Mapping citizens' reflections and perceptions of place-based experiences in the time of COVID-19

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Summary

Using a Citizen Science Approach, the ZesummenMaps project explores the emergent spatial interactions of our towns, cities and rural areas that arise from the COVID-19 pandemic and social distancing and confinement policies in Luxembourg and the Greater Region. Citizens (residents, students, cross-border workers) reflect on their personal experiences of place during the crises. They contribute thoughts and perceptions through a collaborative community-mapping interface. This provides a foundation to explore, evaluate and understand the evolving perceptions and uses of public spaces, infrastructures and physical environments. Thus, creating an evidence-base of emerging spatial interactions to inform understanding of the impact of the *bleift doheem* policy (stay at home, confinement, lockdown) related to our perceptions and uses of our towns, cities and rural areas.

KEYWORDS: Citizen Science, Collaborative Mapping, COVID-19, Perceptions, Place, Qualitative GIS

1. Introduction

Geography has a long practice in spatial interactions research, ie. the representation and simulation of flows of activity or material between locations (nodes), either as routine or occasional interactions (Batty, 2008). These interactions form important aspects of hierarchical urban and regional dynamics, and include travel to work, school, our shopping habits and other purposes (cultural or recreational) (O'Kelly 2015). Our social life and social interactions arise within these flows enabling face-to-face social activity. Many mathematical and quantitative models around city dynamics have been developed to answer societal questions driven by the science of Where and to develop an evidence-base for policy makers (Fotheringham and O'Kelly, 1989): Where should we build a new hospital to serve the most people with the greatest need?; Where is the optimal location for a new retail centre?; Where should the new bus route go in order to maximize the number of passengers?

The COVID-19 pandemic has radically changed our socio-spatial interactions that form the basis of many of the mathematical models and geographical theories. Once vibrant town centres turned into ghost towns - as the number of mixed-use activities dramatically reduced or ceased entirely, thus no longer acting as a gravitational pull to citizens and cross-border workers. Public places and activities up until now considered central for social exchanges and place-making were removed from public use (Cresswell, 2015). Since the pandemic, we suspect that a new paradigm has emerged shaped by spatial interactions defined by confinement and distancing.

We need to question how spatial confinement/social distancing policies have altered perceptions and uses of the urban/rural landscapes, facilities, industries and services (e.g. retail, physical environment and cultural)? We hypothesize that social distancing policies as well as the global lock-down(s) known locally in Luxembourg as "*bleift doheem*" have impacted our attitudes, perceptions, attachments and use of the built environment, its facilities and industries but also our usage and relationships with rural landscapes.

2. Methodology

The use of maps and geographical information to explore community issues and perceptions is well established, commonly classified into three types of participative research: (1) Participative Geographical Information Science (PGIS) (Chambers, 2006) emerged in the mid 1990s, closely followed by (2) Public Participation GIS (PPGIS). Both linked to urban planning practices and environmental justice (Sieber, 2006), where communities contribute data and maps that used as tools for activism. Then since the turn of the 21st Century we have witnessed the emergence of (3) Citizen Science and Extreme Citizen Science (Haklay, 2013), where citizen volunteers shape the end-to-end process of scientific research.

The challenge in this project was to design a collaborative mapping experience enabling the collection of citizen reflections on their experiences during the pandemic. Reflection is a process that occurs when we act upon different information to synthesise and evaluate it (Clarke, 2017; Dewey and HMH, 1933; Surbeck et al., 1991), but itis complex to define and difficult to measure particularly with respect to stimulating reflection on and in built environments (Jones, 2019). In a recent H2020 study centered upon triggering reflection on history and social processes using location based experiences (CROSSCULT), deep reflection was stimulated through co-creation activities between participants that went beyond simply answering a short question. Therefore, the ZesummenMap platform builds upon this experience, to develop a mixed-methods approach that probes and stimulates reflective thought. Citizens reflect upon their experience of social distancing and share their emotions and spatial perceptions. In doing so they contribute to scientific research on the emerging spatial interactions of citizens in cities, towns and rural landscapes in the context of the pandemic.

The focus of the data collection is currently on Luxembourg and the Greater Region, an area at the heart of Europe with a history of diverse languages and cultures, at the intersection of four countries (Luxembourg, Germany, France and Belgium) and rich cross-border interactions.

ZesummenMaps[1] proposes to explore, evaluate and understand spatial interactions during the pandemic using a community based Citizen Science approach. To explore the research hypothesis, we customised the *MappingforChange* platform (see figure 1). Then, to investigate and collect the changing attitudes, attachments and perceptions we co-designed the creation of the categories using a series of pilot mapping workshops – this led to the development of set of categories and related sub questions that are used to stimulate reflection and citizen contributions:

- [EN] What has changed? [FR] Qu'est-ce qui a changé ?
- [EN] Signs of social distancing [FR] Signes de distanciation sociale
- EN] Places I went during confinement / [FR] Lieux où je suis allé pendant le confinement
- [EN] Play during the pandemic / [FR] Le jeu pendent le confinement
- [EN] Our Behaviour changes / [FR] Notre comportement change
- [EN] I feel relaxed here [FR] Je me sens détendue ici
- [EN] I feel nervous here [FR] Je me sens nerveux ici
- [EN] Places I no longer visit [FR] Lieux que je ne visite plus
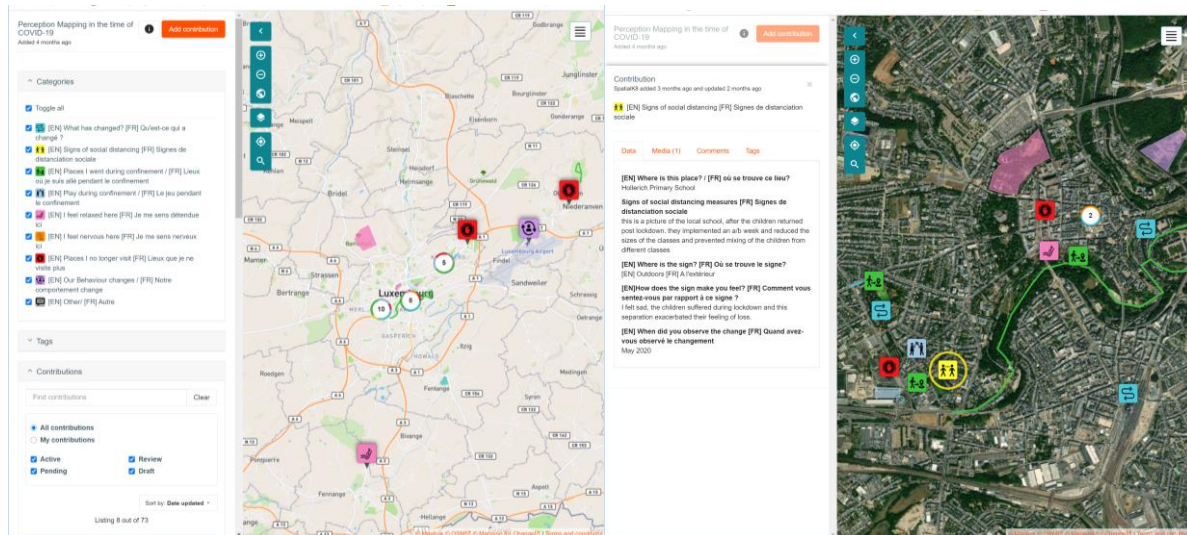- [EN] Other/ [FR] Autre

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[1] https://zesummenmaps.communitymaps.org.uk/welcome

Figure 1 ZesummenMaps collaborative mapping interface

Preliminary Analysis

To collect the citizen contributions we used a multi-pronged approach comprising of dedicated mapping sessions to support a more collaborative citizen experience together with a snowballing word of mouth technique. The project is in its early phase and the collection of contributions is ongoing (as of January 2021 there are 73 contributions, the majority contributed anonymously to reduce barriers of participation). We have undertaken a preliminary analysis using text analysis tools (including voyant-tools.org, theysay.io) as well as the manual open axial coding of the contributions. A number of themes are emerging:

Anxiety and stress from being in the co-presence of others

Feelings of nervousness manifested because of the perceived lack of social distancing. This was due to the lack of limits in shops of the number of people permitted inside or the feeling that too many young people are congregating either in a public space, shop or beer garden. An example, in response to the question I feel nervous here because, *"...there are so many people enjoying the site as if there were no problems being so close together. Now, from 1st of November it is closed like all gastronomy in Saarland."* (18/11/2020). These feelings of nervousness did not just emerge in built environments of cities or towns but were also present when people were out in nature, *"During the lockdown, it became a little stressful to see that the forest became more frequented and to cross more people. While before, it was in fact nice to cross and salute people from time to time"* (14/10/2020).

Importance of feeling a sense of space (distance) from others

People felt most relaxed in spaces where they do not feel that they have to pay attention all the time to social distancing because there are generally not many people around. Relaxation and comfort was felt because they were in nature or forest. For example, they felt relaxed, *"Because of the beautiful landscape. And also I didn't feel much obliged to watch out my social distancing because I was mainly surrounded by the nature"* (11/20/2020). Collectively, nature (forest or park), sense of space and distance from others within that space provide relief and respite, *"I can get fresh air and contact to nature with a very low risk of contamination"* (28/10/2020). The connectivity to nature and the environment brought respite from the pressures of the pandemic and the risks people felt towards being exposed to the virus when going out and being in close proximity to others.

Connectivity to greenspace

The connection to nature, greenspace and the physical environment was even more important during the periods of confinement where public policy instructed people to go outside only to exercise once a day. In these period(s) of strict confinement, the connectivity to nature and greenspace supported feelings of calmness, happiness, relaxation and a sense of being-blessed. For example one contribution

states "*During the confinement we could only go out to exercise and this is one of the places that I frequent. It's a great place to sit with nature and watch the sunset. It brought me a feeling of peace and hope during the confinement*" (20/11/2020). The nature and forests in the Greater Region became an attracting force for the flow of people in search of peace and distance from others.

3. Conclusion

The analysis of the preliminary results reveals hidden and unintended consequences of epidemic control decisions and outlines the impact that the pandemic has had on our relationship with places. The meanings we ascribe to places are constantly being formed, reformed and re-conceptualised as our activities, relationships and materiality of place are continuously shaped. This is especially the case during exceptional crises. Using a Citizen Science approach presented in this paper, we can begin to unravel, together (zesummen) the fluidity of our spatial interactions during the COVID-19 pandemic. Normally in urban design, co-presence is a useful design quality and is believed to enhance the vitality and place-making qualities of the built environment – but in the time of the peak pandemic it would appear that such a feature becomes detrimental. Open space and nature that offer solitude and distance from others become attractive and support spatial interactions shaped by confinement and distancing. Thus, raising the question of how should this inform urban planning design decisions and geographic models in the future, looking beyond the short term impacts of the immediate pandemic response?

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5. Acknowledgements

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