How to Add a User Interface on Top of an External SPARQL Endpoint: Case NOBEL PRIZE SAMPO

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Contact: karlis.cerans@lumii.lv, heikki.rantala@aalto.fi
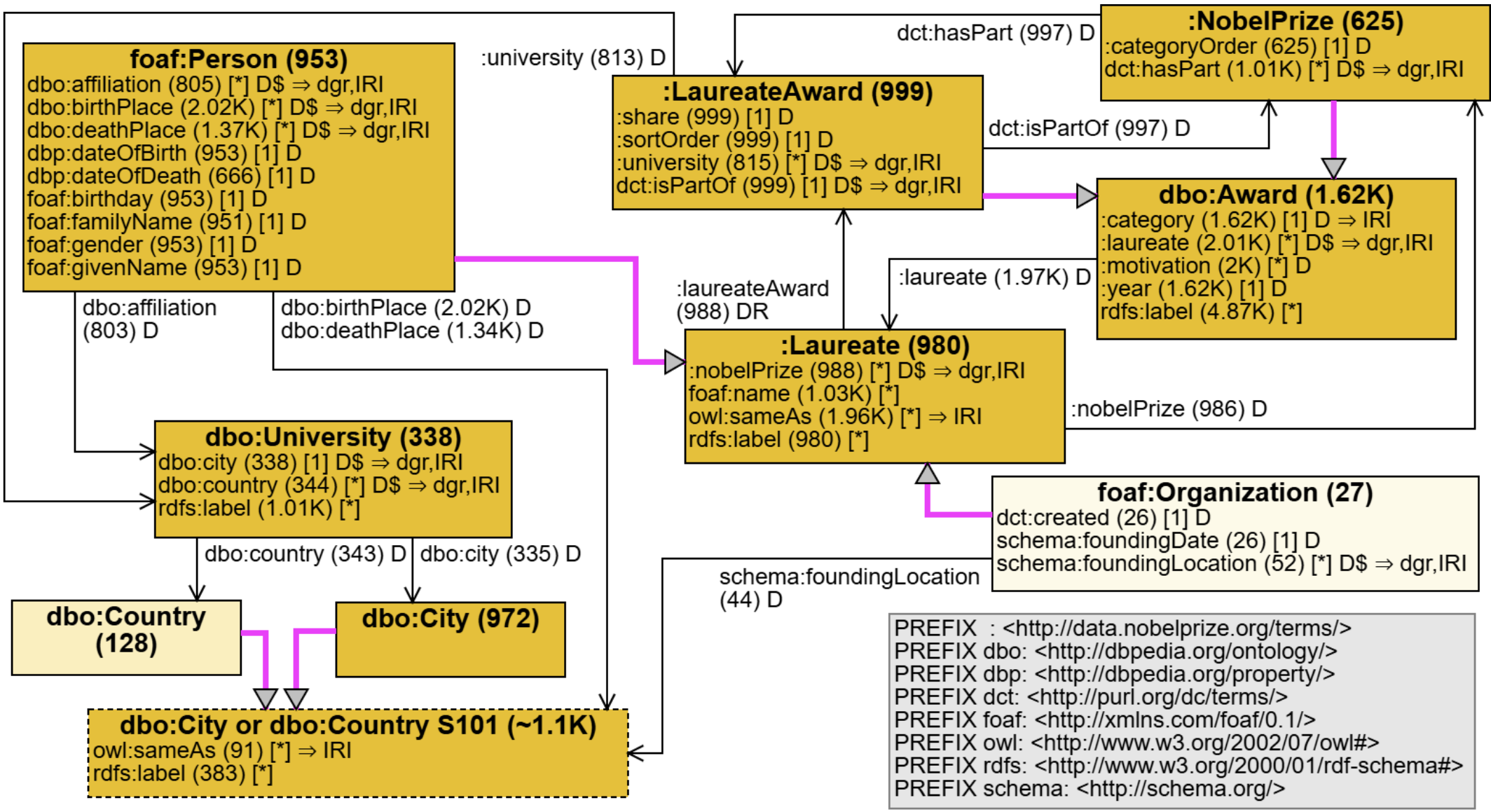
Demo: https://nobel-prize-sampo.lumii.lv

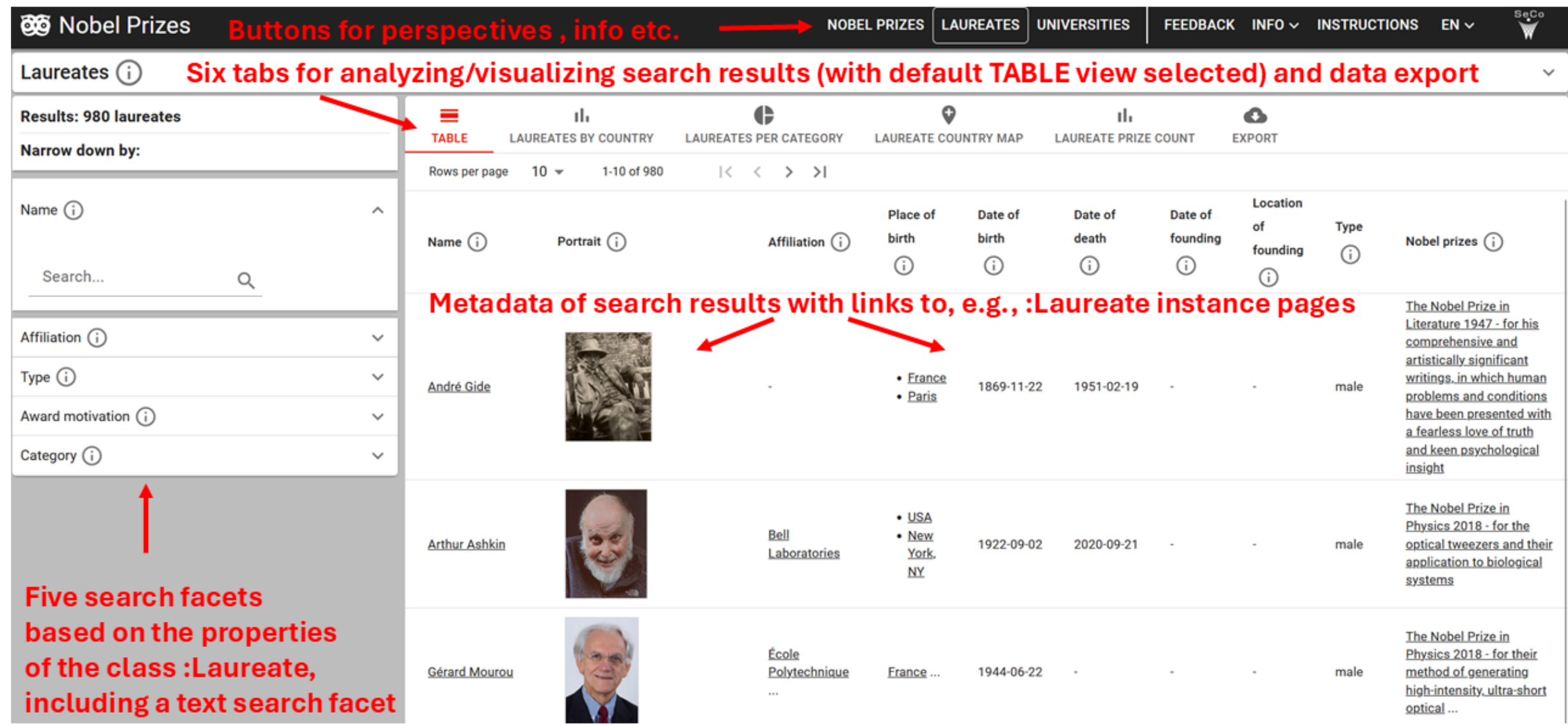## Sampo-UI: a generic open-source framework for Linked Data UI creation

- Based on concepts of classes, their properties and instances

- Configure UI in a declarative fashion by describing application perspective windows, based on KG classes

- Faceted search and filtering engine, synchronized views of the perspective data

- Class properties, property paths and SPARQL queries used for data access to create rich data views

- Resources: https://seco.cs.aalto.fi/applications/sampo/
https://github.com/SemanticComputing/sampo-ui

Nobel Prizes: external SPARQL endpoint

Data: https://nobelprize.org, https://data.nobelprize.org/store/sparql
Schema visualization: Viziquer, https://viziquer.lumii.lv/

NOBEL PRIZE SAMPO

- Application perspectives for Nobel Prizes, Laureates and Universities

- Data table views for each of the perspectives, along with distribution charts and geographical maps

- Rich view definitions including properties from related fields and aggregated data

- Data from other Linked Data sets included (e.g., Laureate images from Wikidata)

- Rich views of individual instances

Open-source Sampo-UI code updates

- Addition of **REGEX-based universal text search** functionality

- Introduction of **SPARQL query pipeline** mechanism to retrieve the data from **related sources**

- SPARQL engine specific handling of null/unknown values

- Addition of OpenStreetMaps as a map visualizer (in addtion to Mapbox)

- re-arranging of ORDER BY clauses in the SPARQL query templates

- https://github.com/LUMII-Syslab/sampo-ui-nobel-prize

Conclusions and future work

- Sampo-UI can be used to configure access to externally available SPARQL endpoint

- Open-source code of Sampo-UI has allowed to make the necessary modifications to enable full portal functionality

- Integration of SAMPO-UI updates supplied by different users: work in progress by FIN-CLARIAH/DARIAH.fi for Digital Humanities