

da|ra goes LOD

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Agenda

- What is Linked Open Data?
- Linked Open Data Principles
- Applying LOD Principles to data
- 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

The screenshot displays the data.gov.uk website interface. At the top, there is a navigation bar with the HM Government logo and a 'Log in or sign up' button. Below this, the 'data.gov.uk' logo is visible, along with a search bar and language options (English, Español, Français, Русский, العربية, 中文). The main content area features the Eurostat logo and a search interface with a 'Search in tree' field and a 'Navigation tree' section. The 'Navigation tree' lists various categories such as 'General and regional statistics', 'Economy and finance', 'Population and social conditions', etc. On the right side, a network diagram of linked data sources is overlaid, showing nodes like 'Bricklink', 'Sussex Reading Lists', 'St. Andrews Resource', 'NTU', 'Mgm info', 'MEAU SH', 'LEM', 'Rádara ná!', 'Norwegian MedH', 'European', 'NSZL Catalog', 'Sweden Open Cultural Heritages', 'Jobid Organizations', 'STW', 'CESSIS', 'Pisa', 'RESEX', 'Scholarometer', 'IBM', 'NVD', 'DEPLOY', 'LOCAH', 'Items', 'Courseware', 'IEEE', 'RISKS', 'NSF', 'CCO-POP', and 'Media'. A legend at the bottom right of the diagram identifies categories: Media (blue), Geographic (yellow), Publications (green), User-generated content (orange), Government (cyan), Cross-domain (grey), and Life sciences (pink). The date 'September 2011' and Creative Commons icons are also present.

Linked Open Data Principles¹

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. RDF²)
4. Include links to other URIs, so that they can discover more (related) things

1) Tim Berners-Lee 2007, <http://www.w3.org/DesignIssues/LinkedData.html>

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>
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)

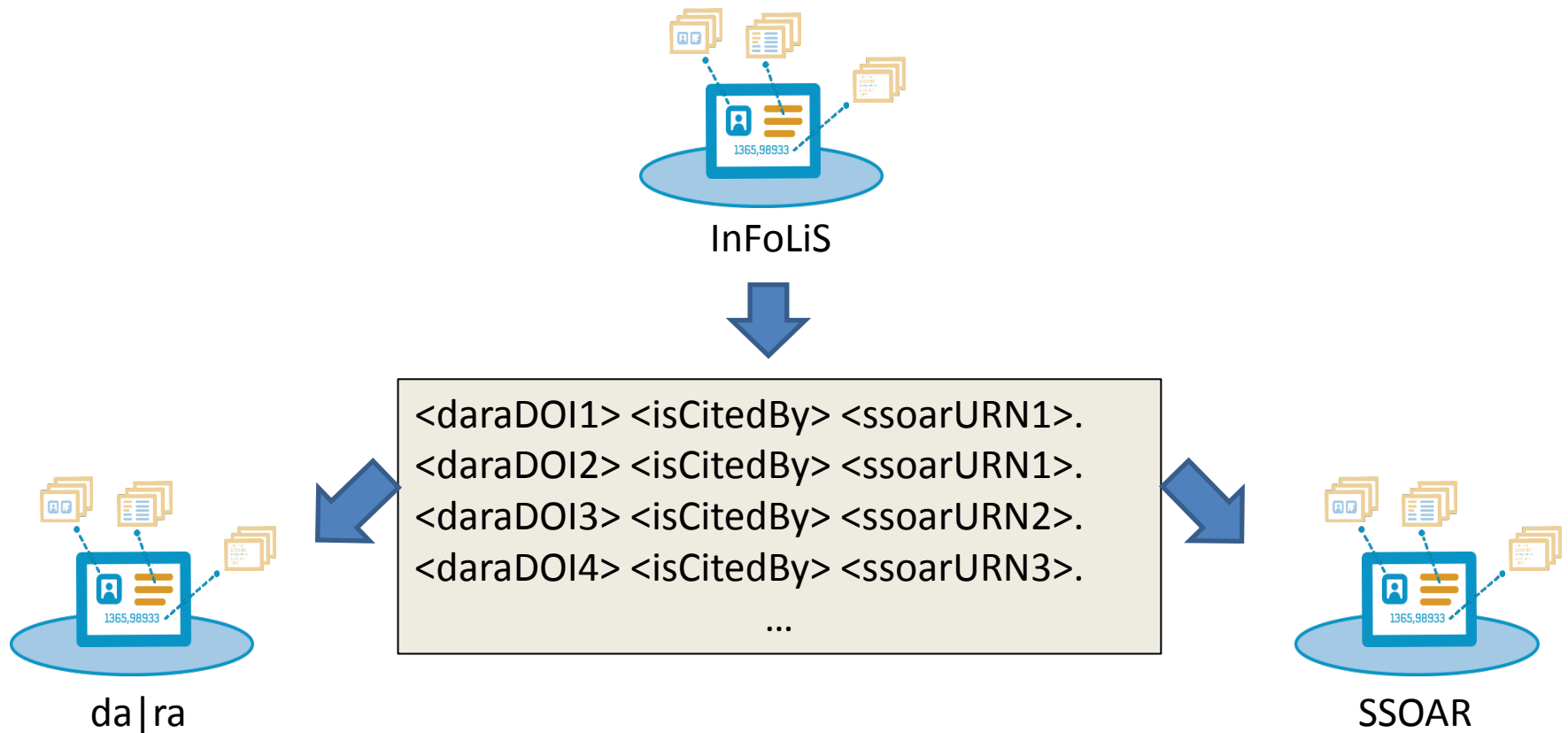
1. <http://d2rq.org/d2r-server>

2. <http://www.gesis.org/en/research/external-funding-projects/projektuebersicht-drittmittel/infolis/>

3. <http://www.ssoar.info/en/home.html>

Use case

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

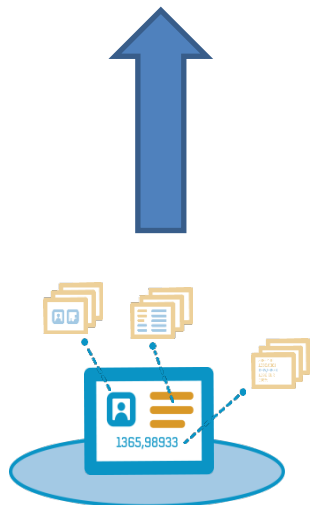


Use case

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

Publication:
<ssoarURN1-Link>

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



da|ra

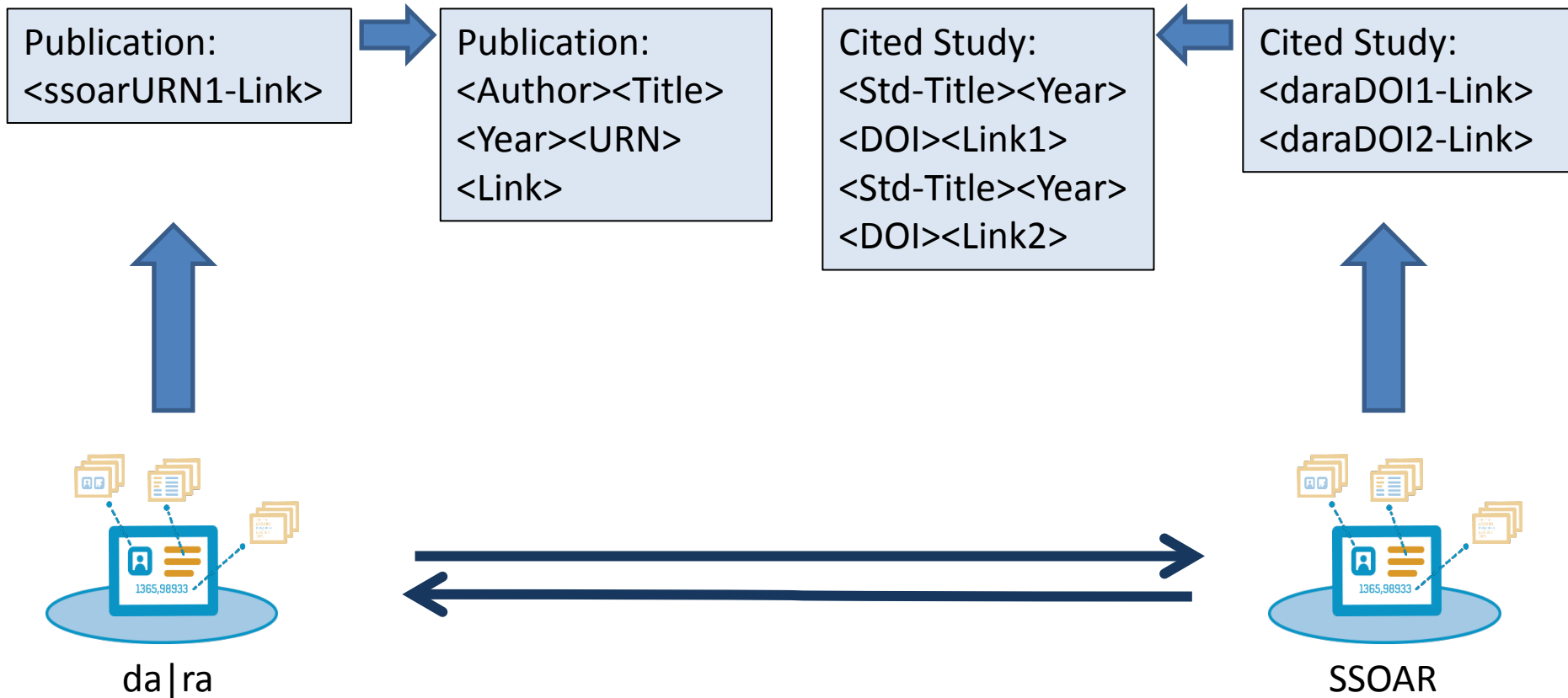
```
<daraDOI1> <isCitedBy> <ssoarURN1>.
<daraDOI2> <isCitedBy> <ssoarURN1>.
<daraDOI3> <isCitedBy> <ssoarURN2>.
<daraDOI4> <isCitedBy> <ssoarURN3>.
...
```



SSOAR

Use case

3. Step: Querying other metadata



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 → additional information for users
 - other data providers link to us → higher visibility

Your data will be more visible for users and machines

Thank You

Questions