



TRANSITION DESIGN

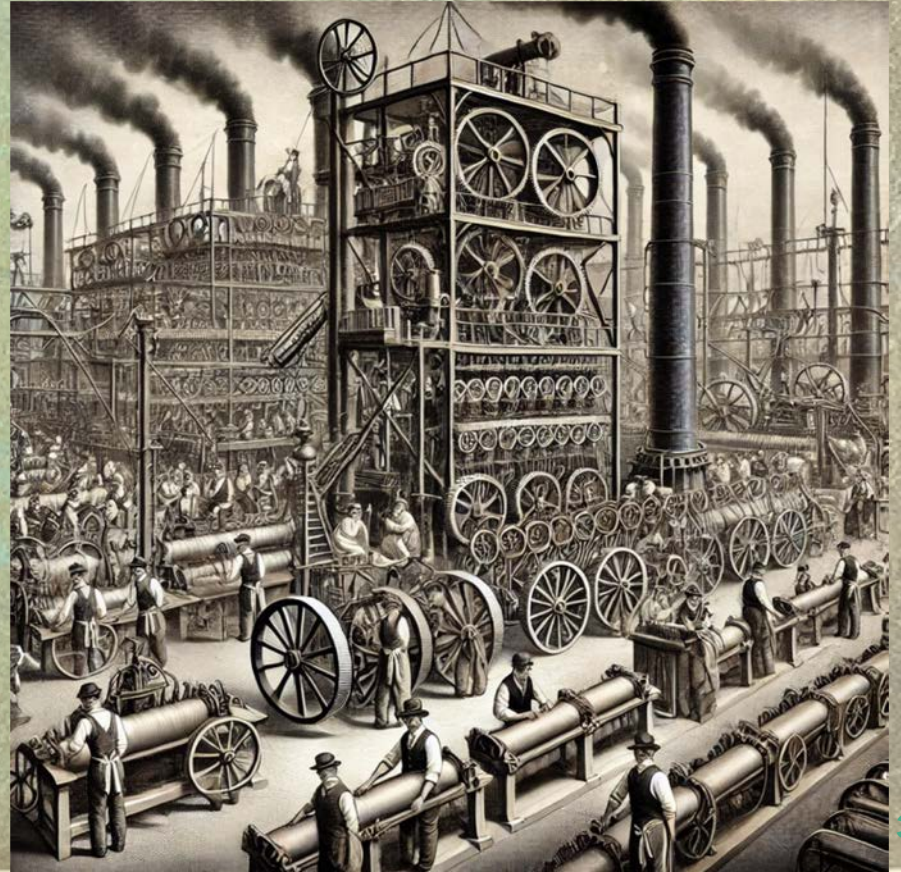
Generated by DALL-E, OpenAI Prompt: contrast the individual benefits and things and the planetary health

DESIGN

A super brief history of development as a
practice and as a research field



Moving from crafts to assembly lines, from maker to planner



From the first paid professional designs
to mass produced goods

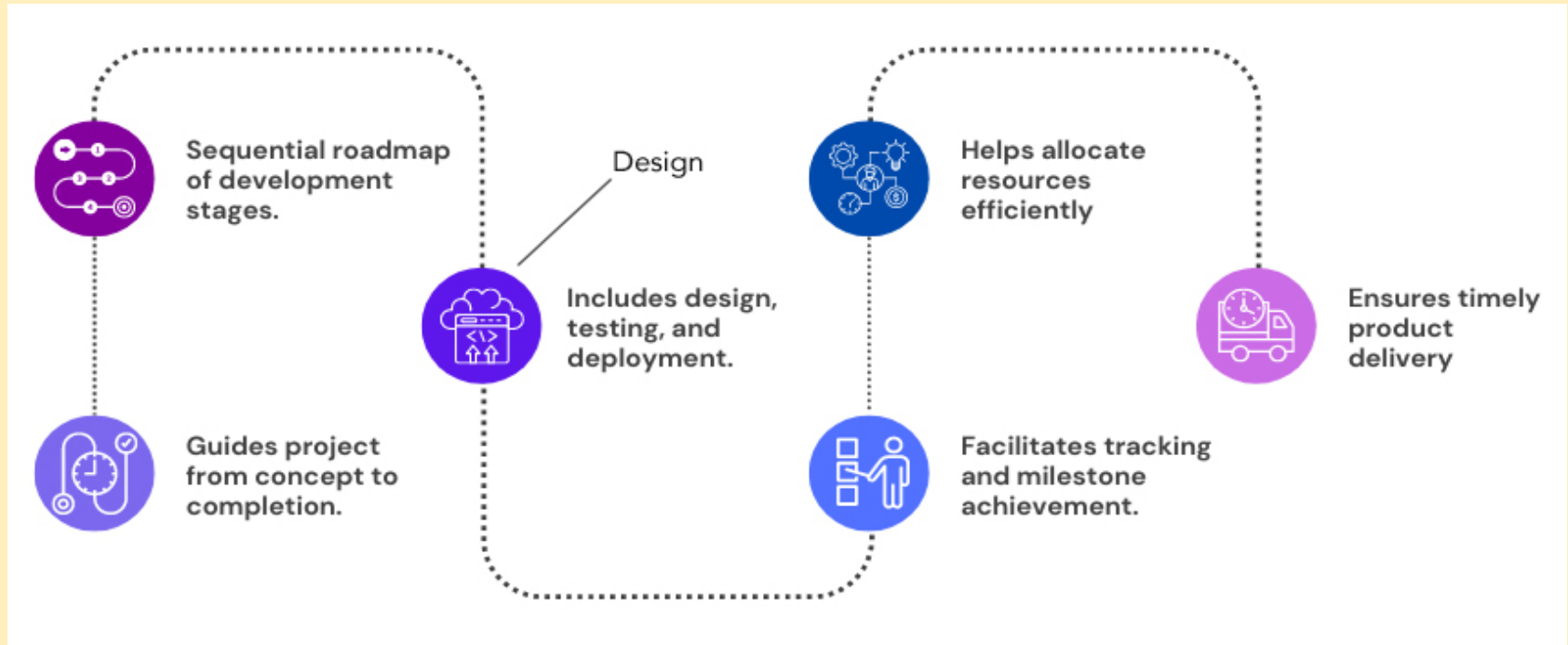
product design



Sugar bowl, Elkington, electroplated nickel silver, designed Christopher Dresser 1885, private collection



But then design becomes a led in the production



Design Research

Ulm School of Design (1953) - a well known school emphasizing systemic approach to design.

In the 1960s, Bruce Archer, Christopher Alexander, and Herbert Simon formalized design as a research discipline.

The Design Methods Movement (1960s-70s) introduced scientific and structured approaches to design.

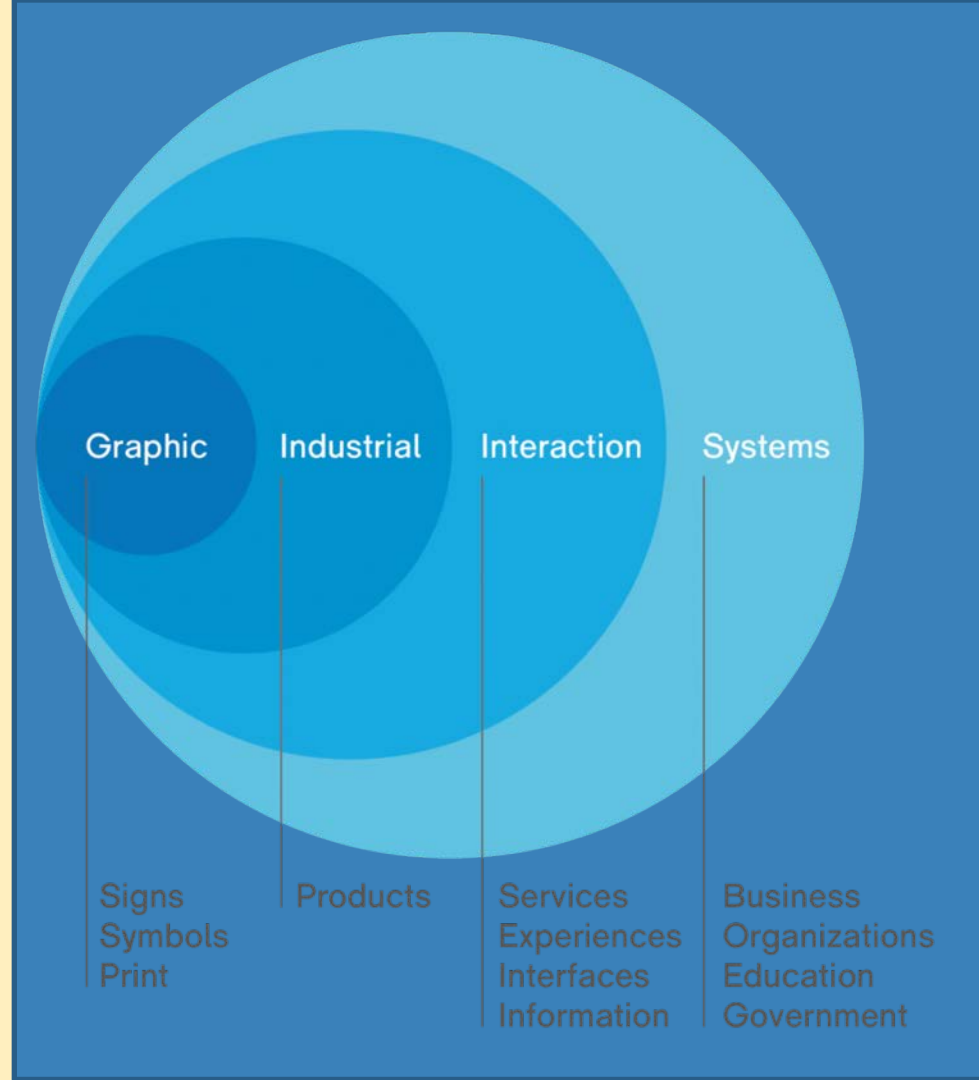
Many were part of this movement: Horst Rittel, Donald Schön, John Chris Jones, Nigel Cross among others.

The field was well established by the 80s. Not so old!

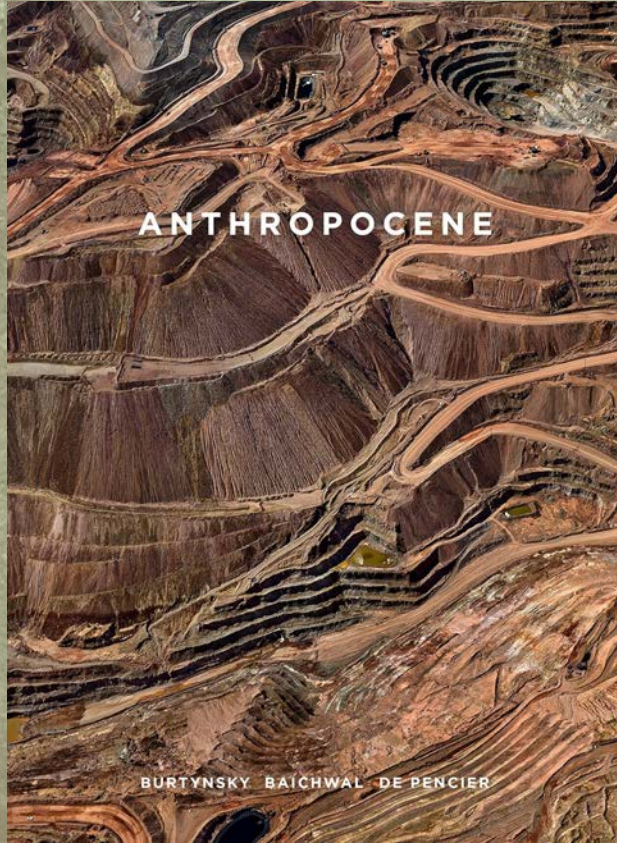
Four orders of design

Buchanan, 1992

One of the best known models that describe design and its evolution



Anthropocene



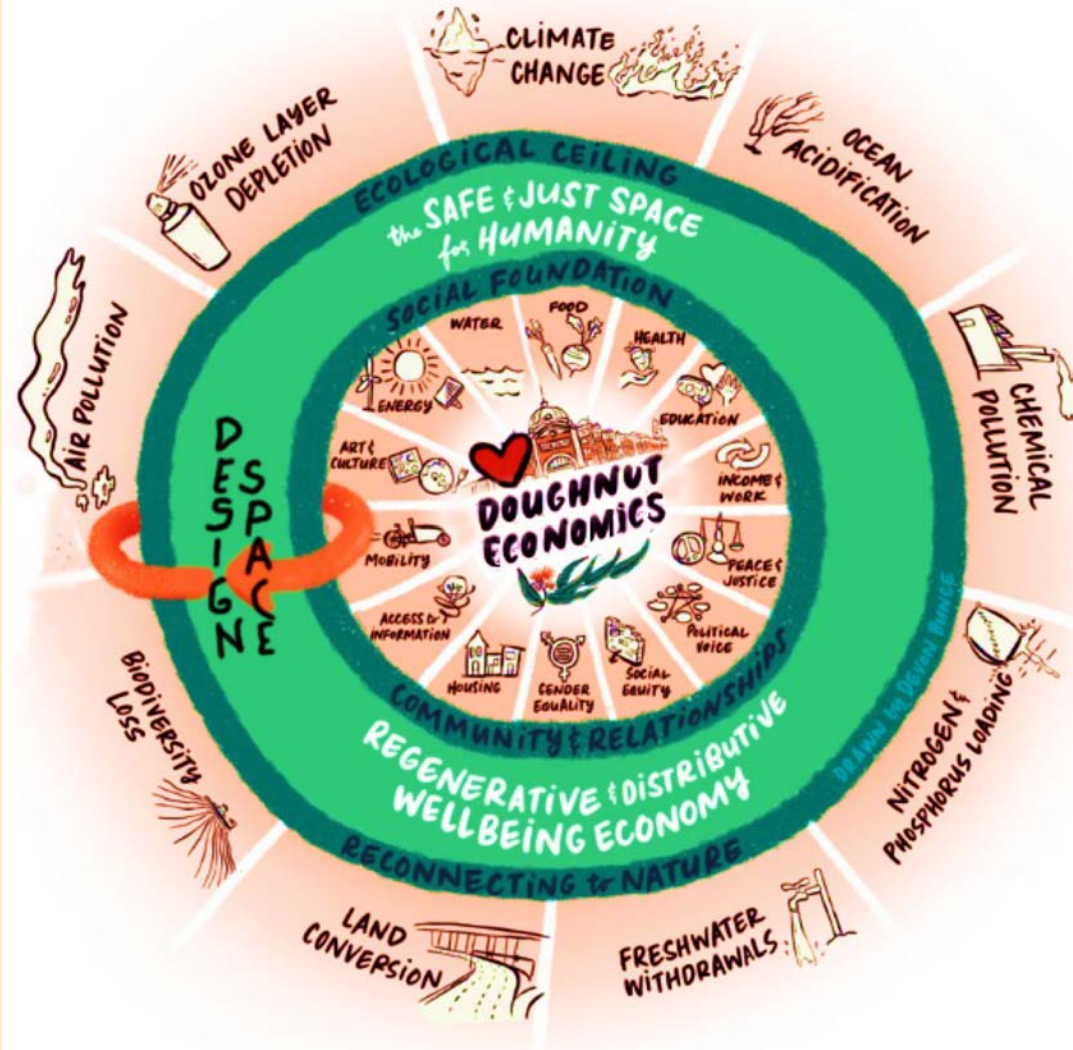
Desired Design Space

Doughnut Economics
(Kate Raworth, 2017)

Desired Design Space - within the doughnut, and between ecological ceiling and social foundation.

All design should be sustainable in that it at least considers **environmental, social, and economic sustainability** in its endeavors.

Image adapted from the Digital Storyteller



Stakeholder involvement - mapping problems

Finding areas of alignment

Developing compelling future visions

Using large spacio-temporal context

Thinking in terms of multiple interventions

Re-inforcing emergence, self-organization

Work within a doughnut

Everyday lifestyles - a base for change

Cosmopolitan localizam

Multiple levels of scale (also time-horizons)

Amplify emergent/grassroot solutions

Ecologies with both new and existing solutions

Genuine needs

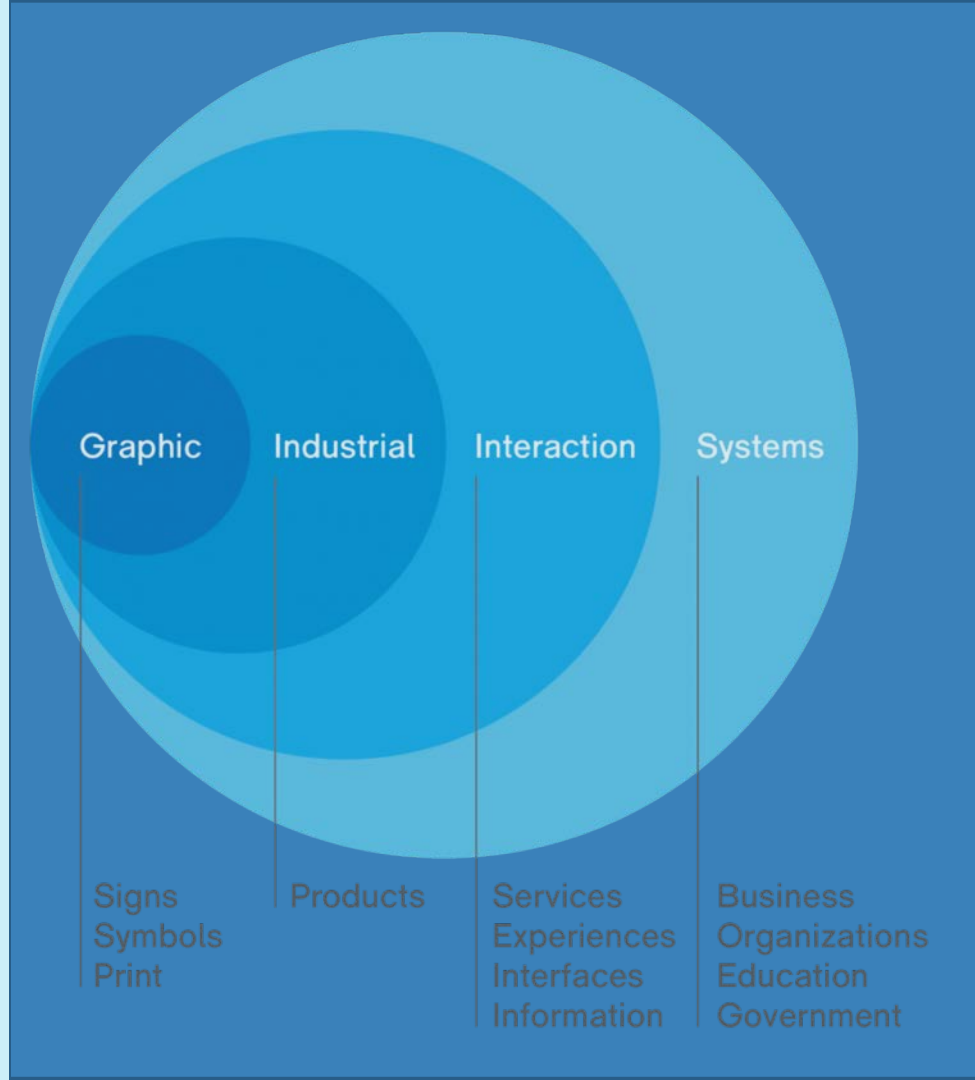
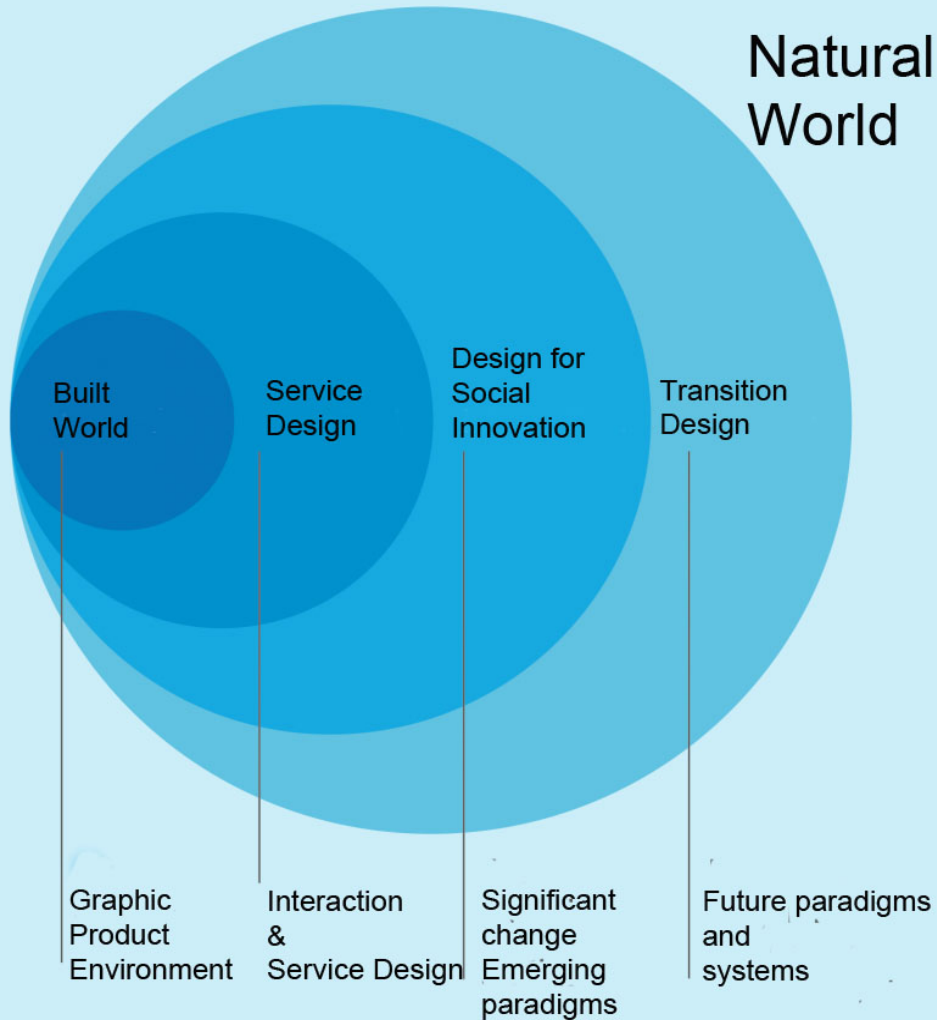
Mindset and posture of designers central

Re-integration and re-contextualization of knowledge



Based upon Rittel and Webber (1973)

Natural World



Transition Design is a new area of design practice, study, and research that advocates design-led societal transition toward more sustainable futures

Escobar, Arturo. Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds. Durham: Duke University Press Books, 2018.

Irwin, Terry, Gideon Kossoff, Cameron Tonkinwise, and Peter Scupelli. "Transition Design Manifesto", 2015.

Yee, Joyce, Emma Jefferies, Lauren Tan, and Tim Brown. Design Transitions: Inspiring Stories. Global Viewpoints. How Design Is Changing. 1st edition. Amsterdam: BIS Publishers, 2013.

*If societal transitions should be
design-led, design has to be
responsible!*

DESIGNLAB

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MAKING IMPACT WITH RESPONSIBLE DESIGN

As technologies integrate with our physical world, take autonomous decisions, and influence the ways we understand the world and ourselves, we need to keep a sharp eye on ethical and societal questions. This is why DesignLab chose Responsible Design as one of its three focus areas: we need to integrate societal needs and concerns in technological developments.

MAKING IMPACT WITH RESPONSIBLE DESIGN

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Responsible Design is about how we encourage our students to act responsibly in a world that creates new problems and solutions

- Peter-Paul Verbeek, professor and scientific co-director of DesignLab

CONNECTING SOCIETY AND TECHNOLOGY

Instead of pushing technology into society, Responsible Design encourages technologies from the perspective of societal goals, challenges

DRS 2022

Bilbao 25th June — 3rd July



Towards responsible interaction design education

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Abstract: This paper addresses the need and opportunities to align courses in interaction design with ideas behind responsible research, design, and innovation by focusing on values, responsibility, and longer-term and more sustainable perspectives. Rather than discussing the design of new courses leveraging a specific perspective, e.g., sustainable interaction design, we suggest ongoing iterative transformations of an existing course aiming to include multiple relevant perspectives toward responsible education in interaction design. The course re-design utilizes research through design approach exploring how to position responsibility, values, and ontological perspectives when teaching interaction design, using educational components that we identified as a design material. The paper contributes by 1) leveraging the importance of responsible education and 2) a method to 'steer' interaction design courses toward more responsible education in interaction and related design fields concerned with digital artefacts and interactions with technology.

Keywords: responsible research and innovation, responsible education, course re-design, interaction design

Responsible Education

PURPOSE

VALUES

METHODS

RESEARCH

PARTNERSHIP

DIALOGUE

Principles of Responsible EDUCATION

UN initiative, PRME

Originally related to management education,
but the principles clearly apply broader.

Diverse Value-Based, Sustainable Design Directions

Responsible Design Education (Boenhart, DRS workshop 2022)

Sustainable Interaction Design (Blevis, 2007, multiple)

Design for Equity (S. Bardzell & feminist HCI, 2010)

Value Driven Interaction Design (Iversen, 2014)

Justice and Social Responsibility (O. Bates, 2018)

Transdisciplinary HCI (Blevis, Koskinen and Bødker, 2021)

Entanglement (Frauenberger, 2019)

More-than-human Design, Nomadic practices (Wakkary, 2021)

Design for Pluriverse (Escobar, 2018)...

This transition [toward a networked and sustainable society], is a broad, complex social learning process, by which everything that belongs to the mainstream way of thinking and behaving in the old world will have to be reinvented: from everyday life to the very idea of well-being.

Manzini, Ezio. *Design, When Everybody Designs: An Introduction to Design for Social Innovation*. MIT press, 2015.

Design and transitions towards sustainment

Past: design was about making things that solved everyday problems – things that fill up our homes and workplaces.

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Recent past: design can and must be more than making more things. Practice-derived discourses in these post-thing-centered ways of designing emerged

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Present: a clear and comprehensive account of designing in complicated social situations, including processes, precedents and theoretical frames that amount to a robust alternative to conventional product-dominated designing

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Present: a clear and comprehensive account of designing in complicated social situations, including processes, precedents and theoretical frames that amount to a robust alternative to conventional product-dominated designing

Future: design is about the mindset, integrity, integration (of different fields and knowledge), mechanisms of change that lead towards sustainment – leading to designing the futures that we want

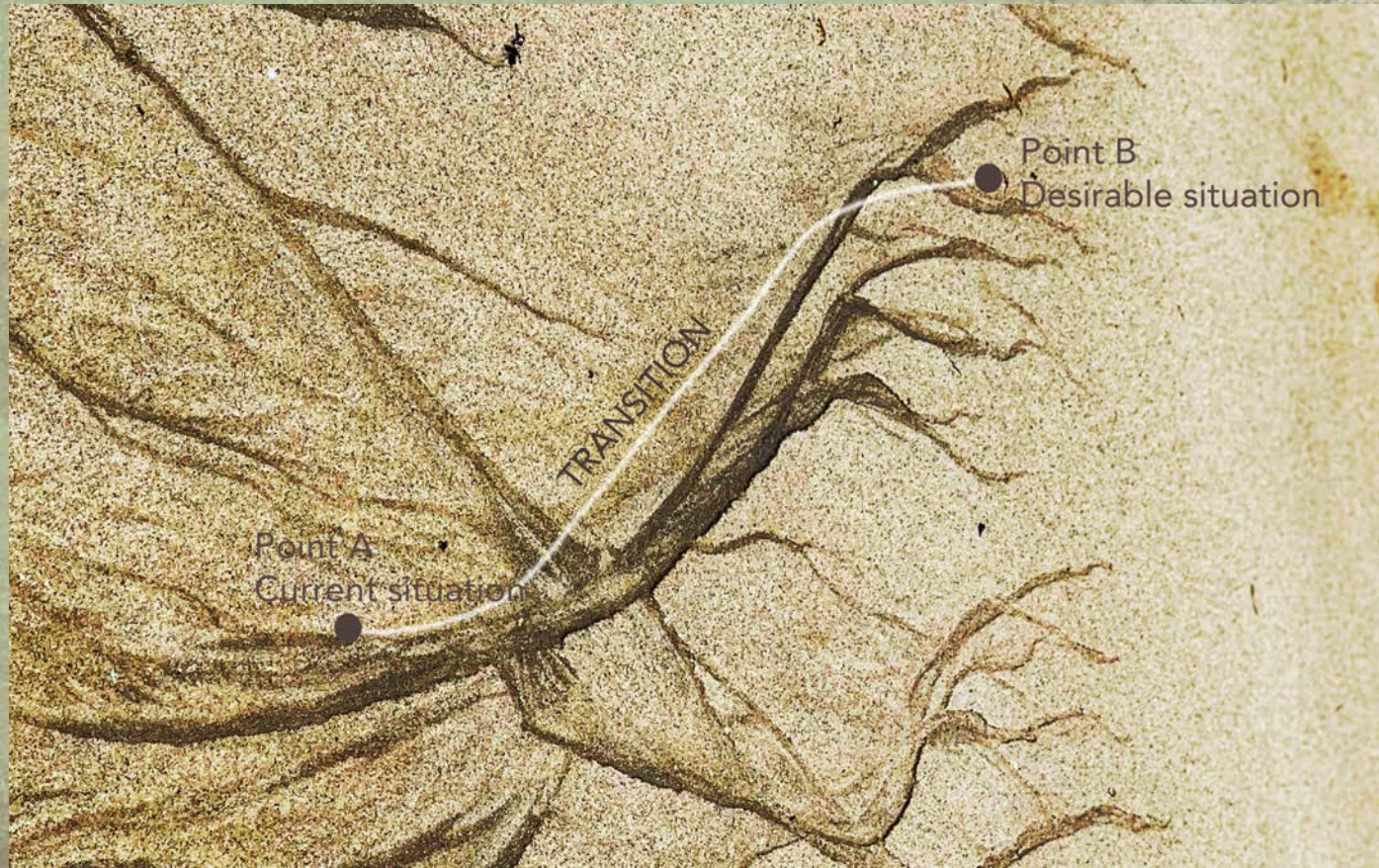
[a]

affirmative
problem solving
design as process
provides answers
in the service of industry
for how the world is
science fiction
futures
fictional functions
change the world to suit us
narratives of production
anti-art
research for design
applications
design for production
fun
concept design
consumer
user
training
makes us buy
innovation
ergonomics

[b]

critical
problem finding
design as medium
asks questions
in the service of society
for how the world could be
social fiction
parallel worlds
functional fictions
change us to suit the world
narratives of consumption
applied art
research through design
implications
design for debate
satire
conceptual design
citizen
person
education
makes us think
provocation
rhetoric

Transition pathways into futures



Framework

FOUR AREAS OF CO-EVOLVING KNOWLEDGE & SKILLSETS

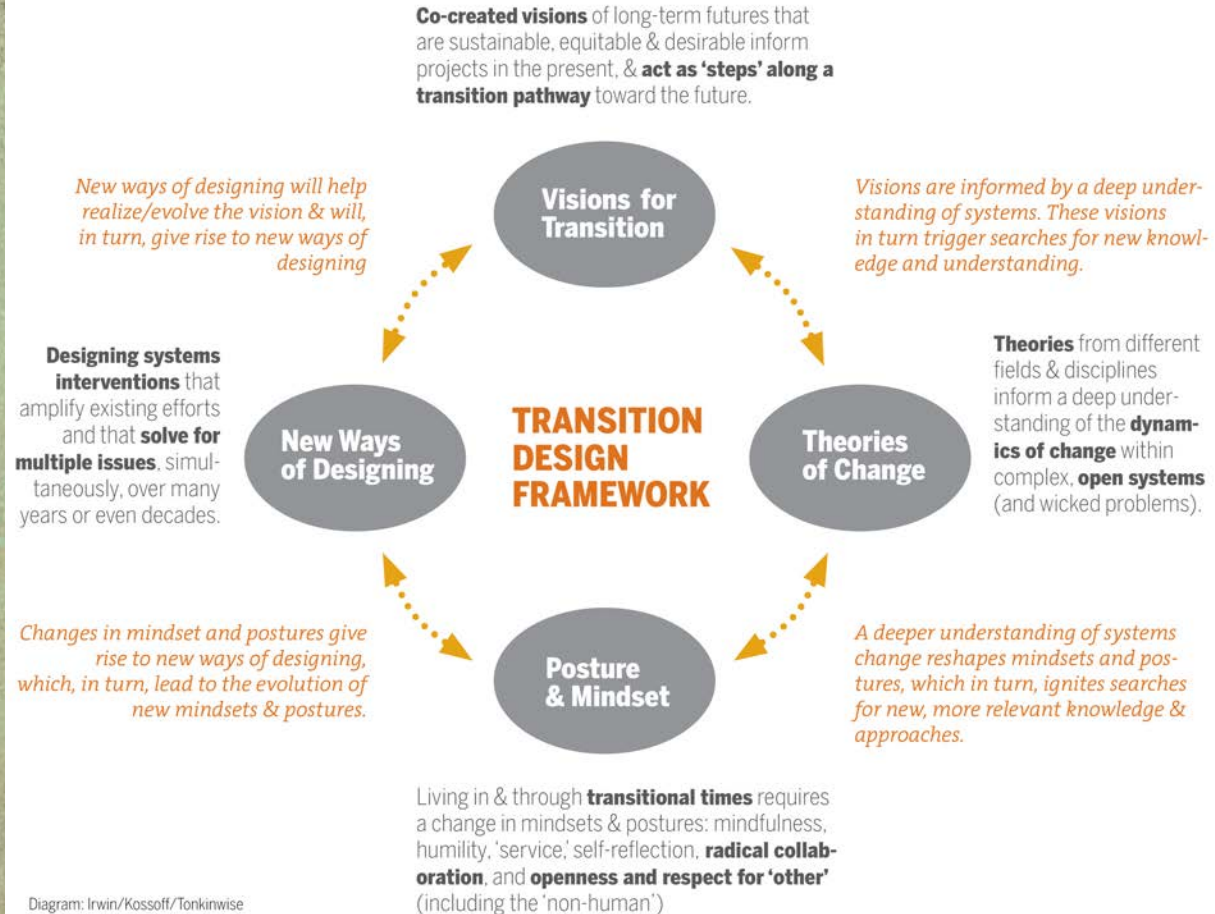


Diagram: Irwin/Kossoff/Tonkinwise

The nature of the mindset, posture

It is about designers' values and attitudes

Often needed characteristics: Being present, being open and accepting, working with emergence, not looking for short but long-term benefits, being reflective and willing to learn, also by failing.

"Your beliefs become your thoughts,
your thoughts become your words,
your words become your actions,
your actions become your habits,
your habits become your values,
your values become your destiny."

– Mahatma Gandhi



[The nature of mindset](http://benefitmindset.com)

A good stance and posture
Reflect

A proper state of mind

Morihei Ueshiba

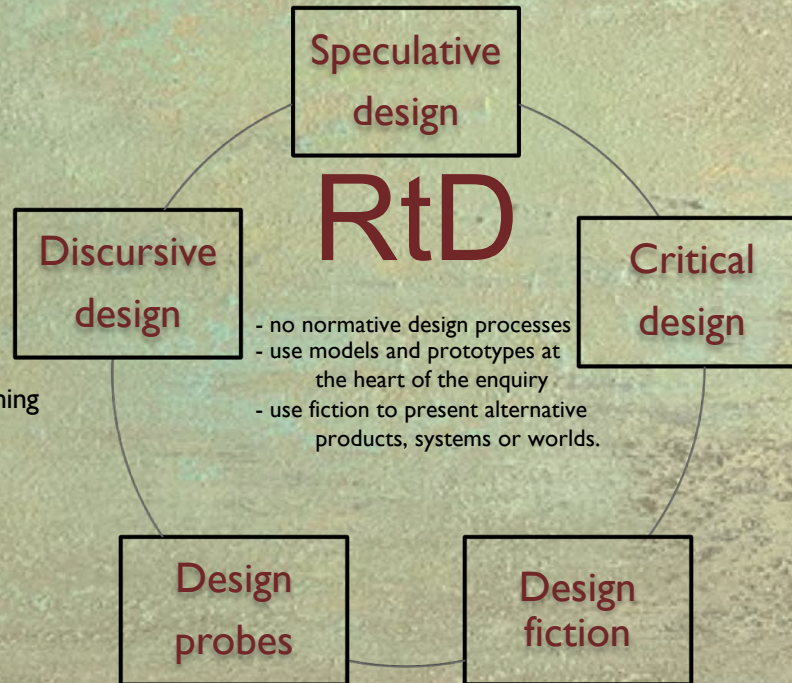


Confident/arrogant



Shy/insecure

Visions for transitions – often critical and speculative design - a way of looking at design and imagining its possibilities



Other relatives

Activism
Cautionary Tales
Conceptual Design
Contestable Futures
Interrogative Design
Radical Design
Adversarial Design
Satire

The biggest misconceptions?

That it is negative and anti-everything.
That it is only commentary and cannot change anything
That it is jokey
That it is not concerned with aesthetics
That it is against mass-production
That it is pessimistic
That it is not real
That it is art

NEW WAYS

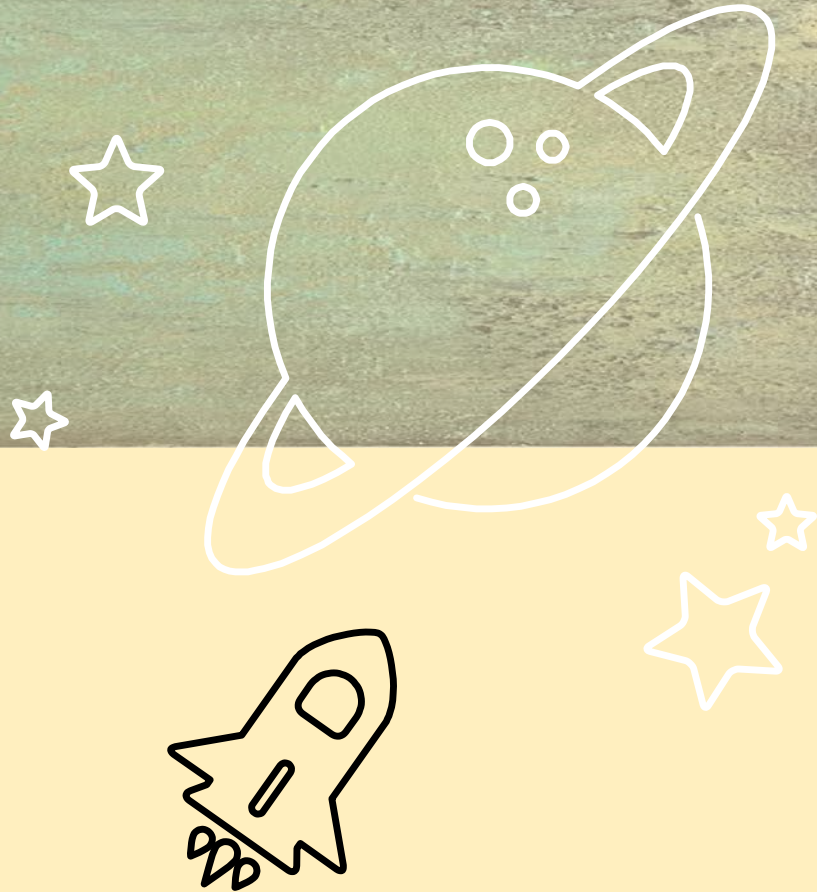
- new processes?

Bigger picture

Longer time

Desirable vision

Future-oriented



NEW WAYS OF DESIGNING

Re-conceiving

To every design, there are predecessors from which it evolved, but it was worked with to the extent that it can be called 'new'.

Scaling

Scale up/down for impact

Connecting/Integrating

This is akin to seeding and growing an 'ecosystem' in which complementary and symbiotic relationships between entities are part of the act of designing.

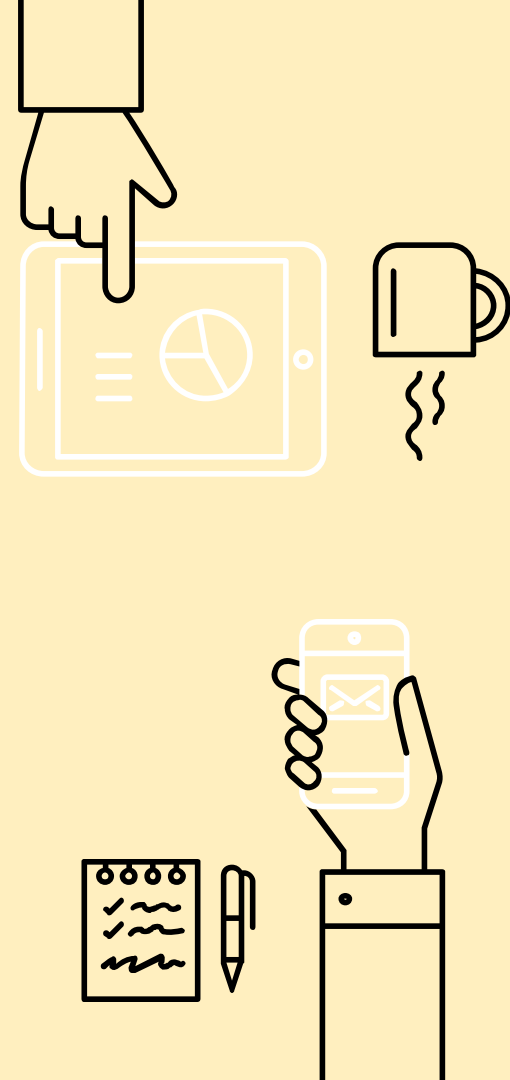
Protecting/Restoring

Small interventions connected to the vision

Amplifying/leveraging

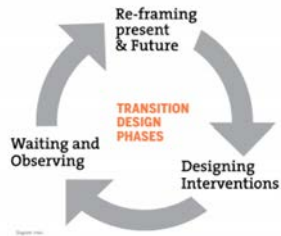
Find the "buds and shoots of new potentialities".

Look for trends and similar or complementary projects that can enhance yours



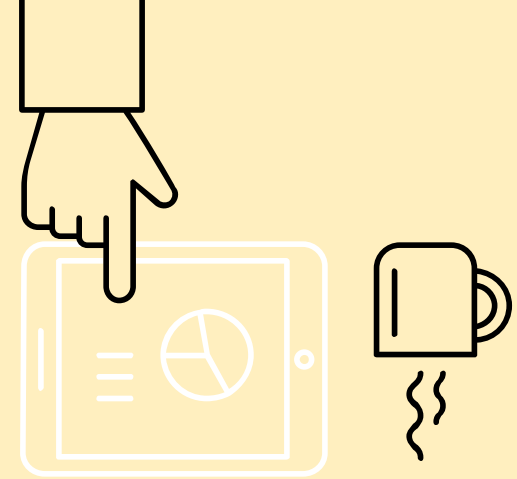
But – in course settings, the situation is different

- ▶ No time to wait

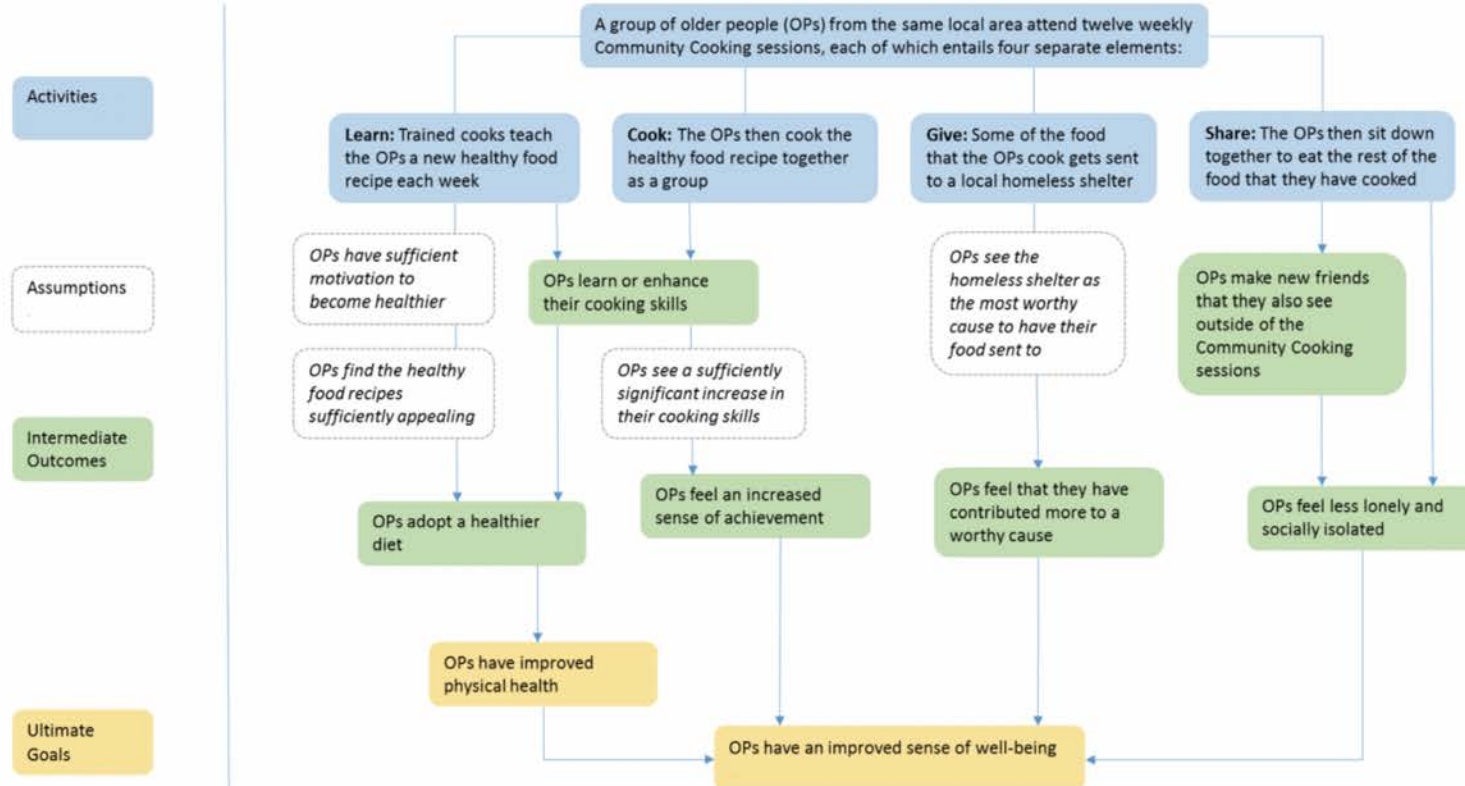


- ▶ Difficult to work at the systems level and include cross-sectional stakeholders

- ▶ Difficult to think in terms of many interventions
- ▶ But one should think in terms of programs with multiple projects rather than single-separate projects



Example Theory of Change – Community Cooking



Example of complex research domain -
systemic design related to democracy

DEMOCRACY
DESIGN



TECHNOLOGY

The values are central, both for democracy and design for democracy (and for transitions)

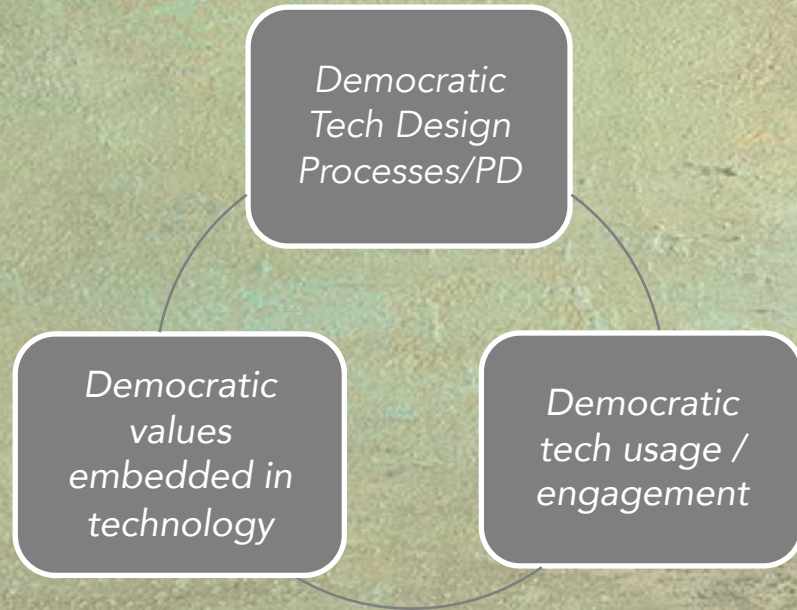
While the answer is not obvious, cultivationg values associated with democratic decission-making is relevant.

Those include

- Individual freedoms (including not to participate, e.g., voting)
- Participation
- Importance of collective decision-making
- Human rights
- Equality
- Tolerance
- Pluralism
- Transparency
- Accountability
- Trust
- Peaceful conflict resolution...

Participatory Democracy and Participatory Technology Design

Good or bad?
It can be both!

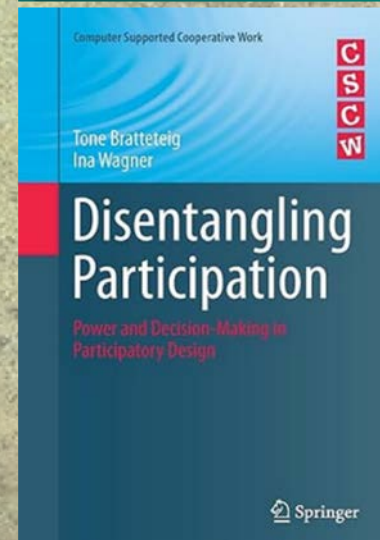


Previous work

Richly covers research on **relationship** between Democracy and Technology (e.g., Micheals, Sclove, Feenberg)

Participatory (technology) Design (PD) outlines a relationship between technology design - in the beginning, rooted in politics and a part of the Nordic model, multi-party parliamentary democracy - and democracy.

Some of the significant contributors: Ehn, Bødker, DiSalvo, Bratteteig, Sgueo and many others ...



Among the panoply of questions concerning technology that escape attention, perhaps the most important one involves how technology bears on democracy.

(Sclove, 1995, p. 8)

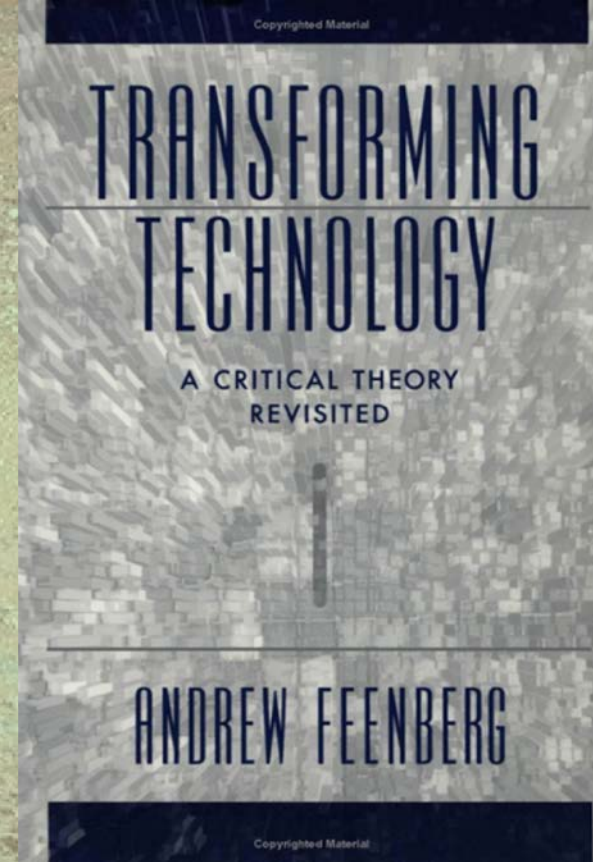
DEMOCRACY AND TECHNOLOGY



RICHARD E. SCLOVE

The degradation of labor,
education, and environment is
rooted not in technology per se
but in antidemocratic values that
govern technological development

(Feenberg, 2002, p. 3)



Revisiting: Democracy, Technology, and Design Experiments

- Technology plays a dual role in democracy: enabling and constraining participation.
- Design experiments provide a space to test democratic engagement in practice.

Focus on participatory, adversarial, and commoning approaches to democratic design.

Technology and Democracy: A Complex Relationship

- Technology can enhance civic participation (open data, civic tech).
- It can also undermine democracy (misinformation, surveillance, polarization).
- How can design mediate this relationship?

What Are Democratic Design Experiments?

- Short-term or long-term initiatives to test democratic practices.
- Engage communities in participatory decision-making.
- Examples: participatory urban planning, digital platforms for deliberation.

Methodological Approaches

- Co-design workshops.
- Speculative design and prototyping.
- Stakeholder engagement strategies.

Comparing Perspectives in Democratic Design

- Binder et al.: Collaborative, co-creative, long-term involvement.
- DiSalvo: Agonistic, contestational, critical design.
- Points of convergence and divergence.

Approach	Binder et al. (Participatory)	DiSalvo (Adversarial)
Focus	Collective sense-making, co-design	Contestation, debate, agonism
Methodology	Workshops, prototyping	Critical artifacts, speculative design
Outcome	Shared community visions	Political awareness, counter-narratives

The Role of Prototypes in Democratic Design

- Prototyping as a democratic tool.
- Prototypes as interventions in public discourse.

Design as Commoning

- Design as a means to create and sustain commons.
- Examples of commoning practices.
- Long-term sustainability and governance.

Design and Power

- Who gets to design?
- Power dynamics in participatory design.
- Strategies for equitable engagement.

Challenges in Democratic Design Experiments

- Risks of co-option.
- Balancing inclusivity and efficiency.
- Measuring impact

Future Directions in Democratic Design

- Integrating emerging technologies.
- Expanding participatory design to new contexts.
- Strengthening democratic infrastructures.

The Role of Material Artifacts in Democratic Design

- Design objects can provoke debate and stimulate public imagination.
- Binder et al.: Artifacts as "things" that gather people around issues.
- DiSalvo: Artifacts that expose ideological conflicts (e.g., critical design).

Designing for Commoning

- How democratic design connects to the idea of commoning.
- Commoning as a practice that emerges through collective engagement with shared resources.
- Both Binder et al. and DiSalvo's approaches align with commoning as a bottom-up, participatory practice.

Case Study: The Malmö Living Lab (Binder et al.)

- A long-term participatory design initiative.
- Experimented with collaborative urban solutions.
- Used design experiments to engage citizens in civic innovation.

Case Study: The Urban Intervention Kit (DiSalvo)

- *A toolkit for citizens to create small-scale urban interventions.*
- *Encouraged everyday citizens to challenge dominant urban policies.*
- *Shows how design can create tools for democratic engagement and contestation.*

Implications for Design Research

- The need for more critical, politically engaged design practices.
- How can design researchers better support grassroots democratic initiatives?
- How do we balance participation and contestation in design?

Discussion Questions

- How can we ensure democratic design remains inclusive?
- What role should designers play in political engagement?
- How do we scale democratic design experiments?

Combining Democratic Experiments and Teaching-based Research

Two different project-based courses – RtD and TD

Course/topic	RtD	TD
2021	identify and amplify local sustainability (including social) initiatives and innovations through design	opportunities that grassroots design could offer in facilitating transitions toward a more sustainable society
2022	if and how the DIY paradigm offers opportunities to enhance the modifiability of technology, ultimately contributing to a more democratic and participatory approach to technology development	understanding how culture and cultural institutions could support sustainability transitions (environmental and social)
2023		the design for social innovation related to the democratisation of manufacturing, finances, or older adult care was considered. The main objectives were to encourage more democratic participation and foster inclusion

Methods

First, the method toolbox encompassed, among others:

- **Diverse mapping techniques** (e.g., Giga mapping (Sevaldson, 2011), Winterhouse Institute's Social Pathways, stakeholder relations mapping).
- **Visioning and futuring methods** (e.g., speculative scenarios, prototypes, The Thing from the Future, Cover Story, experiential futures, forecasting, foresight (The future is Ours), The Futures Wheel, imaginaries, backcasting, dark matter (Lockton & Candy, 2018)).
- **Theatre and movement-based methods** (e.g., bodystorming, roleplaying, stage-setting).
- **Methods to support participatory decision-making** (dialogue, debate, consensus, voting).
- **Methods to support understanding and creating theories of change** (e.g., Nesta - create a theory of change, Max Neef theory of needs visual tools, social practice theory toolkit).
- **Diverse card sets** for ideation and inspiration (e.g., The Beautiful Trouble, New Metaphors), self-reflection, mindset (e.g., With/Out modernity), impact assessment (e.g., Tarot Cards of Tech), methods to work with theories of change (e.g., behavioural economics cards), articulating visions (Narata storytelling cards), ethics (Maslow Mirrored).

Methods

Second, the workshop method called plurishop

The plurishop workshop method (RSD 23 paper with Junge, Stevens, and Gaver) featuring **multiple teams** working on **multiple inquiries**

Pre-plurishop (characteristic for this workshop format) is used toward:

Gaining Familiarity with the design domain and the methodological approach.

Finding Provisional Entry Points through participatory visioning and systemic design methods

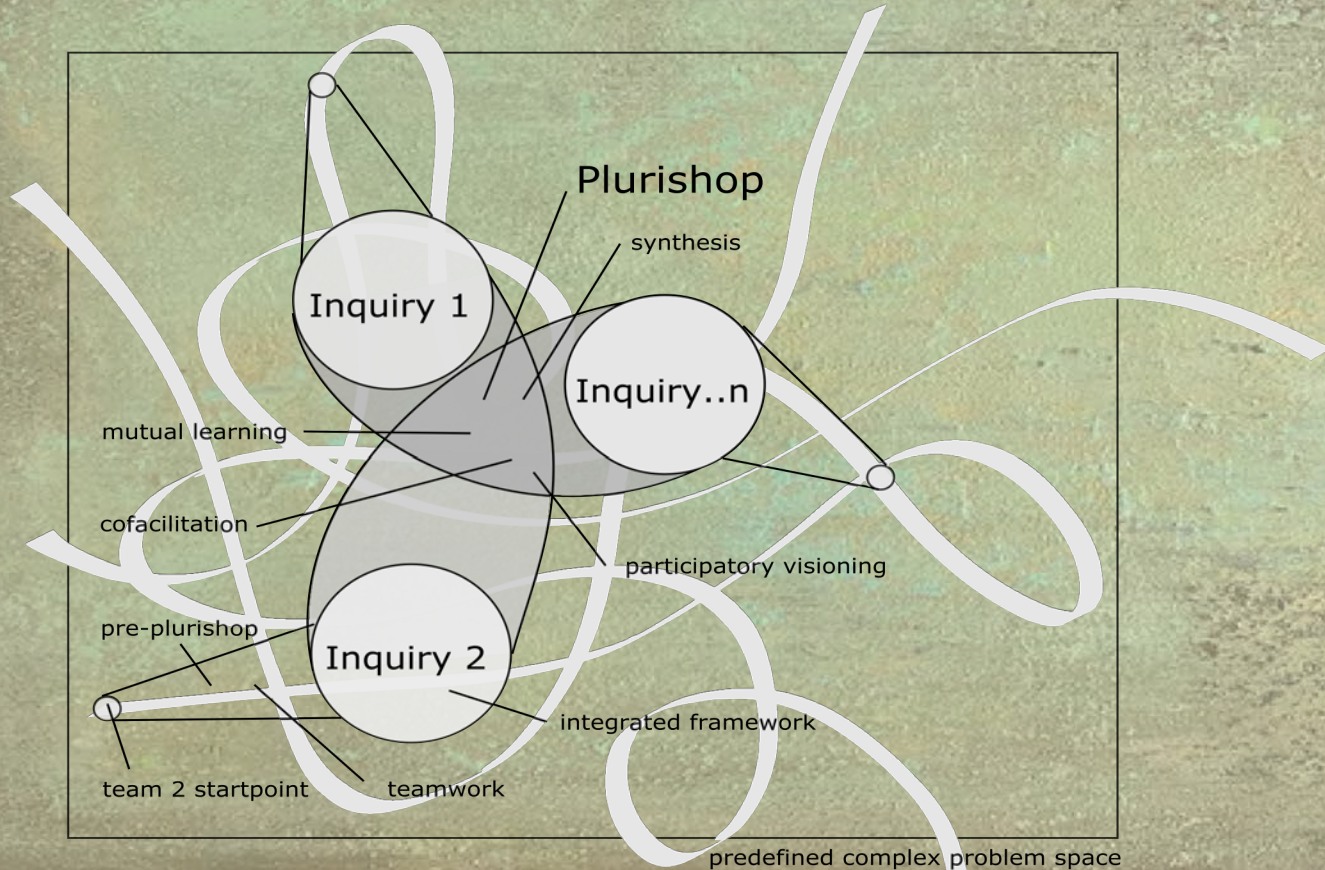
Learning and Adopting a Method

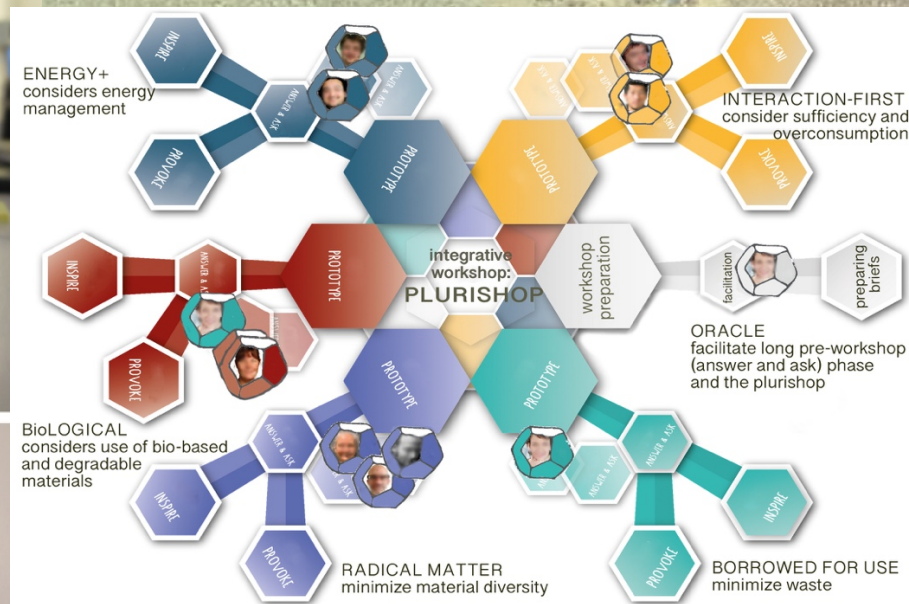
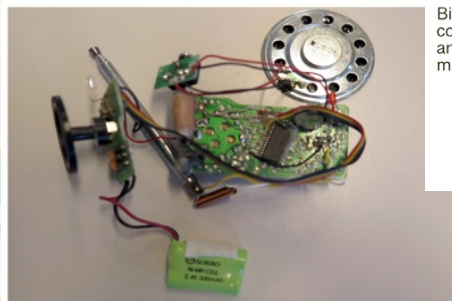
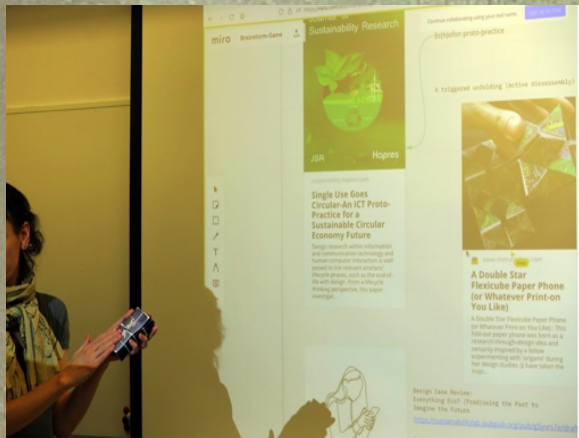
Plurishop (integration and synthesis)

Integrates different perspectives gained through multiple inquiries and entry points

Synthesizes the prototypes and ideas discussed for each direction

Plurishop conceptualizing an alternative to something

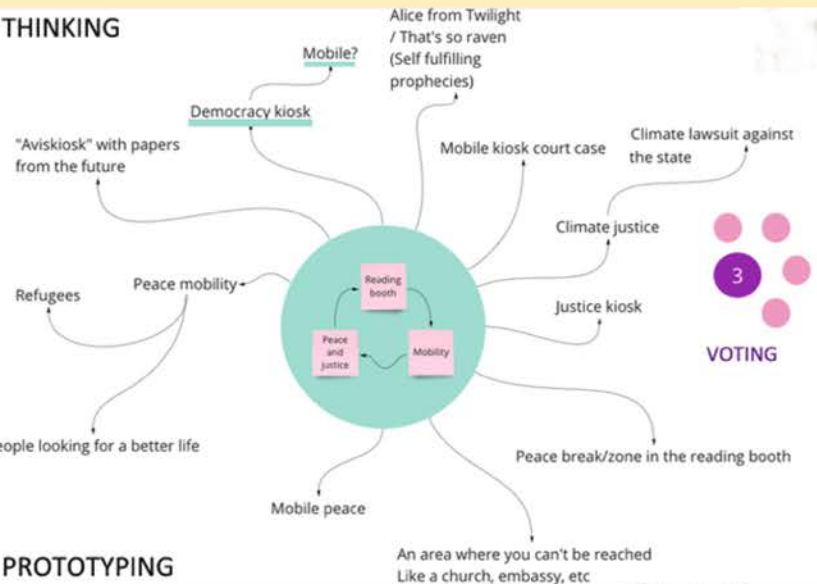




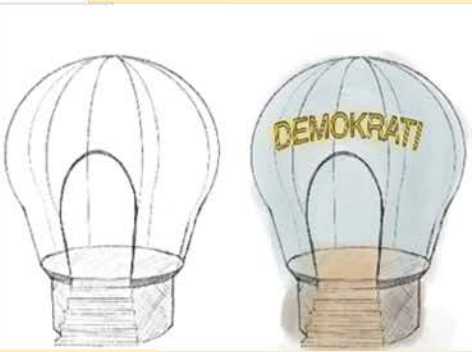
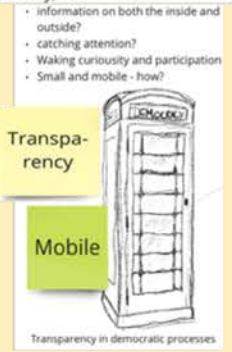
Examples from the courses

Example of people making places	What makes this interesting?	Social dimension(s)?	Up-/down scale	THE VISION What will this future look like?	THEORY OF CHANGE
 Urban gardens in own apartment	- Was - Absolutisme - Skaper en relasjon til naturen - Tilfredsgjenningsprosjekt som produserer stoff, energi, utnyttet - Individer møtes	Local Food	REKO ring	Create a speculative visualisation-scenario of a Community (smart neighborhood) with their own power grid, fueled by solar panels and windmills. Power is stored in a large battery and shared between all residents. The leftover power can be sold back to the state. The money earned can cover the common expenses and make it cheaper to live there. How would this look like? Ultimate goal: sustainability	Use it to approach questions such as: - Better for who? - Datasharing for motivation - Transparent display of poweruse. Speculative design. Scenario for sustainable future
 Apartment transformed to a take-away "restaurant" – shut down by Mattilsynet	- Hjertelighet - Går ut 24 timer i døgnet - Kjøp og salg av lokale varer og tjenester, ikke til Tross	Local Food	Oslo Restaurant day?	balanse mellom strøm som strøm som går inn og strøm som går ut. how can user participate in the back casting process?	BC: The imagined successful outcome of the future. Visioning: participatory, with users
 Space for local flea market every saturday	- Markedsutstilling i dag - Gjennomføring for å gjøre det mer levende og mer som andre ikke lenger - Vintermark	Local-Social: Connected – community		how can user participate in the back casting process?	 dystopia or utopia? Utopian: benefit for the community, savings Dystopian: data sharing, privacy violations, group press.
 Party raft	- Ungdommens kreativitet - Ungdommens energi - Roging på ånd og lokale materialer	Local-Social: Connected – community	"Drivhus" på lfi-dammen - plants & chill	 	Vision: opens for reflection with users on alternative future. Residents learn a future-oriented perspective.
 Russebuss	- Sensitivitet i møtet - Organisering - Organis	Local-Social: Connected – community			METHODS & ACTIVITIES Workshop: - Inspiration: FN roleplay for climate - Use for negotiating energy Future-oriented roleplay activity Future-oriented discussion cardboard presentation

THINKING

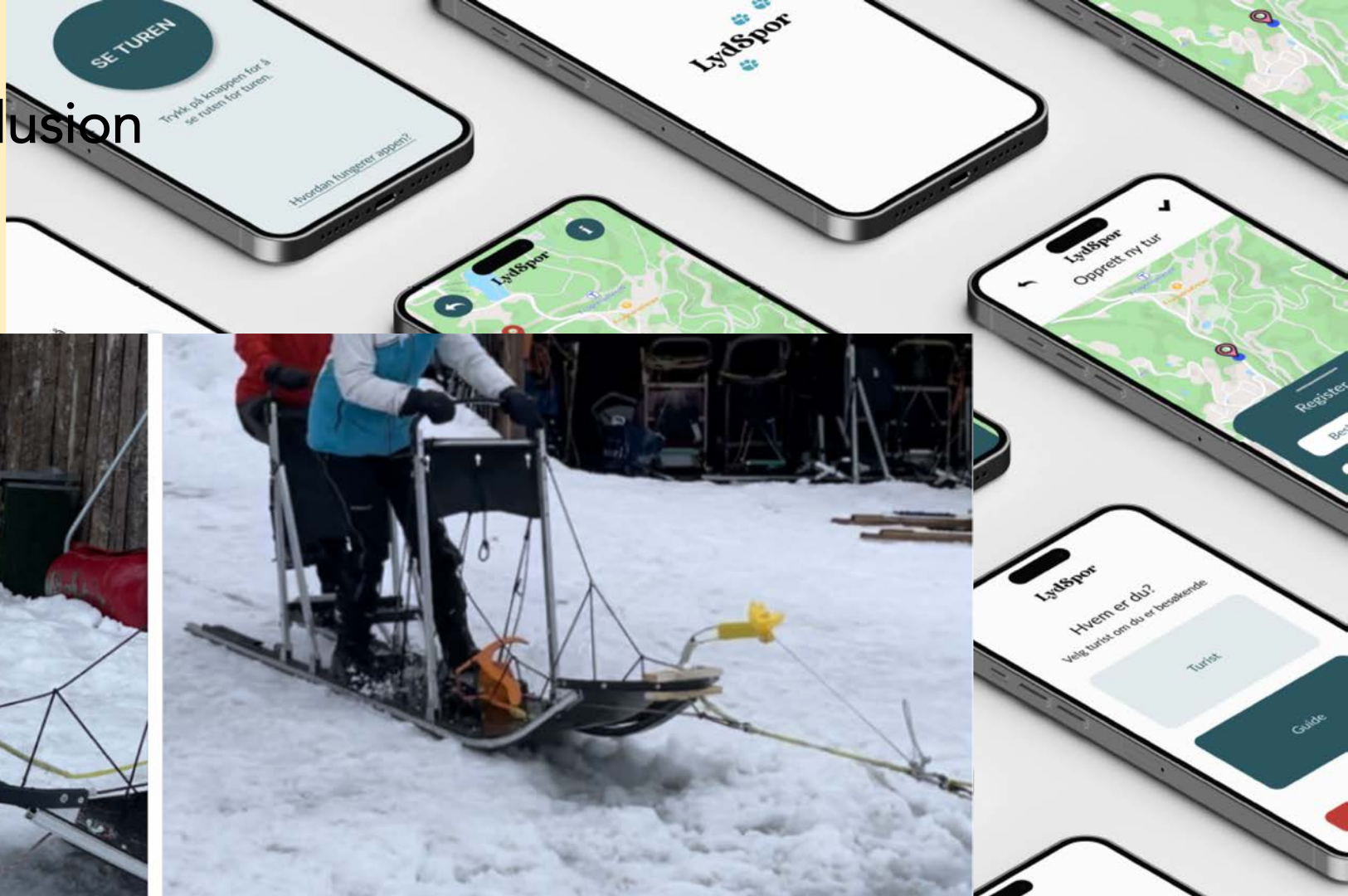


PROTOTYPING





Inclusion

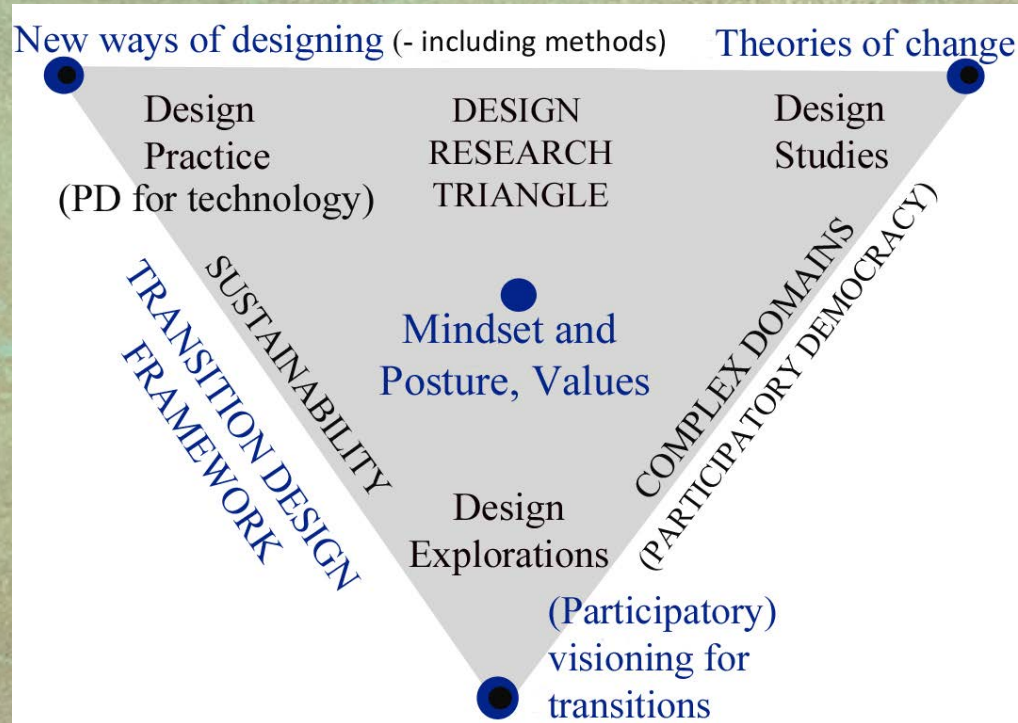




What did we learn about technology for democracy, from grassroots?

- The insights gained from plurishops were instrumental in shaping qualitatively different designs.
- Conflicts or frictions can be used to address the problem successfully
- Creating proto-practices supporting more democratic decision-making is important - it also includes educating the participants or providing the right tools for the work
- A gap in participatory technology development was identified and focused on - a democratic technology development demonstrated that access to co-developing technology is still a barrier (even for our students) - pointing to the importance of the concept of **technological imagination and competence**.
- Cultural institutions can have a significant role in **supporting participatory democracy** and its values. This finding is the result of 4 projects whose outcome were public space installations fostering dialogue.
- Finally, the inclusion of ChatGPT in the spring(in TD 2023 course) has really boosted the outcomes of the projects, as students expanded their domain knowledge significantly (Culén et al. DRS, 2024)

The main result – a method: Participatory Transition Design



Conclusion

Participatory transition design seems to be well supported by systemic design methods and plurishops in particular.

The lessons learned from this work point to the importance of participatory transition design to adopt some of the characteristics discussed concerning digital democracies – transparency, accountability, prevention of negative consequences for citizens, and decision-making by consensus through, for example, polling, voting, or debate – they might support responsible design for rebuilding trust in participatory democracy.

Video clips

Cameron Tonkinwise (23:49, 38:30, 47)

Heather Wiltse — Transitioning toward responsible design (7:35, 41:30)

Wakary & Verbeek in conversation Things we could design (18:35)



Thanks!!

Any questions?

You can also find me at almira@uio.no