Alison Powell & Irina Shklovski

VIRT-EU SANDBOX: Design Dilemmas in Connected Technologies

Presenters:
Alison Powell, London School of Economics
Irina Shklovski, IT University of Copenhagen
Carolina Némethy, IT University of Copenhagen

background: the VIRT-EU project

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moral simulation
interventions
interventions as Ethics
the framework
futures

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We are working at a company

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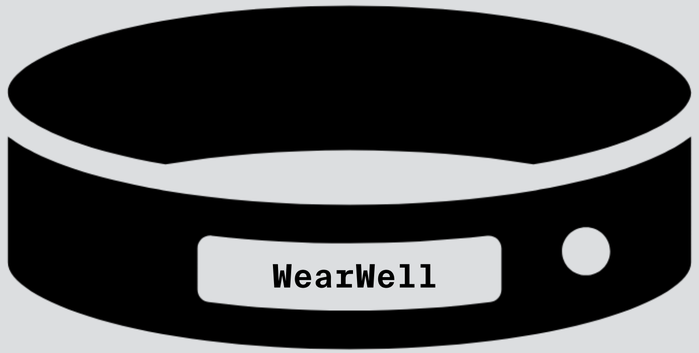
WearWell

Track your wellbeing while working productively!

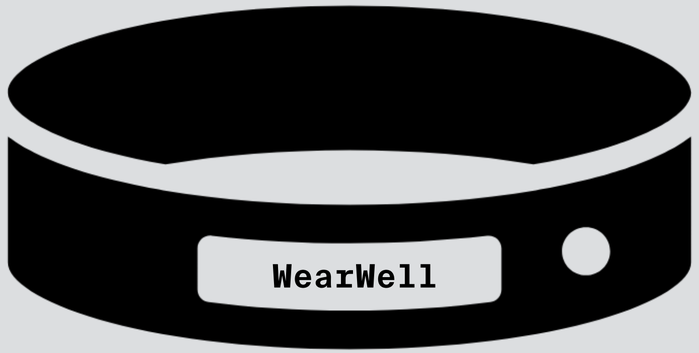
WearWell is equipped with GPS, heart rate monitor, step counting and body temperature sensors.

When an employee wears WearWell, s/he will become more aware of their mental and physical wellbeing throughout the day.



WearWell

How should we design WearWell in order to capture the clearest picture of data and give all of us the best suggestions based on that data?



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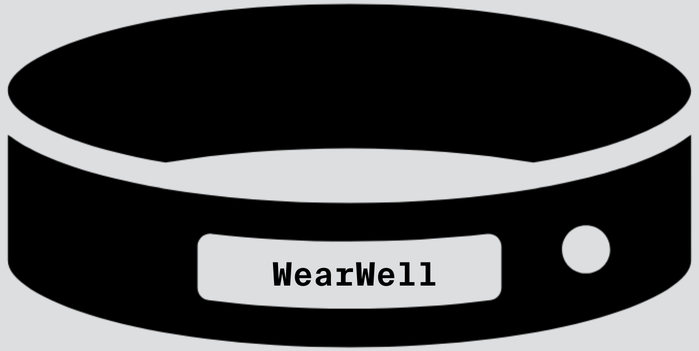
Goals:

- A device to support employee well-being as mental and physical fitness.
- Provide goal-setting capability and feedback based on personalized goal suggestions.
- Allow push notifications to/from management team based on unusual or problematic deviations from established goals and norms
- Ability to “snooze” reminders for helping to achieve established goals



Approach:

- Technical team reviews sensor suite and specs
- UX team develops available interface elements
- We will work with potential users to ensure relevant functionality

Device Sensors:

1. GPS
2. Heart-rate sensor
3. Step-count (accelerometer)
4. Temperature
5. Galvanic skin response

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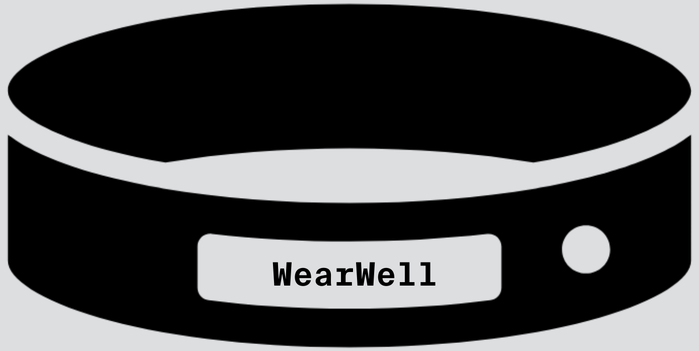
Measuring impact:

- Up-take and feedback from employees
- The number of sick days employees take (reduction in the number of sick days would be evidence of positive impact)
- Keep track of the number of interactions between employees and managers
- Keep track of productivity levels (KPIs)



Security and privacy:

- Employees will have the option of turning off internal location tracking
- Employees will have an option of turning off tracking on weekends
- Managers and employees will have to confirm some more sensitive tracking options together

Other options:

1. other sensors?
2. data storage & management options?

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the axis of options

A

Track but store
data locally
on the device

B

Track but store
data temporarily

C

Track but don't share
with company
Share only with
WearWell for A/B testing

D

Full data-sharing
Both with company
and WearWell

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Option A

Track but store data locally on the device
Company gets aggregate reports

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Option B

Track but store data temporarily
Company gets aggregate reports

Option C

Track but don’t share with client company
Share only with WearWell for A/B testing
Company gets aggregate reports

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Option D

Full data-sharing with company, WearWell and any third-parties that are relevant

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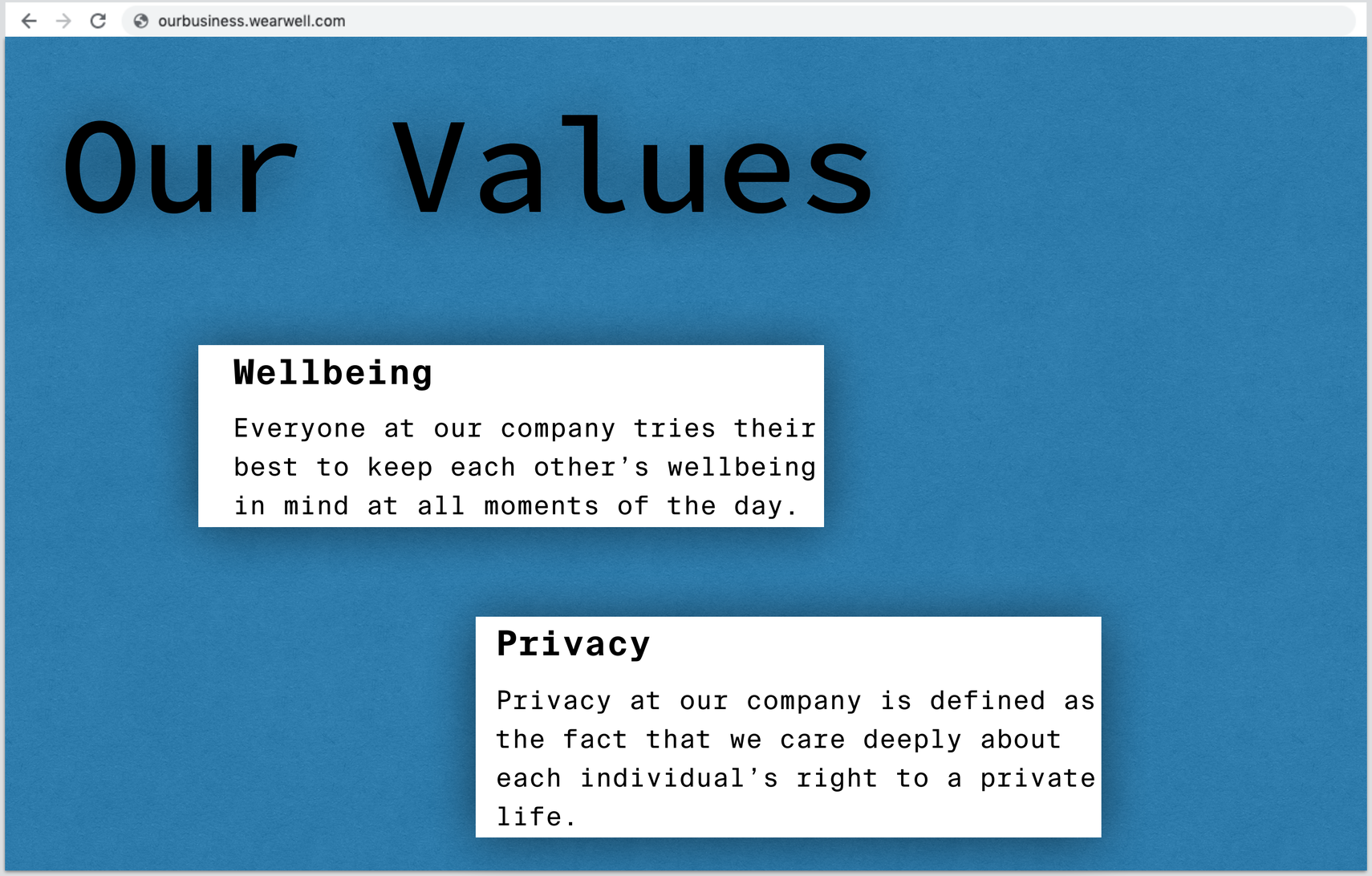

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User Interview

Let’s have a user interview with one of the employees in a company that is currently testing the WearWell prototype.
She works at the Sales Department and she’s a mother of two.

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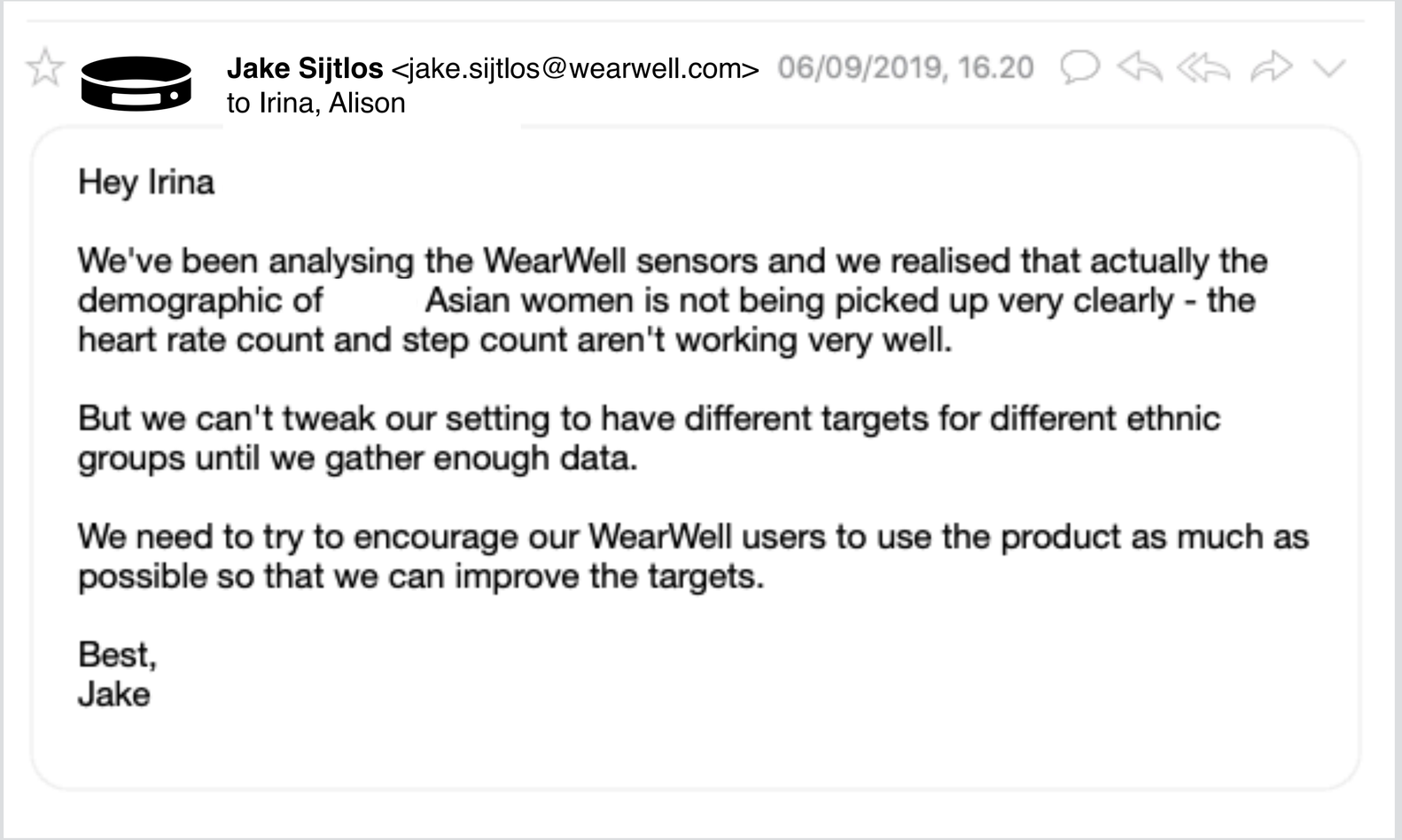

Jake Sijtlos <jake.sijtlos@wearwell.com> 06/09/2019, 16.20
to Irina, Alison

Hey Irina

We've been analysing the WearWell sensors and we realised that actually the demographic of Asian women is not being picked up very clearly - the heart rate count and step count aren't working very well.

But we can't tweak our setting to have different targets for different ethnic groups until we gather enough data.

We need to try to encourage our WearWell users to use the product as much as possible so that we can improve the targets.

Best,
Jake

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so what did we do here?

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moral simulation / interventions

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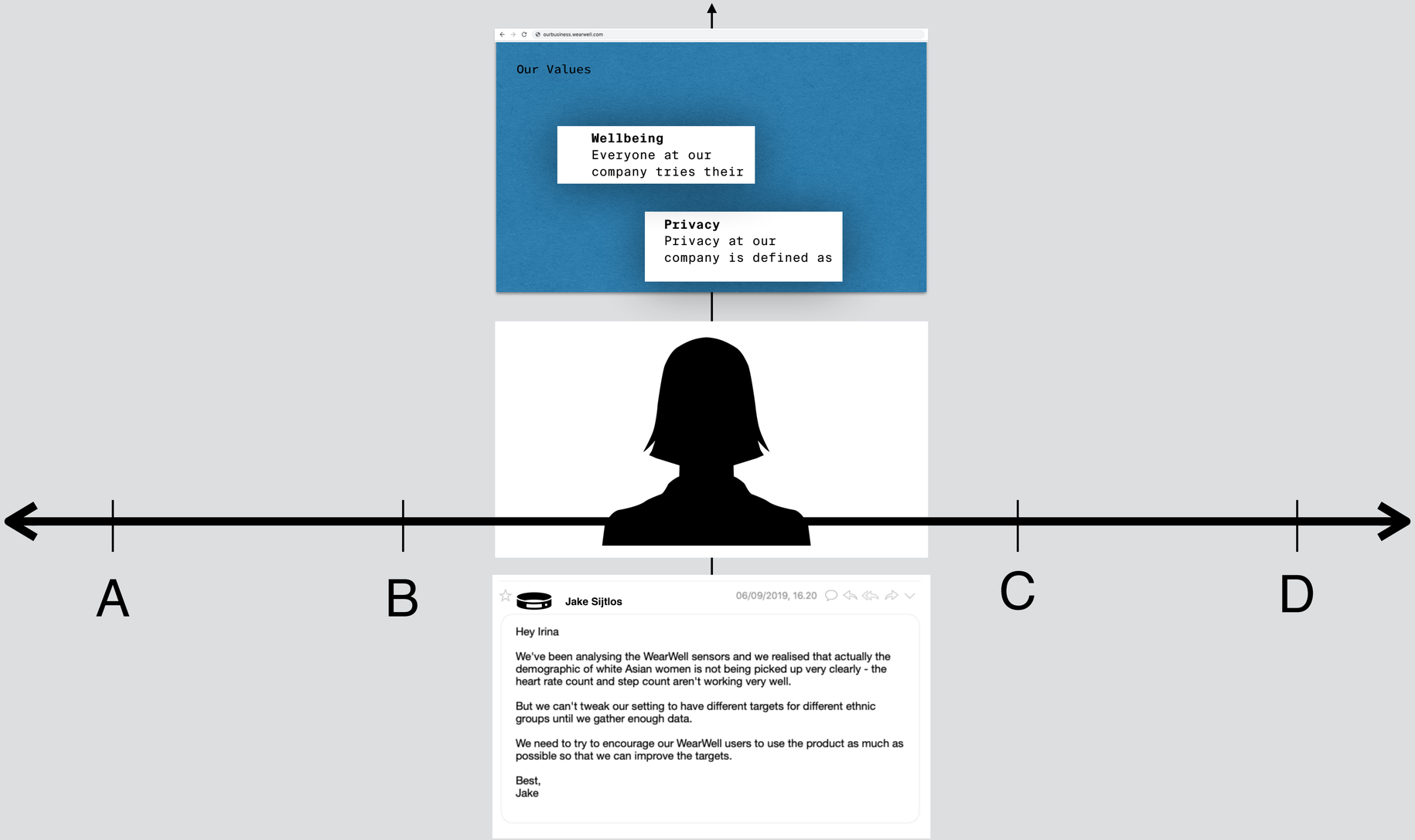

ethics as interventions

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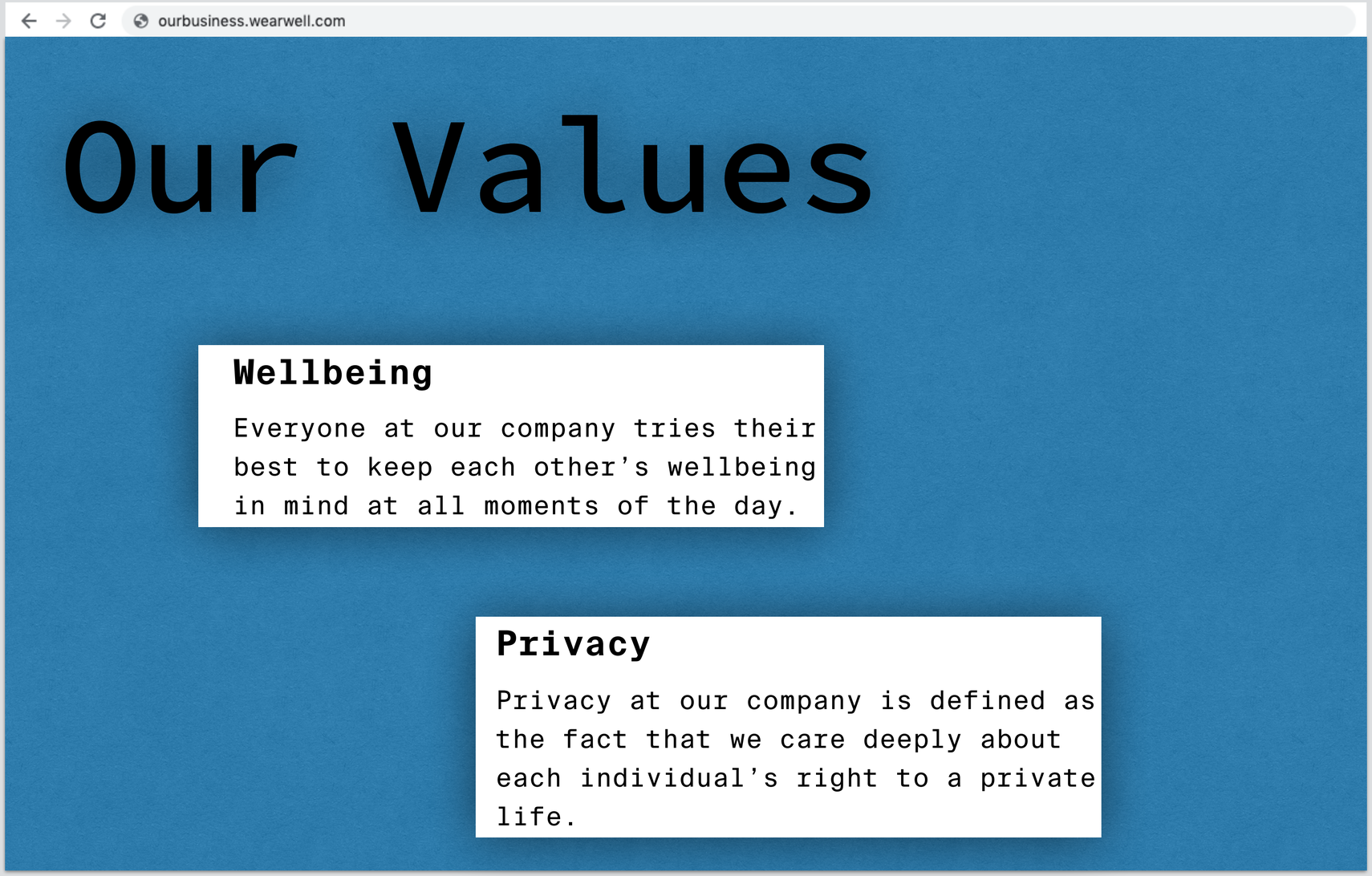
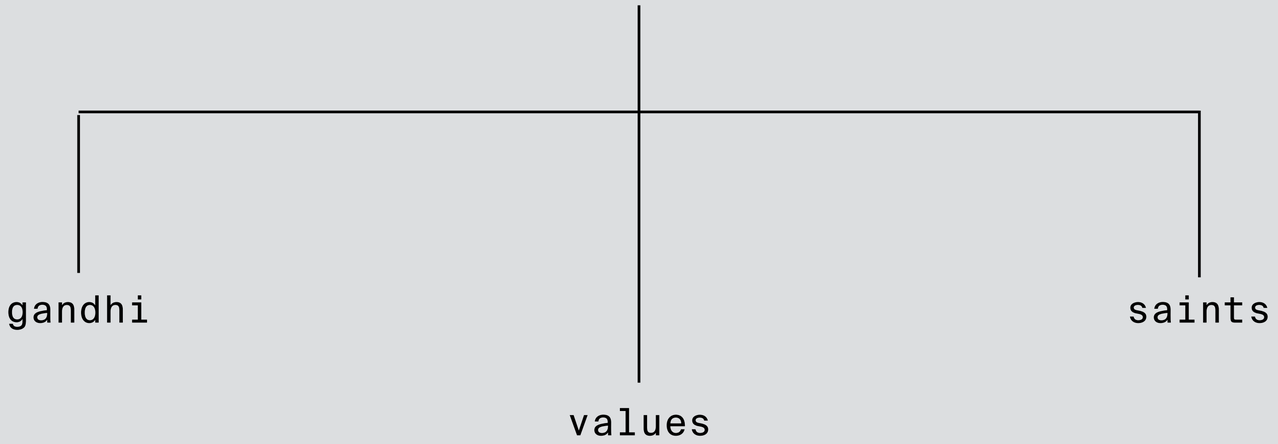


virtue



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*thank you: James Zhou

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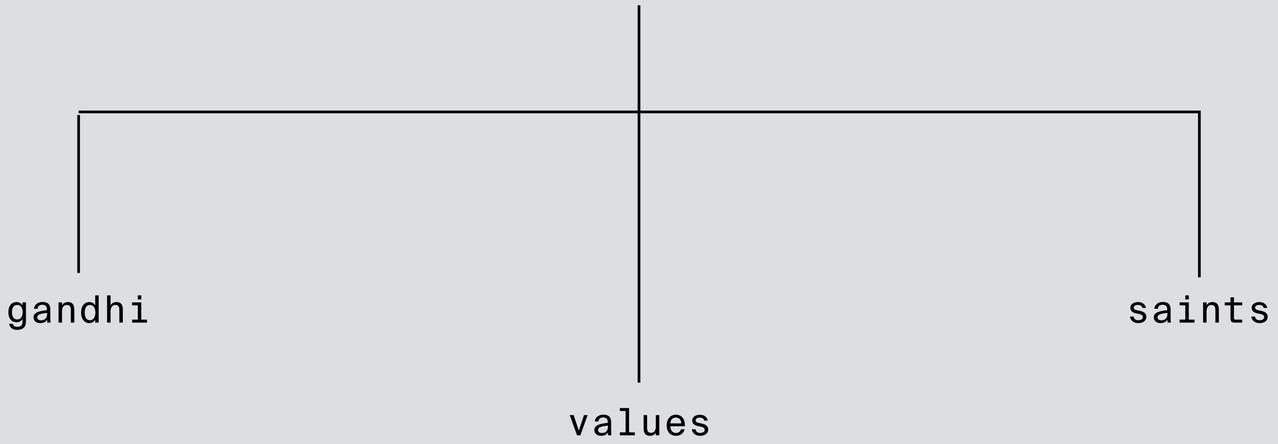
care



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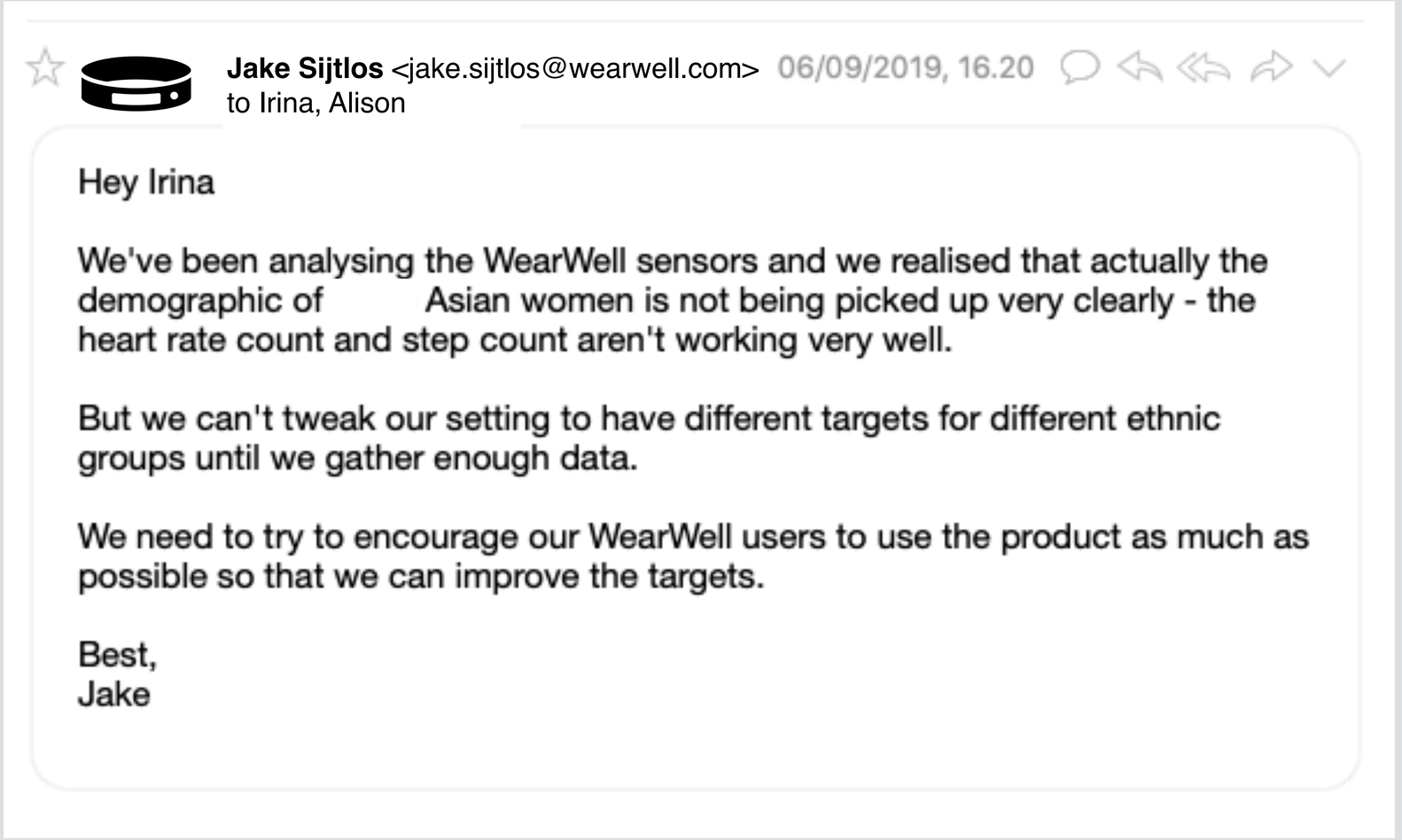

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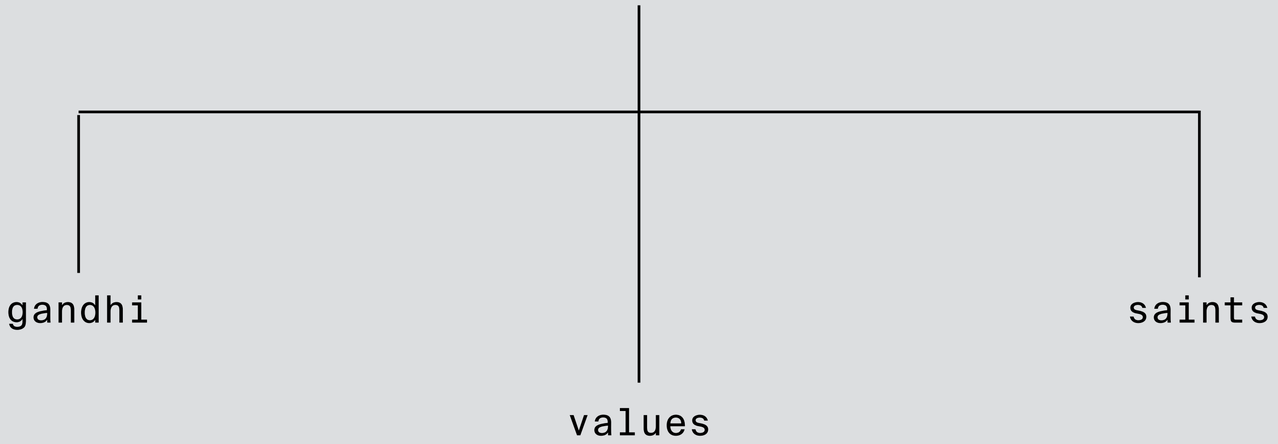
capabilities



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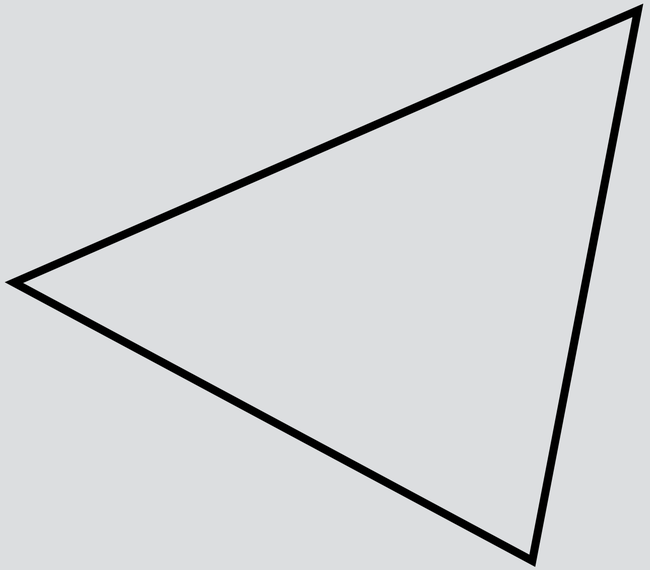
care



virtue

capabilities

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moral simulation / interventions / Ethics / framework

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moral simulation / interventions / Ethics / framework

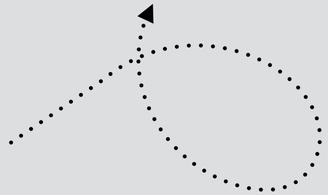
virtue

Annelie Berner & Irina Shklovski

Unforeseeable Futures, Ethics and New Technologies

virtue

care



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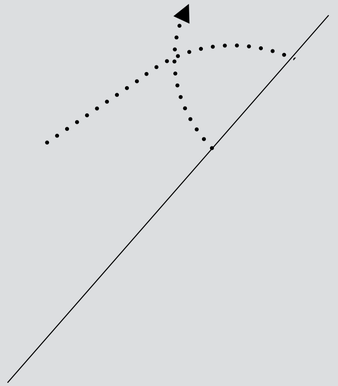

capabilities

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if only we'd known

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Maybe developers and designers (and entrepreneurs & investors) could have asked themselves if there were any other ways in which their product could be used [ethics] and thought about what would happen if everyone in the world had their product for a few years [futures]

why do we worry?

As a starting point to identifying an “opportunity”, challenge, or possible point of intervention

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moral simulation / interventions / Ethics / framework / futures

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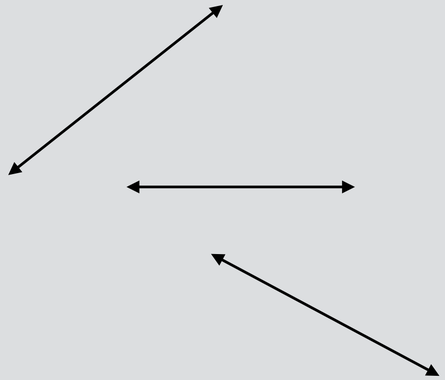
story



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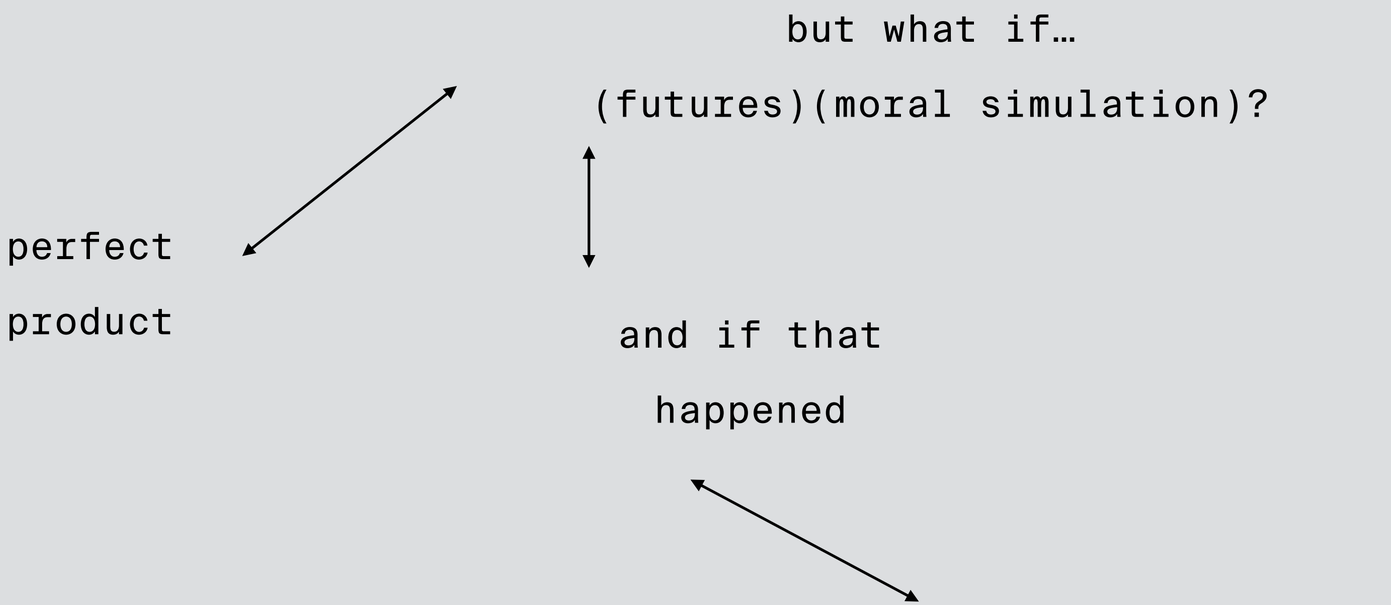

moral simulation / interventions / Ethics / framework / futures

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but what if…

(futures)(moral simulation)?

perfect

product

and if that

happened

how can we & how

should we act…?

(ethics)

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perfect

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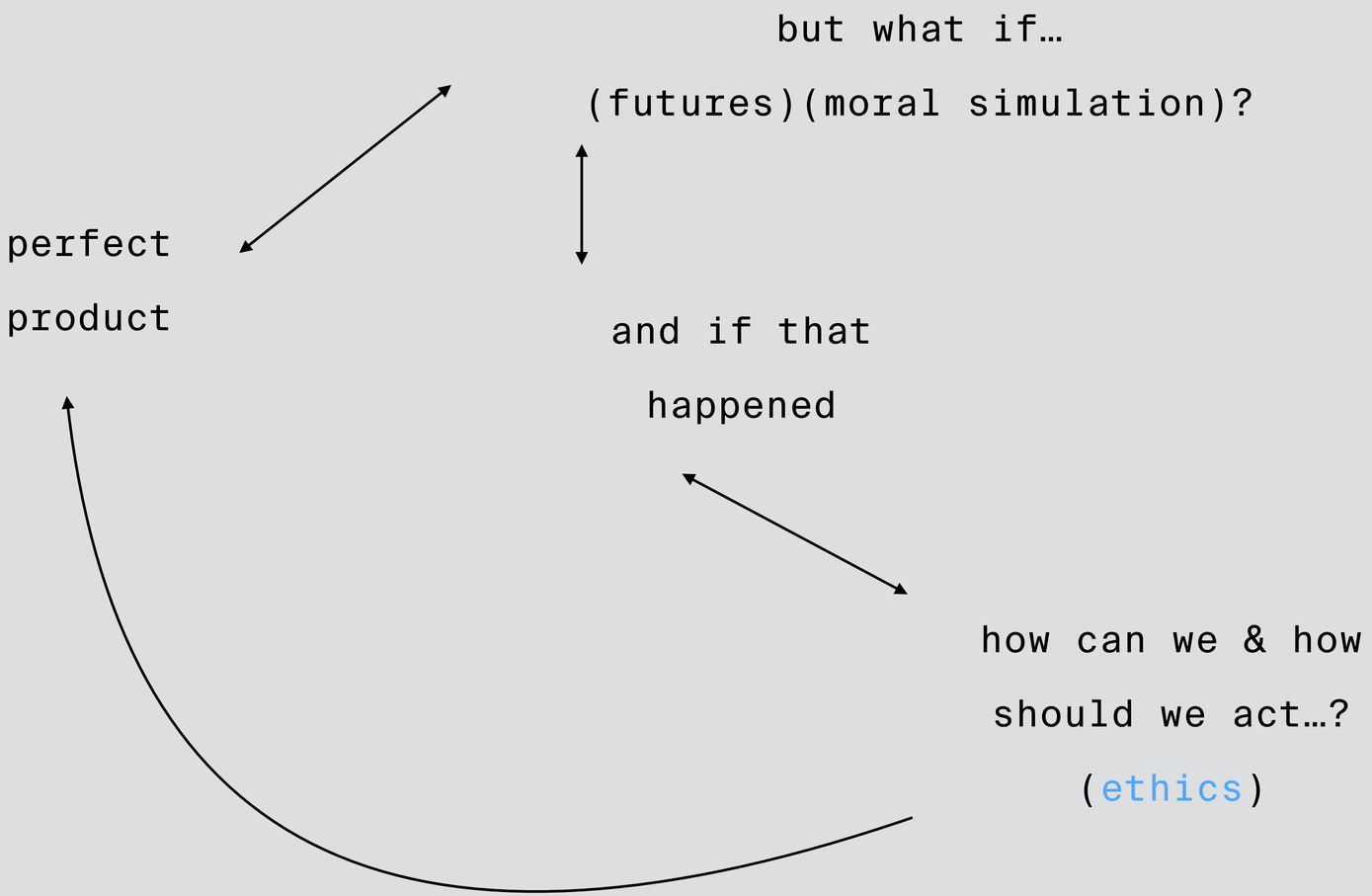

moral simulation interventions as Ethics the framework futures

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moral simulation / interventions / Ethics / framework / futures / discussion

ethics, a journey

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Q + A

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VIRTEU: Tools for ethical reflection

Coming soon to a web near you…

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Thank you!

and an extra big thank you to:
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Raffaella Rovida (CIID)
Monika Seyfried (CIID)
Peter Kuhberg (CIID)
Carolina Némethy (ITU)
Barbara Nino Carreras (ITU)
and all of our VIRTEU partners

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