

Scandinavian Hub

Can Bike-sharing Contribute to Transport Justice?

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Executive summary:

New mobility solutions have so far primarily been designed to fit the mobility needs of high-income user groups and may have limited impacts on injustices in the transport system. With evidence from a case study of a bike-sharing system implemented by a local authority in Sweden, we present how this bike-sharing system is used presently, and how BSS's can be developed to meet diverse transport needs and improve equality. The analysis is based on interviews and document studies and shows that the system at present mainly attracts users that already have high accessibility. That docking stations were placed in vulnerable residential areas, combined with an affordable price model, suggests that the system has potential to contribute to a more just transport system. Local authorities must take a more proactive approach in BBS design in order to reach long-term objectives in line with sustainability, equality and justice.

Key messages:

- **PURPOSE:** This policy brief is based on lessons from a local bike-sharing system (BSS) in Linköping, Sweden. The study's aim was to explore users' experiences and analyze how BSSs can contribute to a fairer transport system.

- **TARGET GROUP:** This brief is useful to policy makers and BSS operators for gaining insights into how BSSs can contribute to a socially just, financially viable and environmentally sustainable transport system.

- **TRANSPORT JUSTICE AND BSSs:** Transport justice concerns differences in accessibility between the best-off and worst-off groups in society, stressing the need for fairness in the distribution of the accessibility and affordability of all types of transport services.

A "one size fits all" approach to bicycle design does not reflect the multiplicity of the city and excludes disadvantaged groups like people with disabilities. A bicycle fleet that includes, for example, cargo bikes would improve accessibility for different social groups.

The study the policy brief is based on was conducted by a research team at VTI: Malin Henriksson, Anna Wallsten and Jonas Ihlström.

Read more about the research team:
<https://www.vti.se/en/research/people-in-the-transport-system/mobility-social-inclusion-and-justice>

Introduction:

Studies find that bike-sharing systems (BSS) often target young, white males that are well-educated and of high income in urban areas. These systems usually do not recognize that men and women have different travel patterns. There is also a lack of options for people that are less physically able, children, and people with larger baggage. BSSs are often located in wealthier areas. They exclude persons without smartphones and credit cards. There is a push for developing BSSs that are fairer and accessible to more diverse groups of people. However, research is still lacking in this area.

Linbike is a BSS that was launched in September 2019 in Linköping, Sweden. It was an initiative taken by the local authority and is the largest BSS in Sweden today. LinBike offers 200 electrical assisted bicycles at almost 20 docking systems located throughout the central parts of Linköping. During the winter, the cycles are equipped with studded tires. Helmets are not available. This service is available for both private and business use. Even though this service is intended for a broad range of users, it is mainly being used for job commuting. The BSS business model is subscription-based or pay per journey. Users must register their personal details in an app to gain access to the BSS.

• Research Overview

The study of the LinBike bike sharing system aimed to shed light on the experiences of users and how a BSS can contribute to a just transport system. The daily activities of LinBike systems design and usage were studied and analyzed.

Specifically, this inquiry investigated how BSSs can be developed to include and address the needs of different socio-economic groups in urban areas, to reflect a multitude of user needs.

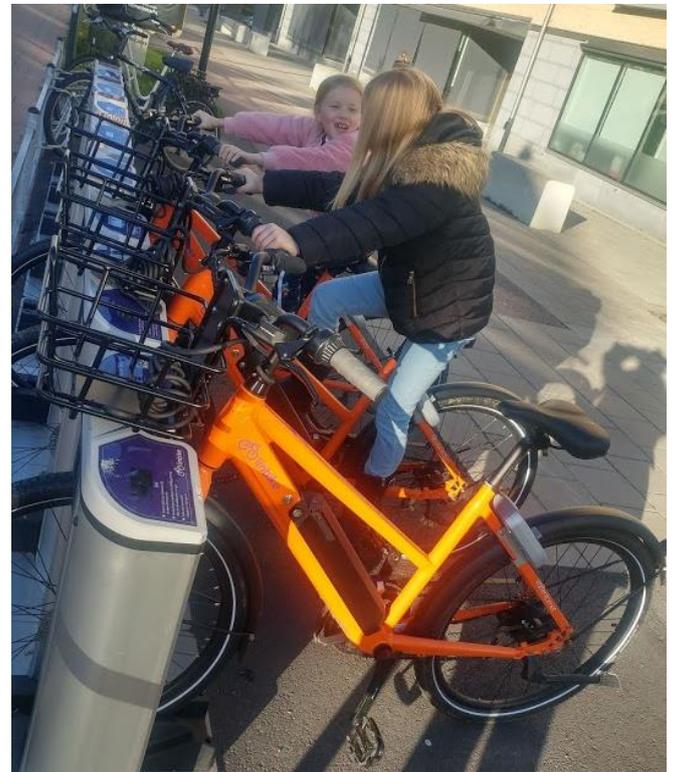
- 1 RESEARCH APPROACH:** The study was designed as a single case study. On-site semi-structured interviews with users of the BSS were combined with interviews with Linbike representatives, and document analysis of Linbike material. The analysis is influenced by theories on transport justices and time-geographical theory.



2 RESEARCH RESULTS: Linbike was established by the city of Linköping to help achieve its political objectives, that 40 per cent of its traffic should be comprised of bicycle trips, to strengthen local businesses, and to improve Linköping’s image as a forerunner. Inbound commuters and business were identified as target groups which guided the design of the BSS.

The placement of docking stations was based on a travel pattern analysis with the largest stations placed in the center of the city. Areas with larger work places and commuter parking spaces were also chosen, as well two low-income residential areas; however their needs were not considered as it was assumed that they would benefit in a similar way as the primary target groups.

The “one size fits all” model of Linbike excludes certain users. These groups include parents with children and persons with luggage, and children and youths since there is an age limit of 18 years for registration. The most commonly used docking stations are those that lack good connections to public transport. Also, one of the stations in a low-income area is very popular.



Based on the on-site interviews, users mostly included young men that were students or worked in IT or engineering. The main purpose for using the BSS is daily commuting. One of the most active user groups was bicycle couriers that deliver food with the bicycles. Users are mainly positive to Linbike since the bicycles are perceived as comfortable and fast.

To some extent, the service has also been used by groups with traditionally low accessibility at risk of transport poverty. Linbike connects them to the public transport system and increases their accessibility to activities such as work.



Conclusions

- By initiating a BSS, the local authority took a proactive role in reaching long-term objectives. There is a political ambition to make Linköping a forerunner and to contribute to environmental sustainability, public health and strengthen local businesses. Here, the BSS is seen as one way to support these goals. This shows that connecting BSS to broader political objectives can facilitate its development.
- The “one-model-fits-all” logic excludes certain groups. The main user groups already are highly mobile and experience high accessibility. That the system design included docking stations in two low-income residential areas and had an affordable price model are examples of design considerations that have potential to target diverse usage.

Recommendations

- The “one-model-fits-all” logic that dominates BSS design today cannot build a solid basis for the transition to a more sustainable and just society: it excludes users beyond the norm.
- A BSS design needs to take the needs and wants of marginalized groups into account in order to contribute to transport justice.
- Stakeholders need to prioritize equality objectives in strategic plans and programs. These objectives must guide the design of sharing services to contribute to transportation justice.
- Local authorities must take a more proactive approach in BSS design in order to reach long-term objectives in line with sustainability, equality and justice.

Contact

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Recommended reading

Gelinder, M. 2020. Potential justice-implications in system design of bicycle sharing systems. Master thesis. Radboud university.

Nixon, D. V. & Schwanen, T. (2019). Bike sharing beyond the norm, *Journal of Transport Geography*, 80, pp. 1-4.

Uteng, Espegren, Throndsen, Böcker. "The gendered dimension of multimodality: Exploring the bike-sharing scheme of Oslo." In *Gendering Smart Mobilities*, pp. 162-187. Routledge, 2019.



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