*Title:* **The Sharing City – a Catalyst for Urban Sustainability?**

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**EXTENDED ABSTRACT**

**Background and research problem:** Today over half of the world population lives in cities, and the number of urban residents grows by 60 million each year. The urban population is projected to double in the next 50 years. While the cities become more and more economically productive, the urbanisation trends are likely to lead to even further deterioration of natural resources and aggravation of environmental problems due to unsustainable lifestyles and consumption patterns and levels, as well as pose new social challenges such as poverty and inequality for the cities to face.

At the same time, the amount of existing equipment and infrastructure in urban areas that is barely used is significant. For example, 29 million personally owned vehicles are used on average one hour per day. Cities are recognised as 'a battlefield for sustainability' since they can become generators of innovative solutions to unsustainable consumption trends. Among other things, they transform urban metabolism by offering new platforms and spaces for service provision, and in this way become meaningful enablers of the sharing and collaborative consumption and production.

The "Sharing City" is a recently articulated concept, which combines the benefits of a sharing economy and collaborative consumption with urban development and community building. While the notions of sharing in cities are well-known, research is needed on the role of sharing practices and collaborative consumption experiments in catalysing the shift to more sustainable consumption and production in urban areas.

**Research questions (RQs):** This study aims to provide a better understanding of the "sharing city" concept, and its role in enabling urban sustainability. The RQs posed here are:

- Why do the Sharing Cities emerge and what role do they play in enabling urban sustainability?
- How might Sharing Cities catalyse the shift to more sustainable consumption and production?

The study focuses on three cases including the cities of San Francisco, Berlin and Seoul to bring the answers to the RQ.

**Theory:** Sharing initiatives and collaborative consumption experiments are viewed as innovative ways of value creation, which often emerge outside established systems of service provision (e.g. incumbent business models) but have a potential to embed into or disrupt such systems, and thus become institutionalised. The part of neo-institutional theory, which explores the emergence of new ways of doing business, is applied to explain how the new sharing practices can successfully penetrate mainstream markets (Aldrich and Fiol 1991). We argue that once the sharing in cities gains both socio-political legitimacy (i.e. the acceptance in the eyes of policy makers and municipal leaders, who can provide political support in terms of legal frameworks and subsidies, as well as enabling infrastructure) and socio-cognitive legitimacy (i.e. understanding and acceptance of sharing schemes by city dwellers, who are potential users of these schemes), it will become institutionalised and embedded into existing social-technical regimes within the cities.

**Methodology**: This work applies qualitative methodology to data collection and analysis, which is preferred when the investigator seeks to answer "why" and "how" questions (Yin 1994). It is also used when a researcher has little control over events and when the focus is on a contemporary phenomenon (sharing practices and collaborative consumption experiments) within real-life context (cities and urban areas). The qualitative approach is used in this work as it aims to explore the conditions under which specific outcomes occur (e.g. sharing cities emerge), the mechanisms through which they occur (e.g. mechanisms to penetrate/disrupt established markets and ways of doing business), "rather than uncovering the frequency with which those conditions and their outcomes arise" (George and Bennett 2005).

Methods for data collection include a literature analysis and nine semi-structured interviews and expert consultations. The Kipling Method (also known as 5W + 1H questions) is used as a framework to structure and rationalise data collected in a general literature review as well as in the three case studies of sharing cities. The questions in the framework seek to provide data on *when* the sharing became a part of an urban landscape, *why* it occurs in a city, *what* is being shared, *who* shares it, *where* the sharing happens within the city as well as how the sharing is perceived by the city actors. The case studies include the cities of San Francisco, Berlin and Seoul, which represent three continents (i.e. North America, Europe and Asia), three different population sizes and three different driving forces behind sharing. These cities are also chosen as they display a variety of present or emerging sharing initiatives and collaborative consumption experiments. Data analysis is guided by the neo-institutional theory, and explores the levels to which the sharing practices have gained socio-political and socio-cognitive legitimacy in each of the three case studies.

**Results and conclusions:**

The key reasons for the emergence of Sharing Cities identified in this article include major shifts in the global economy such as the recent economic recession, changes in attitudes towards consumption and ownership, and the development of Information and Communication Technology (ICT), which enabled the creation of new markets and sharing platforms. It is found that Sharing Cities can benefit the economic, environmental, social, and democratic dimensions of an urban community.

When analysing acceptance and understanding of sharing practices in the three case studies, it is clear that in Berlin case, value creation through sharing is delivered by the enthusiastic population and thus has gained socio-cognitive legitimacy while any political support of such initiatives is currently missing, and no formal structure of sharing exits. In Seoul case, on the opposite, the socio-political legitimacy of sharing has been acquired through a strong support by the city government resulting in 20 sharing programmes and policies. At the same time, knowledge about sharing possibilities in Seoul is still thinly spread among its residents, i.e. the sharing initiatives lack socio-cognitive legitimacy. San Francisco is a home city to two institutionalised/successful sharing value creation models: AirBnB and Uber, and a variety of sharing initiatives within transportation, food and housing sectors. San Francisco case is a clear example of sharing practices acquiring support both from the municipal government through changes in its planning and land use codes and supporting pilot sharing schemes (i.e. socio-political legitimacy) as well as its citizens, who are the users and co-creators of these schemes, as well as their active promoters (e.g. through online ratings), which even further increases the socio-cognitive legitimacy of sharing.

While this study shows that a viable strategy for sharing value creation models to enter mainstream markets and become institutionalised is through gaining both socio-political and socio-cognitive legitimacy, a precaution should be taken when one is to consider scaling up those schemes. One risk of the commercial expansion of sharing is in the previously 'private' life spheres with intrinsic social benefits becoming excessively marketed, which exposes many areas of life to the logic of commercial exchange.