da|ra goes LOD

Johann Schaible, Erdal Baran
{johann.schaible, erdal.baran}@gesis.org
Agenda

• What is Linked Open Data?
• Linked Open Data Principles
• Applying LOD Principles to da|ra
• Use case
• Conclusion
What is Linked Open Data?

• Data published on the Web
  – In a machine-readable way
  – With an explicitly defined meaning
  – Linked to other external data sets
  – Can be linked to from external data sets

• “Open” according to legal aspects and privacy restrictions

Ultimate Goal: Create Links between data from different sources using the Web
Linked Open Data Cloud

Linked Open Data Principles

1. Use URIs as names for things
2. Use HTTP URIs so that people can look up those names
3. When someone looks up a URI, provide useful information, using Semantic Web standards (e.g. RDF)
4. Include links to other URIs, so that they can discover more (related) things

2) http://www.w3.org/RDF/
Applying LOD Principles to da|ra

1. **Use URIs as names for things**
   → DOI, e.g. 10.5072/4815.1 as basis for URI

2. **Use HTTP URIs so that people can look up those names**
   → with hypertext link, e.g.
     [http://lod.gesis.org/dara/10.5072/4815.1](http://lod.gesis.org/dara/10.5072/4815.1)

3. **When someone looks up a URI, provide useful information, using Semantic Web standards**
   → with D2R-Server¹

4. **Include links to other URIs, so that they can discover more (related) things**
   → with e.g. Eurostat, SSOAR³ etc. (via Silk, InFoLiS²)

---

1. [http://d2rq.org/d2r-server](http://d2rq.org/d2r-server)
Use case

1. Step: InFoLiS detects links between publications and research data
Use case

2. Step: Adding IDs to the system’s metadata, to generate links

Publication: <ssoarURN1-Link>

Cited Study: <daraDOI1-Link> <isCitedBy> <ssoarURN1>.
<daraDOI2-Link> <isCitedBy> <ssoarURN1>.
<daraDOI3-Link> <isCitedBy> <ssoarURN2>.
<daraDOI4-Link> <isCitedBy> <ssoarURN3>.
...

da|ra

SSOAR
Use case

3. Step: Querying other metadata

Publication: <ssoarURN1-Link>

Publication: <Author><Title><Year><URN><Link>

Cited Study: <Std-Title><Year><DOI><Link1>

Cited Study: <daraDOI1-Link> <daraDOI2-Link>

SSOAR
Conclusion

• da|ra provides a good basis for applying Linked Open Data Principles
  – DOI as URI and HTTP URI
  – Once mappings are defined, architecture provides easy generation of RDF

• Link to other data sets
  – Easy data Enrichment $\rightarrow$ additional information for users
  – other data providers link to us $\rightarrow$ higher visibility

Your data will be more visible for users and machines
Thank You

Questions