

## To approve or not to approve - The role of polarization in street experiments

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Facing the dramatic situation that humanity has created, overstepping six out of nine planetary boundaries (Richardson et al., 2023), most people agree that the way we move and live urgently needs to be changed to be more sustainable and less resource-consuming. However, not all citizens will warmly welcome a temporarily transformed street by an urban living lab when stepping out of their apartments. As was the case in the street experiment that the “aqt” (German acronym: Car-reduced neighborhoods for a livable city) research project realized in the Summer of 2023 in Munich, which is part of the MCube Innovation Cluster and funded by the Federal Ministry for Education and Research of Germany. As a transformative research project, “aqt” involves an urban living lab, in this case, a street experiment, to test and find possible solutions to wicked problems in collaboration with transdisciplinary stakeholders (Gerhard & Marquardt, 2019; Nevens et al., 2013; Puerari et al., 2018). The project aims to find answers to how the livability of a neighborhood may be increased by reducing privately used cars in street space. The measures of the street experiment involved better access to alternative mobility options, reducing the number of parking lots on street space in exchange for several green spaces on five different sites and an urban beach to relax and play on. The project was on for almost five months, revealing and provoking many conflicts in the neighborhood. The “not-in-my-backyard” phenomenon is not to be overseen when looking at the feedback collected during the street experiment's realization period. Some engaged neighbors organized in groups – some constructively criticizing or supporting the project, others actively fighting it throughout the realization period, even judicially. The media broadly reported the conflict of “two opposing camps” and got much attention. Three political parties took this opportunity and tried to intervene by requesting clarification on specific questions by the city government or even the street experiment's demolition before the project's planned end.

Urban living labs are widely discussed as a new strategy for urban transformation, allowing new perspectives than those originating from grown structures of administration and bureaucracy, offering opportunities for less conventional and more dynamic approaches in urban planning – as long as the law allows it (BBSR, 2020; Bulkeley et al., 2017, 2019). However, there are always two sides to one medal, which also entails risks. The experiences made during the street experiment in the Kolumbusstrasse show that urban living labs can, beyond a conflict in a neighborhood, also increase or cause social polarization. The consequences of a high level of social polarization can be high barriers to finding compromise and provoking aggressive behavior and language. It can also give a reason for people to no longer participate in political discussions, and it can cause doubts about the legitimization of democratic institutions (Roose & Steinhilper, 2022). Polarization reveals how far apart the attitudes or identities of people are from one another, which makes it an indicator of a high level of social inequality (Kreiss & Mc Gregor, 2023). Thus, the threatening disadvantages of urban living labs must be avoided to prevent the negative consequences of social polarization and to increase the acceptance of urban living labs. Therefore, the reasons

why people object to street experiments in their (direct) neighborhood need to be better understood.

In the example of the "aqt" project, two qualitative text analyses of the collected data will be conducted to find answers to the following questions: 1. What do people find relevant regarding the different topics, e.g., community, use of space, process, urban environment, and mobility in the context of the "aqt" street experiment and are their opinions more consensual or controversial? 2. Do people living in the project's direct neighborhood object more to the project than other visitors? To answer this, the collected empirical data elevated during the street experiment will be qualitatively analyzed. The data sources were platforms, such as nebenan.de, where the debate on the aqt project was screened and documented; the email response that reached the project team; the feedback postcards that were laid out and collected on the project sites, the protocols of the feedback conversations with citizens; and the free text answers from a survey that was conducted before and during the project. The collected data will be cleaned and classified to conduct a qualitative text and sentiment analysis (Duran et al., 2020).

The analysis results may help identify the relevance of residency status when it comes to acceptance of the project and what aspects of street experiments provoke more divergence of acceptance. This will give valuable knowledge of what topics need to be addressed more carefully in communication in future street experiments. Also, it will give information if people show very strong feelings towards the project and if those feelings are connected to a general fear of change as an indicator of social inequity.

The conflicts on the "aqt" street experiment revealed that urban living labs touch upon many spots in a very tense system. If it is possible to distinguish between the objection of the neighbors to the project itself or mobility transition or change in general, it cannot yet be said. Nonetheless, the results will give a better understanding of how directly affected neighbors respond to different aspects of a street experiment, allowing an improvement of transdisciplinary collaboration and the communication between researchers, citizens, and other stakeholders during transformative processes and, thus, improve urban living labs in a way that may cause constructive conflicts and strengthen democracy.

Note of the author: When this extended abstract was written, the data collection still needed to be finished. However, the analysis will be finished in time to present the results at the conference.

Words: 981

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