Agenda

I. Wikidata
II. Wikibase
III. Wikibase in action
IV. Future of Wikibase
V. Questions?
What is Wikidata?
Launched October 2012
A Wikimedia project
Largest example of a Wikibase instance
Currently more than 89 Million data items
Over 45,000 active users with more than 1 edit per month
 Wikidata

- A knowledge base
- Part of the Wikimedia projects
- Structured data
- Linked to other databases
- Multilingual
- Collaborative
- Released under public domain (CC0)
- Based on facts and references
- Made for humans and machines
#defaultView:Map
(SELECT ?item ?itemLabel ?coord ?image
WHERE
{
  OPTIONAL {
    ?item wdt:P18 ?image
  }
} SERVICE wikibase:label { bd:serviceParam wikibase:language "en". }
)
Example query: Airports named after a person, color-coded by gender
Example query: Members of the current UK Parliament who have ancestors who are identified as possibly mythical
Example query: **Country flags including a sun**
Example query: **Cause of death of members of noble families**
So, what is Wikibase?
• The software underlying Wikidata
• Users can create and manage their own knowledge base
• A data model that is flexible; takes knowledge diversity and multilinguality seriously
• A rich JavaScript-based user interface to easily access and update your data
• Exports the data in a number of formats including JSON, RDF/XML, N3, and YAML
• Users may query their database using the SPARQL endpoint
Or, to put it simple

- Order things in the users world
- Makes the data readable and queryable for machines
- Allows links to be made between things and concepts
- Builds the Semantic Web through the sharing and reuse of data
- The Wiki way: collaborative and linked
Structure of the data

- Q items: individual and randomised
- Users model the world in terms of “triples”
- Triple structure: items, properties and statements
- Additional detail added through qualifiers and references
Structure of the data

- Nested and linked structure
- Variety of data types
In a nutshell

- Ideal for structured data that can be expressed within this triple structure
- It is only the structure that is fixed; triples can defined and edited by users to suit their view of the world
- It can be and is used for catalogs, authority files, controlled vocabularies and much more
- It is a software solution that offers Linked Open Data in a box, with a Mediawiki interface and a SPARQL Query Service to go with it
Wikibase in action
National Libraries

- German national library (DNB)
  - Project for Authority File (GND)
- French national library (BnF)
  - Two projects: Authority File (FNE) with ABES and cataloguing (NOEMI)
FactGrid

- Run by the Gotha Research Centre and hosted by the University of Erfurt
- Started out as a project to document the history of the Illuminati
- Now a collaborative historical database used by historians
- [Article on the project](#)
Rhizome is an arts organization based in New York. Wikibase is used for their archive of born-digital art. Flexibility of Wikibase means that it can accommodate the ever-evolving field of net art. Article on the project.
Wikibase Ecosystem
Having “your own Wikidata” is only one part. Ideally it would be wonderful, if Wikibases could talk to each other, link content, query across instances, and re-use ontologies. All this can be called **Federation** or federated Wikibases.

... unfortunately, people mean very different things when they talk about federation.
Federated querying: Already possible.

The SPARQL service can also include data retrieved from a limited number of external sources. For example, the following query tries to find a value for TOID (P3120) from the UK Ordnance Survey for items that have a GSS code (2011) (P836) but no TOID (P3120):

```
SELECT ?item ?itemLabel ?gss ?os_toid WHERE {
  FILTER NOT EXISTS { ?gss_stmt pq:P582 [] } .
  FILTER NOT EXISTS { ?item wdt:P3120 [] } .
  SERVICE <http://data.ordnancesurvey.co.uk/datasets/os-linked-data/apis/sparql> {
  }
  SERVICE wikibase:label { bd:serviceParam wikibase:language "en".
}
```

Try it!
Next step: Federated ontologies (Properties)

For 2020, the Wikibase development team will work on a solution that lets Wikibase instances re-use properties in Wikidata. We see this as a first step. Re-use of items is a possible future development.

Many details of this federated ontology re-use are subject to discussion and exploration.
A community around Wikibase is currently forming

Discussions are active and open source

Consider joining the community

Monthly live sessions to explore topics together, the so-called “Wikibase Live Sessions”
That's it from us. Questions?
Want to know more?
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