Overview

- 30 mins
Synchronization?

What version?
Semantic versions: the “other” case

<table>
<thead>
<tr>
<th>Time</th>
<th>Value vocabulary: “Things”</th>
</tr>
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<tbody>
<tr>
<td></td>
<td><strong>Label</strong></td>
</tr>
<tr>
<td></td>
<td>A</td>
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<tr>
<td></td>
<td>B</td>
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<td></td>
<td>C</td>
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<tr>
<td>Version 1</td>
<td>Other</td>
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<td>D</td>
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<tr>
<td>Version 2</td>
<td>Other</td>
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</tbody>
</table>

Version 1 and Version 2 have different meanings

Version 1 and 2 datasets have different semantics

Applications have inconsistent or incoherent results
Fine granularity at transaction level
No demand for *version* aggregation

Dated URI
Last date only

Access to old versions?

http://dewey.info/class/641/2009/08/about.fr.rdf

Many versions of version control!

Dated release number
Lack of change data
Semantic versioning (semver.org/)

3-tier numbering system: major.minor.patch

X . X . X

**Major**: breaks backwards semantic compatibility

**Minor**: change in semantics of any property of any element

**Patch**: no change in semantics of any element
Older versions remain available.
Local applications; global data
Maintaining local order in global chaos
Smart semantic clouds

- **Smooth** interaction between app and vocab
  - Transparent to the user crowd
  - Until major change requires validation of context
- **Distributed** version control (Git, etc.)
- Vocabulary managers **trusted** to comply with (simple) semantic versioning
  - And **encouraged** to provide details of semantic breakage between major versions
- App developers **encouraged** to provide backwards compatibility with version ranges
Concluding questions

- What conditions categorize major/minor semantic changes?
- Can dataset semantics be versioned?
  - Beyond data dumps ...
  - Inherited element set and value vocabulary versions?
- Impact of syntactic or structural breakage?
  - E.g. change from RDFS to OWL versions of an element set
- Is it time to get serious about linked data management?
Thank you!

- Flammarion engraving: artist unknown
- We are here