

Prototyping Ethics As Practice

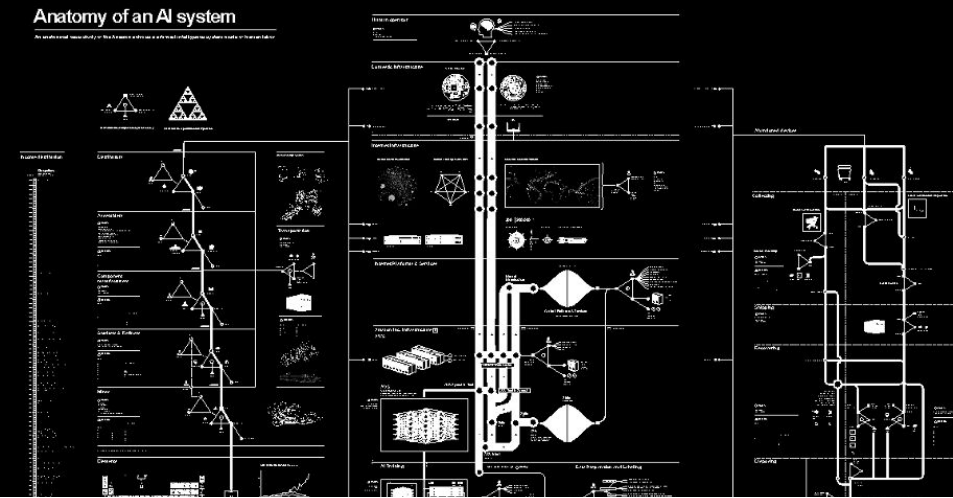
A Framework for
Designing Data-Driven
Product Service Systems

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NorDES 2023 | Doctoral Consortium

Anatomy of an AI system

An artificial neural network is a computer system that is designed to simulate the way the human brain is wired in order to perform tasks that require human-like intelligence.



AIAAIC Repository

☆

📄

🔄

File

Edit

View

Insert

Format

Data

Tools

Extensions

Help

🖨️

🔍

100%

👁️ View only

A1:API

f

x

| | A | B | C | D | E | F | G |
|----|------------|--|------|-----------------|------------------------|-------------------------|-------------------|
| 1 | AIAAIC | | | | | | |
| 2 | AIAAIC ID# | Description | Year | Country(s) | Sector(s) | System name(s) | Technology(ies) |
| 3 | | | | | | | |
| 4 | AIAAIC0877 | YieldStar automated rent-setting | 2022 | USA | Real estate sales/mar | YieldStar | Pricing algorithm |
| 5 | AIAAIC0876 | Upstart automated consumer lending | 2022 | USA | Banking/financial serv | Upstart | Machine learning |
| 6 | AIAAIC0875 | Olive AI misleading marketing | 2022 | USA | Healthcare | Multiple | Robotic Process |
| 7 | AIAAIC0874 | Axon school security taser drones | 2022 | USA | Education | Axon Air | Drone; Compute |
| 8 | AIAAIC0873 | GPT-4chan | 2022 | USA; Global | Technology | GPT-4chan | NLP/text analysis |
| 9 | AIAAIC0872 | DALL-E image generation | 2021 | USA | Technology | DALL-E 1; DALL-E 2 | NLP/text analysis |
| 10 | AIAAIC0871 | WILDRACK pedestrian detection dataset | 2019 | Switzerland | Research/academia | WILDRACK | Dataset; Pedest |
| 11 | AIAAIC0870 | Tesla Smart Summon | 2022 | USA | Automotive | Smart Summon | Driver assistance |
| 12 | AIAAIC0869 | Google Docs inclusive language warnings | 2022 | USA; Global | Business/professiona | Assistive Writing | NLP/text analysis |
| 13 | AIAAIC0868 | Coupang own brand search engine rigging | 2021 | S Korea | Technology; Retail | Coupang Commerce se | Search engine a |
| 14 | AIAAIC0867 | Naver own brand search engine rigging | 2020 | S Korea | Technology; Retail | Naver Search | Search engine a |
| 15 | AIAAIC0866 | Zoom AI emotion recognition | 2022 | USA | Business/professiona | Zoom IQ for Sales | Emotion recogniti |
| 16 | AIAAIC0865 | Intel AI student emotion monitoring | 2022 | USA | Education | Class | Emotion recogniti |
| 17 | AIAAIC0864 | Instagram DM 'systemic' abuse, harassment | 2022 | UK; USA | Technology | Instagram Direct Messe | Content modera |
| 18 | AIAAIC0863 | Microsoft teen pregnancy predictions | 2018 | Argentina; Braz | Govt - health | Technology Platform for | Prediction algori |
| 19 | AIAAIC0862 | Cruise driverless car pulls away from police | 2022 | USA | Automotive | | Self-driving svst |

Ecological Harms

Political Manipulation

Social Marginalisation

Economic Exploitation

Tech Ethics

Design Ethics

AI Ethics



Ethical Design Resources

[ADD A RESOURCE](#)

All

Articles

Books

Courses

Frameworks

Organizations

Podcasts

Tools & Toolkits 2022

Pledge Works

Publication:
ResponsibleTech.Work

A practical tool that invites you to write pledges for better outcomes as part of your existing product development processes. This modular and adaptable tool...

Tools & Toolkits 2022

Everyday Ethics

By: Colin M. Gray et al.

Publication: UXP2 Lab
— Purdue

Set of ethics methods put together by Purdue Design Professor Colin Gray....

Tools & Toolkits 2022

Métacartes Numérique Éthique

By: Lilian Ricaud, Mélanie Lacayrouze, Scop Ozon

Publication: Métacartes

A French card deck allowing ethical exploration of digital services with action cards and online resources linked to each topic....



Accenture, [Universal Principles of Data Ethics](#), 2016

AI Ethics Lab, [Toolbox Dynamics of AI Principles](#)

Alan Turing Institute, [Understanding Artificial Intelligence Ethics and Safety](#), 2019

Artificial Intelligence Industry Alliance (AIIA), [Joint Pledge on Artificial Intelligence Industry Self-Discipline](#), 2019

AI Now Institute, [AI Now Report](#), December 2018

AI4People (Atomium - European Institute for Science, Media and Democracy), [Ethical Framework for a Good AI Society: Opportunities, Risks, Principles and Recommendations](#)

Allied Media Projects: [Guidelines for Equitable Open Data](#)

Amnesty International & Access Now, [The Toronto Declaration](#): Protecting the right to equality and non-discrimination in machine learning systems, 2018

Approaches

Deontologist orientation

Principles, Codes of Ethics

Consequentialist orientation

Risk assessments, Bias detection, Foresight

Value & Virtue oriented

Value frameworks

Approaches

Deontologist orientation

Principles, Codes of Ethics

Consequentialist orientation

Risk assessments, Bias detection, Foresight

Value & Virtue oriented

Value frameworks

Critiques

Ethics washing & shopping

Toothless & pretentious

Only technical fixes, no social & political sensitivity

Superficial & insufficient

Difficult to translate in context & no proper moral guidance

Unactionable & ineffective

This project looks to...

Develop **situated and practice-oriented**
ways of considering ethics as an
integral part of the design process,
a way of **doing and making**
that is constantly enacted
contextually and relation-dependently

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A different kind of ethics

Relational Ethics

Moral status, right action or good
character manifested in bonds and
relations with others

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Beyond values and risks

Socio-technical Imaginaries

Investigation of ethics in everyday practice through a lense of *sociotechnical imaginaries of “the good life”* embedded in design practice.

This project looks to...

recognising politics

dialogue of relations of power within the social spaces that designers occupy, as well as the spaces that designed technology might be deployed in

attend to particularity & plurality

Attention to human activities as particular and diverse, rather than generalisable

engage iteratively and ongoing

Process of reflection on impact and purpose as an ongoing process of care rather than isolated solutionist interventions

A different kind of ethics

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Beyond values and risks

Socio-technical Imaginaries

Investigation of ethics in everyday practice through a lense of *sociotechnical imaginaries* of “the good life” embedded in design practice.

This project looks to...

imaginaries as frames for

what is considered reasonable,
attainable and desirable

how designers position their own practice
and abilities as morally relevant.

what is considered as relevant when
engaging in moral deliberation

By Investigation of ethics in everyday
practice through a lense of *sociotechnical
imaginaries of “the good life”* embedded in
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A different kind of ethics

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Socio-technical Imaginaries

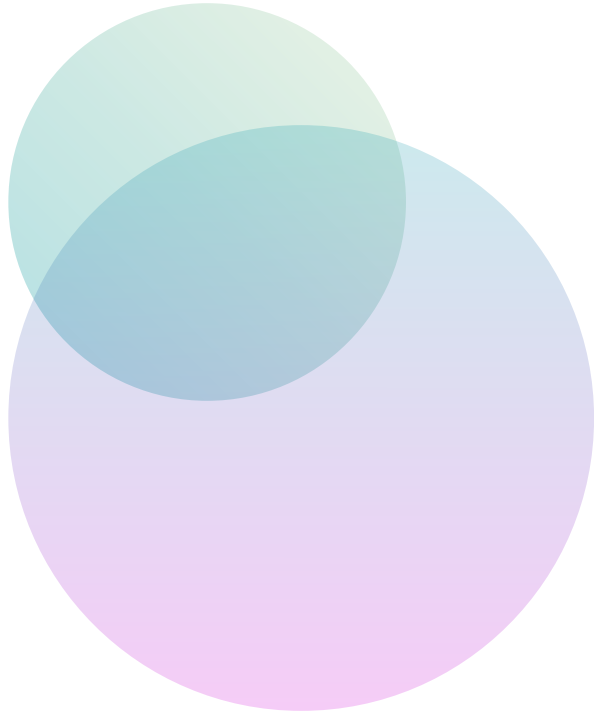
Investigation of ethics in everyday
practice through a lense of *sociotechnical
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design practice.



Identify productive ST imaginaries

currently in place in design practices

*do they limit the kind of ethics that designers
see as possible?*



Identify productive ST imaginaries

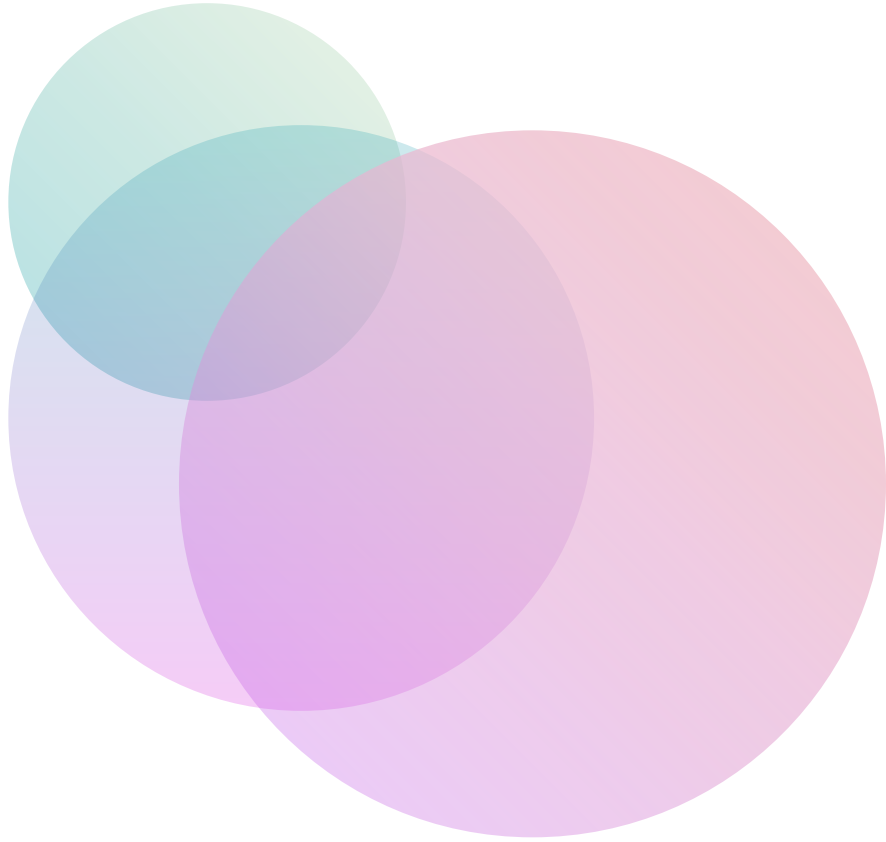
currently in place in design practice

do they limit the kind of ethics that designers see as possible?

Prototype methods

work with, expand, or redirect imaginaries

can we include a relational feminist care approach to ethics?



Identify productive ST imaginaries

currently in place in design practice
*do they limit the kind of ethics that designers
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Prototype methods

work with, expand, or redirect imaginaries
*can we include a relational feminist care
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Investigate spaces

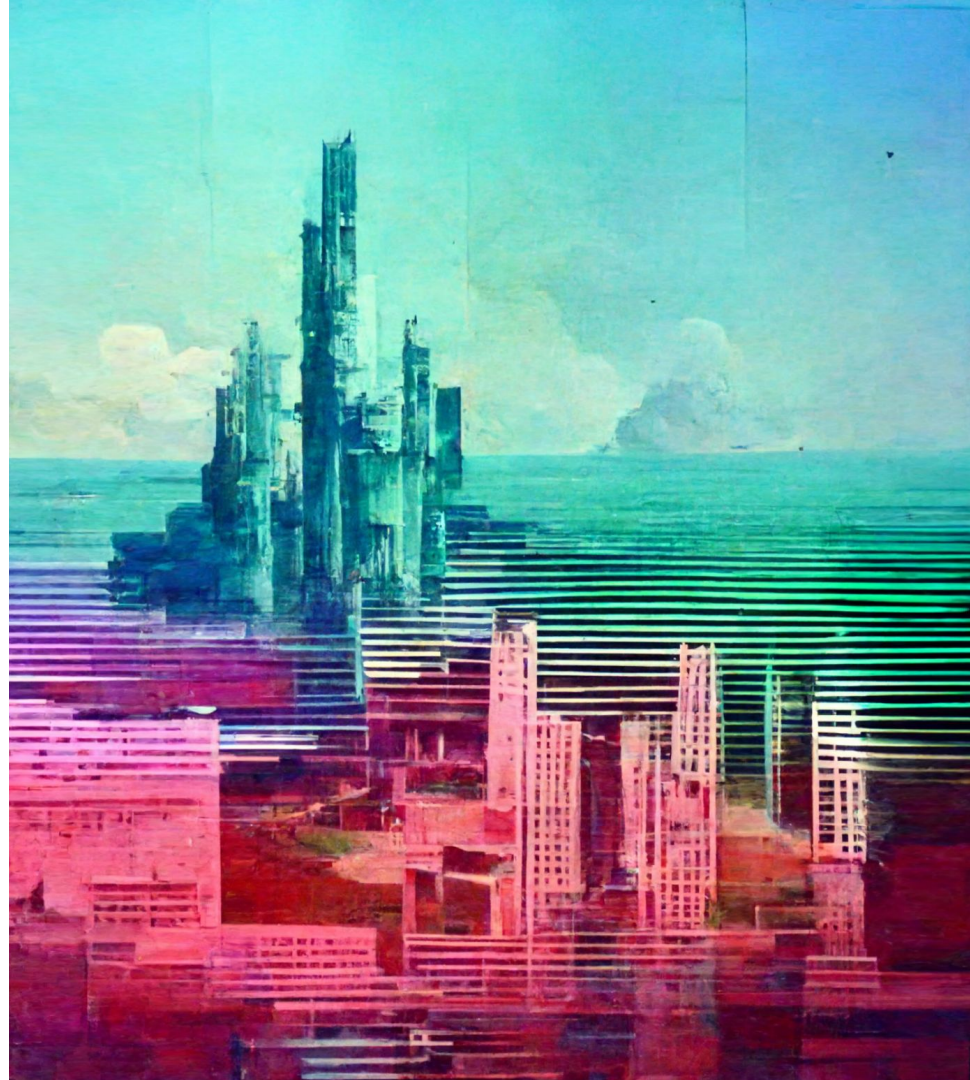
enable designers to enact ethics as a
practice at their places of practice

Opening the shiny box and pulling out the relations.

Opening the **shiny box** and pulling out the relations.

Study of Designerly AI Imaginaries

What kind of interpretations of a “good life” do designers reproduce when designing products within the imaginaries that shape their understanding of AI?



Study of Designerly AI Imaginaries

case study

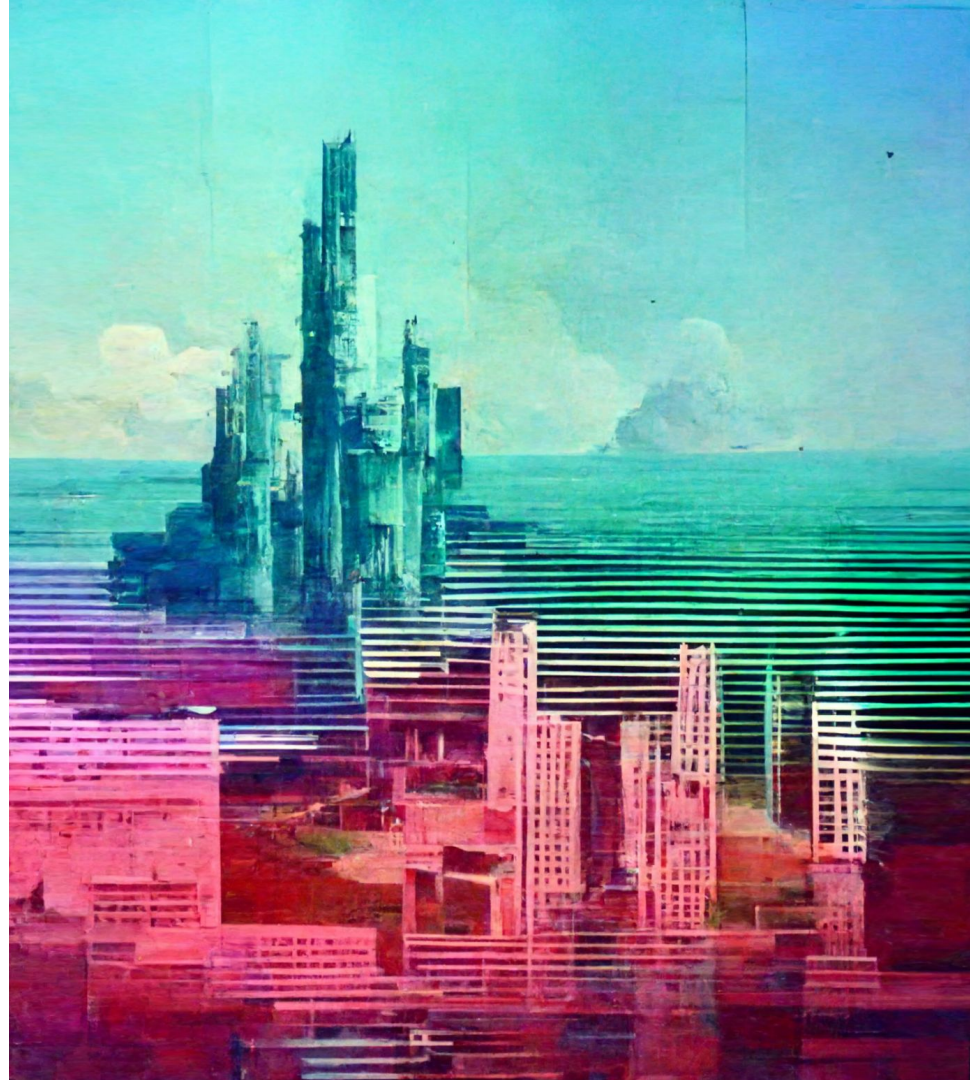
industry foresight workshop series
with the topic AI and sustainability

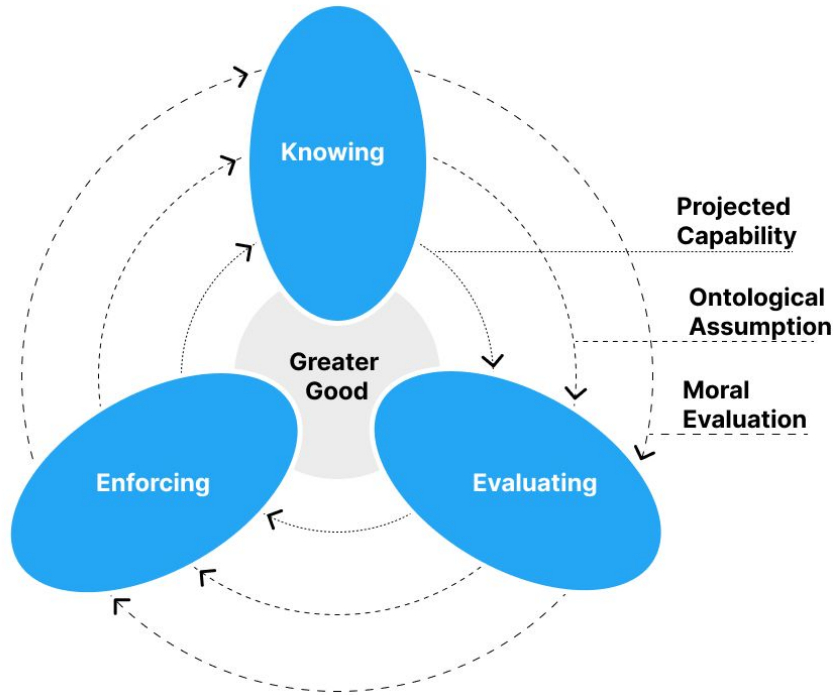
conceptual framework

device paradigm by Borgmann [1984]

empirically informed model

construction process of the
resulting sociotechnical imaginary





automatic ethics by another name

Greater Good - Balance and Harmony

Insight - having all the necessary information required for a specific context

Evaluation - valuing different interests, needs, positions etc. against each other

Accountability - ensuring overarching correct conduct according to the previous two prerequisites.

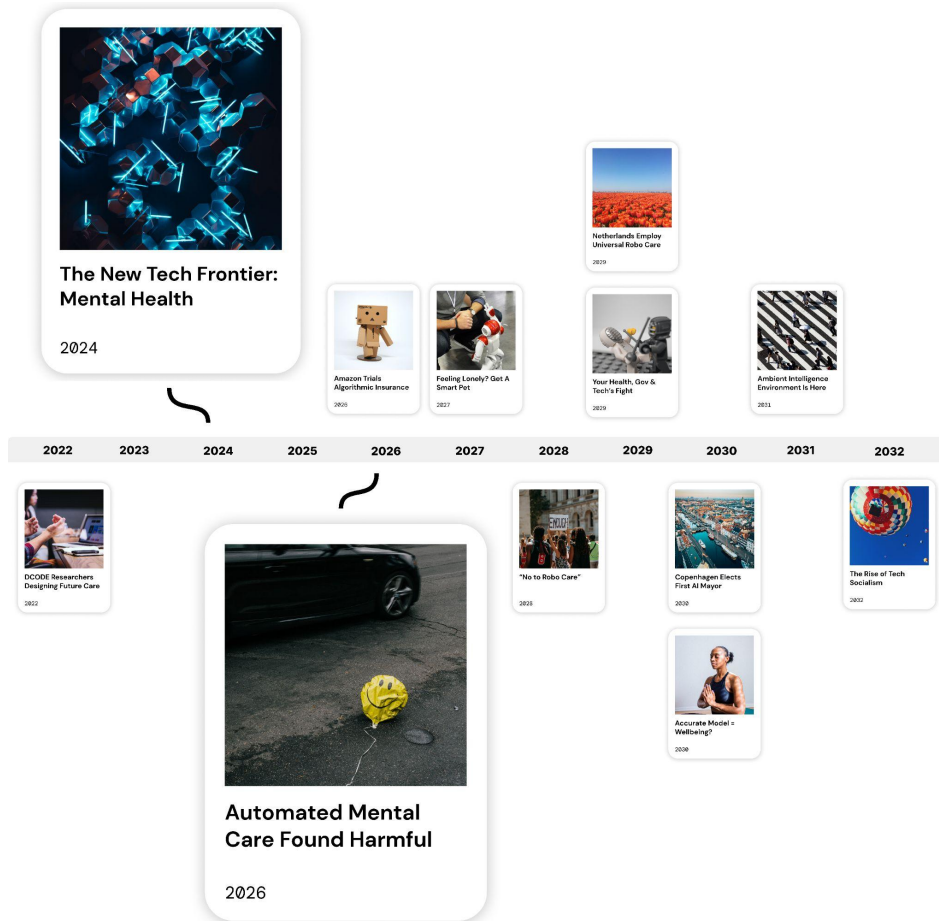
Layers of Construction - Moral Evaluation, Ontological Assumption, Projected capability

Opening the **shiny box** and **pulling out** the relations.

How we can create spaces and methods that enable designers to move **from a utility based perspectives** towards technology **towards a care centric approach**, and expand from a user-centric perspective towards relational sensitivity when designing complex perceptive systems?

Methods

theatre-based speculative role-play workshop, using live-theater components and speculative time-travel narratives



Multiplicity of Voices

Who has which capacities to act?

Situatedness

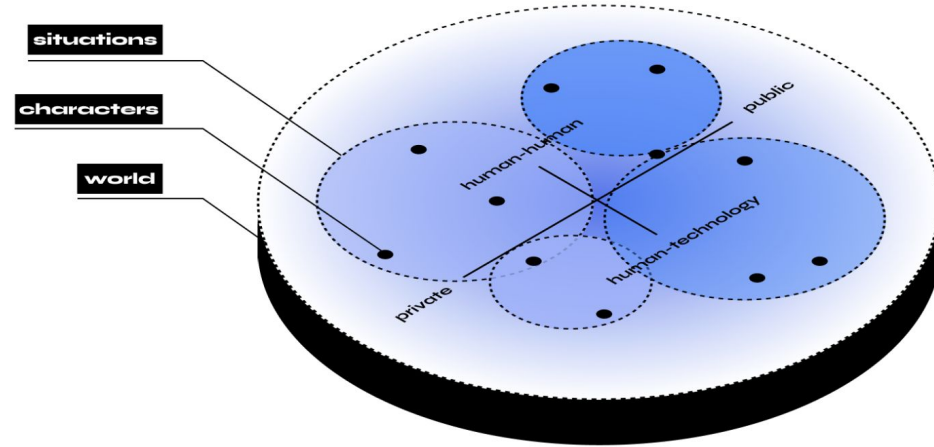
What are the parameters of action?

Interdependencies

Care-full entanglements highlight trust an emergent quality of situated interdependencies and tensions.

Performativity

Acting out vulnerabilities in automated systems.



Opening the **shiny box** and **pulling out the relations**.

How do these values play out in practice?

Planned case study

Co-creating Ethic Levers @Responsible
Sensing Lab AMS & City of Amsterdam

Project

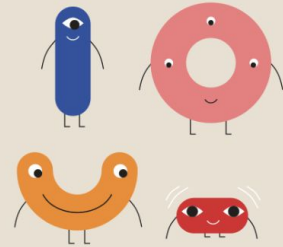
Amsterdam for all
designing a route planner for
wheelchair users

The Tada Manifesto

01

Inclusive

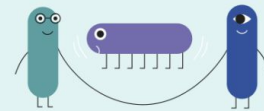
Our digital city is inclusive. We take into account the differences between individuals and groups, without losing sight of equality.



02

control

Data and technology must contribute to the freedom



03

Human s

Data and algorithm not have the last humanity always first. We leave ro unpredictability. have the right to digitally forgotten way there is always for a new, clean s





UMEÅ INSTITUTE OF DESIGN
UMEÅ UNIVERSITY



THE UNIVERSITY
of EDINBURGH

UNIVERSITY OF
COPENHAGEN



AARHUS UNIVERSITY



TRANSPORT AND
TELECOMMUNICATION
INSTITUTE



Amsterdam University
of Applied Sciences



Thank you

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