Workshop at the
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Linked Data on the Web

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The Web of Documents and the Web of Data
The Web of Documents

- **Analogy**
  - a global filesystem

- **Designed for**
  - human consumption

- **Primary objects**
  - documents

- **Links between**
  - documents (or sub-parts of)

- **Degree of structure in objects**
  - fairly low

- **Semantics of content and links**
  - implicit

The Web of Documents

HTML

A

HTML

B

HTML

C

API/ XML

D

untyped links

untyped links

untyped links
The Web of Documents: Issues

■ Simplicity
  - Loosely structured data, untyped links, disconnected data sets

■ Integration
  - Show me all the publications from Semantic Web-related conferences in 2007

■ Querying
  - Which WWW2008 papers have been written by people from companies of less than 100 people?
The Web of Data

- **Analogy**
  - a global *database*

- **Designed for**
  - *machines* first, *humans* later

- **Primary objects**
  - *things* (or descriptions of things)

- **Links between**
  - *things* (including documents)

- **Degree of structure in (descriptions of) things**
  - high

- **Semantics of content and links**
  - explicit

Linked 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 RDF information
4. Include RDF statements that link to other URIs so that they can discover related things

Tim Berners-Lee 2007
http://www.w3.org/DesignIssues/LinkedData.html
Over 500 million RDF triples
Around 120,000 RDF links between data sources
Triple Count

- More than 2 billion RDF triples
- Interlinked by around 3 million RDF links

(rough estimates)
Linked Data Browsers

- Tabulator Browser (MIT, USA)
- Disco Hyperdata Browser (FU Berlin, DE)
- OpenLink RDF Browser (OpenLink, UK)
- Zitgist RDF Browser (Zitgist, USA)
- Humboldt (HP Labs, UK)
- Fenfire (DERI, Irland)
- Marbles (FU Berlin, DE)
Web of Data Search Engines

- Falcons (IWS, China)
- Sindice (DERI, Ireland)
- Watson (Open University, UK)
- SWSE (DERI, Ireland)
- Swoogle (UMBC, USA)
- MicroSearch (Yahoo, Spain)
Structure of the Day

1. Session: Populating the Web with Linked Data
   8:50-10.10
   10:30-12:10

2. Session: Consuming Linked Data from the Web
   13:30 – 3:10

3. Session: Architecture and Conceptual
   15:30 – 17:30

4. Discussion about further Research and Deployment Agenda
   17:30 – 18:00