

Interruption Differentiation

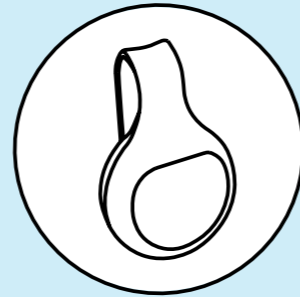
Differentiates between collaborative (e.g. "yeah, right") and competitive interruptions

Interruptions x Demographic

Syncs with calendar and company directory to let you know who you tend to interrupt

Live Feedback Mode (optional)

Tracker can vibrate once you've reached a certain number of interruptions



the interruption tracker

Further Information



The Interruption Tracker is a small wearable that can be clipped onto an undershirt or tucked into a shirt pocket.

Anyone can be a frequent interrupter. However, interruptions also have a gendered dynamic in the workplace and can be a verbal manifestation of implicit power structures. According to a study at George Washington University, when men were talking with women, they interrupted 33% more often than when talking with other men (Shore).

Operating Mechanism

The Interruption Tracker uses pitch, volume and frequency to recognize when you are speaking, and how your speech relates to contextual sound. Using these measurements, it can differentiate between a quick backchannel (for example - a joke, a comment made in agreement), as well as make informed proposals about the likely gender of the person interrupted.

By combining this data with your calendar and company directory, it can develop an understanding of who you tend to interrupt in terms of gender, seniority, and group dynamic. No sound is recorded; data is gathered by reading the audio measurements.

the eye contact tracker & chair swiveller

Tracking Eye Contact

Uses eye tracking, AI and spatial audio mapping to track your eye contact both when you are speaking and when someone else is speaking

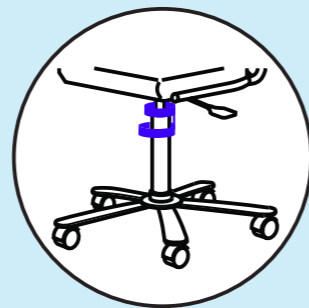


Eye Contact x Demographic

Syncs with your calendar and company directory to let you know who you tend to make eye contact with

Live Feedback Option: the Chair Swiveller

A clip-on for your chair, the Swiveller will rotate your office chair based on your eye contact patterns in order to ensure that you practice inclusive eye contact



the eye contact tracker & chair swiveller

Further Information



The Eye Contact Tracker is a pair of sleek, lightweight glasses, indistinguishable from typical glasses.

Eye contact, in a Western context, can be understood as a way to include people in conversation. Eye contact is the concern of any effective communicator - however it can also have a racial and gendered dynamic. Eye contact can be indicative of where someone stands on the social hierarchy and of social ostracism. In 2017, Oxford University included "avoiding eye contact" on a list of subtle, everyday racism, or racial microaggressions (Timpf).

Operating Mechanism

Eye Contact While You are Speaking

The Eye Contact Tracker uses eye tracking and biometric AI to read the likely gender and ethnicity of who you are looking at while you are speaking.

Eye Contact While Others are Speaking

The Eye Contact Tracker uses eye tracking to determine where you are looking. By combining this with spatial audio mapping (a mapping of what direction the sound is coming from) and face detection, the Tracker can understand if you are looking at the speaker, and if you are looking at the speaker's face.

the space taking tracker & personal symphony earbud

Tracking Conversation Dominance

Uses voice recognition and volume to tell you how much airtime you take up in collaborative settings, as well as if you tend to go on monologues of a certain length

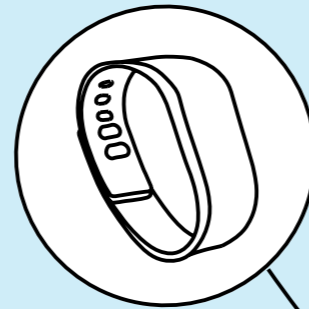
Dominance x Demographic

Syncs with calendar and company directory to let you know who you dominate the conversation with

Live Feedback Option:

Personal Symphony Earbud (PSE)

Much like how a symphony starts playing when an acceptance speech has gone on too long at an awards show, the PSE will begin to play you a song when you've gone on too long



the space taking tracker & personal symphony earbud

Further Information



The Space Taking tracker is a lightweight, screenless wristband.

The tracker measures conversational dominance. While conversational dominance can vary by personality and group dynamic, studies have shown there is a gendered dynamic to participation. Some studies have shown that at a mixed table, men can take up to 75% of the conversation (Wrenn). Studies have also shown that people tend to perceive women to talk for longer than they actually do, and that this may be related to attitudes around social roles and power relations.

Operating Mechanism

The Space Taking tracker uses audio patterns to determine if the conversation is intended to be a collaborative one. It uses sound and pitch to identify the number of people in a conversation or meeting, and volume and voice recognition to determine when you are speaking. The tracker cross-references with your calendar and company directory to determine how different contexts and group dynamics influence your conversation dominance.

Who Uses This?



These devices can be used by anyone who is interested in becoming more aware of their social biases.

They are also designed for those who consider themselves progressive, or highly self-aware - and who might not shy away from using these trackers because they are invested in their progressive identity. Sometimes, it can be those most confident in their commitment to equality that can be the most unaware.

"There are people I want to give it to, and they would be shocked. And they're the most dangerous people out there - people who think they're woke, radical feminists, who don't need to do anymore work. In a lot of ways, those are the people who have caused me the most harm."

—Woman, 34, Interviewee

Device Feedback

"You tend to go on monologues that can last up to 6 minutes."

"You use a lot of collaborative interruptions with your colleagues - but your interruptions become competitive when meeting with women of similar seniority"

"You give the least eye contact to the speaker when meeting with people junior to you."

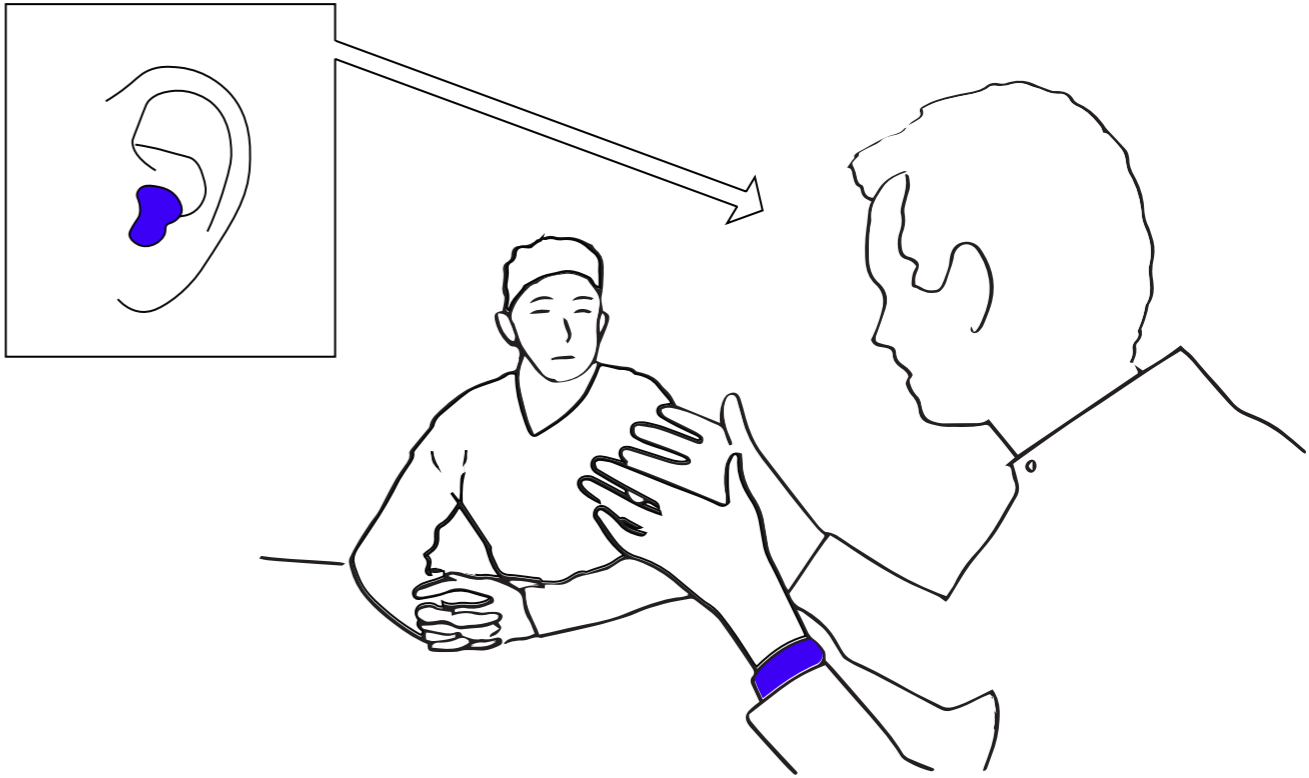
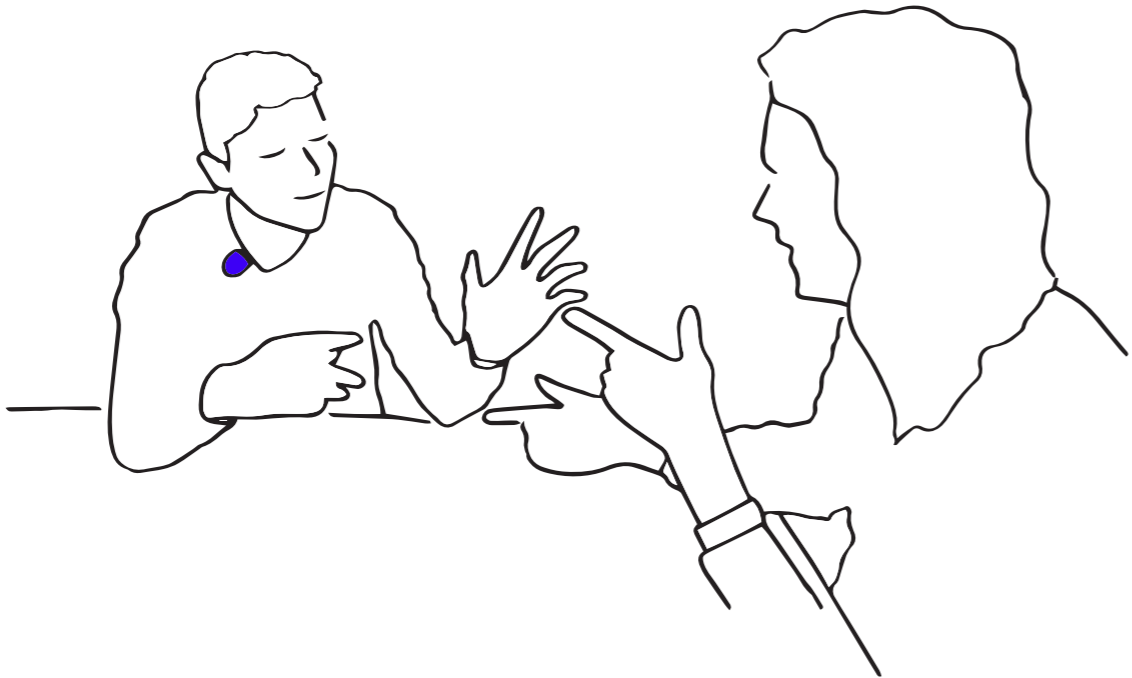
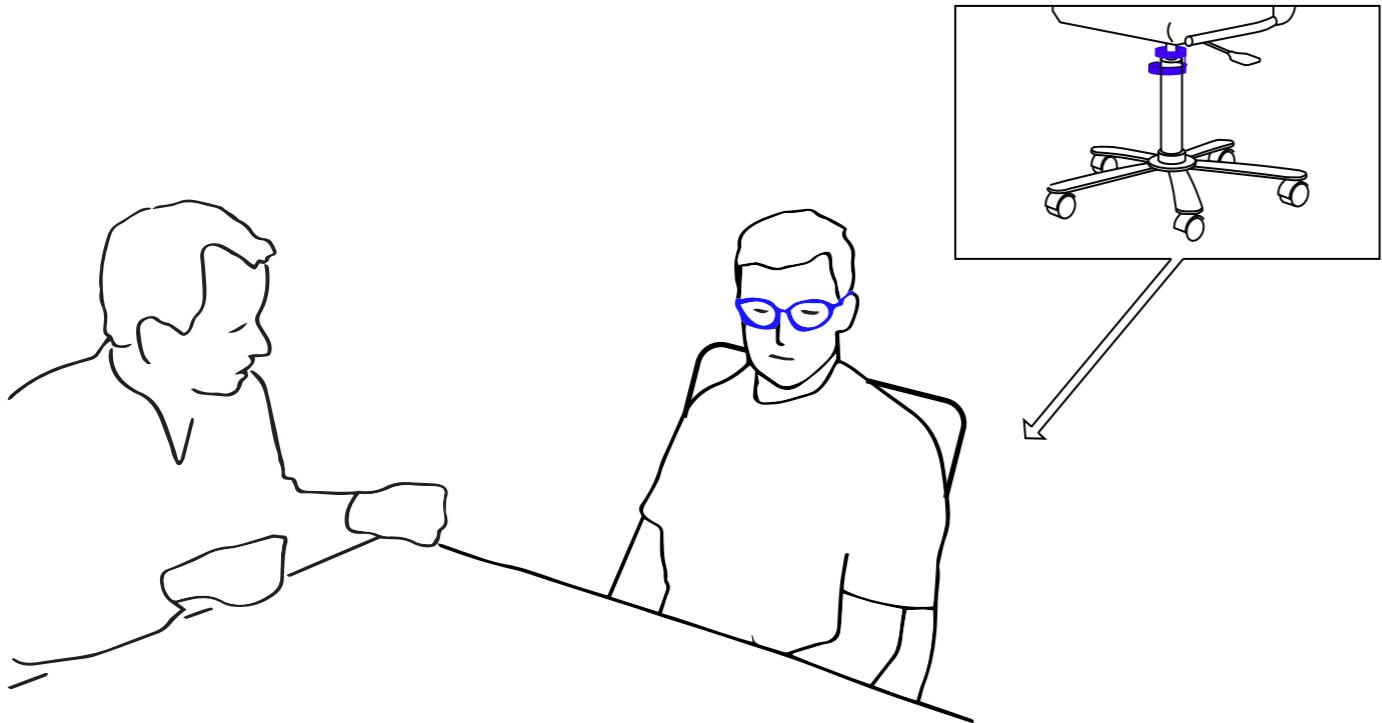
Use of each tracker starts with a 5-day baselining period, during which the tracker gets a sense of your conversational style. You do not receive any feedback during this time.

Once this baselining period is over, you will receive an email that outlines some of your habits. Your feedback won't be in absolute numbers - instead, you'll get feedback relative to you. You can decide how often you want to receive feedback.

By first baselining, the Interruption Tracker can, for example, gain an understanding of contexts where all conversation participants may interrupt or joke a lot, indicating intimacy, and differentiate those situations from those in which you do more competitive interrupting.

In the World

Collecting Early Feedback



"Now that you've provoked this realm: there's a lot of things that [self-tracking] could be; it's infinite how deep you can go."

-Woman, 32, Interviewee

I shared early sketches of these concepts with other designers and researchers in order to get their feedback and gain an understanding of the kind of discussions the concepts triggered.

In order to communicate the concepts, I created simple sketches and a design fiction in order to help give the objects more context. I also shared the A/B values with them after we had reviewed the concepts.

I incorporated the concept-level feedback, and found that the concepts were successful in opening a conversation around the possibilities of self-tracking; however, in order to get to a values-critical discussion, it was important that I also share the A/B values, as well as the process model behind the work.

Considerations on Designing for “B”

Throughout this design process, I consistently held the concepts up against my chosen “B” values. In doing so, I drew out and identified some of what it means to design with those values in mind. These learnings and considerations could be used to inform future development of concepts that aspire towards the “B” Values.

“B” Value

Revealing
Unconscious Bias

A Particular
Subjective User

Community
Health-Focus

Accountability,
Recognition,
Repair

Considerations

Pointed Metrics

We can use what we are counting as an opportunity to be deliberate, to take aim at bias, to carefully consider what we value, or what we would like to address.

Uncompromised Privacy

To encourage honest use and reflection, users need to be able to use the trackers without fear of others watching. This includes making the trackers discrete in order to avoid stigma, and resisting the trend of aggregating self-tracking data for the purposes of further monetization.

Embedding Context

Consider how the user may behave in different contexts, and in different dynamics

Embracing Relative Feedback

Provide feedback not in absolute terms (e.g. “you have interrupted 10 times today) but in relation to how they typically speak, or in relation to who they are speaking to.

Tracking Interpersonally

Use metrics that are inherently interpersonal, and are directly related to the inclusion and well-being of all group members.

Placing the Labour

Create the tracker for those who may most need to recognize, take accountability for, and repair their behaviour, instead of putting the labour of tracking on the people around them. In this way, the trackers could help those on the receiving end of the bias by removing the role that they are often asked to play - to have difficult conversations about someone else’s behaviour. Ideally, the data could do the labour for them.

In designing these concepts, I have begun drawing out what it might mean to actually design for these “B” values. My motivation in doing this was to not only articulate the many considerations that were part of my design process, but to abstract more generally from the concepts themselves in order to understand what designing for “B” might require.

Concept Expression & Reflections

These concepts are sketches - they are stories, ideas, ways to explore and manifest the "B" Values, and in doing so, they served as vehicles for further learning about what it means to design values-first. For this reason, I did not focus on developing the physical form - but I did choose to play with typical self-tracking formats (the clip-on wearable, the wristband) as a way to redirect what those formats are used for.

My goal with the images was to place the concepts as much in the scenario I was challenging as possible. By taking photos instead of producing more sketches, I was leaning on the images to provide further contextual detail.

I wanted the images to differ from stock image photos of the workplace; instead of showing slick, spotless office, I wanted to show the environment as it often actually is - a bit unkempt and a bit messy (both physically and interpersonally).

I felt the flash photography gave the photos a stylized direction that differed from more staged workplace images. The retro feel of

the images put the concepts solidly in the present- (or even past-) day. Through that, I aimed to create a visual that was believable and familiar.

The flash is revealing, candid, and sometimes a bit harsh. By emulating other editorial photography, I was also seeking to lift the images towards a more stylized, discursive direction.

Limitations

In many ways, these concepts focus on binary gender identities (him/her). This was a result of engaging with the common discourse around unconscious bias, which operates on these terms. This was also the result of looking at what I felt existing technology could reliably track, without entering the world of more invasive technology like facial recognition. I recognize that this binary is inadequate and is not inclusive to gender non-binary people. A further step in development would be to identify ways to consider gender non-conforming identities, ethnicity, and class.



During this stage, I developed discursive, present-day concepts for self-trackers oriented towards the "B" Values. Via this design process, I identified principles or considerations for how to approach and design for each value.

In doing this work, my intention was to explore how I might take a values-centric approach to self-tracking, and by producing my own alternative values, challenge the narrowly defined boundaries of the current self-tracking market and exemplify other possibilities.

6.

Out Into the World

Communicating the Work

This project has dovetailed towards two goals: first, to engage other designers, makers and product developers in critical conversations around the values that are embedded in our technologies; and second, to encourage a plurality of ideas outside of established norms around what these technologies could be used for. I have come to these goals specifically through looking at self-tracking technology, but also want this work to serve as an example of ways we could think about other technologies.

So how can these ideas play into our daily practice?

As the final step, I produced work aimed at raising other practitioners' consciousness of embedded values. I chose three different ways to bring this work to their attention: an in-person workshop to spark dialogue and unpack the process; a printed booklet to jostle the reader with the "B" concepts and exemplify a way of thinking; and an online article to provide an overview and a collection of resources.

For all of these artefacts, the discursive concepts are presented in conjunction with some of the key theoretical and analytical concepts from this project. These elements work in combination in order to engage the reader or participants.

In this way, these artefacts are intended to encourage conversation, exemplify a way of thinking and working with values and further encourage pluralistic approaches.

With Others

"It's like you're always performing - even in your sleep."

Workshop Participant reflecting on current self-tracking practices

I gathered designers from 8 different design companies, institutions and organizations around Oslo. The meeting was part-talk, part-workshop, part-discussion.

My goal with this meeting was for the participants to engage in the values-first process, and in doing so critically engage with the values embedded in self-tracking products.

Participants were given "tech cards" that outlined different existing self-tracking tools. With these as a reference, they developed their own "A" Values, reflected on them in order to produce "B" Values, and then developed their own concepts. After they completed each step, I shared what I had developed; this meant that they went through the process without my work leading them. It also meant they could actively respond to my work, having just engaged in a similar process.

As a group, we had an active discussion around several themes including: prioritizing the self versus the community; privileging predictability over randomness; about the desire to track and remember versus the desire to forget; about the linearity of self-tracking; the impact of longterm tracking; and the need for alternative perspectives.

By developing their own concepts, they explored the ways we can expand the direction of self-tracking. The workshop also gave us the space to collectively reflect on how we can incorporate these perspectives in our everyday practices. The workshop materials were collected in a booklet that can be used as a resource and reference moving forward. Throughout this project, I have been asked to share my project references and readings. I have included a short list of these in the booklet.





Workshop photos by Boris Kourtoukov



In Print

I self-published a 20-page booklet on the project. I've given the booklet to those who I have spoken to about my project and have expressed interest along the way. I've left booklet copies at DOGA (Design and Architecture Norway) and KHiO (the Oslo National Academy of the Arts). The booklet has also been submitted to Zines of the Zones, a mobile library that travels around Europe sharing its collection with local creatives, and will be available for the exhibition of this project, while supplies last.

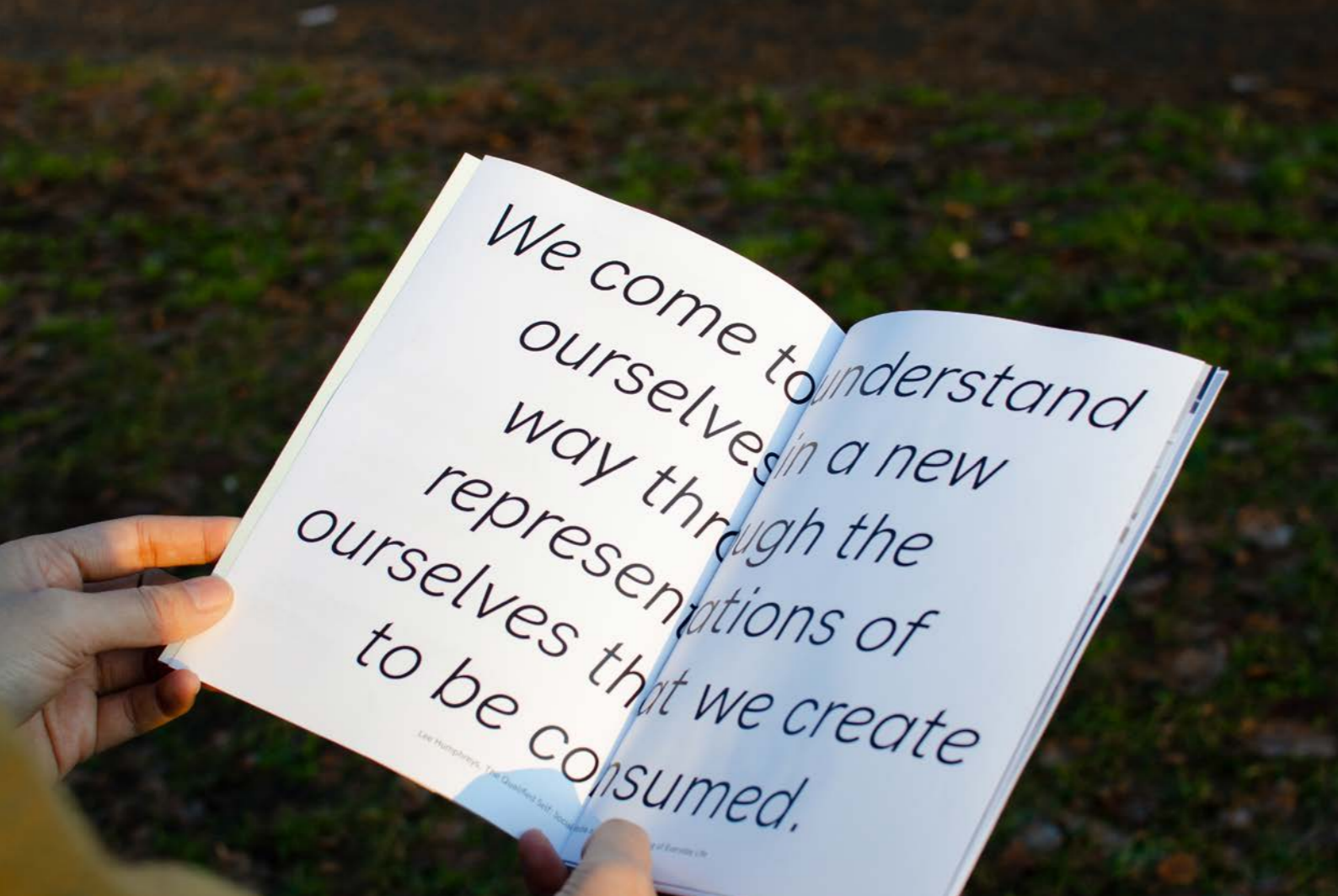
My goal with this booklet was to provide another point of access into the project - one that was physical, and did not rely on me to be there to speak to the project. I drew from

the tradition of giving away pamphlets and leaflets as a way to circulate political ideas.

The format and aesthetics were designed to engage other designers and makers. The booklet is something that can be brought to an office and shared with others. The tone of the booklet is more assertive than the workshop or this publication. It aims to make the central points of the project quickly, providing enough information to pique interest. It then links to the online resource which I outline next.

The booklet has been effective in drawing interest and engaging those who have received one.





Online

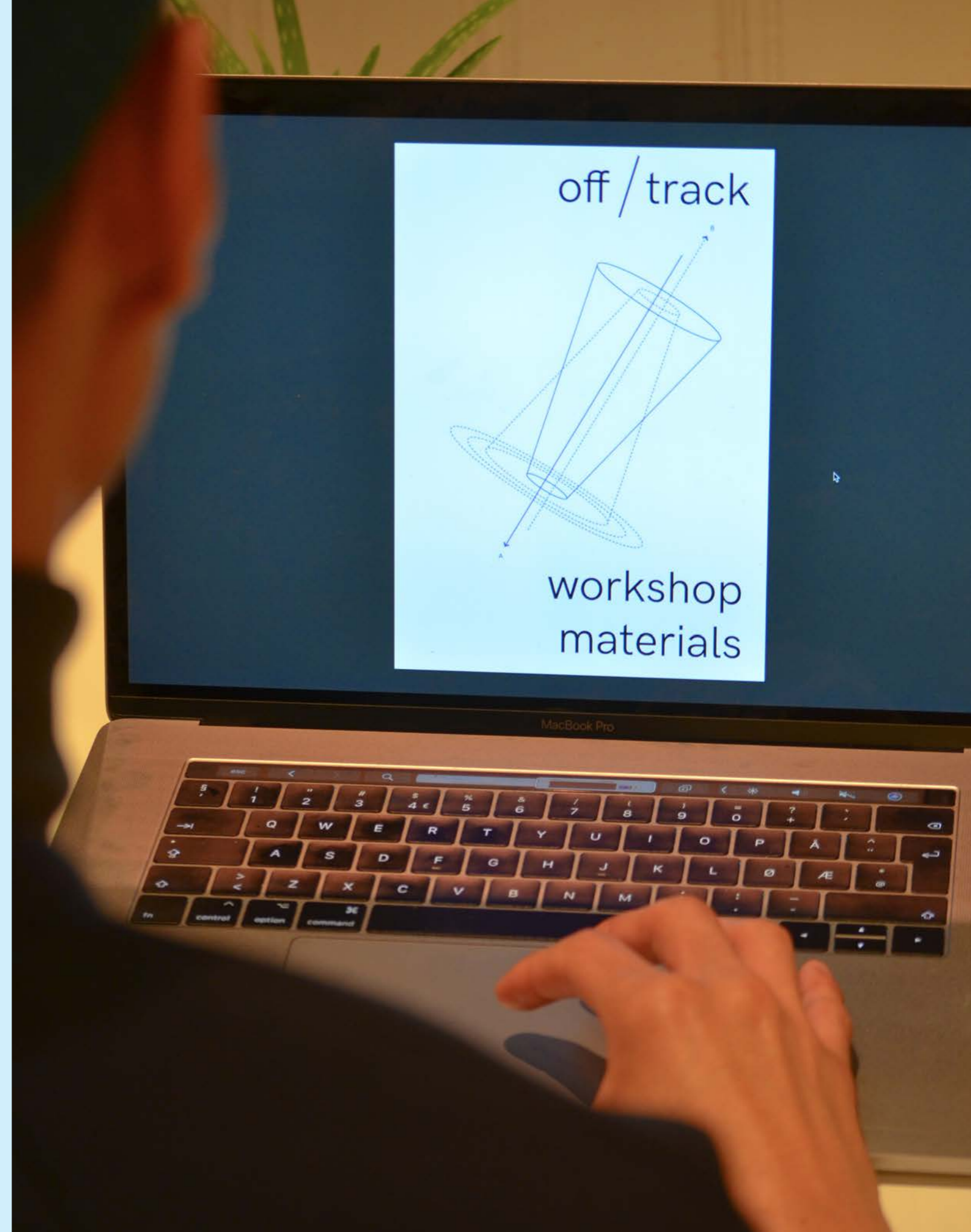
I posted an overview of the project on Medium. This overview includes a digital version of the booklet and the workshop booklet.

I chose Medium as my digital communication channel because it provides access to an engaged and a active community, and is a platform that creative communities often use to exchange ideas.

The publication is intended to be direct, pose questions, and provide resources for designers, makers and product developers to explore and share the ideas further. It is a live document, and continues to develop. I have used it to share the project with other designers, and have received positive and engaged feedback.

You can find this overview, as well as materials from the workshop and a digital copy of the booklet at:

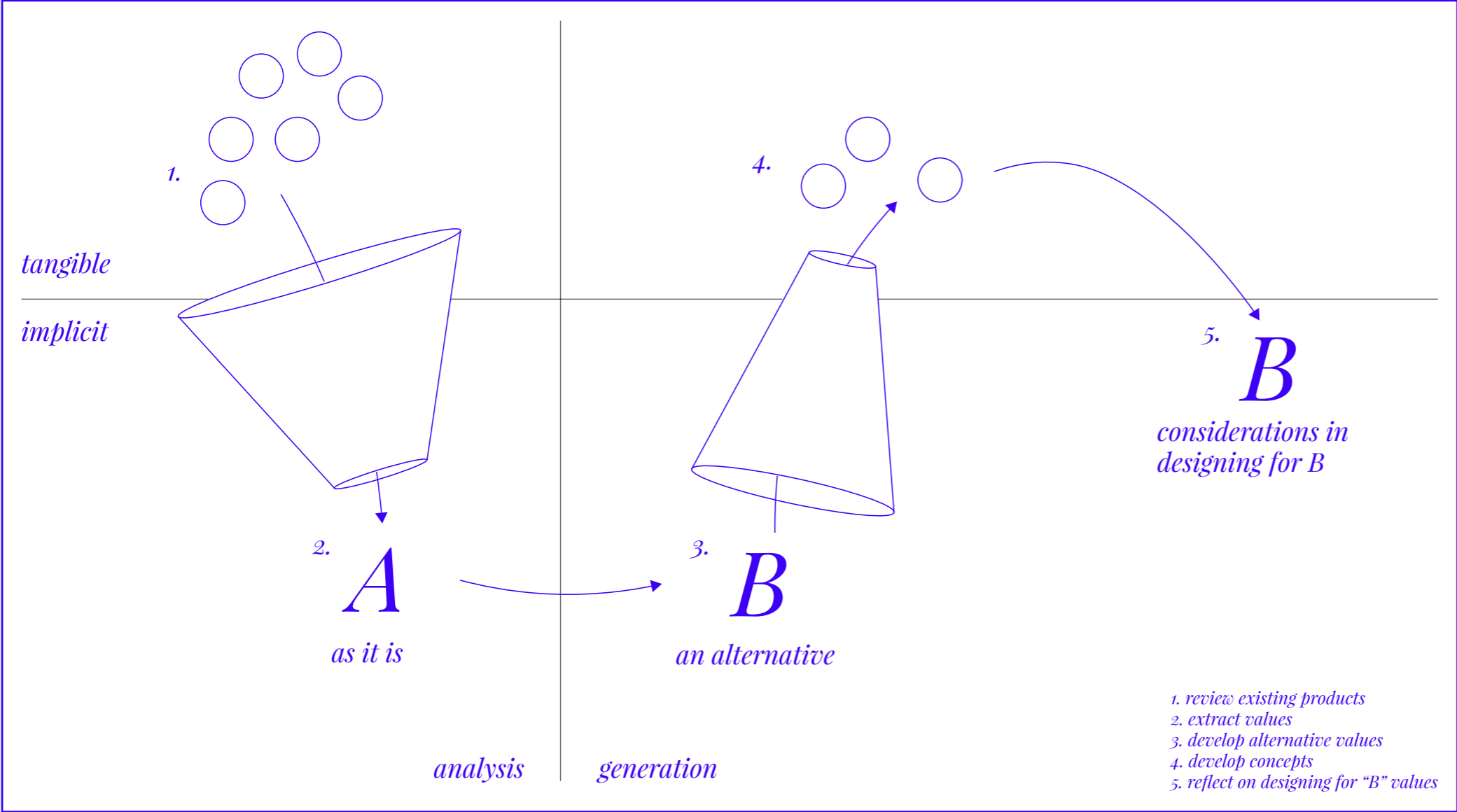
medium.com/off-track



Process Model

The Process Model summarizes the approach I took during this project. It deliberately differs from typical design approach diagrams, in order to differentiate how a values-first approach differs from other design approaches.

The Process Model has become a valuable tool for communicating approach I took to other designers, makers and product developers. It served as a roadmap for the workshop, and is included in the Workshop Materials booklet.



"We're not questioning any of the underlying discussions of what the entrenched biases are in these devices"

Designer, in response to the project

I have begun to see the ripple effects of these efforts. The workshop led to tangible conversations in the room, many of which have since continued. Both the booklet and the digital material have received positive and engaged feedback, and both will continue to circulate well beyond this document's publication date.

This is a conversation that I intend to continue to have past this project's official completion date, and these artefacts will serve as vehicles for those discussions.

7.

Where Did We End Up?

Contributions,
Reflections, Conclusions

A look at the contributions I have made through this work, a few reflections on the topic, project, and on how it has impacted my design practice, and final conclusions.

Contributions

Relocating the Discussion to Design

I have drawn on self-tracking research from the fields of sociology, media studies and science and technology studies throughout this project. When I showed researcher Bruno Oliveira Martins the A/B Values I had developed, he remarked “that’s where my work would end.” He was commenting that as a researcher, the outlining of the A/B Values would be the focus of the work.

My contribution as a designer has been to assemble, synthesize, articulate and then relocate some of those discussions into the design sphere, moving the discussion from a more theoretical and academic space. I have actively contributed to producing the plurality that critical, theoretical work on self-tracking calls for. In doing so, and in moving back and forth between analytical and generative work, I have contributed learnings (e.g. the Process Model and the “B” Considerations) that have come from the action of doing and embedding. By engaging with this theoretical work as a designer, I have also brought academic material that is inaccessible for some into a broader domain.

Engaging the Design Community

I developed my own value-centric approach to the design process, and generated tangible work that offers a specific point of view. In doing so, I have produced an example of how we can take a proactive and intentional approach to designing our technology by calling out existing values and using these values as design material. I provide an example of what it looks like to carry out a more values-conscious process, in lieu of design processes that can leave values unarticulated and as a result, make us unconscious reproducers of existing values.

This work can and has served as material for raising values-centric approaches with other designers, makers and product developers. My hope is that this project will serve as a vehicle to allow further critical conversations at my school, in my design community and beyond.

This project was a deep-dive into self-tracking technology, but could also serve as an example to spur critical perspectives on other technologies. By looking at self-tracking products as social artefacts, instead of market goods, I hope to contribute to conversations in my design community on how our work operates on a social level.



Discussing Science and Technology Studies literature with Bruno Oliveira Martins

Reflections

On Self-Tracking and Critical Perspectives on Technology

Throughout the course of this project, new product have continued to crop up. We are producing and applying technologies at a breakneck speed - and as James Bridle commented, our window for critical perspectives on these technologies is very limited. Do we have the tools, methods and approaches to widen this window, to continue to ask what we fundamentally want of what we are producing? I am looking not for better technology, but for a richer discourse around the technology we have. This project is a contribution to that end.

On off / track as a Project

My process was not linear. I did not go from research and analysis to ideation and generation, but instead moved back and forth throughout. My drive in doing so was to be continually critically reflective about what I was designing, and why. As design students, we hear about the potential of design to solve complex, systemic problems. In order to do so, I believe that we need to continue to move between designing things well and being critically reflective of what we are designing.

Instead of offering one solution, this project produces examples, and aims towards deeper reflection and richer discourse. It focuses not on designing things "right", but on designing the right things. In doing so, it operates under a broader understanding of design, where design is also about shaping our values and our society.

On my Design Practice

In this project, I have experimented, iterated, adapted and played. This project has given me an opportunity to explore how I can integrate my humanities background and critical theory interests into a design practice. By continuously cycling through generative (ideating, proposing) and analytical (parsing, unpacking) stages, I can continue to draw in those frameworks as I design. This is an approach that I have articulated for the first time during this project, that I feel has enriched my process, and that I want to continue to explore moving forward. As I leave my design education, how can I continue to let critical theory inform my practice? Where is there space for this, within the design industry that I will soon enter? The answer is unclear to me, but I am proud to have taken this project as an opportunity to further develop these aspects of my practice.

groups of 3
1 booklet + 3 tech cards

review tech cards

look up any further details online

pull out values/biases in features/messaging

Strava: "Track and Analyze Every Aspect of Your Activity"

Bias: Activity = physical activity

make a list of them

on p.6



Conclusions

This project began as an exploration of the current state of self-tracking - of how this practice has evolved over time, and how our data age has impacted how we measure ourselves.

What I found is that self-tracking devices are not neutral. They largely ignore the community and focus on the individual's body, activity and health, have a one-size-fits-all approach to tracking, and promote optimization, efficiency and productivity. While many find these products valuable, these products also promote a culture of entrepreneurial self-perfectibility.

My goal was to surface and tangibly challenge these values - to encourage a pluralistic approach to self-tracking, and to engage other designers, makers and product developers in these critical discussions. I did so by proposing alternative values, and materializing those values through a trio of discursive design concepts. What if we used self-tracking to reveal unconscious bias? I then communicated this work in a workshop, in print and online.

Key takeaways from this project:

Self-Tracking Devices are Social Artefacts

Self-tracker may appear neutral, but come with embedded values and underlying social logics. Through their metrics and product positioning, they promote specific lifestyles and paradigms. Taken collectively, we can begin to see how these devices come together to promote common themes.

We Can Be Intentional About the Values Underlying our Technology

If we, as designers, makers and product developers do not take an intentional approach to the values at play in this technology, we run the risk of unconsciously reproducing them.

There is Value in Plurality

The concepts that I present in this publication are not the only options for alternative self-tracking products. They represent one way of expanding the landscape. By expanding the landscape, by encouraging plurality and diversity, we can make more deliberate choices about our relationships with our technology. There is value in pushing the norms in how we produce and apply our technology.

Critical Reflection is Critical

As designers, it is important for us to be critically reflective of what we are designing. In doing so, we can take a more active role in how what we make influences the world around us.

Writer and businessman Peter Drucker famously said, "If you can't measure it, you can't improve it."

As we are able to measure more and more around us, the question is no longer what can we measure, but what should we measure. This project is my contribution to that discussion.

HAVE YOU DONE YOUR STEPS TODAY?

Did you eat right today? What was your productivity percentage? Did you sleep enough? Earn enough? Exercise enough?

There are self-tracking tools for all of these questions. With our FitBit, AppleWatch, or any number of wearables and digital products, we're told that we can track "everything" about ourselves.

But beyond our steps, beyond our calories, what do these products actually track? They track the self-optimizing individual. They focus inwards, tracking our individual gains, our ability to discipline our bodies, to become more efficient, more productive, most optimal.

This booklet imagines a different approach to self-tracking. If self-tracking has the potential to give us the receipts for personal reflection, what else could we track for other than our own, never-ending pursuit of personal perfection?

References

- Berger, Laura. "Unconscious Bias In The Workplace: You Can't Afford to Ignore It." *Forbes* 23 Mar 2018. 22 Nov 2019 <<https://www.forbes.com/sites/forbescoachescouncil/2018/03/23/unconscious-bias-in-the-workplace-you-cant-afford-to-ignore-it/>>.
- Berry, Wendell. "Health is Membership." Speech at Louisville. Louisville, KY. 17 Oct 1994.
- Bridle, James. "New Dark Age. Technology and the End of the Future." Talk at The Oslo National Academy of the Arts. Oslo, Norway. 26 Nov 2019.
- Elveleth, Rose. "How Self-Tracking Apps Exclude Women." *The Atlantic*. 15 Dec 2014. 20 Sept 2019 <<https://www.theatlantic.com/technology/archive/2014/12/how-self-tracking-apps-exclude-women/383673/>>.
- En, Boka & Pöll, Mercedes. "Are you (self-)tracking? Risks, norms and optimisation in self-quantifying practices." *Graduate Journal of Social Science*. 12. (2016): 37-57.
- "Equality Check." Webpage. *Equality Check*. 2019. 23 Nov 2019 <<https://www.equalitycheck.it/>>.
- "Features." Web page. *Strava*. 2019. 2 Sept 2019 <<https://www.strava.com/features>>.
- "F'xa by Feminist Internet." Webpage. *F'xa*. 2019. 15 Oct 2019 <<https://f-xa.co/>>
- "Health." Webpage. *Apple*. 2019. 20 Nov 2019 <<https://www.apple.com/ios/health/>>.
- Henry, Alan. "How to Success When You're Marginalized or Discriminated Against at Work." *New York Times* 1 Oct 2019. 4 Oct 2019 <<https://www.nytimes.com/2019/10/01/smarter-living/productivity-without-privilege-discrimination-work.html>>.
- Jones, Kristen, Dave Arena, Christy Nittrouer, Natalya Alonso and Alex Lindsey. "Subtle Discrimination in the Workplace: A Vicious Cycle. Industrial and Organizational Psychology." *Industrial and Organizational Psychology*. 1-26. (Jan 2017).
- Lupton, Deborah. "Beyond the quantified self: the reflexive monitoring self." Weblog entry. 28 July 2014. *This Sociological Life: A Blog by Sociologist Deborah Lupton*. 10 Sept 2019. <<https://simplysociology.wordpress.com/2014/07/28/beyond-the-quantified-self-the-reflexive-monitoring-self/>>.
- "Meet Q The First Genderless Voice." Webpage. *Genderless Voice*. 2019. 15 Oct 2019 <<https://www.genderlessvoice.com/>>.
- "Mood Panda." Web page. *Google Play*. 2019. 28 Aug 2019 <https://play.google.com/store/apps/details?id=com.MoodPanda&hl=en_GB>.
- Naughton, John. "The goal is to automate us': welcome to the age of surveillance capitalism." *The Guardian*. 20 Jan 2019. 8 Sept 2019 <<https://www.theguardian.com/technology/2019/jan/20/shoshana-zuboff-age-of-surveillance-capitalism-google-facebook>>.
- "RescueTime." Web page. *RescueTime*. 2019. 15 Sept 2019 <<https://www.rescuetime.com/>>.
- Rettberg, Jill W. *Seeing Ourselves Through Technology: How We Use Selfies, Blogs and Wearable Devices to See and Shape Ourselves*. Springer, 2014.
- Rosenbloom, Cara. "Who decided we should all take 10,000 steps a day, anyway." *Washington Post*. 28 Jan 2019. 5 Sept 2019 <https://www.washingtonpost.com/lifestyle/wellness/the-10000-step-goal-isnt-based-on-science-but-its-still-a-decent-idea/2019/01/25/7bdf4946-1e7f-11e9-8b59-0a28f2191131_story.html?arc404=true>.
- Ruckenstein, Minna. "Visualized and Interacted Life: Personal Analytics and Engagements with Data Doubles." *Societies*. 4.1 (February 2014): 68-84.
- Shore, Leslie. "Gal Interrupted, Why Men Interrupt Women and How To Avert This In The Workplace." *Forbes*. 3 Jan 2017. 12 Oct 2019 <<https://www.forbes.com/sites/womensmedia/2017/01/03/gal-interrupted-why-men-interrupt-women-and-how-to-avert-this-in-the-workplace/>>.
- "Show & Tell." Web page. *Quantified Self*. 2019. 1 Dec 2019 <<https://quantifiedself.com/show-and-tell/>>.
- Swords, Josie. PDF. *Designing Feminist Chatbots*. 15 Nov 2019 <<https://drive.google.com/file/d/0B9HAnMP4FWDZX1BwUWtUYUtTTTA/view?usp=sharing>>.
- "The Health Benefits of Strong Relationships." *Harvard Health Publishing*. 6 Aug 2019. 8 Nov 2019 <https://www.health.harvard.edu/newsletter_article/the-health-benefits-of-strong-relationships>.
- "The Qualified Self: Social Media and the Accounting of Everyday Life - Book Overview." Web page. *MIT Press*. 2019. 10 Oct 2019 <<https://mitpress.mit.edu/books/qualified-self>>.
- Timpf, Katherine. "Oxford University: Avoiding Eye Contact Is Racist." *National Review*. 24 April 2017. 12 Oct 2019 <<https://www.nationalreview.com/2017/04/oxford-university-avoiding-eye-contact-racist/>>.
- "Uber investigated over gender discrimination." *BBC News*. 16 July 2018. 18 Nov 2019 <<https://www.bbc.com/news/business-44852852>>.
- "Why Fitbit." Webpage. *Fitbit*. 2019. 29 Nov 2019 <<https://www.fitbit.com/no/whyfitbit>>.
- Wrenn, Eddie. "The great gender debate: Men will dominate 75% of the conversation during conference meetings, study suggest." *Daily Mail*. 19 Sept 2012. 12 Oct 2019 <<https://www.dailymail.co.uk/sciencetech/article-2205502/The-great-gender-debate-Men-dominate-75-conversation-conference-meetings-study-suggests.html>>.

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B



AMÉLIE DINI

OFF / IRACK

JANUARI 2020

A

