Semantic Tourism Data Aggregation

Free University of Bolzano
Semantic Technologies
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Exploring Semantic Technologies with Tourism Data

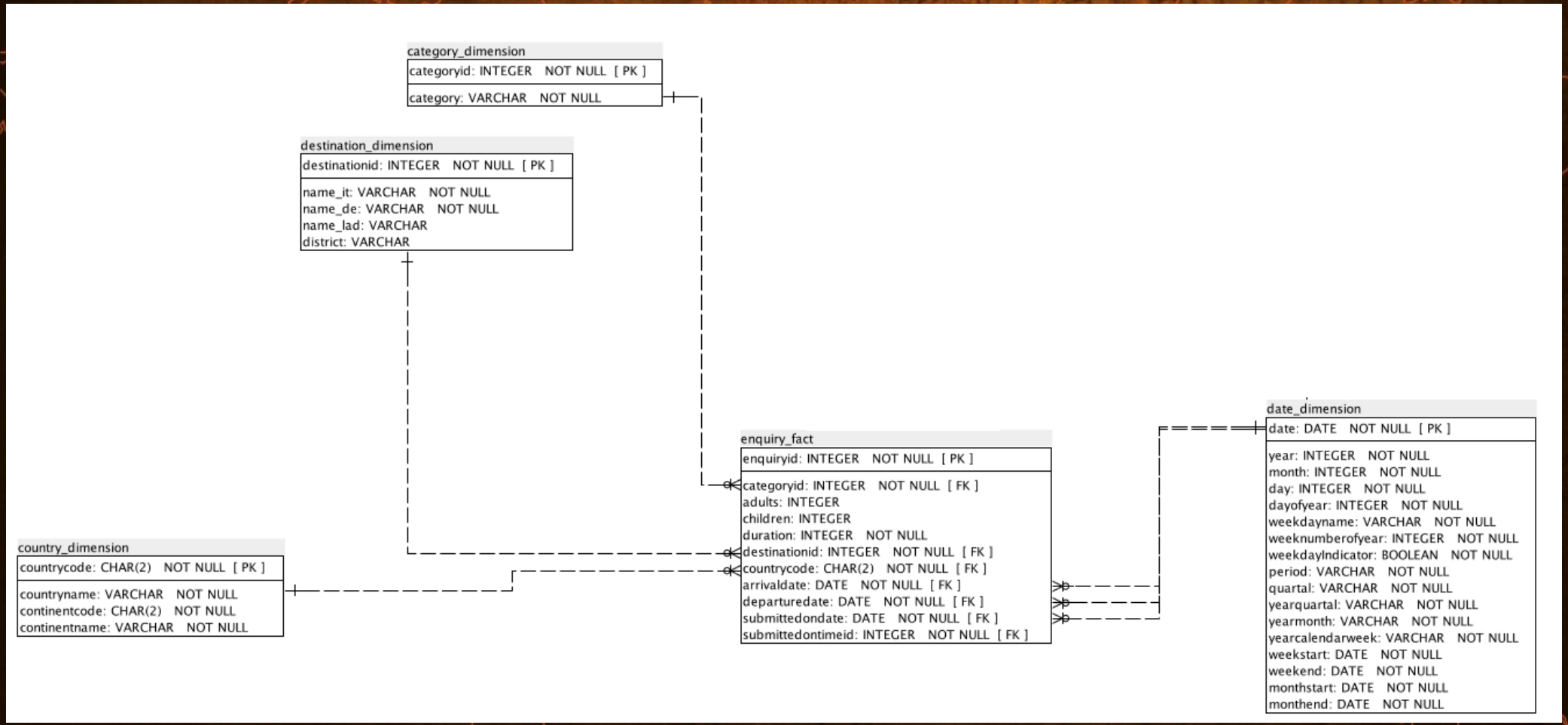
by Peter Moser

Holiday Enquiries

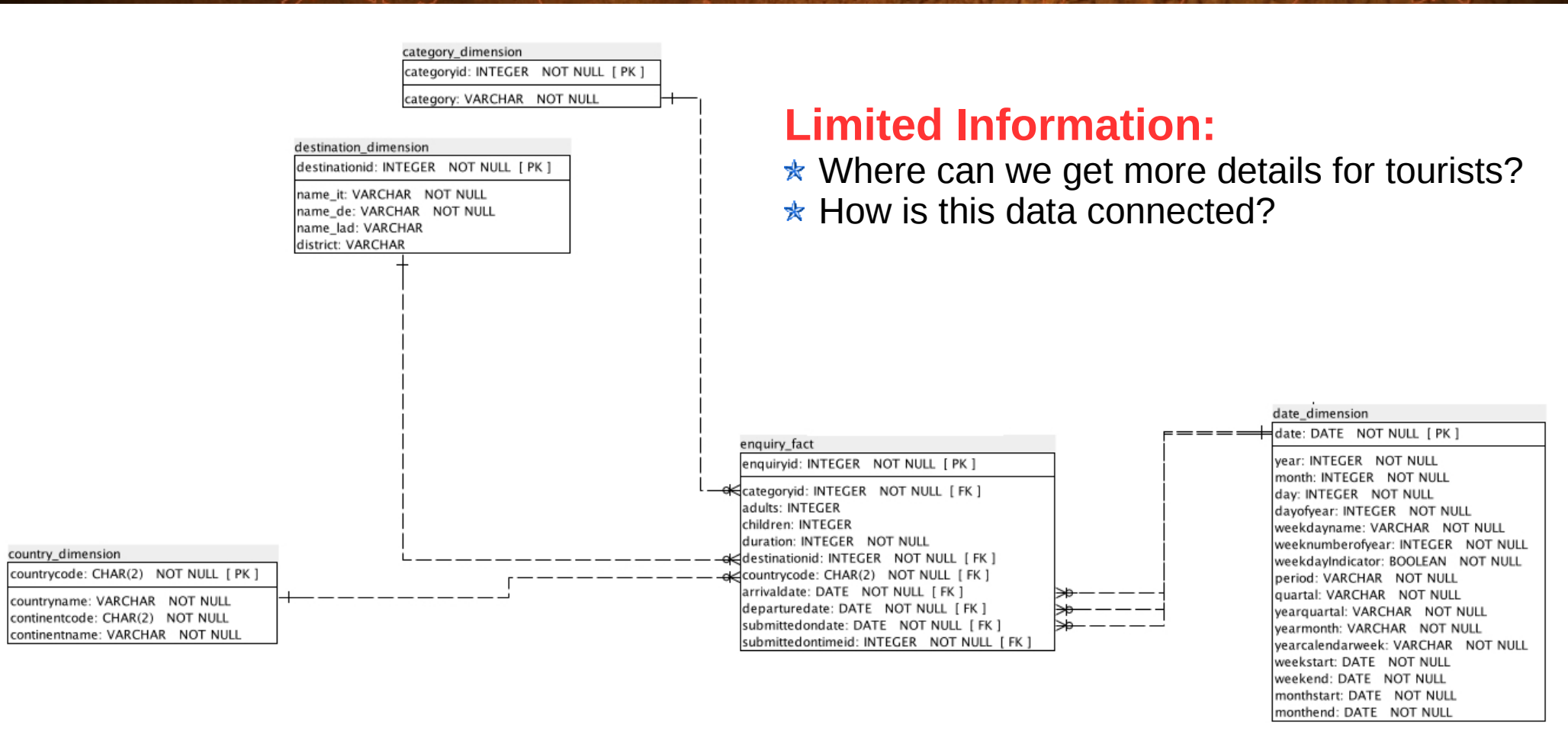
Outline

- Data Warehouse
- Ontology
- Project and Implementation
- Demo incl. SPARQL queries
- Limitations and Future Work

Tourism Data Warehouse: Star Schema



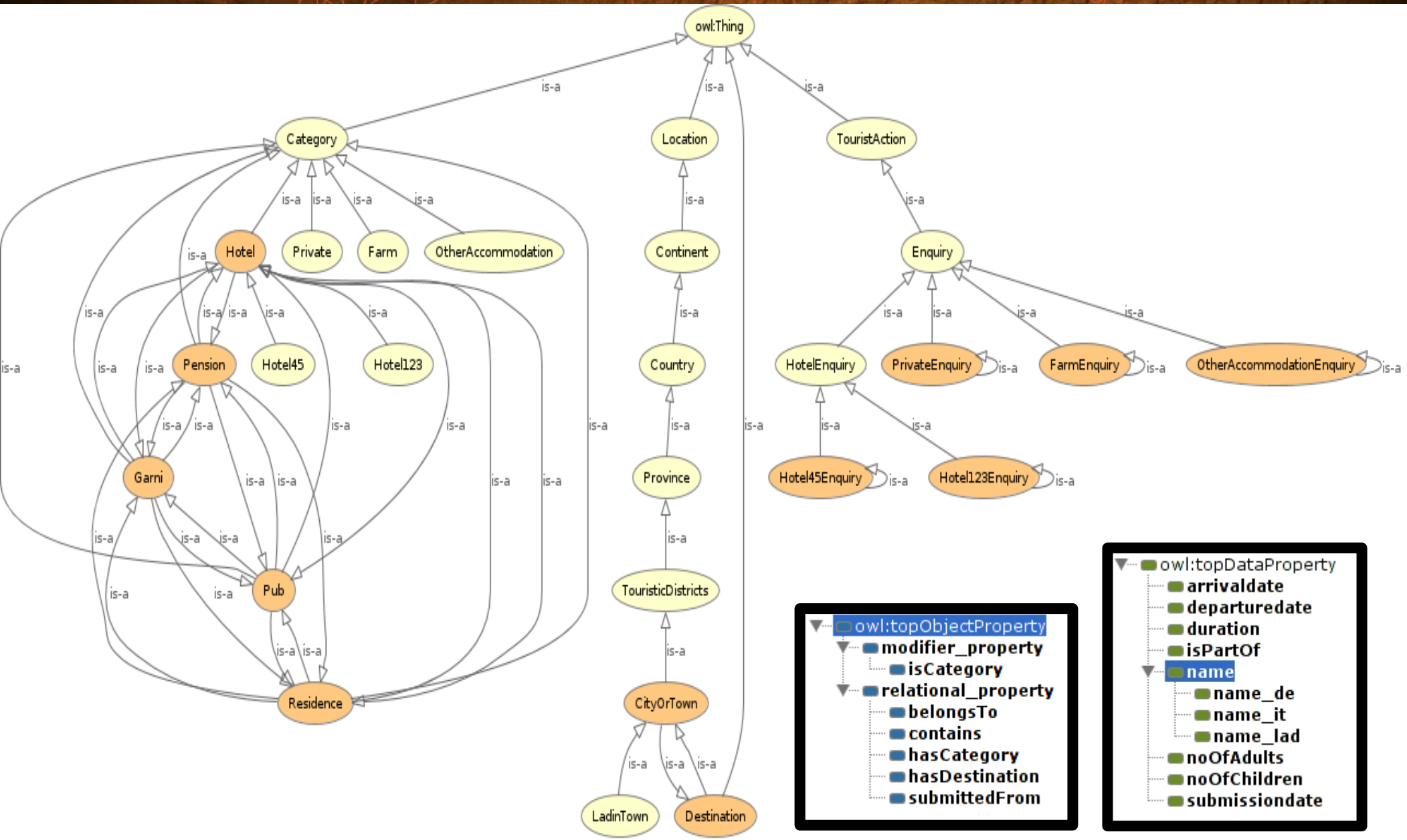
Tourism Data Warehouse: Star Schema



Limited Information:

- Where can we get more details for tourists?
- How is this data connected?

Class Hierarchy and Properties



Project Planning and Development

- JETTY and the OPENRDF WORKBENCH
- ONTOP framework
- RDF4J library
- POSTGRESQL 9.6 DBMS
- PROTEGE 5 ontology editor
- Java with GTK+ bindings

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DEMO

Limitations & Future Work

- No aggregation
- Keyword SERVICE not supported yet
- No IRI match on dbpedia
- Dbpedia schema and literals not standardized
- Tourism Data → ISTAT → dbpedia
- Standard Data warehouse functionality
- Dimension exploration through SPARQL to DW schema mappings

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Questions?