

# Digital Ethics

**how to design for a sustainable  
societal transformation**

Ambra Trotto

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# WHAT WILL I TALK ABOUT

Where I come from  
What is the Digital Ethics Initiative  
Why do we need to talk about Digital Ethics now  
How do we do work with it



# RIGHTS THROUGH MAKING GOAL

How do we design ethically sound (smart) products and systems?

Multicultural/multidisciplinary teams, making together (supported by methods and tools), iterative prototyping



# RIGHTS THROUGH MAKING INITIAL HUNCH

Looking for ways to design by sharing the language of Making might help to reach pervasive ethics

*“A social praxis aimed at justice and freedom. A social praxis that permeates society in a capillary way, becoming a Universal attitude. It allows people to become aware of their own rights, able and willing to contribute to having their rights and those of other people fulfilled”.*

Universal Declaration of Human Rights: minimum common denominator on ethics



# HOW CAN DESIGN CONTRIBUTE TO PERVASIVE ETHICS?

to build a new praxis, 3 actions have to be taken:

1. balancing the social dignity of making and thinking
2. educating (designers') skills
3. combining different perspectives while designing: integrating "skilful points of view"

if tools and techniques are created in order for these actions to be taken, it is then possible to create a social praxis on which a new way of thinking can flourish



# DIGITAL ETHICS AT RISE





# DIGITAL ETHICS AT RISE

- Writing a project application/preparing a pitch, including aspects related to digital ethics;
- Carrying out the work of the project (when ethical questions emerge along the way;
- Reflecting and articulating how the project has dealt with ethical considerations (at the end)
- Connecting with other initiatives that deal with similar issues / creating dialogue / increasing competences

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# DIGITAL ETHICS AT RISE

This happens in different formats:

- professional education,
- methodological support in designing with digital materials and minimising unintended consequences of products, services and systems.





# COMING TO TERMS WITH OUR WOUNDS

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The background is a dark, textured surface with intricate, swirling patterns in shades of deep blue, purple, and brown. A bright, glowing yellow-orange light source is positioned in the center, creating a radial gradient that illuminates the surrounding swirling patterns. The overall effect is reminiscent of a nebula or a microscopic view of a complex material.

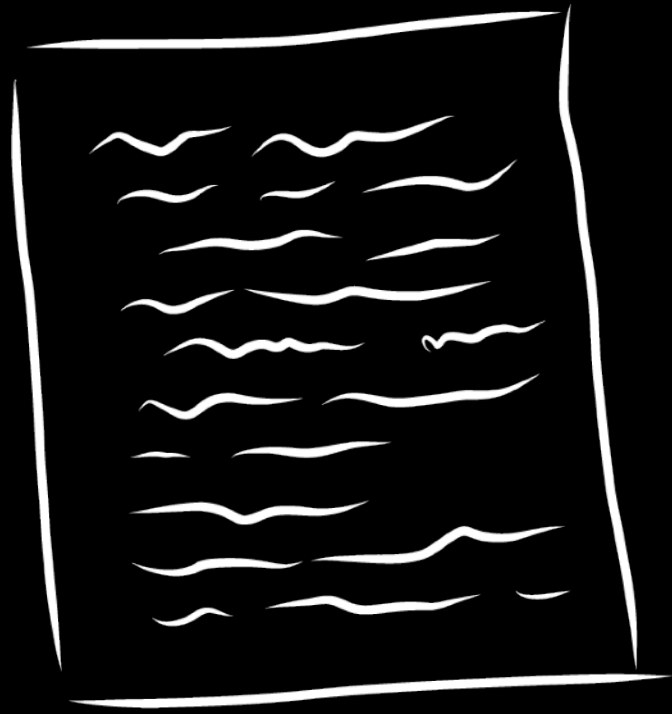
# ETHICS OF CARE



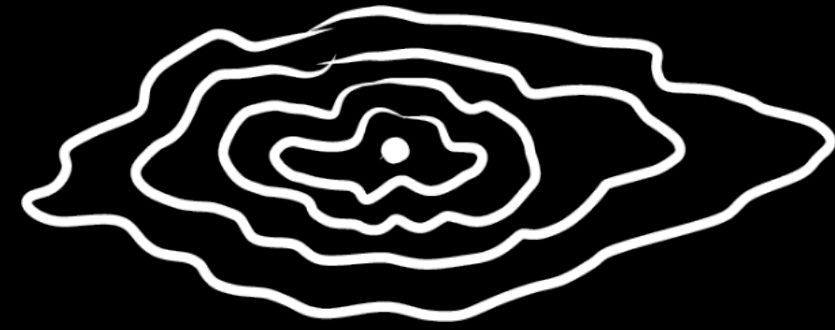
The background features a dark blue gradient with intricate, glowing blue wavy lines that create a sense of motion and depth. These lines are composed of many thin, overlapping curves that form a complex, organic pattern across the entire frame.

**“RETHINKING THE WORLD IN TERMS OF PROCESSES AND BECOMING”**  
**West et al. 2020 (SRC)**





Deontology



Consequentialism



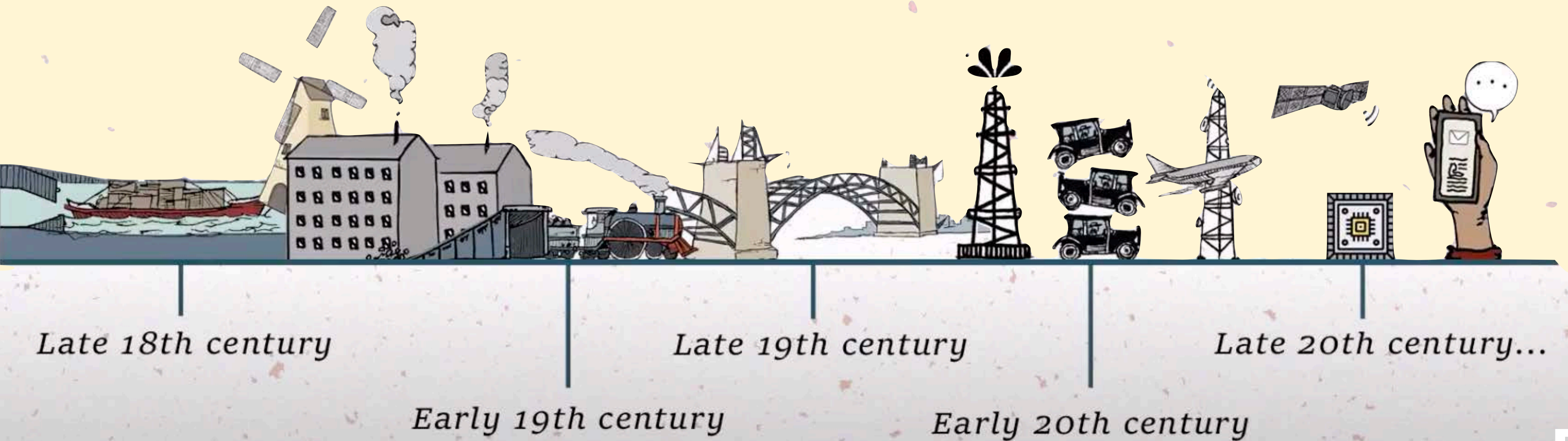
Virtues



Care

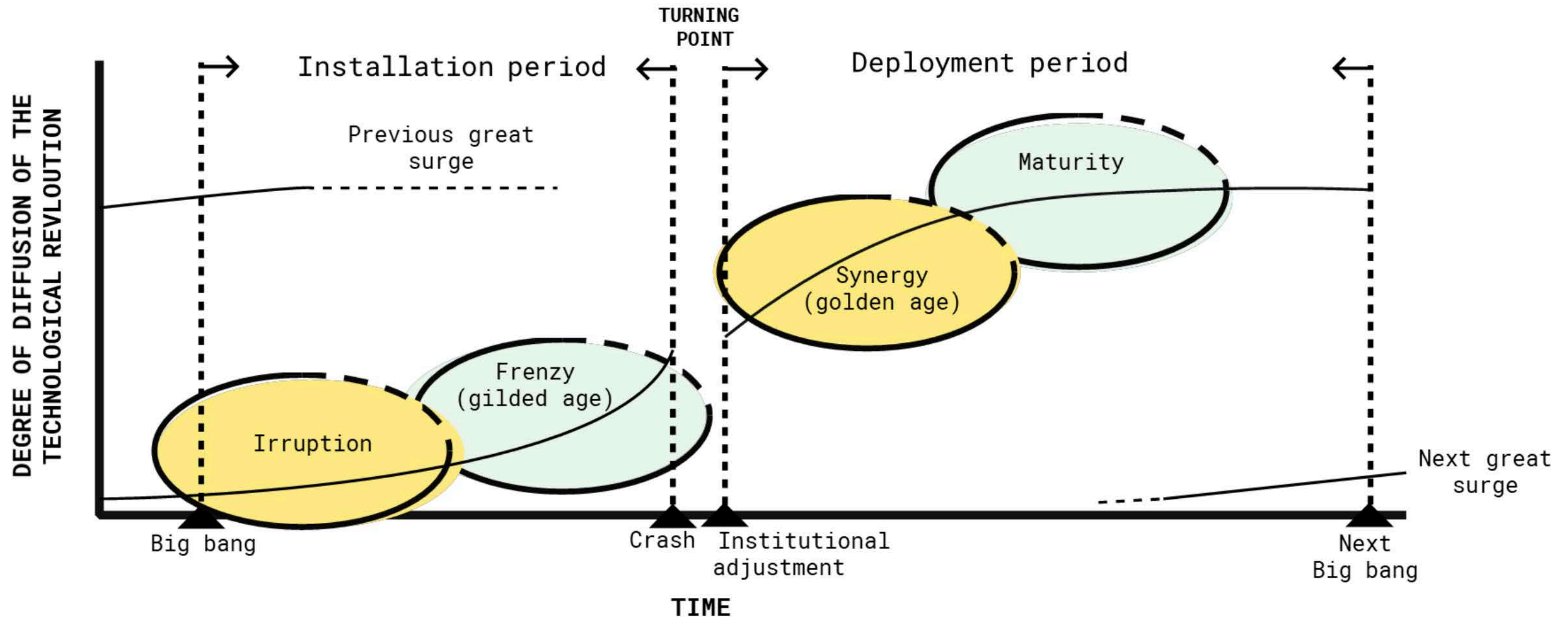


# SOCIOTECHNICAL REVOLUTIONS: WHAT DO THEY TEACH US





# SOCIOTECHNICAL REVOLUTIONS: WHAT DO THEY TEACH US







# TRANSFORMING PRACTICES





**YES, BUT...HOW DO WE DO IT?**

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**transforming existing  
practices into sustainable ones**



**5 founding principles**

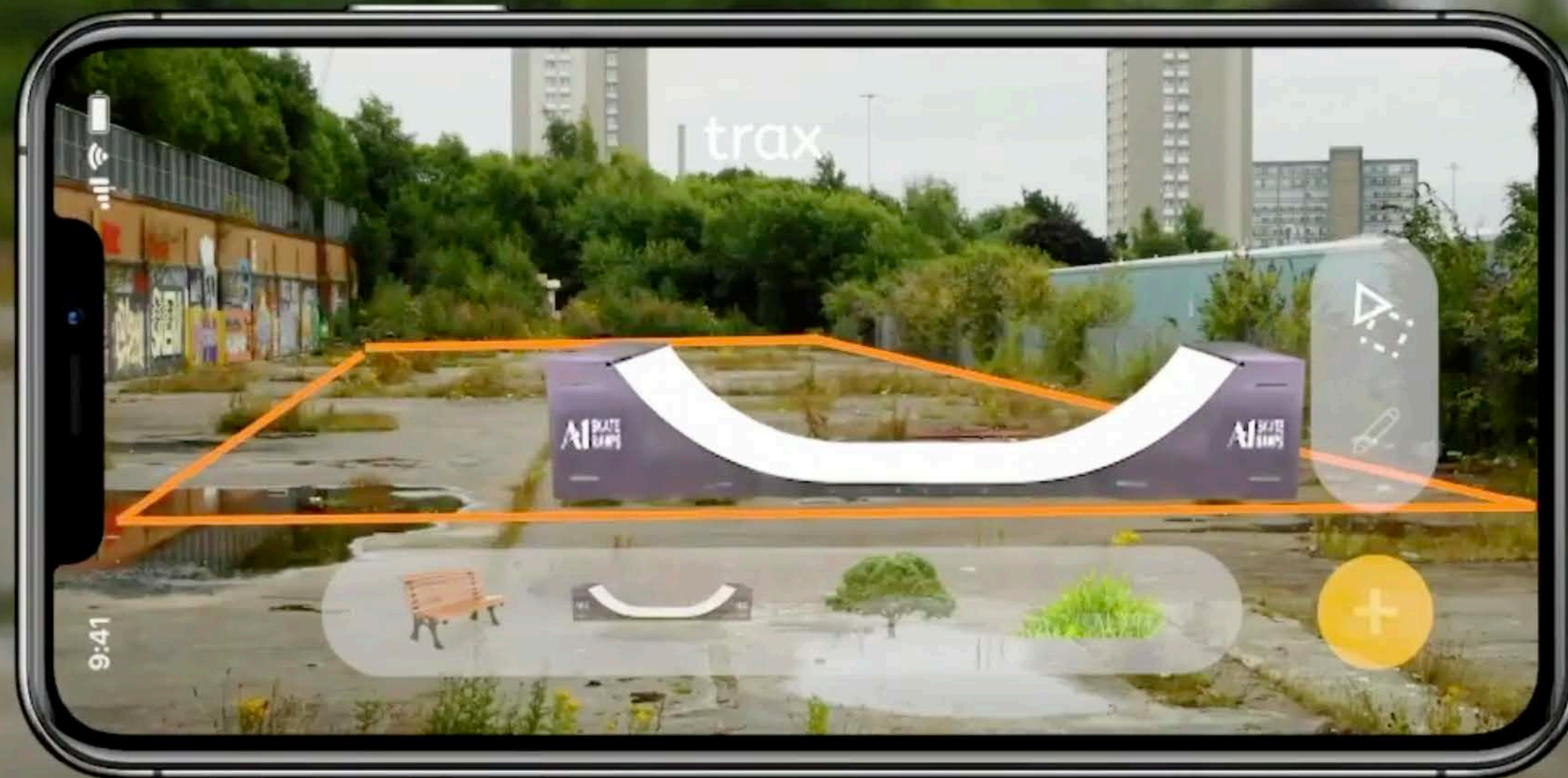
# COMPLEXITY

Understanding and dealing with complex systems

Giving space to different perspectives



# COMPLEXITY - EXAMPLE



## Mapping Frictions of Taxes through Design

Connie Jehu

Supervisor: Marije de Haas

MFA Interaction Design Degree Project, Umeå Institute of Design

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**5 founding principles**

# **SITUATEDNESS**

We act in specific contexts  
Addressing the global in a local way

Photo: Ambra Trotto

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Data-enabled design : a situated design approach that uses data as creative material when designing for intelligent ecosystems

Janne van Kollenburg, Sanders Bogers

Philips Design and Eindhoven University of Technology



**5 founding principles**

# AESTHETICS

Beauty in experience  
From small details to complex systems

Photo: Ambra Trotto

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# AESTHETICS - EXAMPLE



The Station of Being  
RISE and Rombout Frieling Lab  
for the municipality of Umeå, within the H2020 Ruggedised project



**5 founding principles**

# **CO-RESPONSE-ABILITY**

Taking responsibility together  
Based on equality, honesty, choice and sustainability



# CO-RESPONSE-ABILITY - EXAMPLE

## RWS CRISPR Kit

Part of Maarten Smith's PhD

Eindhoven University of Technology, in collaboration with Rijkswaterstaat

Photo: Maarten Smith

Hummels, C. C. M., van der Zwan, S., Smith, M. L. & Bruineberg, J., 19 Apr 2021, (E-pub ahead of print) In: Adaptive Behavior. 4 p.

Smith, M. L., van der Zwan, S., Bruineberg, J., Levy, P. D. & Hummels, C. C. M., 14 Feb 2021, TEI '21: Proceedings of the Fifteenth International Conference on Tangible, Embedded, and Embodied Interaction. Wimmer, R. (ed.). New York, NY: Association for Computing Machinery, Inc, 9 p. 20





5 founding principles

# CODEVELOPMENT

Learning and inventing a common game  
Iterative practices of learning, co-creating and researching





5 founding principles

# CODEVELOPMENT

Learning and inventing a common game  
Iterative practices of learning, co-creating and researching



# CODEVELOPMENT - EXAMPLE

[X]Changing Perspectives  
Philémonne Jaasma  
Eindhoven University of Technology, in collaboration with RISE

Photo: Bart van Overbeeke



RISE



# CODEVELOPMENT - EXAMPLE

[X]Changing Perspectives  
Philémonne Jaasma  
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Photo: Bart van Overbeeke



RISE





# LAYERS OF TRANSFORMATION



Trotto, A., Hummels, C., Levy, P., Peeters, J., van der Veen, R., Yoo, D., Johansson M., Johansson, M., Smith, M., van der Zwan, S. (2021)

# LAYERS OF TRANSFORMATION





co-develop

practices

aesthetics

transforming

ethics: co-response-ability

lenses

situatedness

paradigm shifts

**THANK YOU**

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