

Hybrid urban HCI interventions: towards story-driven citizen engagement

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When the term ‘urban design process’ is mentioned, it often is Sherry Arnstein’s ladder of participation [1] which is used to frame the potential of how stakeholders can be involved throughout an urban design process. The ladder introduces a spectrum of citizen participation, moving from non-participation (top-down) to putting the citizen in the driving seat (bottom up). As it stands, in order for policy makers and urban designers to move up the ladder and deeply involve citizens throughout the design process a lot of human effort is required; a participative design process is time and labour intensive, it is hard to involve a representative slice of citizens and, ultimately, gathering usable insights and feeding those back to the participants is not straightforward. In order to effectively move up Arnstein’s ladder, we believe novel technological advancements hold a lot of unexplored potential. Emergent technologies such as artificial intelligence hold the premise to support urban designers and policy makers in processing rich, multimedia, qualitative data input providing nuanced but meaningful insights able to inform urban policy making and design.

1 URBAN HCI INTERVENTIONS

For municipalities, an increasingly popular approach to urban participation is to deploy commercially available ‘digital participation platforms’. These platforms typically involve asking questions to citizens directly, collect ideas and votes or gather written feedback. Yet, we should be critical about these systems as, to some extent, they can create an illusion of participation and focus on ticking a policy maker’s ‘this process was participative’ checkbox. Instead of stimulating policy makers and urban designers to engage more deeply in the virtues of a true participative urban design process, existing participation platforms often boil it down to a one-directional inquiry [2]. Furthermore, the success of synthesizing actionable insights from the gathered results, highly depends on the data literacy and contextual knowledge of the responsible stakeholders [3]. Luckily, digital systems offer a lot more and can become engaging platforms where top down and bottom up interests can be combined. In literature, this is referred to as middle-out interventions - where different interaction modalities can be supported. This approach allows urban participation interfaces to be more engaging and eventually have the premise to be more worthwhile for all stakeholders involved [6].

2 CONTINUOUS PARTICIPATION

An opportunity that opens up when digital systems are adopted is to move away from the ‘question - answer’ paradigm, towards alternatives that facilitate engagement over longer periods of time [5]. Existing platforms are putting this into practice already but are mostly limited to web based environments. This kind of platform always excludes a significant slice of citizens as not everyone is digitally savvy or has access to digital tools. We therefore argue for a hybrid approach, reaching out beyond the screen and offering engaging public channels alongside other data collection methods.

3 STORIES NOT QUESTIONNAIRES

To make continuous participation a reality, urban designers and policy makers need to creatively look for ways to keep the interaction going. A promising way to do this is to collect citizen’s stories, which are contextualised, nuanced and multi-medial. A story is not a ‘yes’ or ‘no’ response, but provides a platform to citizens for genuine expression of their sentiments. Compared to more static urban participation methods, collecting stories holds at least two challenges:

3.1 Creating engaging triggers

When stories are to be collected, a trigger to get people to tell their ‘story’ needs to be specific but at the same time leave enough room for interpretation. In our current research (figure 1), we have been focusing on this aspect specifically, by running small scale experiments using different interaction methods and ways to engage participants. These small scale

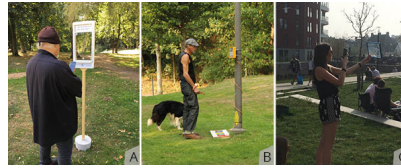


Fig. 1. (A) Consultation Frame (B) Citizen Dialog Kit (C) StoryMapper

experiments attempt to present citizens with different blends of physical and digital ways to interact during an urban participation project. By consciously trying out different interaction modalities we ultimately aim to come to actionable guidelines for urban participation, supporting all stakeholders involved (urban designer, policy maker, citizen).

3.2 Meaningful analysis

When stories are captured, novel technologies such as artificial intelligence become important facilitators to fully explore and uncover which messages a collection of stories hold. Based on previous experiments [4] we have been able to show that in order to fully contextualise rich multimedia data, a data analysis process can be supported by digital agents but will still require a significant amount of technological advancement to be usable directly.

4 CONCLUSION

In this position paper, we highlight two opportunities novel digital systems bring to urban design and policy making: continuous participation and rich media collection. Furthermore, we introduced three opportunities how designers and policy makers can move beyond ‘answer - response’ participation mechanisms and build towards an engaging dialogue:

- Participation should be continuous, it doesn’t start or stop with one project. In order to achieve this, gathered input should remain meaningful and actionable for all stakeholders involved.
- Think in stories not questionnaires by enabling citizens to tell their story in a nuanced way. Allowing multimodal ways to capture input in a multimodal way using a mix of audio, video and images.
- The community needs to remain in control, meaning that all insights distilled by a digital system need to be made available in an as open and transparent manner as possible. Taking this as a foundation, our aim is to further contribute to conceptualising and building a supportive system for urban design.

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