

Designing location-based information sharing interventions for urban resilience

Geertje Slingerland
Delft University of Technology
Delft, The Netherlands
g.slingerland@tudelft.nl

ABSTRACT

This research investigates how citizen communities can be build and strengthened using location-based information sharing. In three phases, the design space with citizens is explored, existing storytelling citizen initiatives are studied, and all insights are synthesized in several prototypes. The first two phases indicated that citizens want to share and engage with information that is relevant to them, and learn them something new. The third phase will be executed virtually, due to the covid-19 situation, and aims to provide further insight into elements that lead to effective community building through location-based information sharing.

Author Keywords

Neighbourhood communities; Design interventions; Information sharing; Participatory design

INTRODUCTION

In our increasingly complex world, citizens need to be able to adapt and respond to rapid changes and growing challenges in their environment [10,16]. Urban resilience is proposed as one of the frameworks for this, suggesting engaged and cohesive communities as essential. Therefore, this research explores how citizen communities can be strengthened and engaged using interventions that support local information sharing and storytelling about the neighbourhood.

Prior research studied many different types of design interventions that aim to support community building or increase citizen engagement for local issues. To create interventions that evoke participation and engagement, three things need to be considered:

(1) the ‘matter of concern’ that citizens care about [1,5,7,8,10], (2) which (local) actors are involved and what is their role [2,3,10,12], and (3) the local context of the citizen community [4,9,11,14].

The field of participatory design (PD) has extensively discussed ways to involve non-designers into the design process. Therefore, this research uses PD approaches to further explore how neighbourhood actors can share information with each other, making use of the local context, and taking into account the roles and responsibilities of each of them.

METHOD

The presented research is executed as part of a four-year PhD project and consists of three phases. The research selected the city of The Hague as the context for the main part of this research. This city developed a resilience program and is thus looking for approaches to increase citizen engagement and to create cohesive communities.

Phase 1: Exploring the design space with citizens (November 2017 – April 2019)

The first phase of the research was focused on getting acquainted with the context of The Hague and recruiting citizens for participation in this research. Four workshops were executed, involving 39 citizens in total. Citizens discussed and co-designed prototypes ranging from paper-based interventions to a location-based mobile game that participants could play. The results revealed initial guidelines on how to design information sharing interventions for community building.

Phase 2: Studying existing storytelling citizen initiatives (May 2019 – February 2020)

Two citizen initiatives that foster information sharing and storytelling between citizens were found: Tegelweetjes and Haags Verhaal. Tegelweetjes installed 50 QR codes on tiles and upon scanning, information and stories are displayed on the location around the

QR code. Haags Verhaal organises monthly meetings throughout The Hague, bringing together two different communities to share their stories and reflect on those. Field work, including observations and interviews, were executed to understand how these initiatives support information sharing between citizens and to compare these insights to the guidelines identified in the previous phase.

Phase 3

The third phase aimed to synthesise all insights so far and involve citizens in creating and employing their own information sharing intervention for the neighbourhood. However, due to the current covid-19 crisis, the initial plans are suspended and we are currently exploring how to continue this research in a virtual manner.

RESULTS AND DISCUSSION

Phase 1 and 2 are completed and published [17,18,19] or currently written up. Phase 1 resulted in a set of eight initial design guidelines [18]. These guidelines revealed that appropriate locations to share information in the city are places where already a lot of citizens pass by or that are relevant for citizens' daily life. Information that citizens would be interested in is divided in three topics: activities, other neighbours, and history of the neighbourhood. Finally, the guidelines indicate that making use of the physical surroundings is important to enable the first interaction between citizens and the information sharing intervention.

The workshops indicated a design paradox: citizens are motivated to interact with each other and the neighbourhood when they can discover something new, while at the same time they need this discovery to be related to their daily practices in order for it to be interesting to them. They want to explore areas already familiar to them, and learn something new about those. A design challenge, therefore, is to balance information sharing and storytelling in such a way, that it includes new information but relates to the daily lives of citizens [18].

Emergent behaviour and changes in mindset of citizens participating in storytelling evenings was observed at Haags Verhaal. Citizens self-organise follow-up meetings or start thinking of new projects without the involvement of Haags Verhaal. Haags Verhaal seems to provide social structures that are missing in the city and can thus be analysed from an infrastructuring perspective [6,13,15]. This analysis is ongoing and currently prepared for publication.

The third phase of the research was about to start when covid-19 came to the Netherlands. The existing plans thus had to be suspended and we are currently collaborating with our local stakeholders to find new ways to continue the research in a virtual manner.

CONCLUSION

The presented research is an on-going PhD project which aims to explore guidelines to create interventions that support local information sharing between citizens. Coming back to the three knowledge gaps that were identified in the introduction, this research contributes to them in the following ways. Identifying the 'matter of concern' is found to be essential to bring citizens together [17], and in terms of information and story sharing this needs to be related to discovering new things about the neighbourhood [18]. Participatory design methods need to be applied in this kind of research to understand how these quite abstract terms can be made concrete for specific neighbourhoods. This also means that professional actors, such as civil servants, have to engage with citizens on a very local level, to acquire a specific understanding of the context and what is needed there to engage the community. In the research still to come, we hope to generate further insights into how this can be done, and what elements information sharing interventions need in order to be successful in specific contexts.

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