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Designing for transitions and transformations

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Abstract: When looking at society, we see transformative change happening as governments, businesses and citizens all try to find their own ways to address the challenges of sustainability. We postulate that these challenges require new radical design approaches and interventions that can unleash the capacity to achieve desired futures, rather than going round in circles and muddling through in our current systems and leaving the underlying challenges untouched. In this conversation, we've explored how design can evoke sustainable and just transitions and transformations, with experts working in these fields.

Keywords: design, transition, transformation, sustainable futures

1. Context of conversation

Transformative change is happening, and policy, business and communities are engaging with it in different ways to address the challenges of sustainability. How can design contribute to opening up and exploring the boundaries of these transitions and transformations in the making? And what does this mean for the discipline of design? During our conversation at the DRS2022 conference, we brought together the perspectives on designing for transition and transformation and discussed how they can empower radical change. This conversation was part of an ongoing discussion that took place during the past year, amongst an expanding group of researchers who focus on designing for societal change, systems thinking, and transition research.

Designing for transition and transformation is situated within complex societal challenges, or hypercomplex challenges. By transitions, we mean large-scale systemic shifts, which happen in a relatively short period of time under certain conditions. In a complex, adaptive system,



such as an ecosystem or a complex network, things change periodically non-linearly. This is displayed in the so-called x-curve (figure 1) (Loorbach et al., 2017; Hebinck et al., 2022).

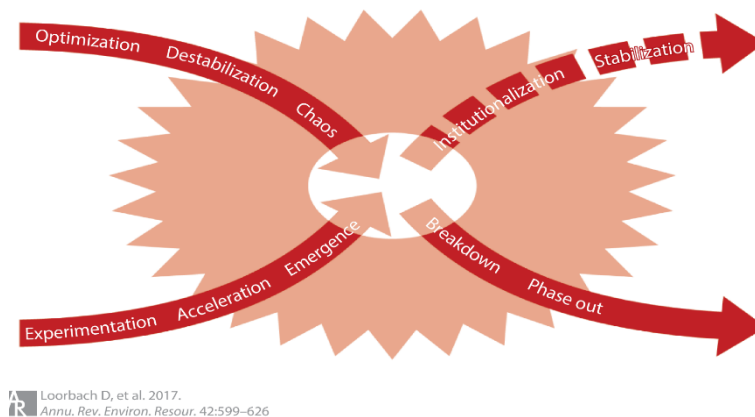


Figure 1. The x-curve showing the non-linear process of transition (Loorbach et al., 2017)

Simply put, it is a process of break-down and build up. When looking at a timescale of decades in a societal system, for a long time everything seems to be stable. However, pressure on the system is building because society around it is changing and people start coming up with alternatives. When the pressure is high enough things can start to shift out of equilibrium in a very non-linear, chaotic way. For example, looking at our current economic model, we see it is based on fossil fuels and economic growth. It is unsustainable and we cannot optimise our way out of it. Transition Management (Loorbach, et al., 2021) takes this as its premises: if we see that we are moving more and more towards this breaking point out of equilibrium, what can we do to identify the alternatives that are emerging, and can we empower them? Can we soften the resistance against change? Obviously there is a lot of financial, political and societal interest involved, what can we do to anticipate this eruption ahead and make it productive?

By transformation, we mean substantial enduring change in (shared) beliefs, values, our very identities, behavioural settings and rules, social dynamics and structures, our ways of knowing and knowledge systems, and alike. Transformation happens at different levels, from smaller personal transformations up to large, societal transformations that are based on paradigmatic shifts (Hummels, 2021; Keck & Sakdapolrak, 2013; Folke et al., 2010).

Despite these characterisations of the two fields, we recognise that transitions and transformations are defined and used in many different ways, depending on people's background and discipline. Based on our assessment that business as usual and isolated endeavours are not the way forward considering the complex societal challenges we are facing nowadays, we aim at figuring out where the fields of design, transition and transformation can find each other. This conversation at DRS was one of our initiatives to bring researchers from these different fields closer together to explore new connections. Could such new constellations be able to develop other strategies to evoke more radical transitions and transformations, compared to mainstream policies and market approaches

that seem to follow the beaten path, struggling to move new ecologies towards sustainable worlds? Are we able to develop strategies that are daring and imaginative, and that bring into practice the idea that we can design together towards transitions and transformations?

2. Organising questions

The session revolved around the central question: *How can transition and transformation researchers and designers come together to empower radical change?* This question was unpacked through the following sub-questions:

- What is the field of transition and transformation design?
- What are useful and pioneering processes and practices that have emerged in the field, and what are the emerging frontiers?
- How can the design community respond to the increasing need for insight and support for transitions and transformations?
- How can transition and transformation design collaborate with other relevant fields of inquiry to address the urgency of systemic change towards sustainable futures?

3. The Conversation

During the conversation we explored how design, transition and transformation can come together, what happens when it does, and which roadblocks prevent this collaboration. The aim was not to present results or answers to the above-mentioned questions, but to discuss ideas and explore what we might achieve together. This was done in a panel-like set-up, moderated by the first author, in which the panellists (author 2 till 5) first shared their own perspectives on designing for transition and transformation. Thereafter, a discussion unfolded amongst the panellists in dialogue with the audience, on various topics related to: transcending approaches, the differences between the fields, transdisciplinarity, solutions as well as participation and inclusivity. In the remainder of this paper, we briefly address these different topics and discuss several future challenges that emerged during the conversation.

3.1 Perspectives on designing for transition and transformation

Over the past 10 years, many approaches have emerged that aim at designing for transition, transformation or complex societal challenges. Most of our panellists have developed such an approach, which formed the starting point for the conversation.

Designing for Transforming Practices, in short TP, (Hummels, 2021) was developed to design for new paradigms, acting upon principles of complexity, and support the creation of alternative practices to engage with the world in sustainable ways. TP is a way of questioning things and imagining alternative futures in multi-actor processes, by building upon qualities of complexity, aesthetics, situatedness, co-response-ability and co-development.

Transition Design (Irwin, et al., 2015) was developed in response to the need for more inclusive, transdisciplinary approaches for addressing the many wicked problems confronting 21st century society. It is about learning to think systemically about systemic problems and how you think systemically about the transition towards a different society.

Transition Management (Loorbach, et al., 2021) is referred to as trying to take the idea of transition and using it in a performative way in a social setting. It focuses on the facilitation of a social or transformative learning process, with the use of instruments as transition arenas, experiments, backcasting scenarios and reflexive monitoring.

Goldstein described how tension within design leadership paradoxes (such as the need to enhance autonomy while ensuring coherence) could be essential to maintain a productive environment for cultivating innovative approaches to addressing complex design challenges. These insights arose from a series of facilitated dialogues among leading transition designers working on community-based social-ecological challenges, such as enhancing urban resilience and addressing the wildfire crisis.

Dorst his history of moving into this space came from design. He researched how designers create new approaches to problems, which made him realise we need many more practices than the ones that design can bring. However, he believes design processes or design thinking could be very useful as an underlay to bring all of these practices together.

3.2 Transcending approaches

The above-mentioned approaches have existed for some time now and are used by many. However, the conversation showed we are only at the start of our quest. The panellist and the different disciplines are searching for a way forward, trying to figure out where we stand but also how we relate to each other. We all seem to work from different perspectives and incorporate different disciplines into our approaches, even though most of them are design-oriented or use design as a basis. And in general, they are referred to as approaches.

Gaziulusoy (Gaziulusoy & Öztekin, 2019) voiced a different view during the conversation. She doesn't distinguish specific approaches that only deal with design and transitions or transformations. All of us are learning from and building upon what precedes us. Gaziulusoy advocated for combining three core elements when working in this space: systems thinking and systems related theories, futures thinking and working with knowledge that comes from the loose boundaries of design as a discipline, which also learns from other disciplines.

But where is the making then? Some might say it is one of the core principles of design. Hummels argued that making is the beautiful strength of what designers can bring to the table. Systems thinking and futures thinking emphasise thinking. However, it is not only about thinking, but about rethinking through our hands and what we do with our hands. Hummels strongly pleads for combining theory and practice, while daring to do things together; diving into the complexity of systems, focusing on the journey and not on the goal / dot on the horizon where we should move towards. It's about being inspired and having

the imagination to think and explore in new alternative directions, while connecting the future to the present. Thus, not only framing something in the future, fixating it, but using it as imagination connected to our experiences in the here and now. We need this imagination, a different way of futuring, to be able to look at that other thing ahead of us.

Dorst added to this that futures literacy (Miller & Sandford, 2019) might be one of the notions that we are currently missing. When we use futuring, we are just projecting into the future. We never actually learn how to approach the future, or what is a healthy way to do this. People often approach it with fear, because the future is scary. This fear is based on the past and we project this into the future based on our experiences, because experience is the only thing we have to understand the future. However, when using creativity we can understand different futures; and that's where futures literacy can help us.

After these different perspectives were discussed, the conversation expanded to a range of more specific topics, summarised below.

3.3 Timescales

As designers, we have to think about the timescales we normally deal with. Looking at the classic definition of design as *"taking a bad situation and trying to make it better"*, it is focused on short timescale thinking. Design in practice usually thinks about a year or a couple of years ahead, whereas transition researchers focus more on 10 to 20 years ahead. If we keep designing on these shorter timescales we are not going to get to transitions. Therefore, we should start populating this gap between the two fields, this middle space, with the practices that already exist. This also allows for identifying which practices are missing so we can move from that one state to the other, rather than saying design and transition should be the same. We feel they shouldn't, and they aren't, but the design field could and should definitely become more sensitive to longer timescales.

3.4 Different starting points

Transition management works from a basic starting point that we are doing things wrong in society. The dominant institutions work against a better future instead of for it. Design doesn't have this starting point. It has a much more optimistic outlook on the current situation and what is possible. Transitions are also optimistic, but collapse is needed before the emergence of something new can be seen.

Additionally, transition management is more of an indirect philosophy. It focuses on the people that are already trying to challenge the status quo or are already coming up with alternatives, but who as individuals and small communities are fragmented because of existing power structures. Researchers can take a step back to see the bigger picture and identify the pieces of the puzzle that are not yet connected. Connecting those pieces will hopefully create the conditions under which these actors become more successful in their transformation. Designers, by contrast, are mostly educated to control a design process,

which means they often think they are in charge of what is being designed. In transitions, however, they don't take that stance.

3.5 Participation and inclusion

Transition management focuses on empowerment rather than participation. It looks for the already empowered to create a context that helps them. It is about helping people that are already trying to advance transitions, and who are already empowered to act upon it. For transition management it is really about the social learning process, where you help the already empowered to take the next steps.

In general, it might be time to rethink the existing participation models. Most people, be it citizens, politicians, researchers, business people etc., might realise that there is an existential need for transformative change, but what is the incentive for people to be engaged, especially if they don't necessarily experience the outcome of such change processes? It's not only about recurrently inviting citizens to participate, but also about moving up the chain and getting to the levels where the power is. How can we get the change at that level? It seems to be asking for connecting the micro – meso – macro scales, and continuously weaving in and weaving out of these scales.

However, if we are not careful with the processes targeting these transitions, there is a large chance the same people will be left out all the time. This means transitions have the potential to start creating rifts in society, which is much stronger than anything we have seen before. Therefore, notions of inclusivity are very important. How can we change what we need to change in society in an inclusive way? And what can design offer in that space, when aiming at just sustainability, addressing poverty, inequity, inequality and sustainability, which are all intimately linked.

3.6 Transdisciplinarity

We need many more and diverse practices than the ones that design can bring. Design and designers cannot solve these societal challenges alone. We need transdisciplinary ways of working and competences, including a new attitude, which means that the design discipline needs to increasingly open up. There is a huge variety of different approaches that might be useful, but it feels that the majority of researchers and practitioners are talking in their own language and have their own practices. This might lead to what Kuhn refers to as *incommensurability* (Kuhn, 1962), i.e., people are operating within different paradigms and their situated knowledge might not always be mutually comprehensible. However, in order to address the imminent societal challenges, we need all the different perspectives and disciplines. What design has to offer is useful; design processes can act as an underlay for bringing all these practices together. However, there are lots of gaps which ask for collaboration with and learning from other disciplines.

3.7 Letting go of solutions

When talking about designing for transitions and transformations, we often keep referring to these systems as problems. However, talking about problems almost immediately implies that they need to be solved. Problems are in need of solutions. When talking about complex societal challenges, we have to let go of problems and forget about solutions. Such 'wicked problems' are not going to be resolved. There is not one single or series of solutions or objects that can be designed to make the problem go away. Design for transition and transformation should focus on progress, and creating interventions that move the whole system to a better state. It asks for an ongoing process and journey, and we cannot design single fixes for these systems.

4. Future challenges

The conversation aimed to inspire the audience and offer new ideas on ways of moving forward. During the entire conversation, we encountered several future challenges that ask for further exploration in the near future. We briefly list these challenges, inviting the audience and reader to take part in further development:

4.1 How can design get sensitive to longer timescales?

Moving away from the short timescale thinking and into the middle space between design and transition. How can design learn from other disciplines and enrich itself to be a good player in that middle space, without having to be the answer to everything?

4.2 Is design by nature too adaptive, or does it tend to be too adaptive for these kinds of big challenges and questions that we are asking right now?

Design tends to be very sensitive to its existing context and be very clever in this existing context. Does this mean that design implicitly reinforces the old system this way? Or is it actually radical enough to imagine new systems? Should it be about the way existing systems need to react to e.g., climate change? During the conversation, it emerged that this take is not good enough anymore; we need new systems. Existing systems can't react to these challenges, because they are full of defensive mechanisms. So, entire systems and underlying paradigms need to shift.

4.3 How can design make radical transitions visible?

Can we actually see the small-scale changes and the transformative potential in transitions that can add up to a large-scale systemic change? And how can we make this visible to the wider public? Such visualisations could give people an action perspective and hope, and maybe that way we can actually accelerate these transitions together.

4.4 Can design work from a more radical ambition?

The only future we seem to be wanting to work for is one that is nature positive, which should include an economic model or a societal model that is beneficial for both nature and

people. Can we imagine such futures, and can we design, e.g., food systems/mobility systems/housing systems/material uses/... that are regenerative; to restore the planet while also being fair and equitable?

4.5 How can we make the transition just?

If we transition from A to B, it inevitably seems to imply that a variety of jobs will disappear. Many of our current practices and systems will change, which is asking for fair and equitable processes and transitions. This means we have to think about the phasing out of jobs as well as the effects of economic transformation.

4.6 How can we frame current poverty and injustice as inherent to the existing system?

Poverty and injustice seem inherent features of the current system. Transition will create a lot of uncertainty due to the hidden political and financial interests that work against it. How can design and transition address poverty, injustice and hidden political agendas?

Changing ourselves as designers and as a discipline, requires a self-critical attitude. When exploring ways of embracing and dealing with complexity, we should also question ourselves and others. It seems OK that designers keep the high hopes and the positive attitude, as long as they use it to experiment, go out there and work with people in the muddiness, resistance and beauty of everyday life.

5. Conclusion

In this conversation, we explored how to design for transitions and transformations. We have discussed several existing design-oriented approaches which aim at addressing the complex societal challenges of our time. We explored what transdisciplinarity in this setting could look like, established together that it is time to let go of solutions, and discussed how to shape participation and inclusion. The aim of this conversation was not to present the audience with clear answers to the question of how to design for transitions and transformations. The societal journey is too complex to have clear answers. We have to develop these together. By combining the different perspectives of the panellists, we hope to have shed light on some possible ways forward, as well as identifying some of the challenges that lay ahead of us.

Much more than in most current forms of design, where the design scope has clear boundaries, designing for transitions and transformations is asking for doing multiple things simultaneously, combining different scales, and focusing on creating rhythms, rather than attempting to solve the challenge we are working on. We can consider it more as designing innovation ecosystems, within a sector, with all of the other important sectors as well as society at large surrounding it. Advancing to a new transdisciplinary field, we are challenged to enable the systems surrounding us to become learning cycles, so they can keep changing. This creates more flexible societal practices and systems than we are currently having.

Synchronising and connecting the different levels – biosphere, systems, live world of people and policy – can create more healthy and sustainable systems.

The conversation showed it is time to work towards a new paradigm, in which we are letting go of approaches, and start discovering how to transcend our disciplinary boundaries, building and learning from all the disciplines, approaches, theories and methods that came before us. If we want to make change outside, we have to make change from within.

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