State of train mobility in Germany

AUTHOR: DOMINIC FISCHER

VERSION: 1.0

Questions to be answered

- Where is the expanion or improvement of existing rail connections worth prioritising?
- Where is already good train infrastructure, where should improvements be made fastly?

Datasources to answer the questions

- Datasource 1: Connection times between the biggest towns in Germany
  - Turtle file with a RDF Graph
  - Connection Times for Car and Train Connections
  - But: Turtle - File was corrupted – difficult preprocessing required
- Datasource 2: DB Timetables API – Known Interferences by train station
  - Distinguish incidents by different categories (major disturbance, disturbance, …)
  - Time Stamps for each disturbance given
  - Central train stations of towns that occur in Datasource 1 were queried
  - But: Data changes over time

Results for Datasource 1

- There are already towns that are in terms of connection times better connected to other towns. Driving by car from these towns to other towns would last much longer.
- We see that this counts for the *fastest* train connections. For *median* train connections, we observe that in most cases car connection times are still better.
- There are also really bad connected towns: There exist towns that haven´t even one train connection to another town that is faster than the car

Results for Datasource 2

- It seems that in North Rhine-Westphalia are train infrastructure problems at the moment
- Not really significant result as data needs to be collected over a very much longer period to be certain

Problems during the whole project

- Corrupted ttl file of Datasource 1
- Contineous updates for Datasource 2 required
- XML representation of the data of Datasource 2

Outlook

- Contineous grasping of data from Datasource 2 over a long duration
- Including multiple stations per town
- Comparing train connection times of Datasource 1 with real-time information from the DB Timetable API

Thank you for your attention!

Any questions?