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REST and linked data

A match made for domain driven development?

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Context

- Building systems and tools for e-Science and e-Research in several domains
- All could be considered data-centric (though that's not to forget method)
 - Computational musicology, Music Information Retrieval
 - Geographers, oceanographers
 - Scientific workflow (bioinformaticians etc.)

Context (continued)

- Common requirements
 - Structure information for the domain
 - Expose data for use (and re-use)
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 - *But not necessarily at the same time (why?)*

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 - *Identification of resources is the key abstraction in REST and RDF where it is also the means to express relationships*
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- Segregation of Semantics
 - *Semantics have their place (and it's not in the resource addressing/URIs)*

Adaptability

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Differences

Differences or *Complementarity?*

Model or API

- What purpose are the commonalities put to?
- Resources and their relationships are used to:
 - REST: identify data and transition to other resources; the means to develop an application; an API
 - Semantic Web: encapsulate the underlying data model; move to more data related using the model

Domain Driven Design

- Both the information model and API design are driven by the domain requirements
- This focusses differentiation and complexity where it *should* be: around those issues specific to the domain
 - A common model can be shared between the data and the API

So...

- Are all Linked Data applications today RESTful?
- Are there lots of RESTful systems using Linked Data?

Tensions

- *Are the remaining differences fundamental mismatches or artefacts of current use?*
- SPARQL
- Content negotiation
 - Information and non-information resources
 - 303 overhead

In Summary

- REST and Linked Data are complementary in the domain
- An opportunity to build powerful domain centric systems with a common API and data model
- *Questions?*

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