Linked Data Based
Enterprise Data Integration

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Outline

1) Why Linked Data based data integration

2) Linked Data integration with PoolParty

3) Use cases

4) Diggin` deeper... Live Demo

5) Discussion
Why Linked Data based data integration
Different views on same objects

This is our Topseller!

This will never work properly!

Marketing

Production
Scattered data pools

Marketing

Production

Quality Assurance
Diverse data structures
Semantics on different value levels
Linked Data integration with PoolParty
3 ways for Linked Data integration

1. Make use of Linked Data principles internally

2. Use Linked Data from the web

3. Publish Linked Open Data on the web
Architecture

EXTRACTOR

mapping

THESAURUS MANAGER

publish

enrich

search index
Built on Linked Data principles

TimBLs Recommendation

Our interpretation

★

make your stuff available on the web

LD Frontend

★★

make it available as structured data

SKOS, RDF

★★★

Use non-proprietary formats

SKOS, RDF

★★★★

use URLs to identify things, so that people can point at your stuff

URL per Concept, Concept Scheme

★★★★★

link your data to other people's data to provide context

Link to other LD sources or PP projects

5-star deployment scheme by Tim Berners-Lee (http://www.w3.org/DesignIssues/LinkedData.html)

Example – Linking concepts

Marketing

Smartphone 1
Color, Features, OS…

Production

S-Jell 23X_34
FAQs, Battery, Display, Supplier…

Entity is called…
Definition (Dbpedia)
Synonyms (Freebase)
SKOS exactMatch
Indexing and mapping concepts

- Rich metadata in a standardized, extensible format (SKOS / RDF)
- Central metadata repository
- Thesaurus is managed with PoolParty
- Document metadata is mapped to concepts in the thesaurus
- Semantic information improves search experience
Indexing and Mapping

Document

Title: Document Title
Created: 2010-03-15
M_Countries: Austria
M_Vendors: Atlassian, Apache
Abstract: ...

PoolParty Project

Concept Scheme

Concepts

Concept Scheme

Concepts
Indexing and Mapping

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PoolParty Project

Concept Scheme

Concepts

Concept Scheme

Concepts
Indexing and Mapping process

M_Countries: Austria
M_Vendors: Atlassian, Apache

Collector → Semantic Indexer → Document Index

Extractors
Indexing and Mapping process

M_Countries: Austria
M_Vendors: Atlassian, Apache
Indexing and Mapping

process

M_Countries: [http://company.com/thesaurus/AT](http://company.com/thesaurus/AT)

Indexing and Mapping
localized metadata

Language: german
"Österreich"

Language: english
"Austria"

Search Application

Search Services

metadata

Document Index
Use cases
Examples

Facetted Browsing
Multilingual Search
Corporate thesauri

Similar Documents Recommender
Tag Recommendations
Semantic Search Engines
Autocomplete functions

Customers

Credit Suisse, British Museum, Roche, Telekom Austria, Education Services Australia, REEEP, Staatliche Museen zu Berlin, University of Vienna, Geological Survey of Austria, Biogen Idec, University of Glasgow, Centre for Ecology & Hydrology
Diggin` deeper...

**Note for the program committee:**
At that stage we will show a live demo with two thesauri (Marketing and Q&A)… how departments can work on the same topic (Smartphone 1 und Smartphone 1 6GS) from different perspectives.

… concepts with exactMatch can keep different metadata
… enriching data from the LOD cloud

See also tutorial on  [http://youtu.be/UDSOy3YvZ58](http://youtu.be/UDSOy3YvZ58)
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