

Mobility as Empowerment: Co-Design with Communities as Empathic Service Innovation

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1. Workshop Organisers

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2. Co-Design Mobility as Emotional Sustainability

Mobility is a critical contributory factor to quality of life. Public transport systems are among the most ubiquitous and complex large-scale systems. People with poor mobility are less likely to access services, participate in civic life, and have reduced quality of life. There is a gap in the understanding of transport operators and authorities (Woodcock, 2015) of the needs of traditionally 'hard to reach' groups who are the most dependent on public transport and most vulnerable when services are cut back. As designers we need to understand mobility (defined as the ability to move or be moved freely and easily) as a requirement to foster emotional sustainability among the 'hard to reach' communities.

Addressing complex, social and wicked problems of people experiencing vulnerabilities has led public and community organisations to realise that social innovation is best to be achieved by new ways of engaging with people who face these problems head on. Their perspectives and living realities need to shape initiatives, with non-tokenistic participation enabling user centred service design and empowerment. In view of this, we extend the concept of 'everybody design' (Manzini & Coad, 2015) to design for mobility by empowering marginalised communities to co-design. Also, seeing mobility design as service design with communities (Sangiorgi, 2009), allows the research to inspire design goals addressing emotional sustainability for transport.

In addition, design for mobility, if carried out with empathy (McDonagh, 2017), would not only support the functional need of a single user, but could also achieve emotional sustainability among communities. A practice-based empathic research method (McDonagh,

2015) could be useful to identify and even to project the unforeseen design requirements beyond user requirements. Empathic modelling provides the opportunity for designers to immerse themselves in a lived experience of the user in order to more deeply understand the functional and emotional needs of users. This approach also ensures more intuitive design outcomes (McDonagh, 2015, 2016, 2017).

3. Collective Imagery for Empathic Service Innovation



Figure 1 Physical Community Art Installation

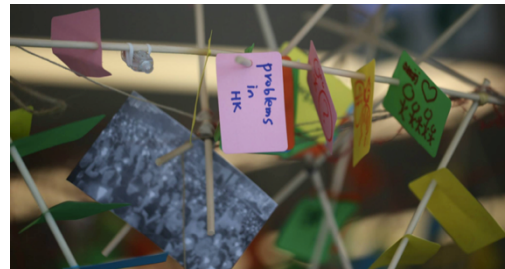


Figure 2 Insights in narratives



Figure 3 Collective Imagery – the elements



Figure 4 Co-construct complex concept

To achieve service design with community, we facilitate social innovation by envisioning and enacting a common goal towards human-centred design through the externalization and sharing of individual creative imagery in physical community art installations termed Collective Imagery Weaves (Chueng-Nainby & Gong, 2013). The weave acts as a collaborative design space to create public awareness on the issue in question, such as mobility. The visually rich data-driven installation can serve as collective insights from community in the forms of narratives. It is a conceptual structure of design elements that mediates communities' shared imagination space, in which connections of ideas are made possible through the spatial activities of deconstruction, construction and reconstruction. The framework has been employed to investigate products, systems, and service designs for healthcare, tourism and urban-rural development in both the private and public sector (Chueng-Nainby, 2014; Chueng-Nainby, Fassi, & Xiao, 2014; Chueng-Nainby & Gong, 2013; Chueng-Nainby, Lin, & Hu, 2015; Mulder-Nijkamp & Chueng-Nainby, 2015; Preez, Cilliers, Chueng-Nainby, & Miettinen, 2015).

Two mobility co-design workshops will take place during May and June 2016 at Illinois (USA) and Coventry (UK) during which Collective Imagery Weaves will be used to create narratives of older people's experiences of mobility and transport services. Transport stakeholders

(such as operators, planners and authorities) will be invited to participate in the making of installations and the methods used, thereby increasing the potential impact of the work and ensuring that they understand how the narratives relate to the lived experience of transport for these users and how such activities can be used as a catalyst for innovation in transport services. The outcomes of these workshops will be used actively at this workshop.

4. Workshop Activities

We invite researchers in service, interaction and community-led design, to submit unexpected possibilities in mobility design. Each participant will be required to submit literature and cases in words, visuals of their observations on local community's interaction with mobility products, services or environments, and questions with regards to public transport; and 2) their background and workshop expectation. Participants' cases will be analysed to map with others' cases and those collected from Coventry and Chicago.

Working in groups of four, the workshop will run from 1pm to 5pm in four 50 minutes sessions with breaks when: 1) Participants' cases will be deconstructed into elements to be sorted. 2) Participants will weave the cases to connect to data collected from Coventry and Chicago workshops. 3) Participants will map user service journey with according to themes and connect to other groups' outcomes; and 4) Evaluate and feedback on the designs, research outcomes and the methods, possibly in weight to communities' empowerment.

Maximum workshop participants will be thirty. Participants will work in teams of four at the beginning and gradually combined into a collective. The workshop will be benefited by projection facilities and studio-like spaces with smaller square tables that are configurable in a number of ways throughout the sessions. The workshop could be benefited from a public space nearby to hold the installation to continue engaging the conference community, but it is not a must. The installation is flexible in size and shape for any limited space.

5. Output: An Ontological Aspect of Service Innovation

Two systems of thinking are relevant in this workshop: Transport design and Co-Design for service Innovation. Both require a visualization system that is useful for the communities to collectively innovate for their needs. Through this workshop, we hope to explore the framework of co-design tools when collaborating directly with communities for service innovation. In particular we aim to identify the possibility of an ontological aspect of these two systems (Chuang-Nainby, Zi, Lee, & Gardin, 2016). Both design and research outputs are envisaged from this workshop which will bring collaborative publish output in the form of design case studies and co-design framework for empathic service innovation solution.

6. References

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About the Organisers:

Dr. Priscilla Chueng-Nainby is design activist and academic focuses in co-design with communities for social innovation. She designs public engagement tools in the form of art installation to envision and enact communities' intelligence to innovate for meaningful causes. Her work has exhibited worldwide, see www.priscilla.me.uk.

Professor Andree Woodcock is an ergonomist focuses on transport and mobility. She leads the Mobility and Design group in the Centre of Mobility and Transport at Coventry University. Her work focuses on systems-thinking and user-centred design principles in solving societal grand challenges.

Professor Deana McDonagh is expert in empathetic modelling focuses on emotional user-product relationships and how empathy can bring the designer closer to users' authentic needs. She designs intuitive and meaningful products to enhance quality of life, leading to emotional sustainability.