Kadaster Assignments

Quality Model for the Key Register Topography (BRT)

The key register Topography contains quite a lot of building object types (such as prisons, universities, hospitals, etc.), with an uncertain quality. This assignment is to set up a generic model that is applicable (by configuration) to all object types of the BRT. It should be smart in the sense that it should incorporate data that is available on the web. Based on this model we should be able to start improving the quality of the BRT.

Knowledge Graph Creation

Since Knowledge Graph are listed on the Gartner Hype Cycle (2018) many organizations have started developing such a Knowledge Graph. Also the Dutch Kadaster. However our interest differs in our intention to publish the knowledge graph as open data. As our intention is to include both authorative formal data, as well as resources from the public, more community based, our goal is to automatically build the Knowledge Graph, including the graphical representation. For that we need metadata profiles for the individual datasets, including information about the linking, quality aspects, provenance, and more. This assignment is study and test the possibilities of automated knowledge graph creation.

Reasoning and interferencing with Knowledge Graphs

Currently we have at Kadaster our first version of the Knowledge Graph, which consists of (parts of) three key registers of the Dutch Government (Key Register Adresses and Buidling, Key Register Topography and Cadaster Parcels. One of the key benefits of a Knowledge Graph (linked data) is reasoning and interferencing. A powerful concept. We want to explore the potential of reasoning and interferencing on our Knowledge Graph. What new insights can we gain? What will be the main use case?

Automated Linkset creation between Community Data and Authoritive Data.

One of the fundamental principles of Linked Data is "Linkability". Currently there exists two distincts worlds; the world of formal authorative data (such as the key registers), claiming to be the (legal) truth, and the world of community data (such as Wikipedia, Open Street Map). In this assignment we would like to study and test the approaches by creating (automatically, including updates) linksets between these different kind of datasets to create a knowledge graph consisting of both types of data.

Visualisation and Self-Service Data Analytics

With the uptake of Data Science we see many great examples of data visualization. Many dashboards have been constructed that are pre-defined. In our ambition we believe that users of our data should be able to create their own visualization on the fly, on the Web. We call this self service GIS (Geospatial Information Systems). With this assignment we want to study the architecture of a self service GIS platform, which technical components can be used to create such platform and what are the chances of specific standards (such as GraphQL)?

Use Case of the Knowledge Graph in the Cultural Heritage domain

Already a lot of linked data has been published in the culture domain by organisations such as the National Archive, National Library and the Cultural Heritage Institute. In this assignment we want to create a data stories in which this data (together with Kadaster data is used), this data story will be published on the Kadaster Labs environment.

Other topics that have our interest:
- Enterprise Knowledge Graphs: The value of Knowledge Graphs on Kadaster/PDOK data.
- Gamification and Linked Data: Play-a-Lod Kadaster and Pokemons

- GIS and Linked Data; How to foster the benefits from both worlds?
- SOLID: the new concept for privacy data sharing; what is the impact?
- BI and Linked Data: How BI tooling can be used to consume Linked Data.