

Futuring Health Environments: From citizens' visual utopias to prototypes

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MANTRA is a transdisciplinary project that deploys creative, participatory, citizen science methods to investigate specific health risks and opportunities in rural areas paying attention to physical and social dimensions of climate change and adaptation. Together with a village-based citizen initiative in the South of the Netherlands MANTRA researchers co-organized five living lab meetings and interviewed 20 citizens who participated in the lab meetings, twice individually with an arts-based utopian method to co-create a shared future healthy environment. This contribution describes how the deployment of an arts-based utopian method in interviews and living lab meetings helped to scale down the societal problem of climate change and enabled citizens who participated in the living labs, to discover common ground, formulate actionable goals and develop prototypes such as a self-sufficient biological garden.

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Introduction

How may a citizen initiative accomplish positive change in the face of climate change? How societal challenges such as climate adaptation typically get defined is unhelpful; they tend to evoke feelings of frustration and helplessness. Problems seem unsolvable to ordinary people which fosters inaction (Weick 1984; Termeer & Dewulf, 2019). In contrast, scaling down societal challenges to manageable proportions and actionable goals, may empower people to do their part and act to generate small wins. Scaling down may ultimately contribute positively to the management of societal issues as small wins can accumulate into change at a more systemic scale (Termeer & Metze, 2019). The complex multifaceted problem of climate change and diminishing planetary health was turned into manageable proportions in the MANTRA project by combining action research with utopian arts-based methods in a rural living lab in the South of the Netherlands.

This contribution describes how the deployment of an arts-based Utopian method in interviews and Living Lab meetings helped to scale down the societal problem of climate change and enabled citizens who participated in the living labs, to discover common ground, formulate actionable goals and develop prototypes. First, however, we will introduce how living labs, action research, citizen science and utopian arts-based methods relate to one another.

Living Labs, action research and utopian arts-based methods

Living Labs have been popular in social research to bring about positive change regarding complex problems that require multi-stakeholder and citizen involvement. According to Schuurman et al. (2025 :15) Living Labs are:

innovation environments where citizens, public authorities, private enterprises, and research institutions collaborate (Quadruple Helix model) to co-design, test, and validate new products, services, and systems.

Living Labs may deploy action research to involve citizens and generate positive change in citizens' lives. Action research focuses on generating insights and gradual change through iterative plan-act-observe-reflect cycles in which non-scientific stakeholders – professionals, policy makers and/or citizens – collaborate with researchers. Prototypes may be developed, tested and improved as part of the iterative cyclical process. Living Labs require the active involvement of citizens – e.g. as co-researchers or co-designers – in one or more research phases, as is the case in citizen science (Procentese et al. 2025).

Additionally, the involvement of citizens through action research in Living Labs requires modes of interaction and communication that motivate and enable citizens' participation. A wide range of artistically inspired methods from dance to sculptures and drawings may be deployed for that purpose in participatory research (Coemans & Hannes, 2017). Arts-based methods are used in participatory research in two distinct ways: as data that are analysed on their own or alongside 'traditional' data, or, as a communication technique that serves to make researcher-citizen

interaction and communication of research outcomes more inclusive and appealing. The latter use is more common than the former in participatory citizen research. Moreover, Arts-based techniques such as drawings may be variously incorporated in data-gathering methods and deployed with different citizen groups (Coemans & Hannes, 2017). Levitas (2013) positions utopia as method to effectuate societal transformation. She holds that the future never turns out as expected and that utopia may be understood as a collective attempt to remake the future through imagination and praxis instead of prescription. The method entails a critical assessment of current arrangements and the articulation of better possibilities for collective life. The utopian arts-based method deploys creative methods in utopian analysis. Combined with action research, the focus lies on creating prototypes that may stepwise bring closer to the collectively imagined future.

The Utopian arts-based method as deployed in the MANTRA living lab in the South of the Netherlands

MANTRA is a transdisciplinary project that deploys creative, participatory, citizen science methods to investigate specific health risks and opportunities in rural areas paying attention to physical and social dimensions of climate change and adaptation. Together with a village-based citizen initiative in the South of the Netherlands MANTRA researchers co-organized five living lab meetings in 2024. In the Living Lab meetings 20 citizens with diverse professional or entrepreneurial backgrounds participated as equal partners with five MANTRA-researchers. Lab participants got to know each other better, visited inspiring local good practices together, and exchanged views, hopes and concerns regarding an imagined future healthy living environment in which people, nature and businesses can co-exist in a way that is good for planetary health.

In parallel with the living labs, researchers interviewed citizens who were participating in the lab meetings twice individually. During the interviews an arts-based Utopian method was deployed. In the first interviews, participants were asked about their perceptions of the impact of climate adaptation on health, nature and the environment in rural areas. During the interview a professional illustrator visualized the interviewee perceptions of ‘the present’. Lab participants analysed individual drawings jointly during a subsequent lab meeting. In a second interview, interviewees were asked to imagine their utopian rural living environment of ‘the future’, which an illustrator visualized, and participants analysed again in a subsequent lab meeting.

The drawings served to make the concerns, sacrifices, benefits and activities associated with a future healthy environment explicit and more concrete. Analysis resulted in the discovery of common values, goals and elements which inspired the creation of collective drawings that expressed the groups’ collective ideas about present and future living environments. After the analyses, all drawings were incorporated in a public exhibition at the final lab meeting which was open to people who participated in the meetings and interviewees but also the wider public, researchers and policy makers interested in the realisation of a future healthy living environment. Lab participants informed visitors about the background and meaning of the drawings.

After the exhibition the collective visualization of a utopian healthy living environment inspired citizens to effectuate prototypes such as:

- the setup of self-sufficient biological gardens;

- a community table in the town square, with the collective drawings incorporated in it;
- dialogue with regional stakeholders to increase the scope of the future healthy environment drawing exhibition.

These citizen-led prototypes are monitored and further developed throughout the MANTRA project.

[Insert image 1: Drawing Hope (present), Insert image 2: Drawing Future]

Limitations and Conclusion

The use of an arts-based utopian method within the Rural Living Lab enabled participants to translate the complex issue of climate change into shared, concrete future visions and citizen-led prototypes showing that complex issues such as climate adaptation may be scaled down in a way that informs action. Additionally, the findings demonstrate high context sensitivity, as outcomes are shaped by local values, relationships, and conditions. A limitation is that findings are not directly transferable to other (urban) contexts due to high context-sensitivity and because participants were more highly motivated to effectuate change than the average person. However, the findings may serve as an inspiration for citizen groups in other areas.

Ethics

Procedures in line with the Netherlands Code of Conduct for Research Integrity (2018) were observed. The adult non-vulnerable study participants were informed about the research, their rights and data-management before providing their informed consent. All data were pseudonymized, handled confidentially and stored securely. Interview recordings were destroyed after transcription.

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