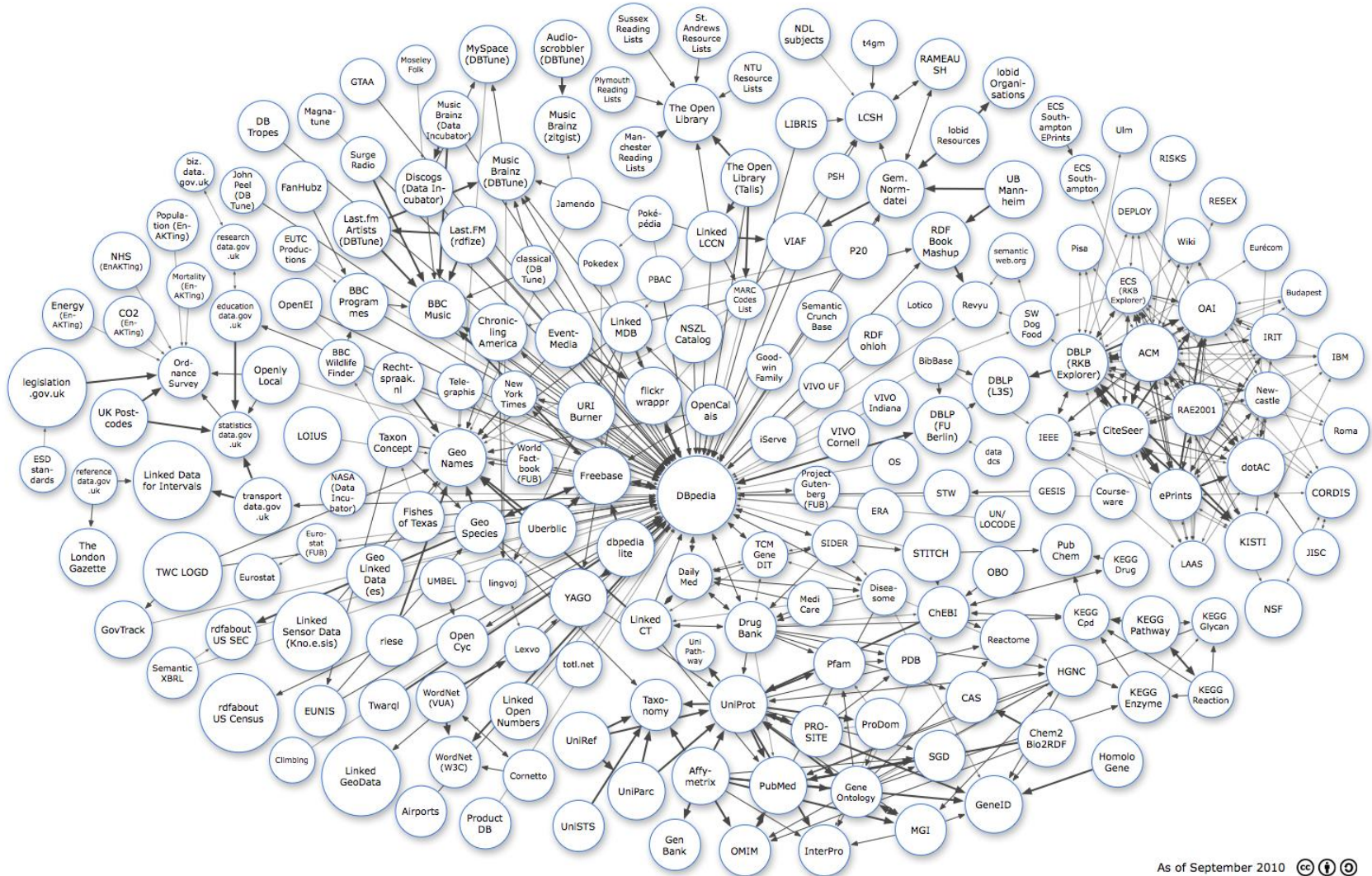


LinkingOpenData

Linked Data



How can I get my dataset into the diagram?

- There must be ***resolvable http:// (or https://) URIs***.
- They must resolve, with or without content negotiation, to *RDF data* in **one of the popular RDF formats** (RDFa, RDF/XML, Turtle, N-Triples).
- **The dataset must contain *at least 1000 triples***. (Hence, your FOAF file most likely does not qualify.)

How can I get my dataset into the diagram?

- The dataset must be **connected via *RDF links* to a dataset that is already in the diagram**. This means, either your dataset must use URIs from the other dataset, or vice versa. We arbitrarily require at least 50 links.
- **Access of the *entire* dataset must be possible via *RDF crawling*, via an *RDF dump*, or via a *SPARQL endpoint*.**

Why Linked Data?

- Easier search for structured documents (use of URIs in RDF triples is similar to the use of URLs in classical links)
- Easier ontology matching – Central authorities providing URIs for other data sources (e.g. DBpedia)

Linked Data Components

- URIs
- HTTP
- Resource Description Framework (RDF)
- Serialization formats (RDFa, RDF/XML, N3, Turtle, and others)

Semantic Data Sources

DBPedia.org

- Extracting structured content from wikipedia
- Information presented in RDF
- SPARQL endpoint: <http://dbpedia.org/snorql>

```
PREFIX dbprop: http://dbpedia.org/property/
```

```
PREFIX db: <http://dbpedia.org/resource/>
```

```
SELECT ?who ?work ?genre WHERE {  
  db:Tokyo_Mew_Mew dbprop:illustrator ?who .  
  ?work dbprop:author ?who .
```

```
OPTIONAL { ?work dbprop:genre ?genre } .
```

```
}
```


January 2011 – DBPedia statistics

- 364 000 persons
- 462 000 places
- 169 000 species
- 148 000 organizations
- 99 000 music albums

Freebase.com

- Knowledge base maintained by its community
- Own ontology of **topics**
- Ontology is user editable too
- Data is available for free for commercial and non-commercial use
- Data can be obtained via:
 - API
 - RDF endpoint
 - Database dump

Freebase API

- Search queries:

<http://freebase.com/api/service/search?q=gore&type=/people/person&indent=1>

- Results in JSON:

```
{ "status": "200 OK", "code":  
  "/api/status/ok", "result": [ {  
    "alias": [ "Abe Lincoln", "Honest  
Abe", "Abraham Lincoln",  
    "abraham_lincoln" ], "article": {  
    "id": "/m/0gzt" }, ...
```

MQL

- [http://api.freebase.com/api/service/mqlread?query={\"query\":{\"type\":\"/music/artist\",\"name\":\"The Police\",\"album\":\[\]}}](http://api.freebase.com/api/service/mqlread?query={\)

Query

```
{
  "query": {
    "type": "/music/artist",
    "name": "The Police",
    "album": []
  }
}
```

Response

```
{
  "type": "/music/artist",
  "name": "The Police",
  "album": [
    "Outlandos d'Amour",
    "Reggatta de Blanc",
    "Zenyatta Mondatta",
    "Ghost in the Machine",
    "Synchronicity",
  ]
}
```

Semantic Web Browsers

Marbles

<http://www4.wiwiss.fu-berlin.de/bookmashup/books/0375507256>

Open



Cloud Atlas: A Novel

type • <http://sites.wiwiss.fu-berlin.de/suhl/bizer/bookmashup/simpleCommerceVocab01.rdf#Book>

Title • [Cloud Atlas: A Novel](#)

Date • [2004-08-17](#)

Creator • [David Mitchell](#)

has subject

- [General](#)
- [Fantasy fiction](#)
- [Fate and fatalism](#)
- [Fiction](#)
- [Fiction / General](#)
- [Fiction - General](#)
- [Literary](#)
- [Reincarnation](#)

label • [Cloud Atlas: A Novel](#)

depiction



Zitgist

Document

Type: [Document](#)
[Bruce D'Arcus](#)

[isDescribedUsing]: <http://www.w3.org/.../22-rdf-syntax-ns#>
 4 more

Information source: www.freebase.com/view/.../guitar



base...ogy_instance

Type: [Topic](#)
 7 more

Same As: <http://dbpedia.org/.../Guitar>
 37 more

[attributionName]: *There is no information to display about this subject (validate: [Source:%20Freebase%20-%20The%20World's%20database](#))*

[attributionURL]: <http://www.freebase.com/.../guitar> ^z

[common.topic.alias]: [Guitars](#)
[guitar](#)