

Linking Data across the Web

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Context



The Web of Linked Documents

- Links between documents, not between things
- Data is only loosely structured
- The meaning of links is implicit



The Web of Linked Documents



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Organising Committees

- [Workshop on Linked Data on the Web \(LDOW2008\)](#), at [17th International World Wide Web Conference \(WWW2008\)](#): Co-Organiser
- [6th International Semantic Web Conference and the 2nd Asian Semantic Web Conference \(ISWC + ASWC 2007\)](#): Metadata Chair (co-chairing with Knud Moeller).
- [3rd Workshop on Scripting for the Semantic Web](#), at [4th European Semantic Web Conference \(ESWC2007\)](#): Co-Organiser.
- [3rd European Semantic Web Conference \(ESWC2006\)](#): [Semantic Web Technologies](#) Coordinator.
- [2nd AKT Doctoral Symposium](#): Vice Chair
- [1st AKT Doctoral Symposium](#): Local Chair

Programme Committees

- [Semantic Authoring, Annotation and Knowledge Markup Workshop \(SAAKM2007\)](#), at [KCAP-07](#)
- [Workshop on Finding Experts on the Web with Semantics \(FEWS2007\)](#), at [ISWC2007](#)
- [SABRE Conference on Social Semantic Web \(CSSW 2007\)](#)
- [I-Semantics 2007](#)
- [Workshop on Social and Collaborative Construction of Structured Knowledge \(CKC2007\)](#), at [WWW2007](#)
- [SociUM: Adaptation and Personalisation in Social Systems: Groups, Teams, Communities](#), Workshop at [UM2007](#)

Other

- Internal Seminars Coordinator, [Knowledge Media Institute](#), 2006-2007

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Organising Committees

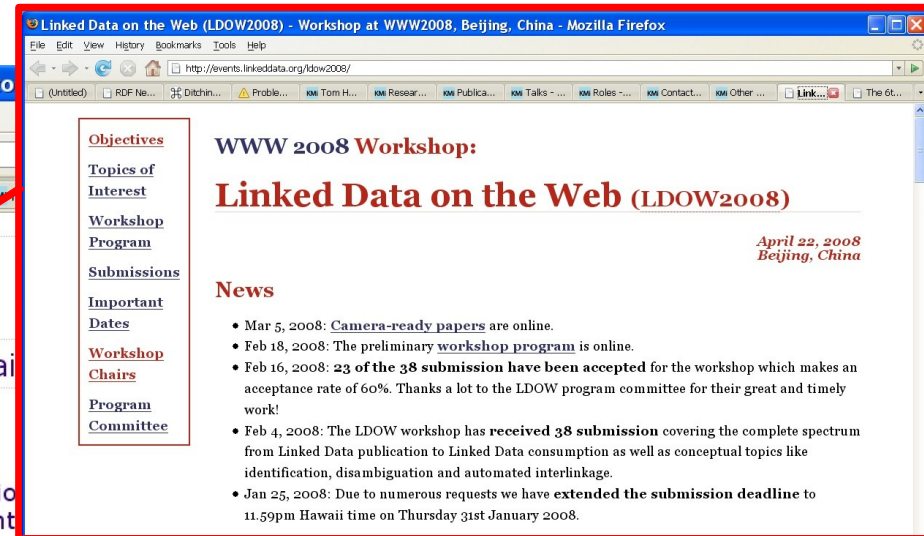
- Workshop on Linked Data on the Web (LDOW2008), at 7th International Semantic Web Conference and the 2nd Asian Semantic Web Conference (co-chairing with Knud Moeller).
- 3rd Workshop on Scripting for the Semantic Web, at 4th European Semantic Web Conference (ESWC2007): Co-Organiser.
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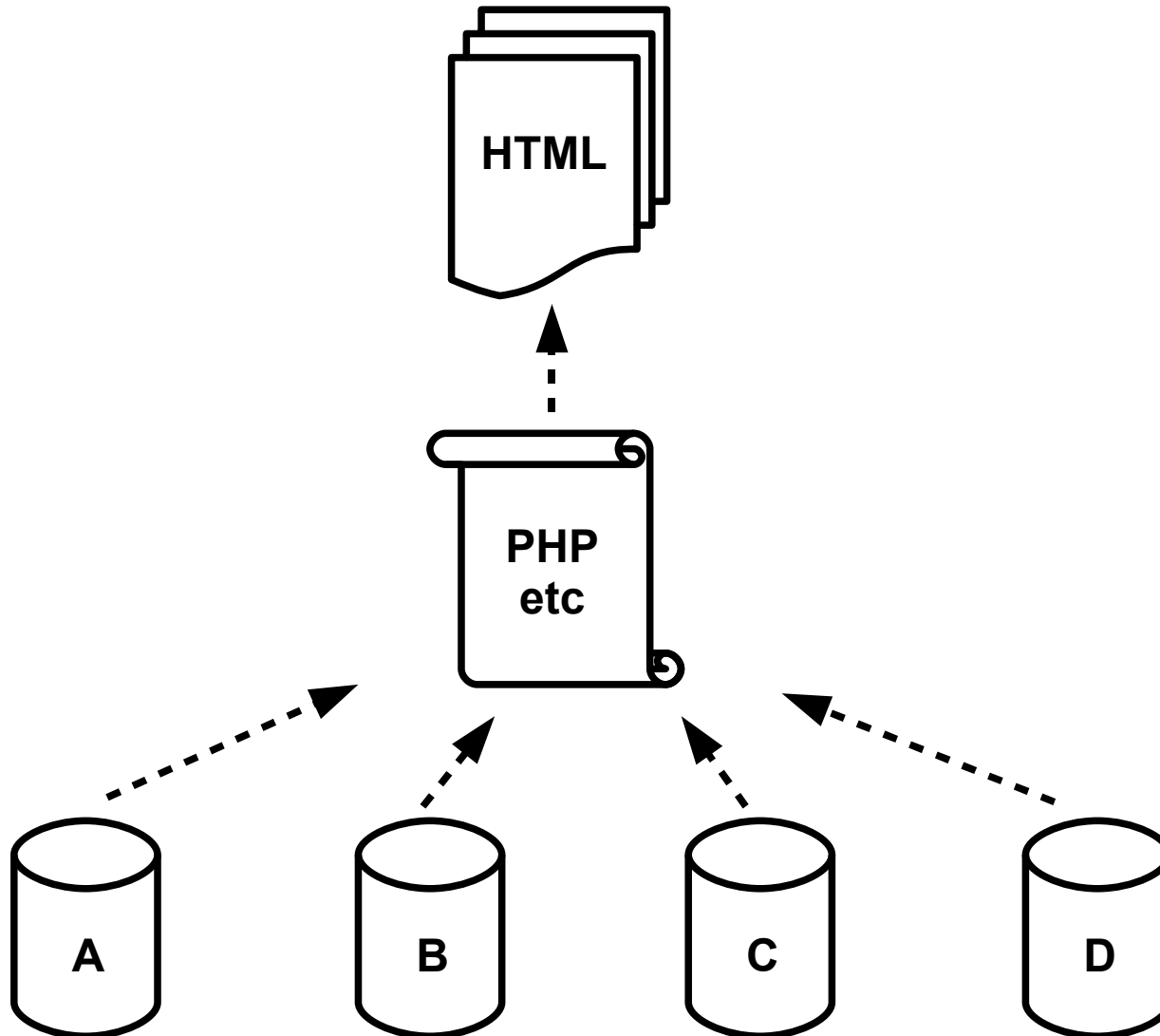
Custom APIs and Mashups



Benefits

- Programmatic access to data
- Easier manipulation/reuse of data
- Access to data can encourage engagement

Limitations: Data Integration down the Drain



Linked Data



Linked Data

- Goals:
 - Connect things in distributed data sets, across the Web
 - Expose these links to encourage reuse
 - Enable large-scale and ad-hoc mashups, aka "meshups"
 - Add value to your data through network effects

Linked Data

- Methods:
 - Use existing technologies and standards: HTTP, URIs, RDF
 - Assign HTTP URIs to things, not just documents
 - Use RDF triples as typed links between things
 - Link your things to other people's things (by reusing their URIs or associating yours with theirs)



Linked Data

<http://companies.org/talis>

<http://xmlns.com/foaf/0.1/Person#based_near>

<http://dbpedia.org/resource/Birmingham>



Linked Data

<<http://purl.org/net/schemas/space/spacecraft/apollo-11>>

<<http://purl.org/net/schemas/space/launchsite>>

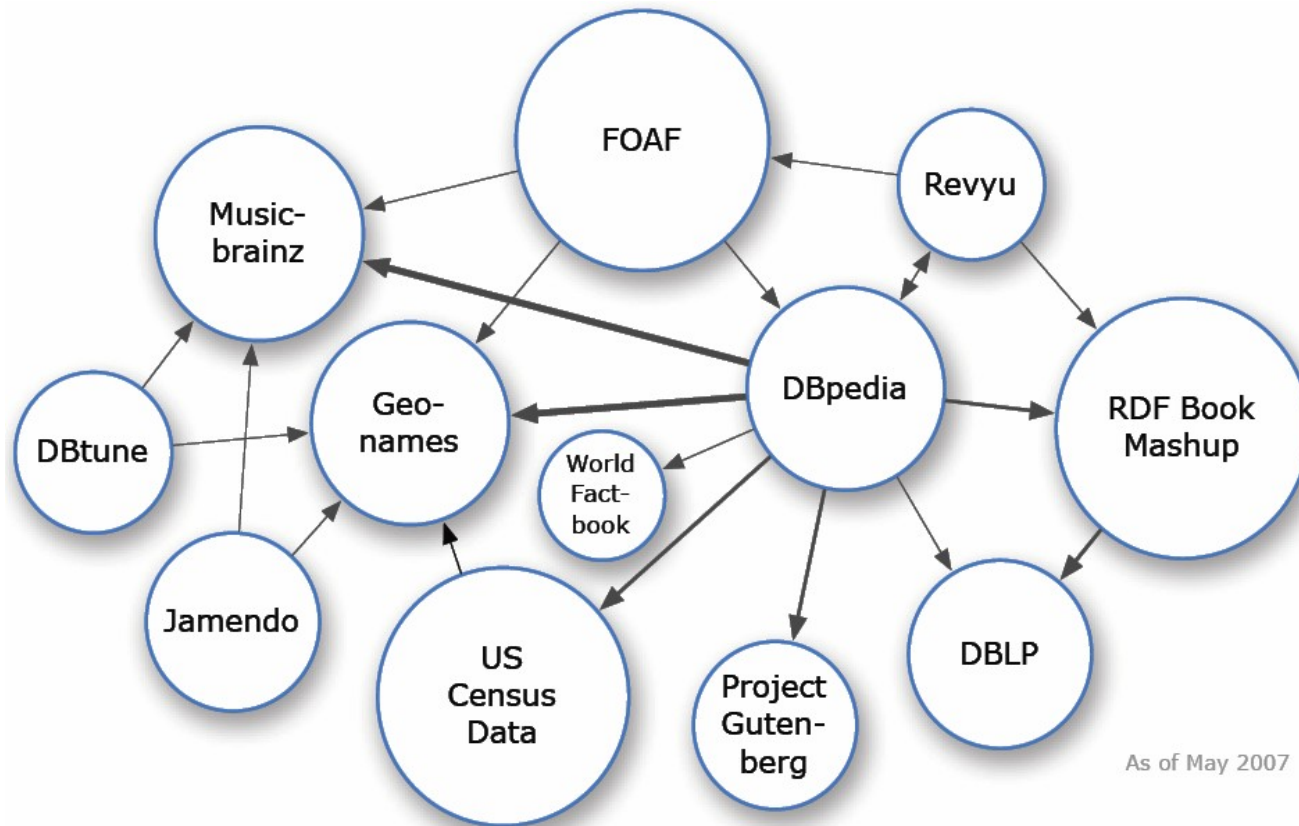
<<http://sws.geonames.org/6269438/>>

The Linking Open Data Project

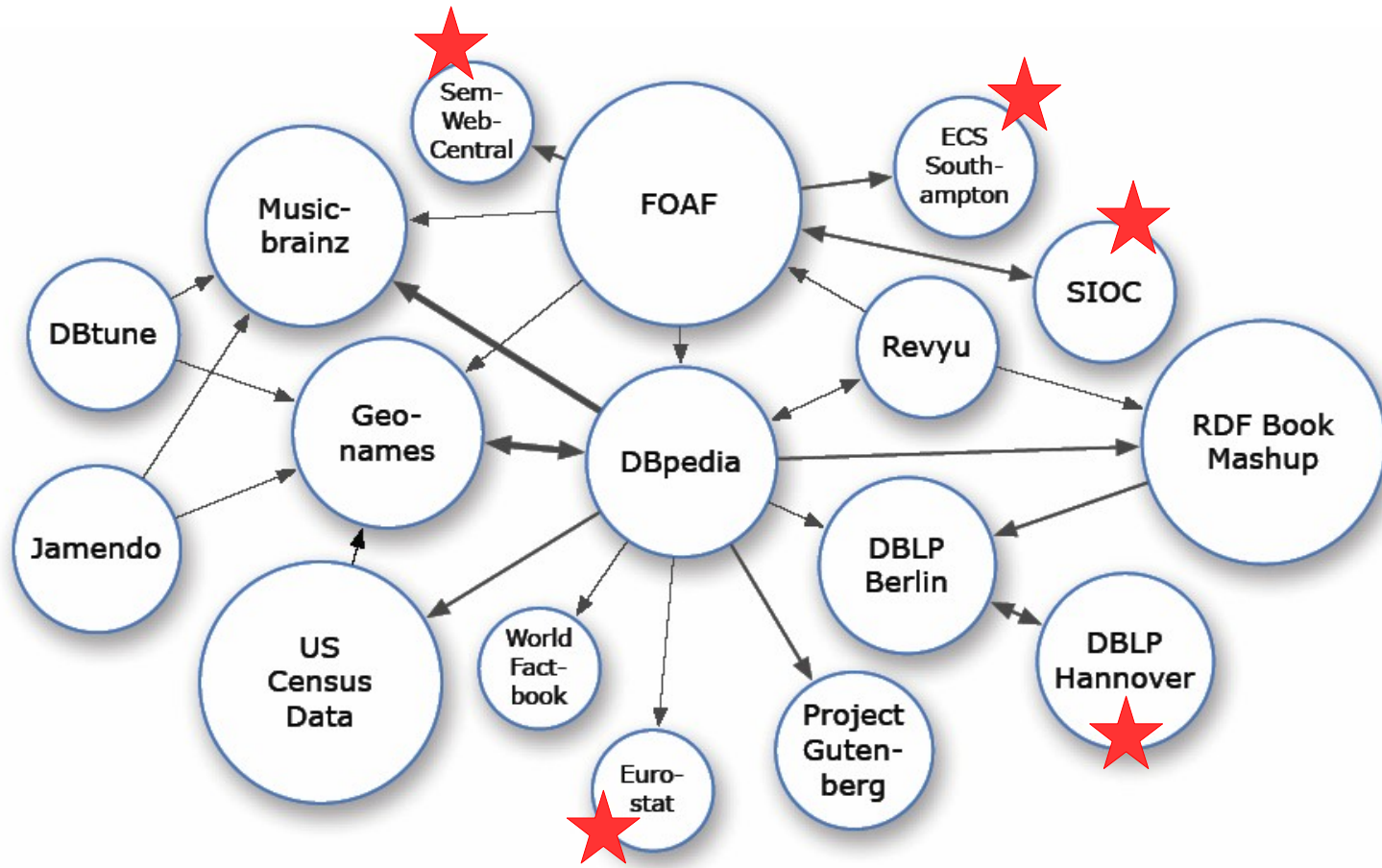
The Linking Open Data Project

- Community project with W3C support
- Take existing open data sets
- Make them available on the Web in RDF
- Interlink them with other data sets

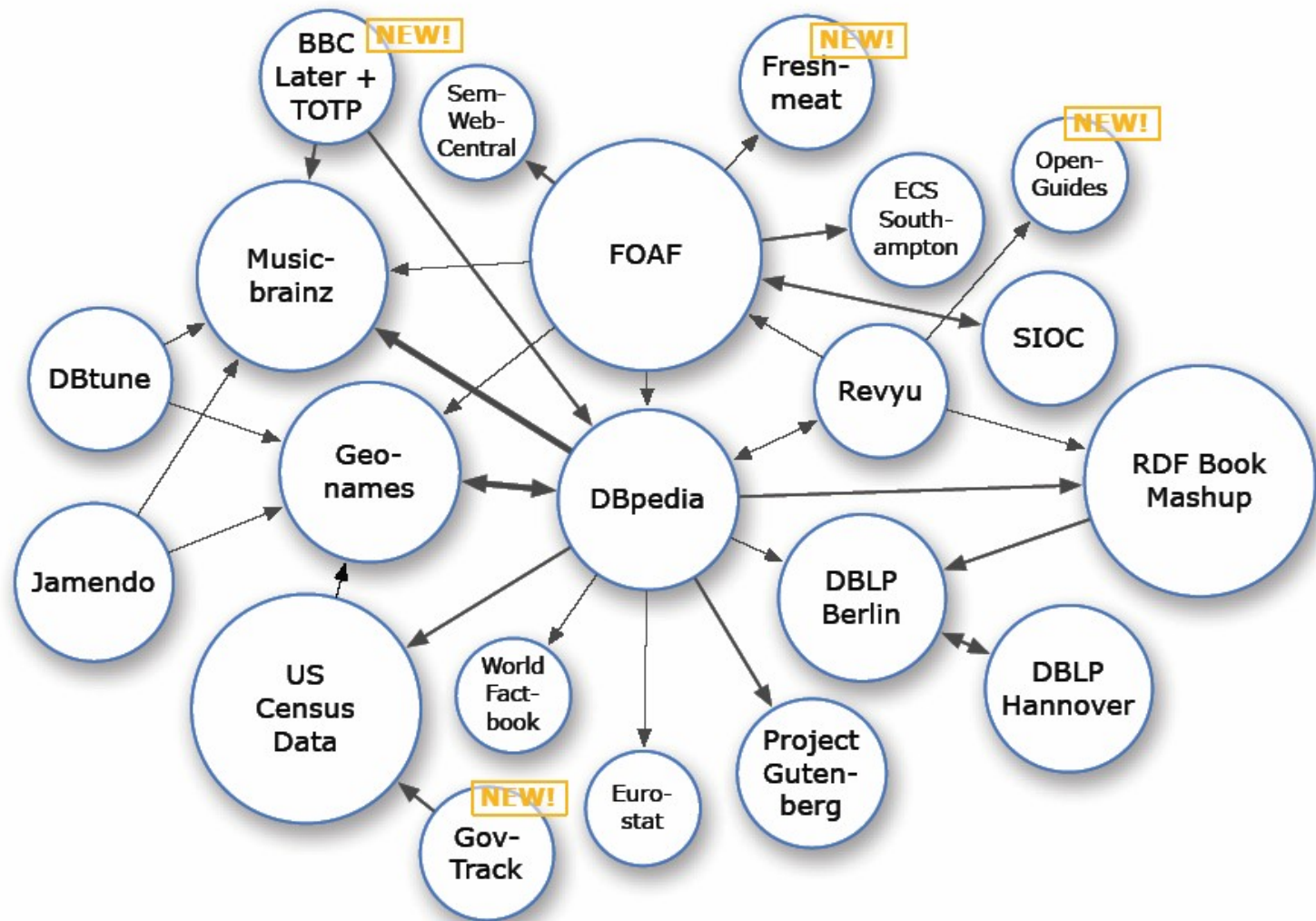
The LOD "Cloud" - May 2007



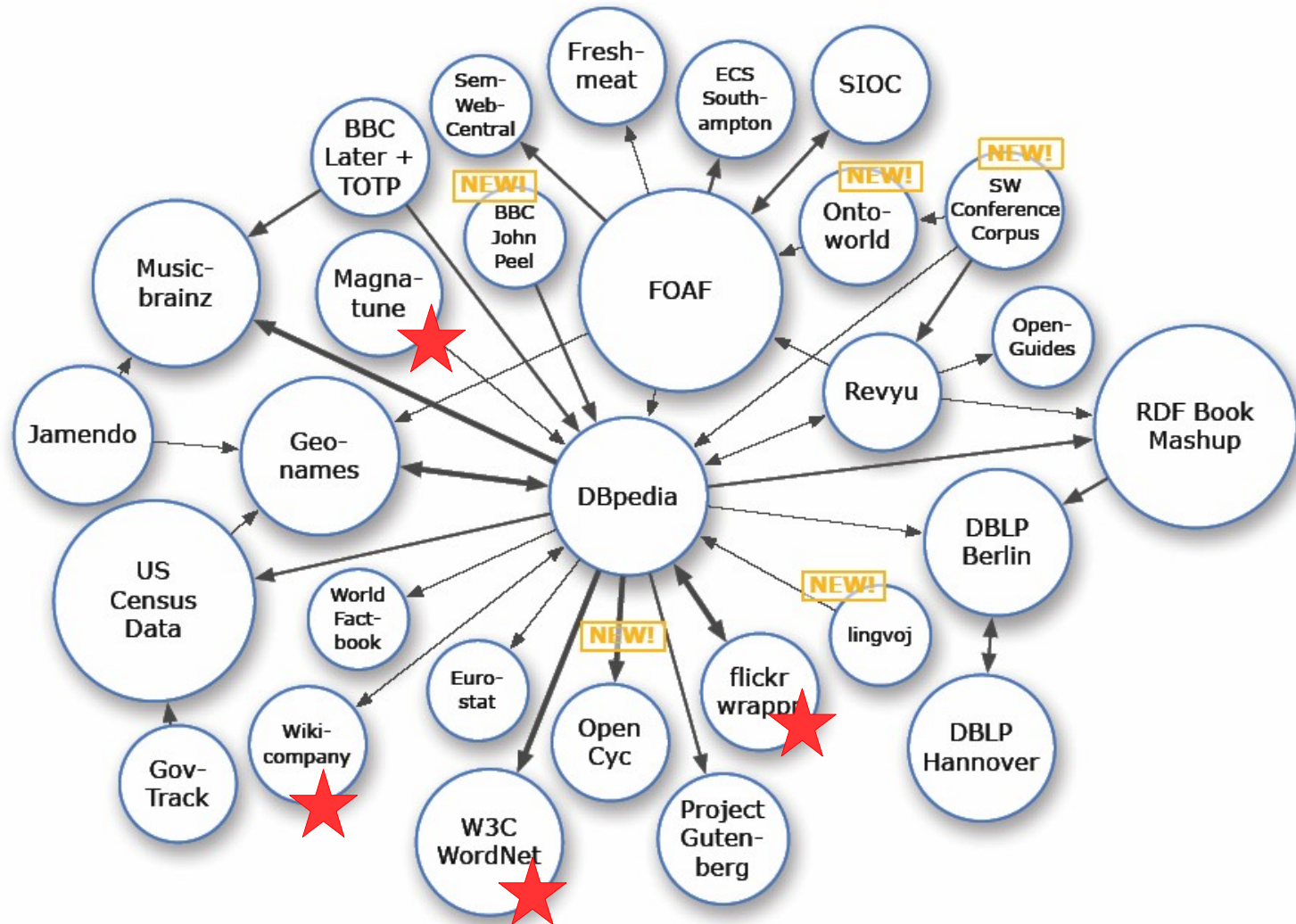
The LOD "Cloud" - July 2007



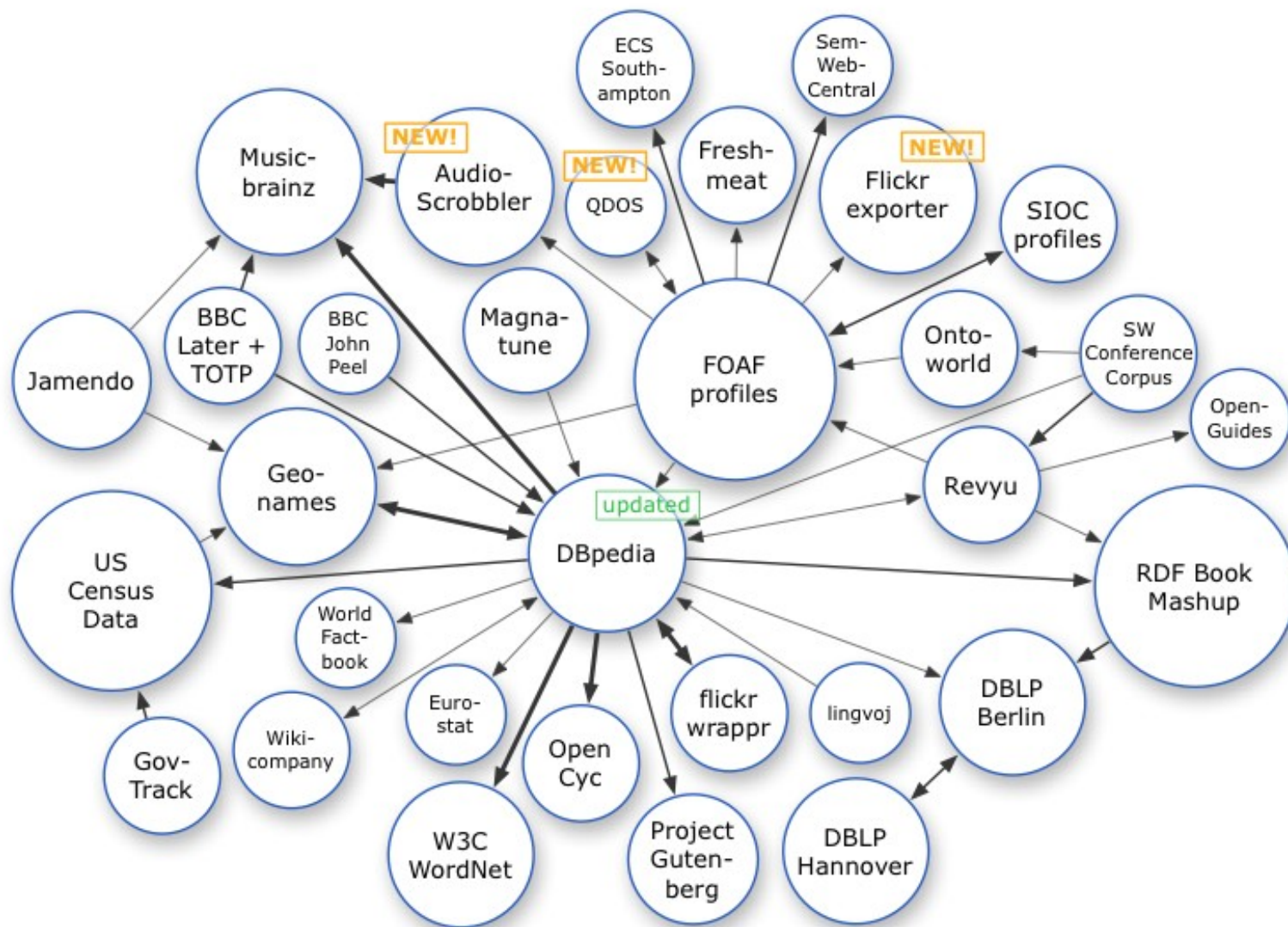
The LOD "Cloud" - August 2007



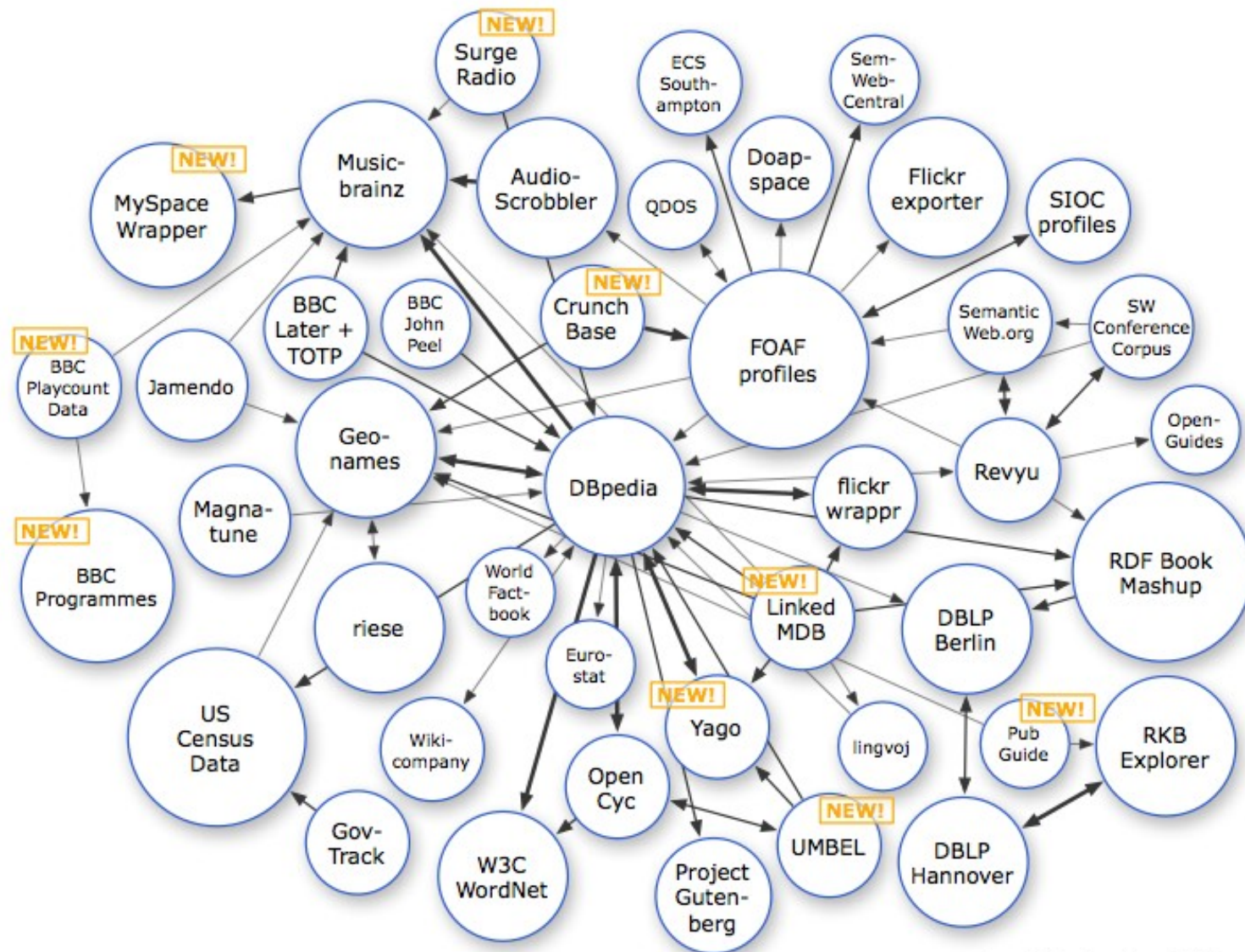
The LOD "Cloud" - November 2007



The LOD "Cloud" – Feb 2008



The LOD "Cloud" – Sept 2008





Opportunities

- Make one's own data a first class citizen of the Semantic Web, by interlinking with data sets in this cloud

Further Reading

- <http://linkeddata.org/>

shared innovation