Head:	Prof. Dr. Eva Heinen
Topic:	**Accessibility and Shopping Behavior**
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Registration:	www.ivt.ethz.ch/en/studies/downloads/assignments.html#registration

Shopping behavior is responsible for a considerable share of trips in daily life but has raised comparably little attention in research. This study aims to investigate the relationship between the accessibility of grocery shopping opportunities and shopping behavior in the Swiss context. Using data from the Swiss Microcensus in combination with additional sources of spatial data (e.g. OpenStreetMap), the first step of this study is to measure accessibility levels from home or work locations. Based on this, connections to the actual shopping behavior observed in the Microcensus can be made. Analyses can explore the following questions: How strongly do shoppers value trip distances? Do they usually choose the store that is located closest to them or can other kinds of patterns be observed in the data?

The study entails the following tasks:

- Literature review on accessibility and reasons for destination choice concerning shopping behavior
- Analysis of grocery store accessibility in Switzerland. Based on the literature review, an appropriate measure should be chosen. Depending on the format of the thesis and personal interest, this can entail either a GIS analysis of Switzerland or a network analysis of a predefined area.
- Connect the results of the spatial analysis to the data of the Swiss Microcensus.
- Select relevant measures of shopping behavior and analyze the relationship between store accessibility and different behavior metrics.
- Discussion of the results: Based on the findings of the study, develop and discuss policy measures to improve issues identified in the analysis (for example: improve accessibility levels, decrease distance traveled by car)

Links:	
Additional remarks:	We suggest to conduct the analysis in R or Python. Other programming languages or software can be used, but in these cases software support cannot be given.
Minimum credits:	Topic suitable for MSc or BSc thesis, credits depend on the study program
Recommended lectures:	• GIS