



Building prototypes that represent value changes: Value Change Prototyping

Introduction

Given that the implementation of urban technology influences our values, we tested how design activities facilitated the discussion and debate around value changes in smart cities. Inspired by the approach developed by Forlano and Mathew (2014) we developed a workshop method through which participants prototype a neighborhood based on a specific value and represent how the value changes as a result of the implementation of technology.

Goal of the session

This goal is twofold: (1) it aims at collaboratively prototype a neighborhood that incorporates specific public values; and (2) encourages reflection on the value changes that originate from the implementation of technology in smart cities. This workshop approach has been based on and inspired by the approach developed by Forlano and Matthew (2014).

The intended outcome of this method is an overview of the impacts of technology on values and their influence on the city. This overview can inform the development of specific smart city projects and visions that acknowledge the impact of technology on different levels.





Description of the method

The method consists of 5 steps:

Step 1- Contextualization

In this step, participants think about the neighborhood they live in, briefly describing how it is and how they experience it. After describing it, participants choose one of the neighborhoods which will be the focus of the session. At this point, they need to draw it, creating a factual or metaphorical map: where do people interact the most? What are the most important areas of your neighborhood? Why?

Step 2- What's in a value

During this step, participants pick a value card from a deck. In this case, a 'value' is something that people consider important. Values exist both at an individual and societal levels (i.e. freedom). Once they pick a value card, participants discuss what the value means to them, and tell a personal story about it. At this point, participants start discussing potential ways in which they could embed the value (or their interpretation of it) in their selected neighborhood.

Step 3- Brainstorming and prototyping for values

Participants prototype a future city scenario (10 years in the future) that incorporates the value in their neighborhood. At this stage, it is important that:

- Each group brainstorms as many projects, platforms, and services as possible without taking the feasibility of their ideas into account.
- Participants make their ideas tangible by means of diagrams, sketches, stories.

After brainstorming, participants choose one of the discussed ideas and prototype by using low-fi prototypes.



Step 4- Technology and value changes

Here is where we modify the approach provided by Forlano and Mathew (2014). Once they have finished their prototype, participants get a technology card, representing a technology that will be introduced in the neighborhood they have designed. At this stage:

Participants need to reflect how this technology could potentially change the value they designed for, and why these changes could potentially occur.

At this stage, participants are encouraged to visualize and/or write down these value changes.

Step 5- Critique

At the end of the session, each group presents their process:

- They present their prototypes of their value-driven neighborhood and describing their ideas and rationale behind them.
- They present the technology that was introduced and the value changes that this technology could potentially cause.
- The facilitators stimulate a plenary discussion about value changes, why these occur, and what we can learn from them.

References

Forlano, L., & Mathew, A. (2014). From design fiction to design friction: Speculative and participatory design of values-embedded urban technology. *Journal of Urban Technology*, 21(4), 7-24.