



Linked Data: The Story So Far (or, What Happens Next?)

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Context

- Bizer, Heath and Berners-Lee (to appear). *Linked Data – The Story So Far*. International Journal on Semantic Web and Information Systems (IJSWIS).
- The Story So Far
- What Happens Next?



Part 1: The Story So Far



The Story So Far

“Semantic Web, what Semantic Web?”



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Design Issues: Linked Data



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Existing Open Data Sets

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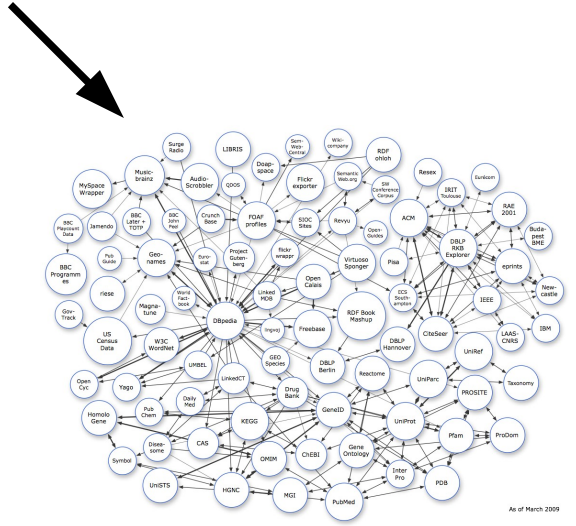


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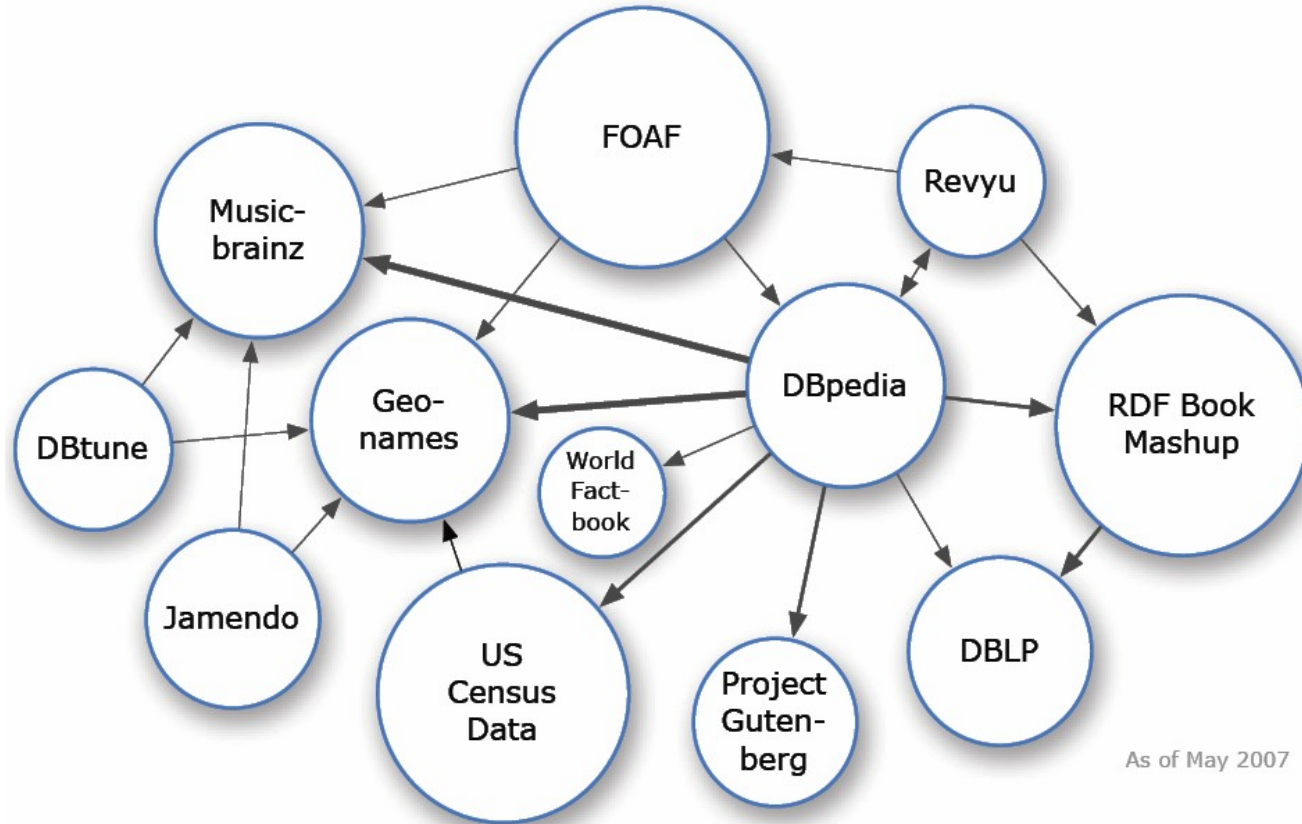
Existing Open Data Sets





A Cloud with a Silver Lining?

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A Cloud with a Silver Lining

- A great success indicator
- 4.5 billion triples, millions of links between data sets!
- It's so big we can't really count the triples anymore!
- Barely fits on one slide!
- A great marketing tool



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“Umm, we don't have the resources...” ←

→ “Oh...”



Counter-arguments

- We don't want to count the number of triples anyway!
- Who bothers to count the number of pages on the Web anymore, now the pissing matches are over?
- We can't meaningfully fit all the blobs on one slide anymore, anyway!



After the Cloud has Dissipated...

- Can we function without it?
- How do we market Linked Data without eye candy?
- Can the Web of Data evolve beyond just growth?



Part 2: What Happens Next?



The 'Open' in 'Linking Open Data'



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The 'Open' in 'Linking Open Data'

- *Linked Data* is a style of publishing data on the Web
- *Linking Open Data* is a project
- *Open Data* is complementary but orthogonal to *Linked Data*
- Let's not put openness on the critical path to Linked Data adoption
- Let's get our house in order re licensing:
 - Facts are not creative works
 - Data needs a separate licensing framework (Creative Commons often does not apply)
- Places to start:
 - <http://www.opendatacommons.org/guide/>
 - ISWC2009 Tutorial on Data Licensing



The 'Links' in 'Linked Data'

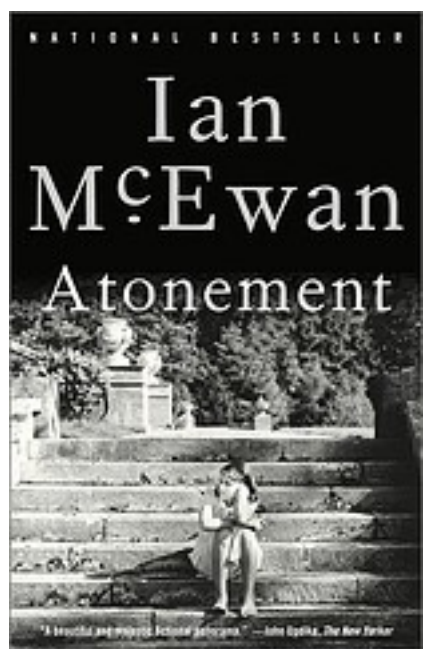


The 'Links' in 'Linked Data'

- Relax (for now) about the *owl:sameAs* problem
- It's only a problem when users tell us it's a problem
- Data quality is the overarching issue

The 'Links' in 'Linked Data'

Depictions of dbpedia:Atonement_(film)



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Fundamental Requirements for Linked Data



Fundamental Requirements for uptake of Linked Data

- Quality data
- Availability and stability of data sets
- Publishing at source
- Clarity re. licensing (i.e. terms of reuse)
- Applications!



The 'Killer App' Question



The Killer App Question

- Question: “What will be the Linked Data killer app?”
- Answer: If I knew, I wouldn't tell you.
- Answer: There may not be one. Get over it.
- Answer: Killer apps are just post-hoc rationalisations
 - What is the killer app of electricity? Lighting? TV? Who cares?
- No more obsessing or speculation allowed, principled analysis only!



Where do we Focus our Efforts?

- Sustaining innovation
- Disruptive innovation
 - Low-end disruption
 - New-market disruption

(Christensen and Raynor, *The Innovator's Solution*, 2003)



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- Risky business ideas?
 - A new search engine that exploits structured data
 - A reviewing and rating site that publishes data in RDF
 - A new CMS with Linked Data support



Where do we Focus our Efforts?

- Low-End Disruption
 - “Address overserved customers with a lower-cost business model”
 - “Are there customers at the low end of the market who would be happy to purchase a product with less (but good enough) performance if they could get it at a lower price?”
 - “Can we create a business model that enables us to earn attractive profits at the discount prices required to win the business of these overserved customers at the low end?”
 - What can we do less well with Linked Data, but at significantly less cost than with existing approaches?



Where do we Focus our Efforts?

- New-Market Disruption
 - “Compete against non-consumption”
 - “New-market disruptive products are so much more affordable to own and simpler to use that they enable a whole new population of people to begin owning and using the product, and to do so in a more convenient setting.”
 - What can we enable with Linked Data that a large number of people aren't doing right now because it's too hard, expensive or inconvenient?



Conclusions

- Linked Data: by all accounts a great success
- The success criteria are changing
- Time to change up
 - Quality
 - Stability
 - Clarity
 - Applications



Questions?

Slides

- <http://tomheath.com/slides/2009-09-london-linked-data-the-story-so-far.pdf>

Acknowledgements

- Ian Davis and Justin Leavesley