LOD achievements and challenges

- Web - a global, distributed platform for data, information and knowledge integration
- exposing, sharing, and connecting pieces of data, information, and knowledge on the Semantic Web using URIs and RDF

Achievements
1. Extension of the Web with a data commons (13.1 B facts)
2. Vibrant, global RTD community
3. Industrial uptake begins (e.g. BBC, Thomson Reuters, Eli Lilly)
4. Emerging governmental adoption in sight
5. Establishing Linked Data as a deployment path for the Semantic Web.

Challenges
1. Coherence: Relatively few, expensively maintained links
2. Quality: partly low quality data and inconsistencies
3. Performance: Still substantial penalties compared to relational
4. Data consumption: large-scale processing, schema mapping and data fusion still in its infancy
5. Usability: Missing direct end-user tools and network effect

These issues are closely related and need to be treated in an integrated, holistic fashion.
Make the Web a Linked Data Washing Machine

Interlinking

Manual revision/authoring

Fusing

Repair

Classification

Enrichment

Manual revision/authoring
Creating a network effect for Linked Data: Semantic Pingback

- update and notification services for LOD
- Downward compatible with Pingback (blogosphere)
- http://aksw.org/Projects/SemanticPingBack
Linked Government Data - Ideal application scenario for Linked Data

• Public sector extremely fragmented (EU, national governments, states, local communities)

• Benefits:
  – Transparency
  – Close the gap between politics and citizens
  – Use of the creative potential of citizens
  – new value added services
What was right?
• LOD as a pragmatic approach to the Semantic Web

What was wrong?
• RDF being born after XML, LOD after the Semantic Web

What should we do in the future?
• Establish a network effect around LOD
• Create the LOD washing machine
• Target Enterprise Information Integration, Open Governmental and Scientific Data
• From eat-your-own-dogfood to convince-you-grandma

What shouldn't we do?
• Neglect the interfaces between research, technology and applications