

Title/Topic

Visual Exploration of shared bike data with an Interactive Visual Interface

Objectives

The objectives of this project are;

- Assess existing geovisualisation approaches
- Explore user preferences for shared bike data
- Develop/design an optimized interactive interface of shared-bike data to improve spatial knowledge acquisition for transportation planning.
- Explore various visualization aspects
- Evaluate the designed prototype

Topic Description

Shared mobility services have achieved increasing popularity because of their assertive impact on the sustainable development of urban infrastructure in recent years. It allows its users to reach their destinations, without waiting times for public transportation for short distances. Bicycles have the possibility to decrease traffic density and emissions, enhance mobility, and advance public health. That is why planning infrastructure for shared-bikes is important. Since 2015, the public transportation company of Munich, MVG, publishes open-source shared-bike data every year. The data consists of the location, time, and station information of each rental. Within the data, it is also possible to observe if a user, returned the bike to a bike station or not.

The main goal of this project is to visualize user preferences for the shared bike to a better understanding of the effectiveness of its infrastructure and to enable future planning of such infrastructure.