

DESIGN FOR THE POSTHUMAN ERA

Human and nonhuman agency in technology design

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University Wide Arts Studies

1. Introduction
2. Human agency
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4. Approaches to agency in technology design
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1. Introduction

A black robotic vacuum cleaner is shown on a wooden floor, surrounded by small white and brown debris. In the background, a person's white sneakers are visible. The word "AGENCY" is overlaid in white text on a black rectangular background.

AGENCY

“The capacity of an actor to act in a given environment”



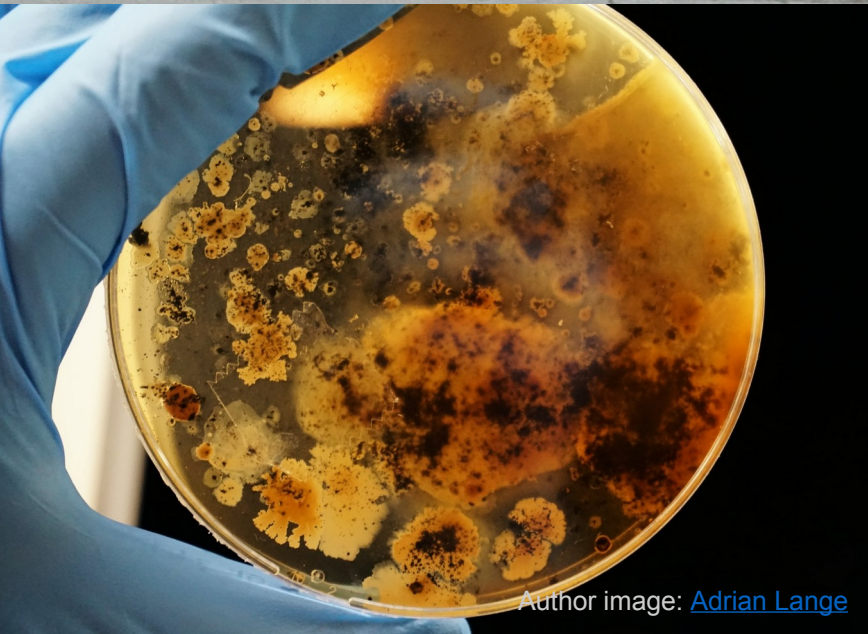
Author image: [Nathan Dumlao](#)



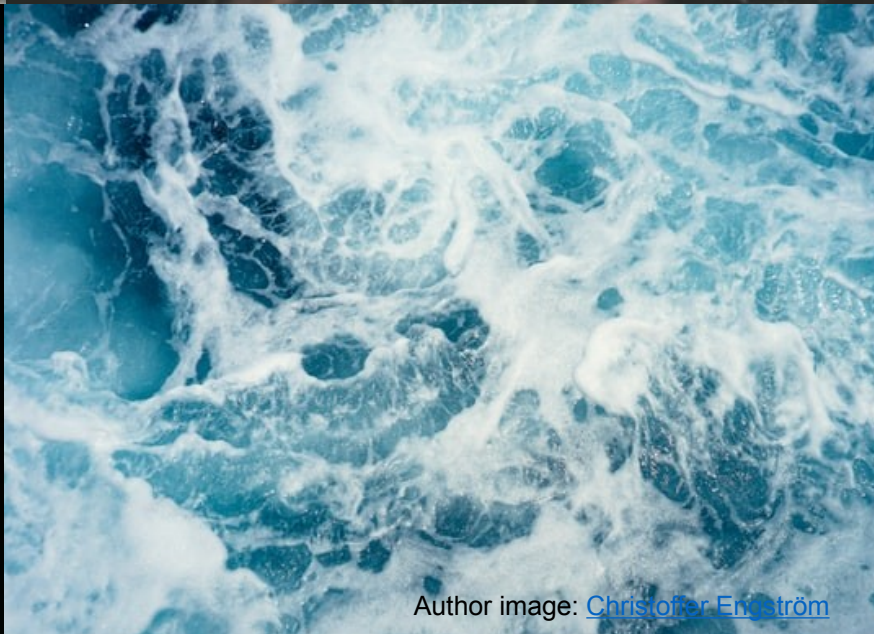
Author image: [Markus Spiske](#)



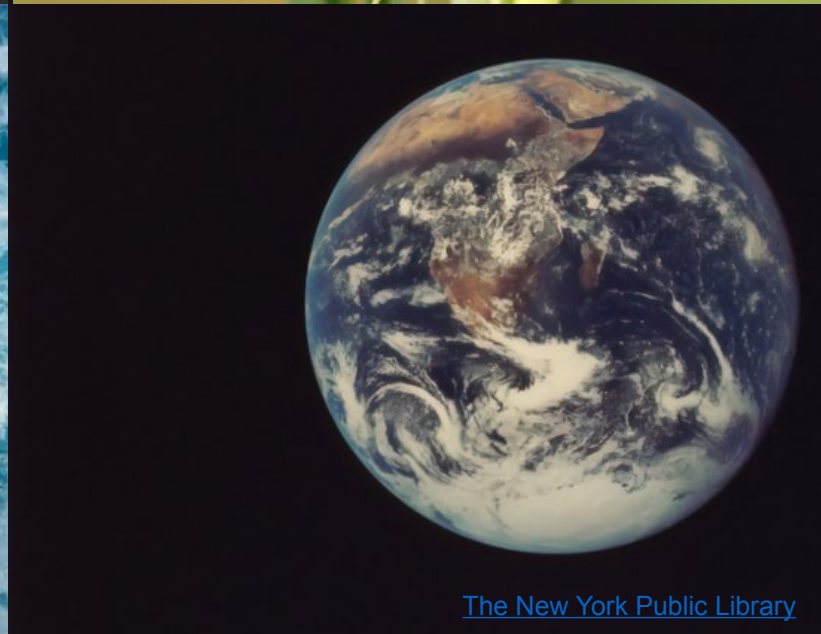
Author image: [Sue Thomas](#)



Author image: [Adrian Lange](#)



Author image: [Christoffer Engström](#)



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2. Human agency

INDIVIDUAL PROPERTY

Atomistic view of agency

GROUP PROPERTY

Agency beyond the intermental,
social or interactional processes,
also tied to a sociocultural milieu

2. Human agency

Do humans have free will?

2. Human agency



Free will

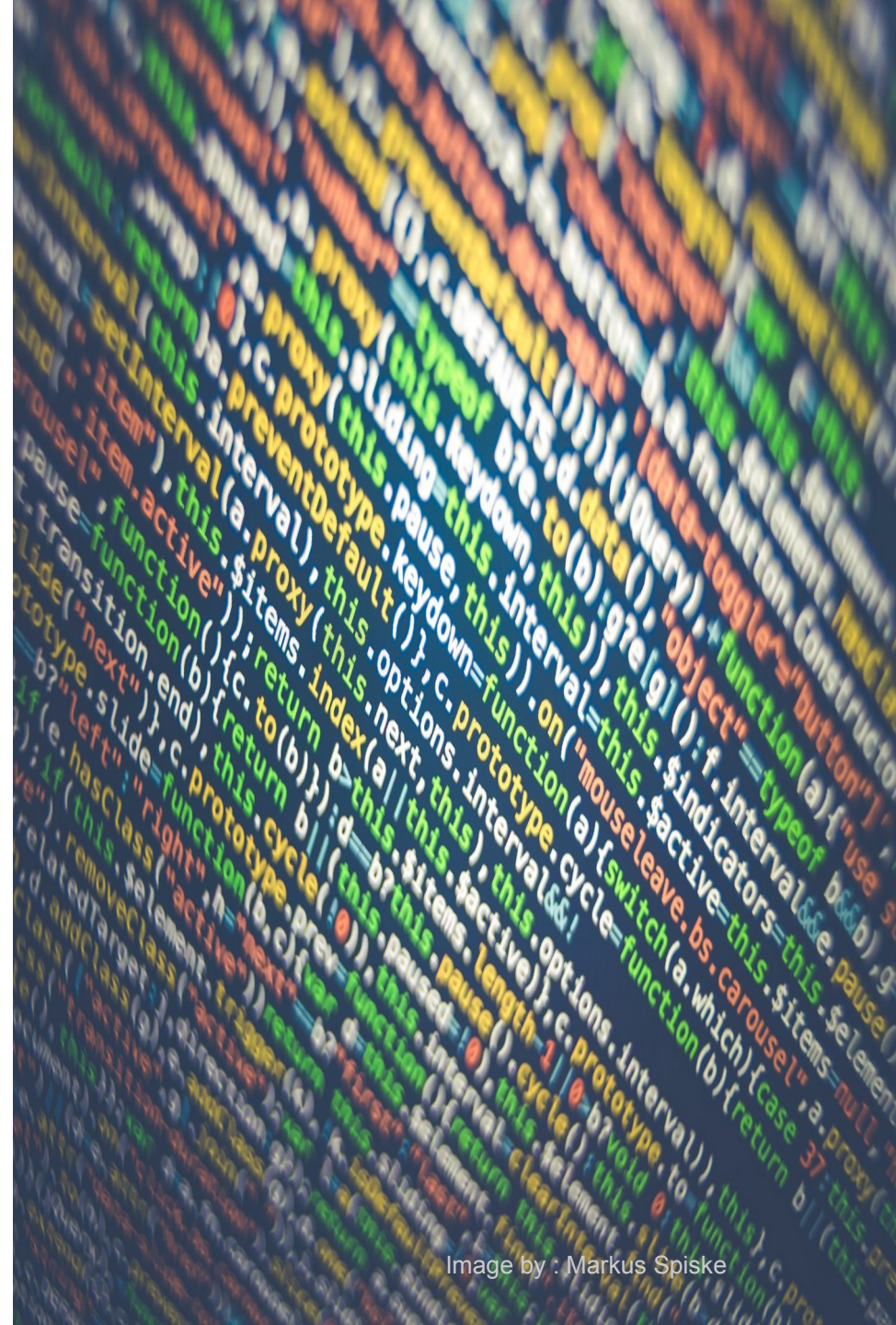
Responsibility

3. Mediated agency

Human action mediated by tools (Vygostki):

- Technical tools
- Psychological tools

Semiotic mediation: Mediational means alters the entire flow and structure of mental functions.



3. Mediated agency

Technical Mediation

“Artifacts are not neutral intermediaries, but **actively co-shape** people’s being in the world: their perceptions, experience and existence”

Verbeek, 2005

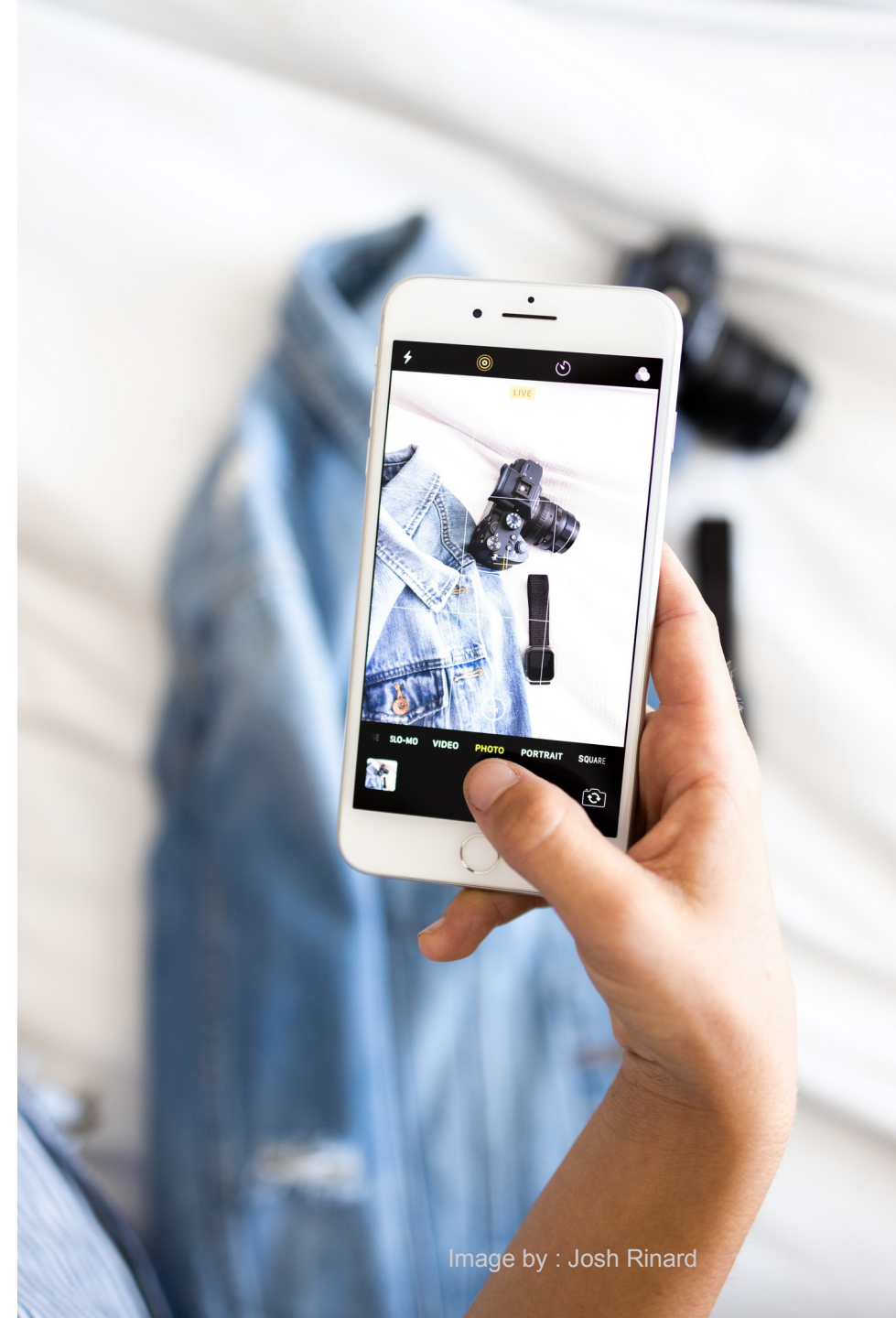


Image by : Josh Rinard

3. Nonhuman agency

From who acts, to what acts

“The problem of agency becomes even more complex if we also consider the possibility of nonhuman agency. **Knowledge and methods, technological systems and artifacts, standards and regulations** – they all act or at least enable the action of others.”

Harbers, 2005

3. Nonhuman agency

Paradigm shift

- Revalorisation of the material/ the socio-material.
- Co-constitution between humans and nonhumans.

3. Nonhuman agency

Actor Network Theory (ANT)

Theoretical and methodological approach to social theory for explaining the very process by which society is constantly reconfigured.

Agency as distributed, arising in networks rather than in individualized subjectivities of conscious human actors.

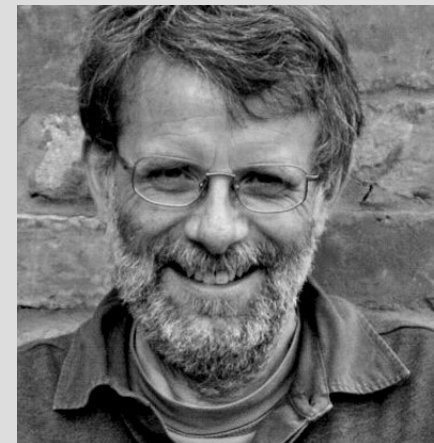
Adscribes agency to nonhuman entities.



Bruno Latour
(1947 -)
France
Philosophy,
Anthropoly,
Sociology



Michel Callon
(1945 -)
France
Sociology



John Law
(1945 -)
France
Sociology

3. Nonhuman agency

Object Oriented Ontology (OOO)

Object-oriented ontology places things at the center of the study of existence. From this approach, nothing has special status, everything exists equally.

Adscribes agency to nonhuman entities.

Rejection of anthropocentrism



Graham Harman
(1968 -)
USA
Philosophy



Levi Bryant
USA
Philosophy



Ian Bogost
(1976 -)
USA
Literature, Media
& Communication
Interactive
computing

3. Nonhuman agency

New Materialisms

The **material turn** as a response to the linguistic turn and social constructionism.

Matter as an **active force** that is affected by, but that also **co-shapes** social worlds and expression, human life and experience.

Focus on **transformation** and **becoming**.

Rejection of anthropocentrism.



Karen Barad
(1956 -)
USA
Philosophy,
Physics,



Rossi Braidotti
(1954 -)
Italy
Philosophy



Jane Bennett
(1957 -)
USA
Political Theory
Philosophy

4. Approaches to agency in Technology design

Human-centred design

“Human-centred design is an approach to interactive systems development that aims to make systems **usable** and **useful** by **focusing on the users**, their needs and requirements, and by applying human factors/ergonomics, and usability knowledge and techniques.”

ISO 9241-210:2019(E)

“If humans are at the “center,” then things like environmental sustainability, social justice, care for ourselves, economic equality... most political aspects of design, cannot be adequately considered.”

Wendt, 2017

4. Approaches to agency in Technology design

More-than-human design

“a more-than-(one)-human centered design will have to be based on how to manage, present, and negotiate many different relations in parallel—without a particular one being privileged above all others.”

Giaccardi & Redström, 2020



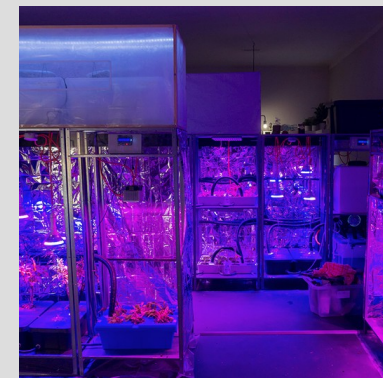
The Phenology clock

Tega Brain
Ecology, data systems, infrastructure



Nature smart cities. Urban bat life.

Cities, Ecology, sensor systems,



Mitigation of shock

Superflux
Design Futures, Climate change

5. Final remarks

Posthumanist approach to agency

1. Agentic capacity is not limited to humans, or even animate bodies

Agentic capacity as the ability to “make a difference, produce effects and affects, alter the course of events by their action” (Coole, 2013).



5. Final remarks

Posthumanist approach to agency

2. Agency is distributed, porous, and relational, existing not in subjects but in assemblages.



5. Final remarks

Posthumanist approach to agency

3. A non-anthropocentric reconceptualisation of agency does not evacuate human responsibility.



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