

Capacity Area B1 Topic 2.2 Deliverable 1

Prototypical implementation of a mobility choice recommender system

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The mobility choice recommender system consists of a) a formalization of transport offers that allows the specification of less frequently used transport modes (such as bike- or ridesharing) with the aim of generating “high-level” transport graphs (connecting transfer locations at which people can transfer from one mode of transport to another), b) a component that processes passively tracked mobility data (by segmenting the data into trip legs covered with different transport modes, imputing transport modes and activities, and augmenting the data by joining it with spatio-temporal resp. geographic features) with the aim of generating user profiles that describe how a person would behave in a given situation, and c) a routing component that utilizes the previously mentioned two parts to generate personalized high-level route plans (that are ranked and thus form recommendations based on a user’s preferences exhibited by previous mobility). The system was implemented and evaluated as part of the doctoral dissertation “Spatio-Temporal Information and Communication Technologies Supporting Sustainable Personal Mobility” (2020) by Dominik Bucher and will be available upon official publication of the dissertation.