

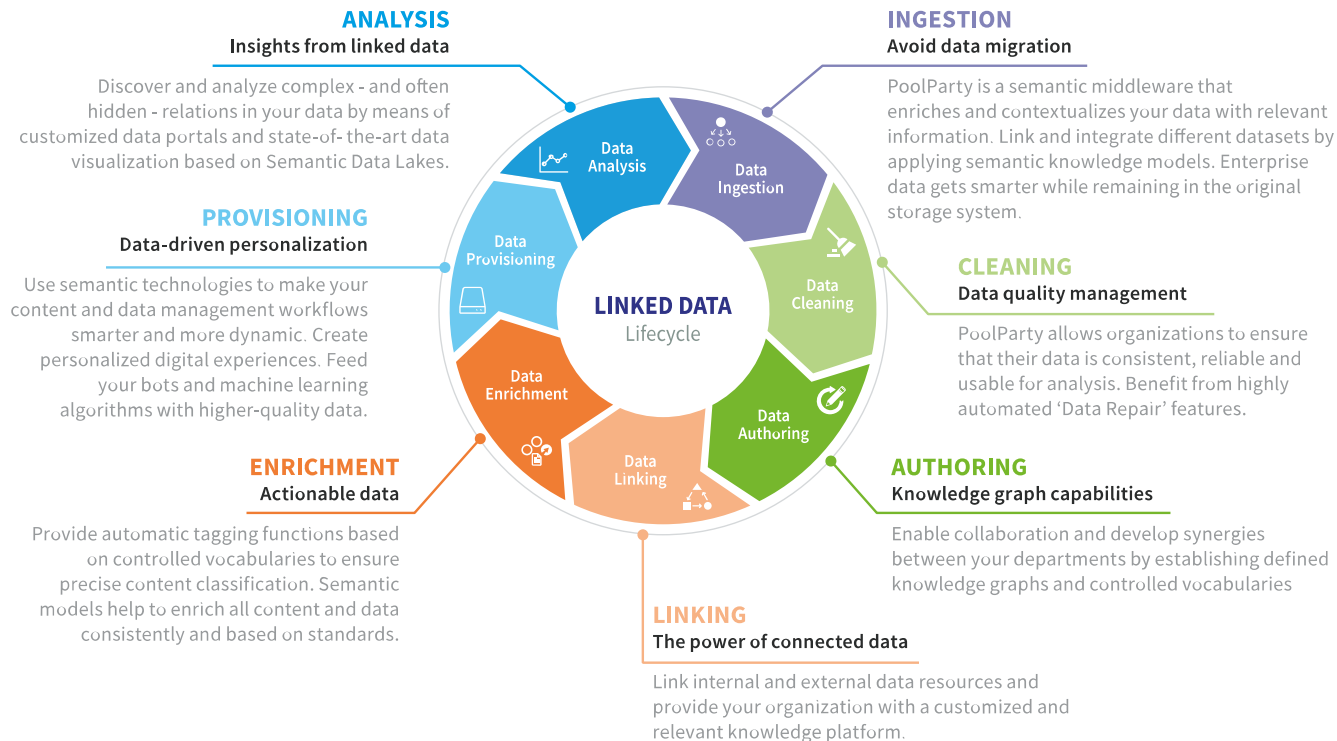
A Product View on Graph Data

PoolParty Semantic Suite

Robert David
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Knowledge Graph Management

Data Governance along the Linked Data Life Cycle



- ▶ Most complete semantic middleware
- ▶ Standards-based technology since 2009
- ▶ Semantics-based augmented intelligence
- ▶ State-of-the-art machine learning

Solutions based on PoolParty



Process Automation

- ▶ Enhanced Machine Learning
- ▶ Text Mining & NLP
- ▶ Document Classification
- ▶ Document & Text Validation



Customer Experience

- ▶ Recommender Systems
- ▶ SEO
- ▶ Smart Helpdesk Solutions
- ▶ Chatbots and Q&A engines



Knowledge Management

- ▶ Semantic Search
- ▶ Personalization
- ▶ Knowledge Discovery Portals
- ▶ Skills Management



Information Management

- ▶ Semantic Content Management
- ▶ Metadata Management
- ▶ Master Data Management



Knowledge Engineering

- ▶ Taxonomy Management
- ▶ Ontology Management
- ▶ Knowledge Graph Management
- ▶ Data Visualization



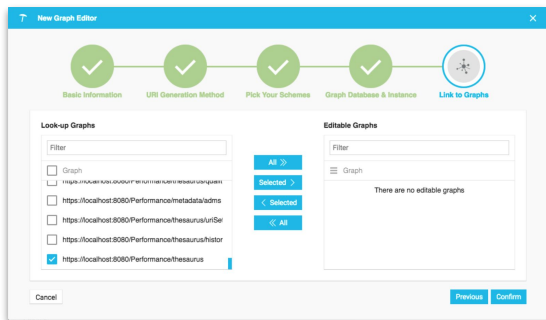
Agile Data Integration

- ▶ Linked Data
- ▶ Integrating Heterogeneous data
- ▶ Entity Linking

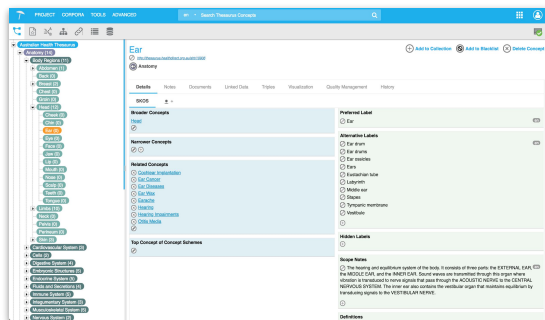
PoolParty Components



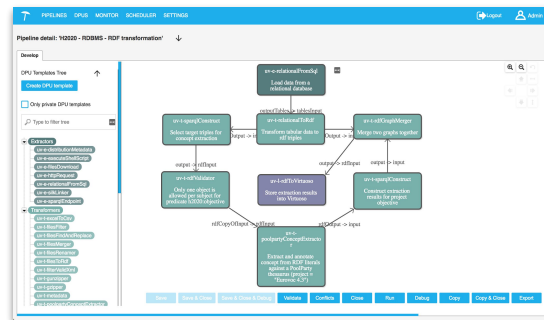
PoolParty Components



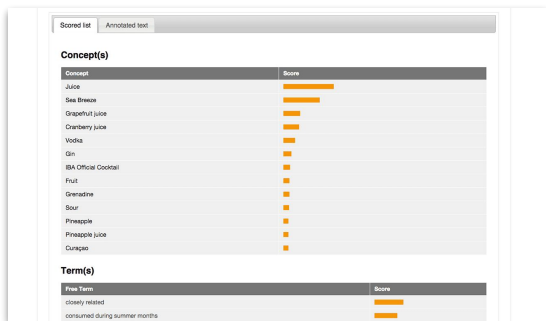
PoolParty GraphEditor



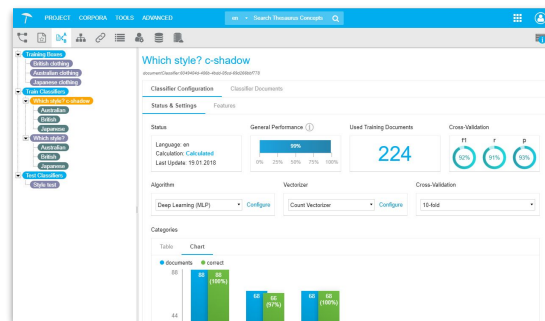
PoolParty Taxonomy & Ontology Server



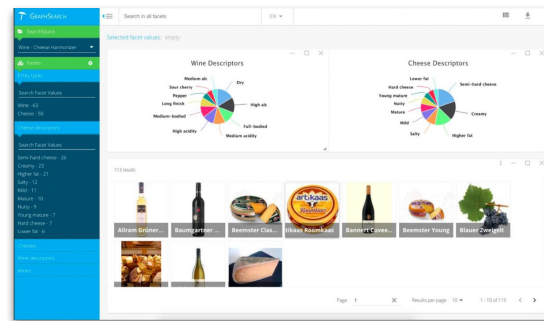
PoolParty UnifiedViews



PoolParty Extractor



PoolParty Semantic Classifier



PoolParty GraphSearch

Key Factors - Requirements

- ▶ Standards-based technology since 2009
- ▶ Standards for modeling data (SKOS, OWL, ...)
- ▶ Reasoning: inference, constraint checking
- ▶ Semantic AI: combine models with ML

Key Factors - Standards Compliance

- ▶ Standards-based technology since 2009
- ▶ But: some things did not work well in customer projects
- ▶ Diverge from standards when
 - ▷ No standard available (constraint checking)
 - ▷ Standards do not satisfy the use case (open world reasoning)

- ▶ Constraint checking: SHACL, ShEx, but do not cover all use cases
- ▶ Semantic AI: RDF data as a basis for ML
- ▶ Explainable AI: provide explanations based on model data

Goal: cover all use cases with services based on (W3C) standards.

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