Future Faceting - Exploring multifaceted urban futures through interaction- and service-design

This paper is about exploring how interaction- and service-design approaches can be used in imagining and proposing urban futures. The paper presents an ongoing project on investigating how experiential, prototype-driven design methods from service- and interaction-design can offer new ways of exploring possible futures in today's increasingly digital, service-driven cities. We have named this approach 'future faceting', as it offers a framework for collectively exploring and experiencing multiple facets of future urban life through designed interventions and prototypes. Through future faceting the design of multiple, parallell experience-prototypes together reflect multiple perspectives on future urban life. These prototypes express future possibilities in the present that can be experienced by citizens, designers and urban developers, and can thus contribute to grounding multifaceted futures in the richness and heterogeneity of contemporary urban life. The approach is being developed with a network of researchers, students and designers through workshops, practice-based research and teaching. Across case-studies spanning urban development, mobility, and activism, the project have explored different modes of using prototyping to broaden the horizon of possible urban futures.

Over the last 10 years we have witnessed a widespread digitalisation of cities and urban societies. Digital services are making their mark across urban living, e.g. within mobility, welfare and social life, and design is being introduced into governance and policy-making (e.g. Townsend, 2013; Landry, 2016). With this shift towards digital and services-led cities, new professions, new sectors and new design practices are involved in shaping the urban experience at various levels (REF). However, the traditional urban professions, like architecture, engineering and urban planning, and the emerging digital- and service-oriented design professions, are not seen as integrated practices with equal involvement in terms of developing urban futures. While the traditional urbanism professions are tasked with overall, long-term plans and strategies, the 'new' design professions are typically limited to realising discrete services, or being involved in facilitating citizen-participation within established planning-processes. Traditional urban development, in terms of planning and architecture, typically takes place over the timescale of decades, while the evolving digital and service-oriented industries currently operate on the timescale of months or years. These fields therefore offer different scopes for shaping future urban life, but also different methodologies for creative exploration. In our research we observe that while interaction- and service-design are now increasingly a part of city-making through their impact on urban living, these disciplines potential for contributing to urban future-making is not fully realised (Hemmersam et al, 2017). We therefore address how the explorative methodologies of interaction- and service-design can be applied towards re-thinking urban futures.

Service- and interaction design work with highly adaptable materials and formats; such as software, digital data, structures for service-delivery, and communication. Services are experienced over time and their value in use is deeply connected to the unfolding and shifting needs and desires of citizens. The design of interactive experiences and services are typically freed from the constraints of the built environment. As exemplified by smartphone-based mobility applications, such as bike-sharing, where and how an urban service is delivered is dynamic and can often shift. Based on the flexibility of their materials and formats, interaction and service-design practices have developed a rich repertoire of techniques and methods for iterative concept-development with and through prototyping and user-testing. In this paper we present 'future faceting' as a work-in-progress framework for using these exploratory methods as ways of rapidly evaluating and experiencing multiple potential near-futures through prototypes of urban service concepts.

Through a series of case-studies with design-students we have looked at a varied set of issues in urban development and urban futures through the lense of 'future faceting'. These cases have included the future of mobility practice (with Oslo public transport agency Ruter), urban renewal in a Bangkok neighbourhood (with urbanism and architecture students at Chulalongkorn University), and explorations of inclusivity in digital cities (with the research-group Digital Urban Living). In

each case we have tasked a series of design-teams with the task of developing service-concepts that explores the broader possibilities of the given issues from the perspective of urban life. Each service-concept focus on one specific near-future possibility, and the concepts are shared and evaluated through a variety of experiential prototypes. These prototypes have included interactive applications, e.g. for promoting pedestrians in public transport strategies; service 'pop-ups' where a service can be fully experienced over a short period of time, e.g. for exploring the cultural dimensions of urban renewal; and light-weight interactive or social pilot-projects where new services are facilitated using existing digital platforms, e.g. through using social media for promoting volunteering as a tool for social sustainability. These modes of prototyping not only articulate visions for urban futures, but also offers concrete interventions where possibilities for near-future urban life can be collectively experienced in the present.

Preliminary results from our explorations suggest that whilst a single service-prototype can gives insight into the potential of one particular concept, multiple prototypes can offer a multifaceted view that creates a broader image of a contingent urban future. As well as offering takes on how design can contribute to questioning and exploring anticipated urban futures, the paper also questions the role of interaction- and service-design in current urban development and strategy. Today interaction- and service design is typically used to realise existing urban policy or to realise discrete innovations, but as Dan Hill writes, designed prototypes can also been used as 'trojan horses' in influencing through introducing new mindsets and experiences through design encounters (Hill, 2012). With our study we aim to expand the ways in which design can also contribute with methods for exploring and critiquing the rich possibility-space within broader urban futures. Here, the purpose of prototyping and concept-development is not service- delivery in itself, but using the experiential qualities of designed prototypes to think about facets of possible futures - offering plurality and heterogeneous perspectives. With 'future faceting' we see experience prototypes and design interventions as a strategic tool for investigating and broadening urban futures. 'Future faceting' brings the lived realities of today into the making of futures, but also brings facets of the future into today - allowing us to question and consider a broader range of urban future trajectories.

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