Government Linked Data

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The Opportunity (and Problem)

Governments are starting to release their data!

We start with US: data.gov

US Federal Agencies...

Some Recent Examples

Dept. Interior

  Natural Resource Volunteer Opportunities

  Federal National Recreation Sites

Dept. Agriculture

  MyPyramid Food Raw Data

  Census of Agriculture Race, Ethnicity and Gender

Dept. Transportation

  Child Passenger Safety Ease of Use Ratings

  Tire Quality Grading System (4200 Ratings)

US States...

Countries...

+ New Zealand, The Netherlands, France, Sweden, Spain, Austria, Denmark, ...

It's XML, CSV, XLS, and KML

```xml
-<dataroot xsi:noNamespaceSchemaLocation="UTQG.xsd" generat
  -<UTQG>
    <BRAND>AKURET</BRAND>
    <CONST>RADIAL</CONST>
    <TIRELINE>GT 50/55</TIRELINE>
    <SIZE>ALL EXCEPT</SIZE>
    <TRAC>A</TRAC>
    <TEMP>A</TEMP>
    <WEAR>280</WEAR>
  </UTQG>
  -<UTQG>
    <BRAND>AKURET</BRAND>
    <CONST>RADIAL</CONST>
    <TIRELINE>GT 50/55</TIRELINE>
    <SIZE>Z-RATED</SIZE>
```
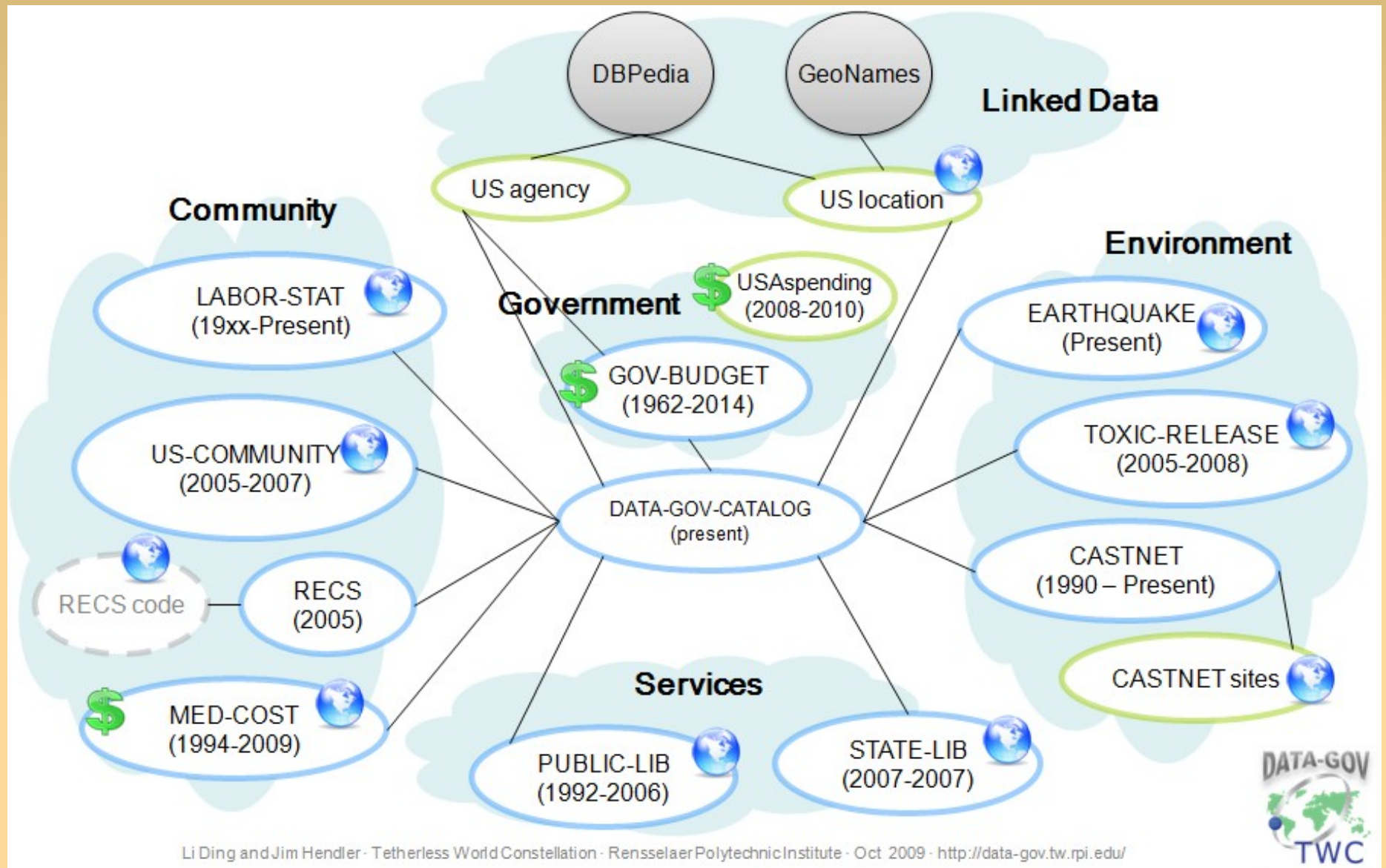
...from a million governments!

So how do you integrate this?

Semantic Web Linked Data

Li Ding and Jim Hendler · Tetherless World Constellation · Rensselaer Polytechnic Institute · Oct 2009 · http://data-gov.tw.rpi.edu/

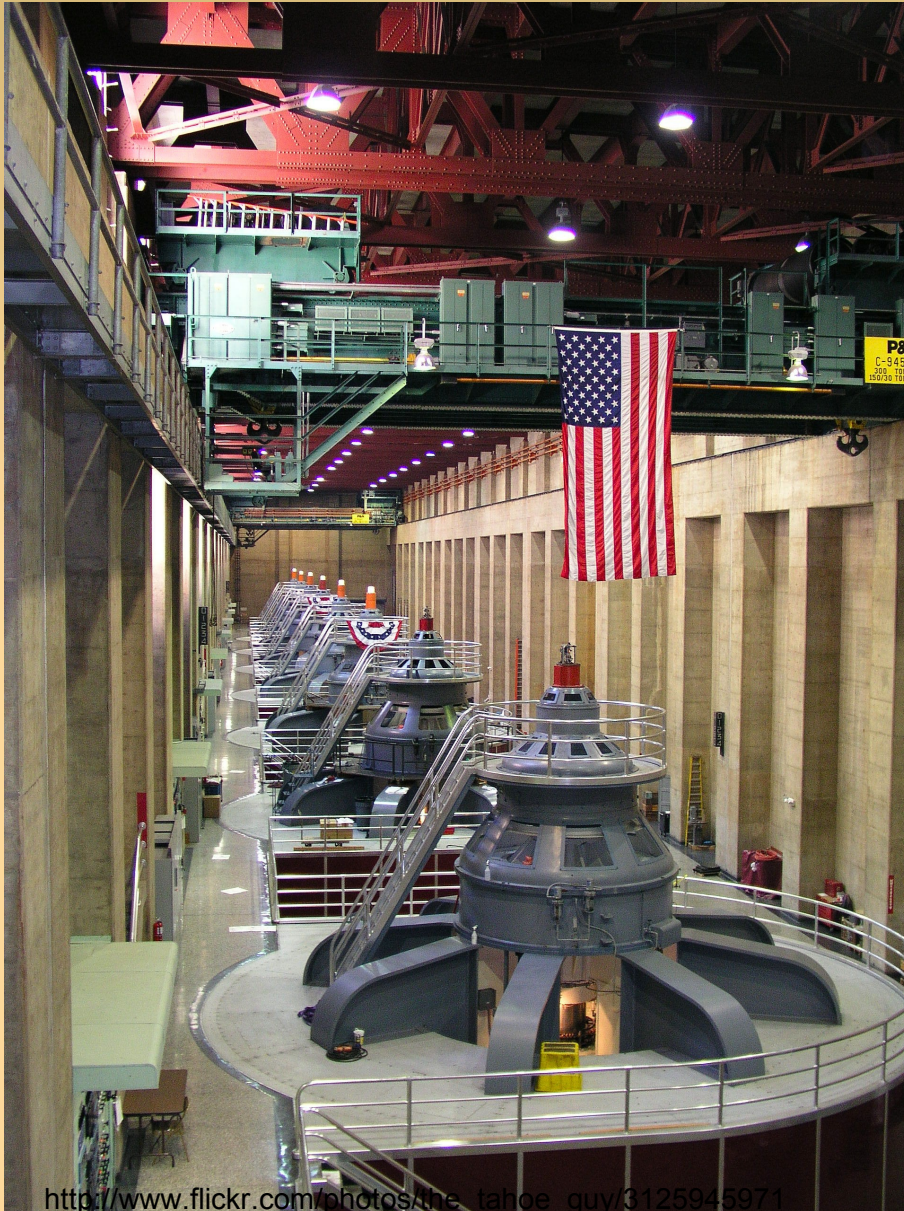# Third Party Translations

Governments Using Linked Data

Design Patterns

- URIs (using 303s, /TR/cooluris)
  - http://{sector}.data.gov.uk/id/{concept}
  - http://{sector}.data.gov.uk/doc/{concept}
- Versioning
  - Maintaining historical data
  - Named graphs
- Provenance
  - Where data came from
  - How it's been handled

Access For Developers

- Linked Data API

  - Maintain your RDF database

  - Expose it via RDF GET

  - Expose it via SPARQL

  - Expose it via RESTful APIs (JSON/XML)

  - Expose it via Web Pages

- Linked Data is cost effective solution

It's possible, with the right technology.

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