Assessing the Practicability of Munich's Existing Bicycle Infrastructure to Accommodate Current and Future Bicycle Types

Master's Thesis of Bibin Ommachan

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Introduction

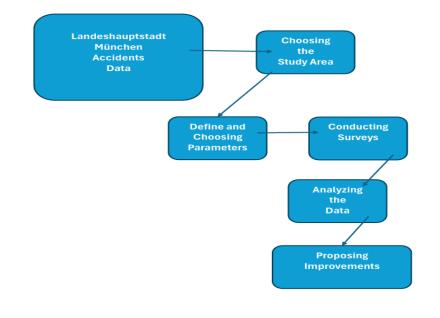
This study evaluates Munich's current bicycle infrastructure and explores ways to enhance it to support various bike types, such as standard, electric, and cargo bikes. The goal is to identify key issues and propose design changes to improve the safety and usability of Wittelsbacherstraße and Humboldtstraße for all cyclists. By understanding cyclists' experiences and perceptions, this study aims to propose a few improvements to create a more efficient and safe cycling environment.

Research Questions

- How well does the existing infrastructure accommodate different bicycle types, including standard bikes, electric bikes, and cargo bikes?--This question aims to assess whether the current infrastructure is suitable for various types of bicycles.
- What are cyclists' opinions regarding the safety, comfort, efficiency, and convenience of the current infrastructure?--This question seeks to gather cyclists' perceptions and experiences with the existing cycling facilities.
- What design modifications can enhance the existing bicycle infrastructure to accommodate emerging cycle types better?--This question focuses on identifying potential improvements to make the infrastructure more inclusive for all types of bicycles.

Methodology

This study uses a structured approach to address key research questions by evaluating Munich's bicycle infrastructure and proposing improvements. The methodology involves:



Results

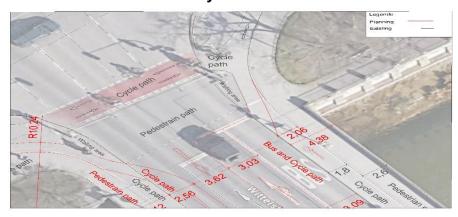
The study found that while Wittelsbacherstraße generally accommodates standard and electric bikes well, cargo bikes face some difficulties due to limited space on curves and junctions. In contrast, Humboldtstraße's narrow and uneven cycle paths pose significant challenges for all bike types, particularly cargo bikes.

Improvements

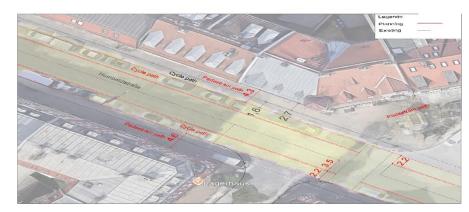
1. Dedicated Right-Turn Lane for Cyclists



2. Combined Bus and Cycle Lane



3. Wider Cycle Path on Humboldtstraße



Limitations

This study focused on two specific cycle paths in Munich, which may not represent the entire city's cycling infrastructure. With only 25 in-person participants, the results might be biased. Key parameters were targeted to streamline data collection, potentially overlooking other factors. The study included standard, electric, and cargo bikes but excluded bikes with trailers due to low participation.