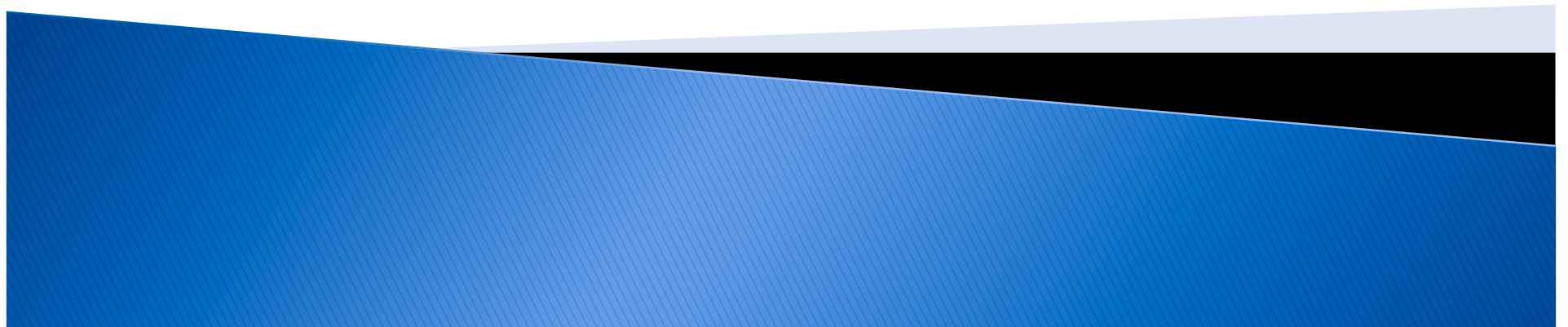


Combining the Social and Semantic Web

Part 2 – General Applications

Sheila Kinsella, DERI / NUIG
Denny Vrandečić, KIT / Wikimedia.de



Agenda

Introduction

- ▶ Social and Semantic Web
- ▶ Data portability
- ▶ Ontologies

Applications: General

- ▶ Semantic Tagging
- ▶ Semantic Microblogging
- ▶ Facebook Open Graph
- ▶ Drupal 7

Applications: Wikis

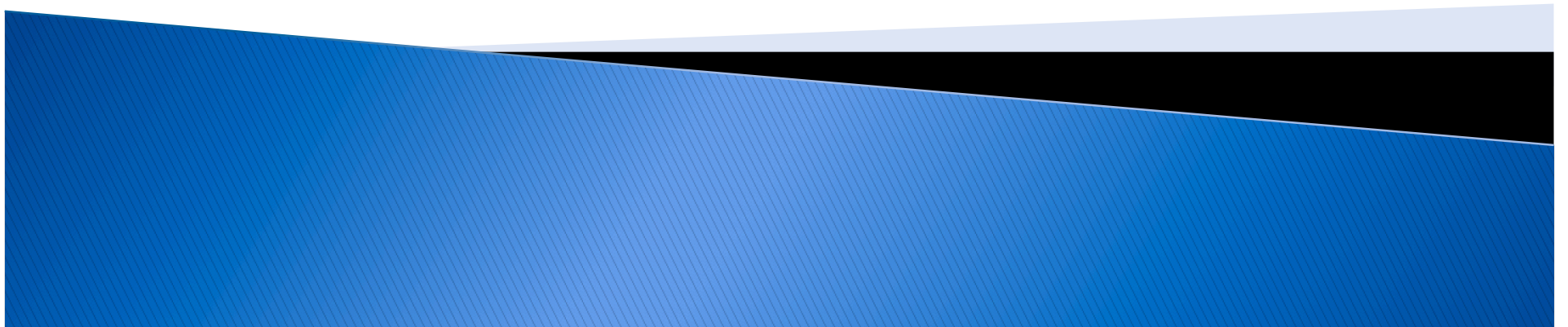
- ▶ Wikis and semantics
- ▶ Semantic MediaWiki
- ▶ Collaboration

Using Semantic Social Data

- ▶ Distributed Social Web
- ▶ Recommendations
- ▶ Enhanced visualisations
- ▶ Social network analysis

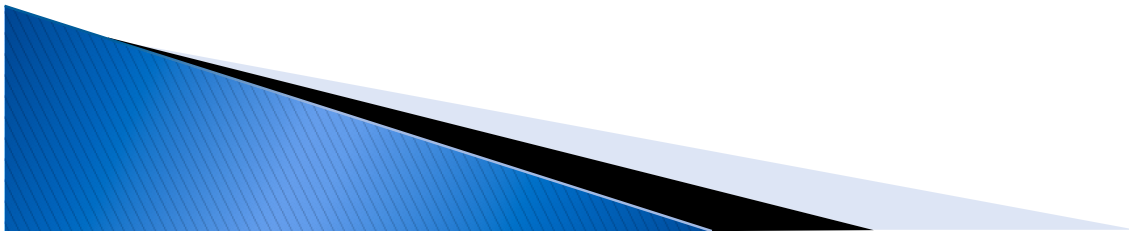
Semantic tagging

Bridging the gap between folksonomies and
ontologies



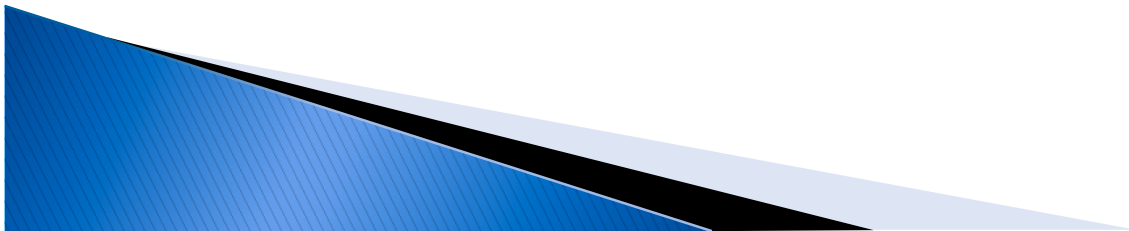
Tagging issues

- ▶ Tagging enables user-generated classification of content with evolving and user-driven vocabularies
- ▶ But it also raises various issues:
 - Tag ambiguity:
 - “apple” = fruit or computer brand?
 - Tag heterogeneity:
 - “socialmedia”, “social_media”, “socmed”
 - Lack of organisation:
 - No links between tags, e.g. “SPARQL” and “RDF”

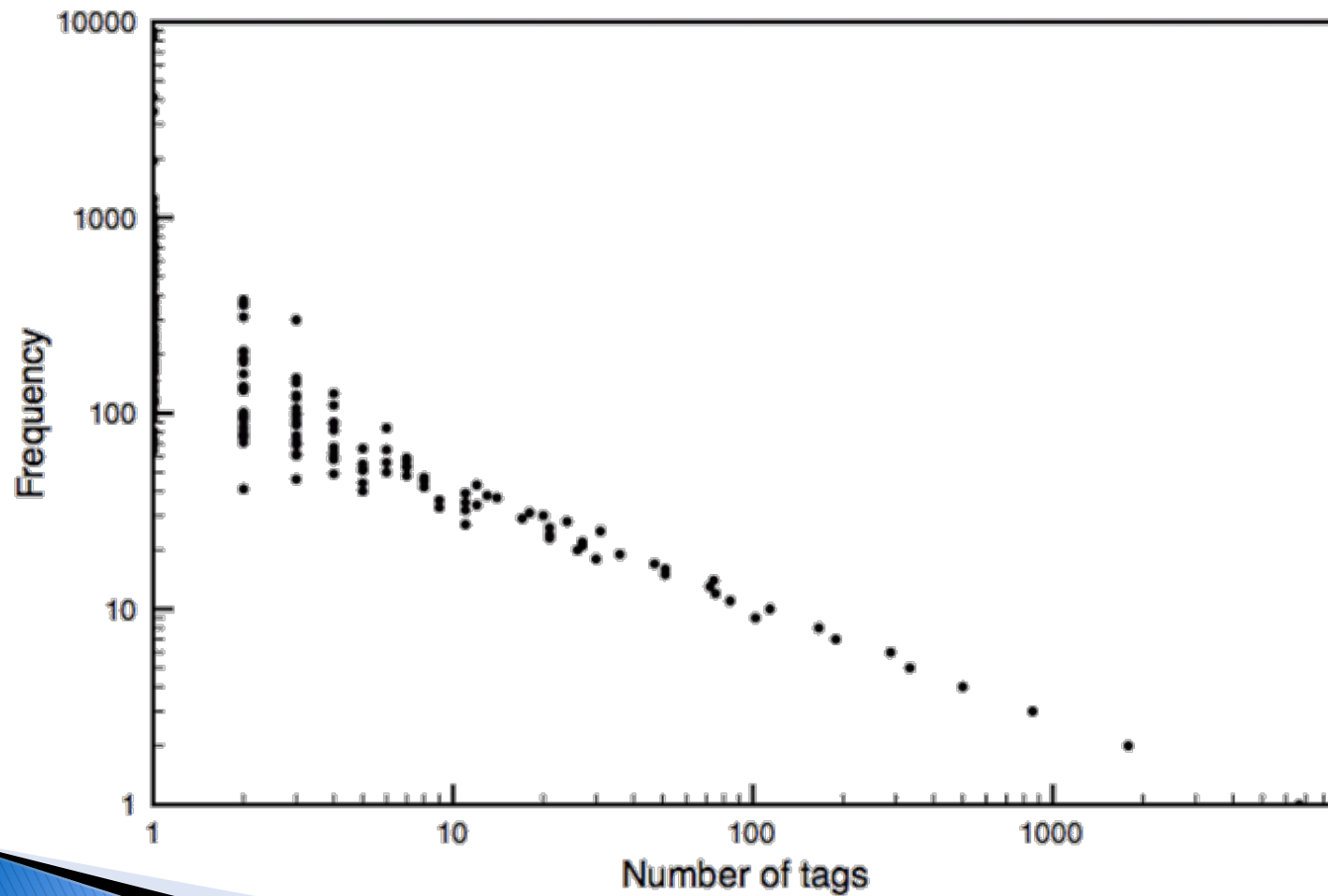


Use case illustrating such issues

- ▶ Corporate use case > 3 years, 12257 tags, 21614 posts:
 - 54.2% of tags used once, 75.77% used ≤ 3 times
 - Lots of valuable information lost in the *long tail*
- ▶ Tagging and expertise gap:
 - 194 items tagged with “TF” (= Thin Film)
 - 1% of them tagged with “solar”
 - $< 0.5\%$ of “solar” items tagged “TF”
 - Both tags are weakly related from a co-occurrence point of view, clustering cannot be efficiently used



The long tail of tags

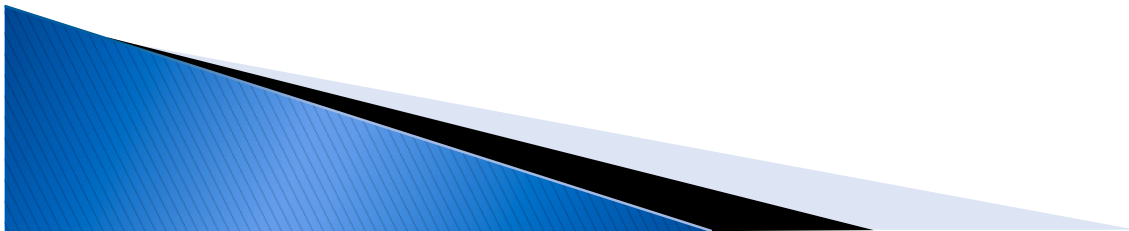


THE FOLKSONOMY TRIANGLE



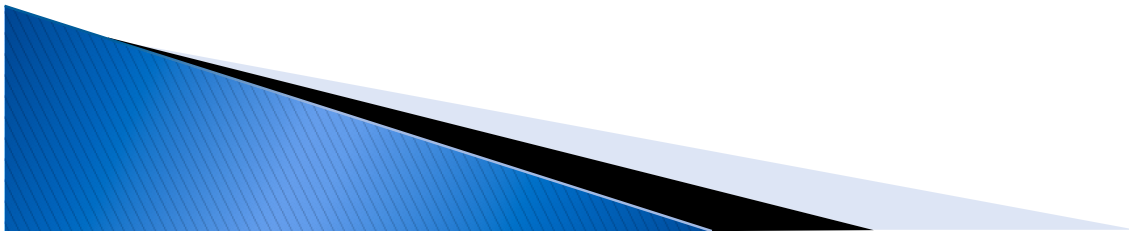
The Tag Ontology

- ▶ The “Tag Ontology” by Newman from 2005:
 - <http://www.holygoat.co.uk/projects/tags/>
 - Based on Gruber’s tag model
 - `tags:Tag rdfs:subClassOf skos:Concept`
 - A “Tagging” class describing relationships between:
 - A user
 - An annotated resource
 - Some tags



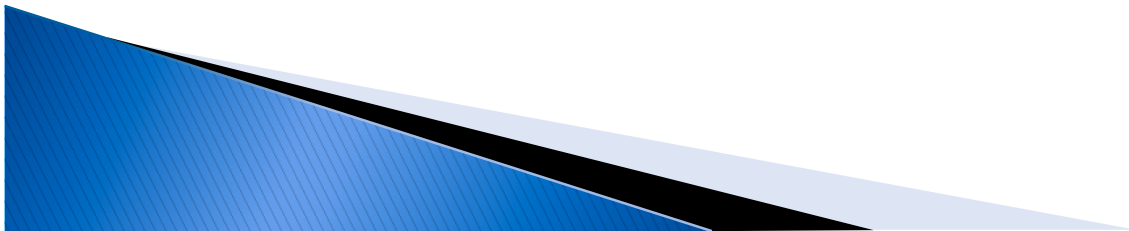
SCOT

- ▶ SCOT (Social Semantic Cloud of Tags):
 - <http://scot-project.org/>
 - A model to describe tagclouds (tags and co-occurrence)
 - Ability to move your own tagcloud from one service to another
 - Share tagclouds between services, and between users
 - “Tag portability”

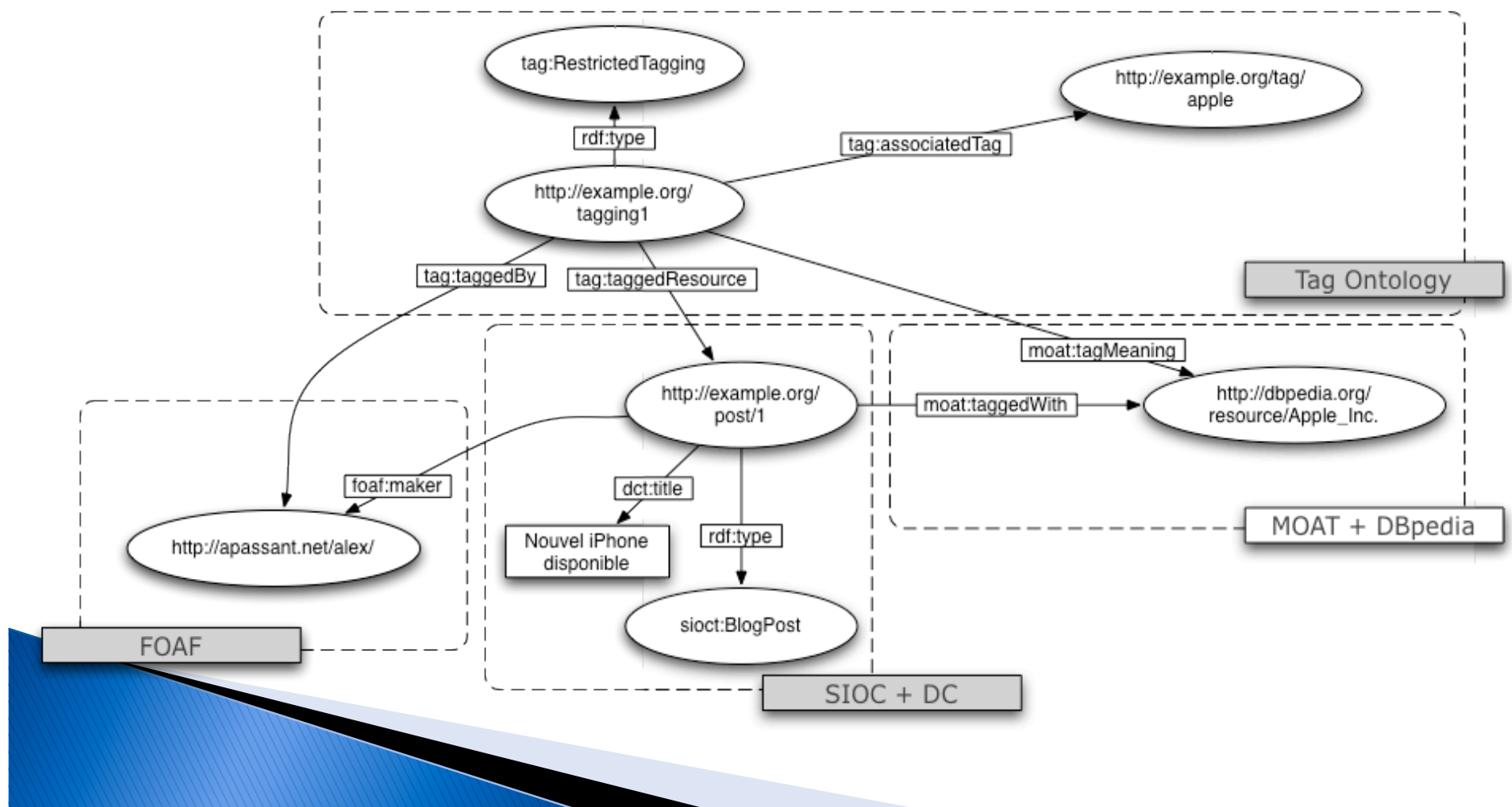


MOAT

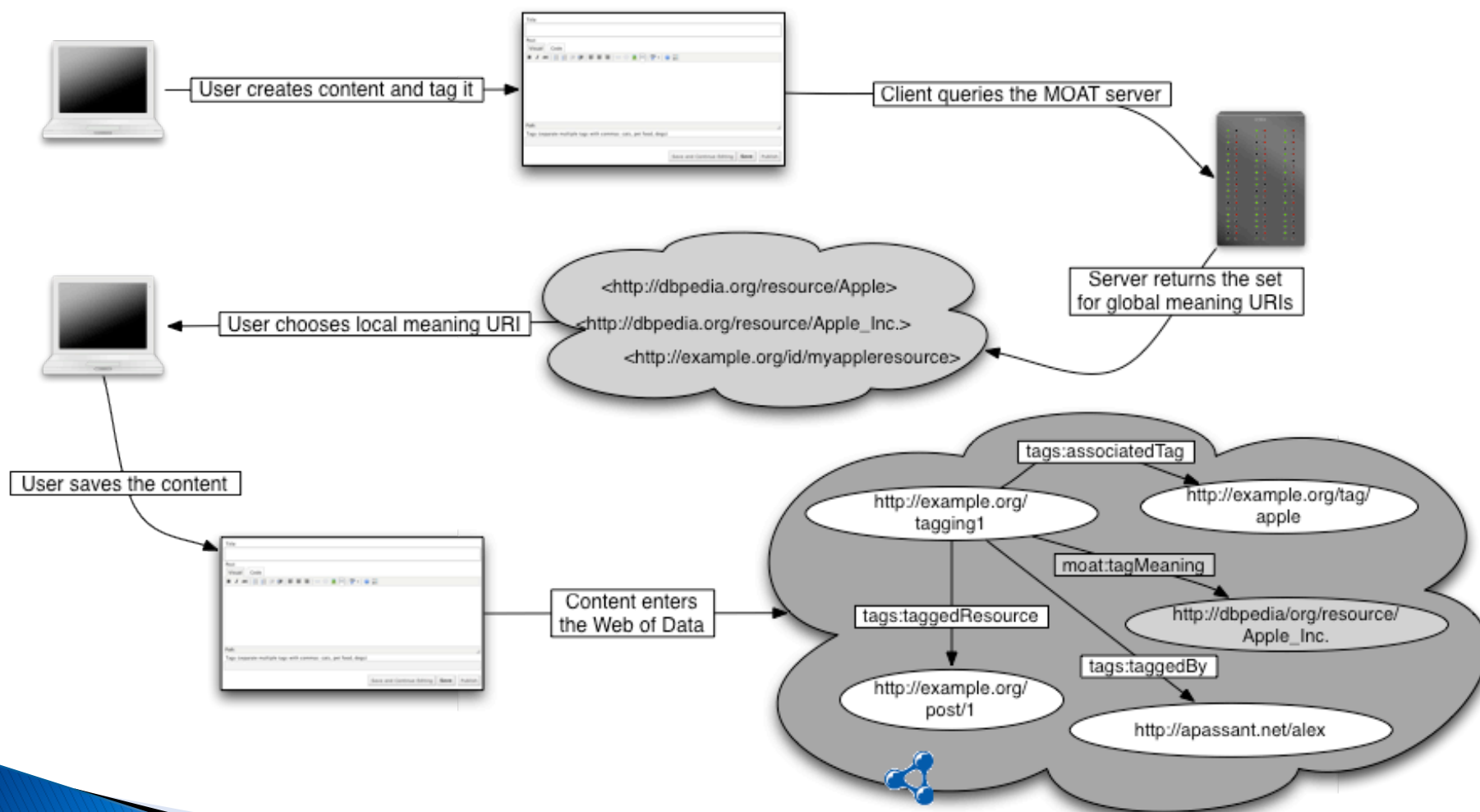
- ▶ MOAT (Meaning Of A Tag):
 - <http://moat-project.org/>
 - A model to define “meanings” of tags
 - e.g. SPARQL → <http://dbpedia.org/resource/SPARQL>
 - User-driven interlinking
 - Tagged content enters the “Linked Data” web
 - Collaborative approach to share meanings in a community



MOAT with DBpedia example data



Tagging process with MOAT and DBpedia



MOAT in Drupal

From tagging to Semantic Web

Define the meaning of your tag(s) in the current context

barcamp

New URI ?:

[Click there to find relevant URIs from Sindice](#)

paris

☐ <http://sws.geonames.org/2988507/>
☐ <http://sws.geonames.org/4402452/>
☒ <http://dbpedia.org/resource/Paris>

New URI ?:

[Click there to find relevant URIs from Sindice](#)

sparql

☒ <http://dbpedia.org/resource/SPARQL>

New URI ?:

[Click there to find relevant URIs from Sindice](#)

Sindice search

☐ **tags and** ☐ **uri**

<http://ontoworld.org/wiki/Special:ExportRDF/Category:Barcamp>
2007-12-28 – 18 triples – 2096 b

<http://ontoworld.org/wiki/Special:ExportRDF/Category:Barcamp>

<http://ontoworld.org/wiki/Special:ExportRDF/Category:Vinay>
2007-12-28 – 18 triples – 2063 b

<http://ontoworld.org/wiki/Special:ExportRDF/Category:Vinay>

<http://www.talkdigger.com/sioc/marketing-garden.com/2007/09/22/barcamp-galway-2007/xml/>
2008-01-27 – 71 triples – 7412 b

<http://www.talkdigger.com/sioc/marketing-garden.com/2007/09/22/barcamp-galway-2007/xml/>

<http://www.talkdigger.com/sioc/barcamp.org/PreviousBarCamps/xml/>
2007-12-21 – 130 triples – 11896 b

<http://www.talkdigger.com/sioc/barcamp.org/PreviousBarCamps/xml/>

[BarCamp](#)
2007-10-23 – 282 triples – 10364 b

<http://dbpedia.org/resource/BarCamp>

<http://www.talkdigger.com/sioc/barcamp.org/xml/>
2007-12-28 – 847 triples – 80870 b

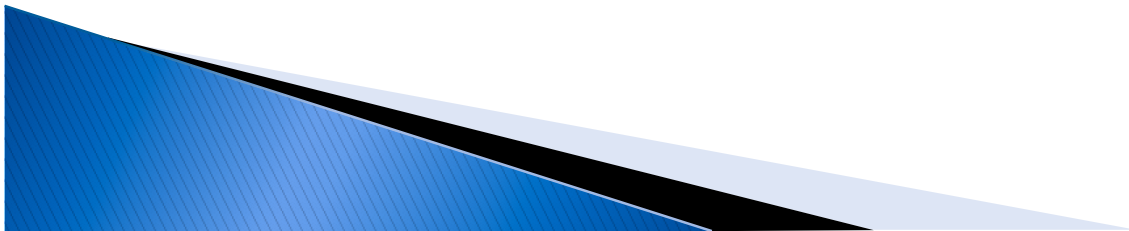
<http://www.talkdigger.com/sioc/barcamp.org/xml/>

Type in the search string

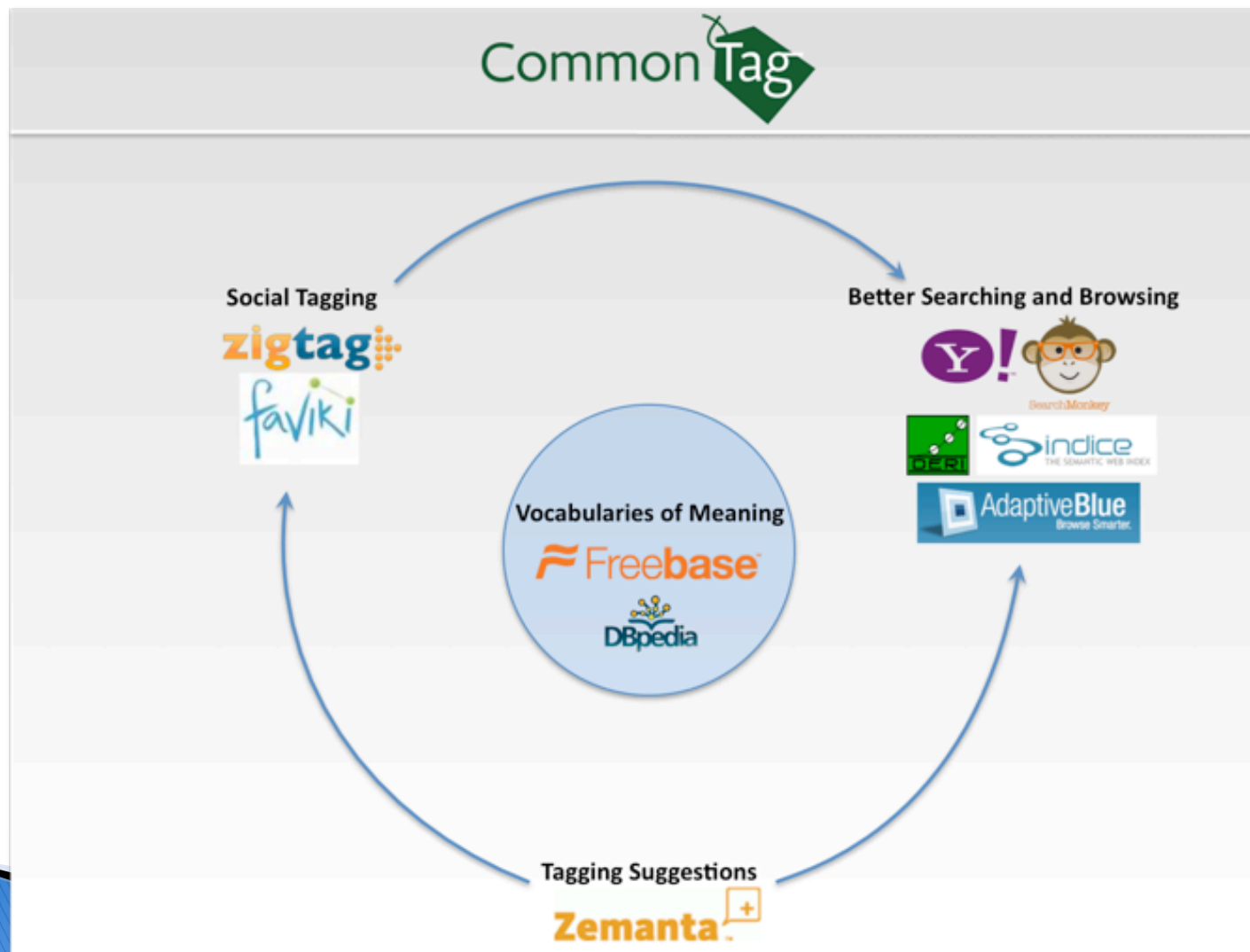
CommonTag

- ▶ CommonTag:

- <http://commontag.org/>
- A joint effort by AdaptiveBlue, DERI at NUI Galway, Faviki, Freebase, Yahoo!, Zemanta and Zigtag
- Linking tags to meaningful resource (*à la* MOAT)



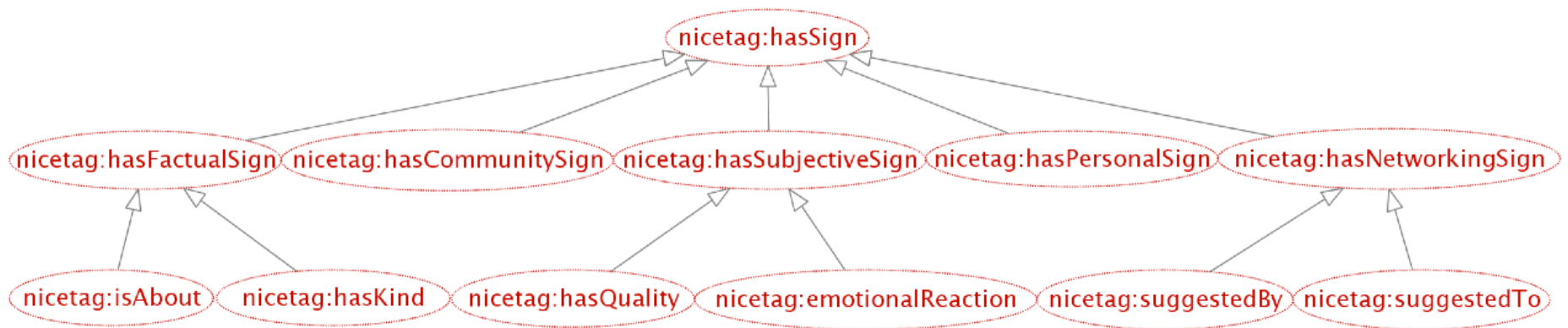
Life cycle for CommonTag data



NiceTag

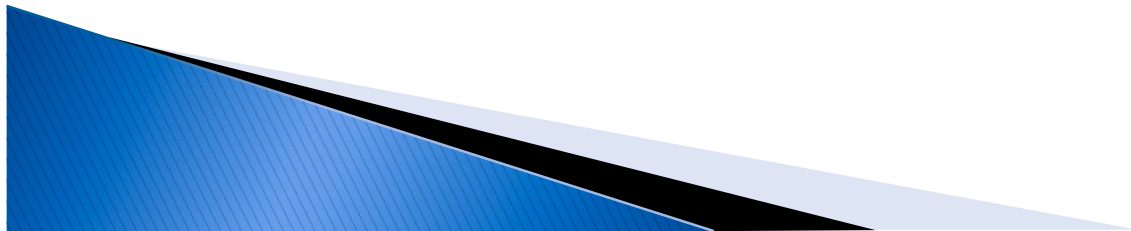
▶ NiceTag Ontology:

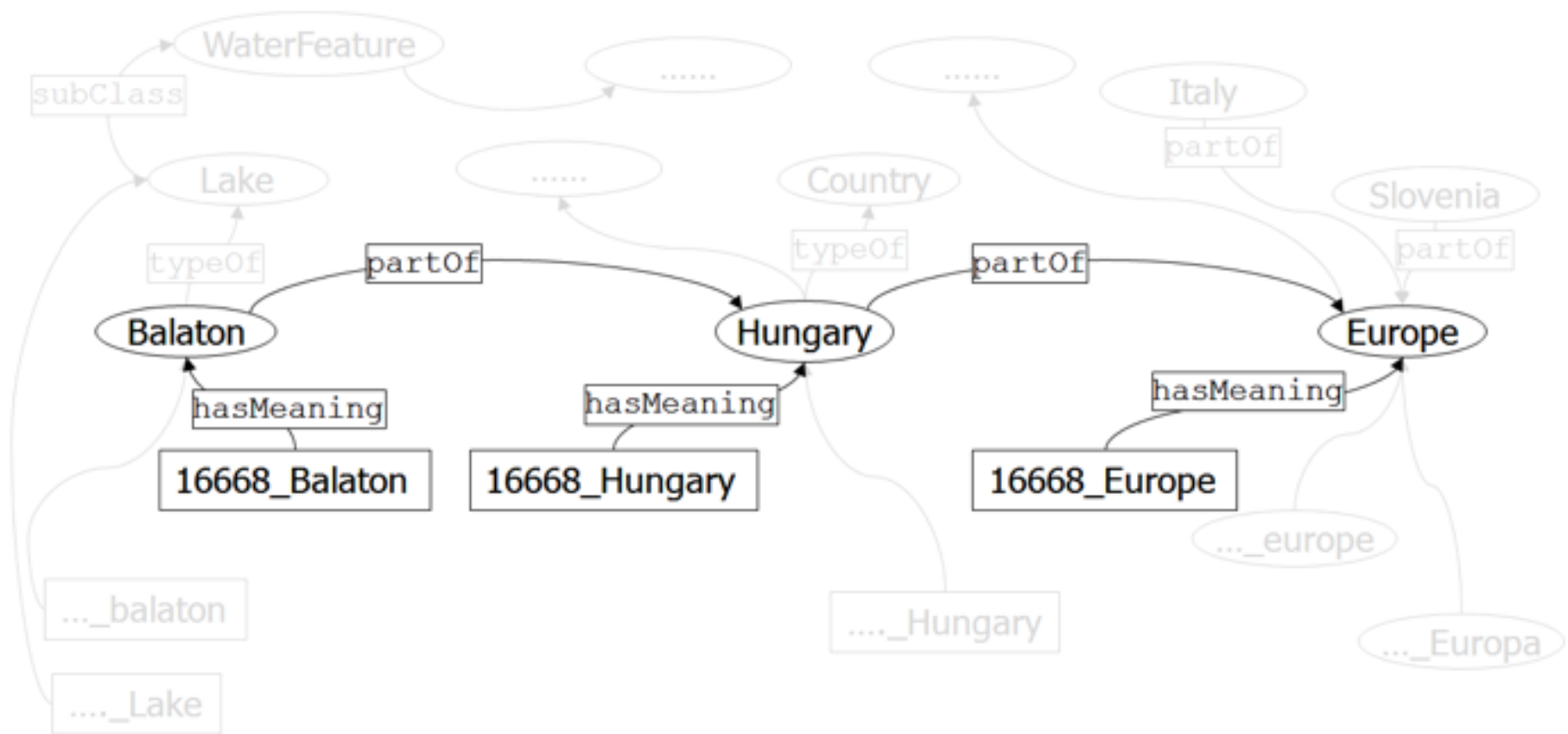
- Tagging meets speech act theory
- Focus on the link between a tag and a tagged item



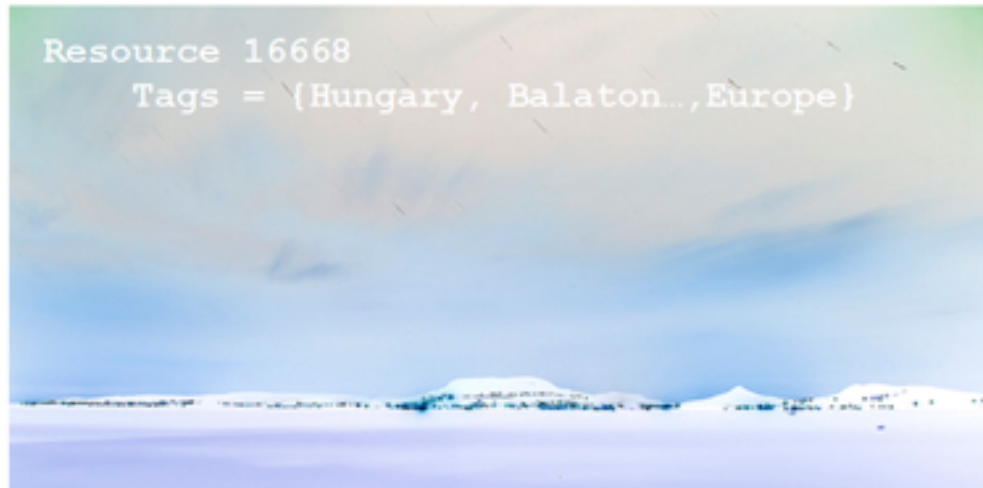
Extracting ontologies from tags

- ▶ FolksOntology:
 - Semi-assisted extraction of relationships between tags
- ▶ FLOR:
 - FoLksonomy Ontology enRichment
 - <http://flor.kmi.open.ac.uk/>
 - Automated approach to identify tag meanings
- ▶ Can be combined with the previous models for a complete semantic tagging stack

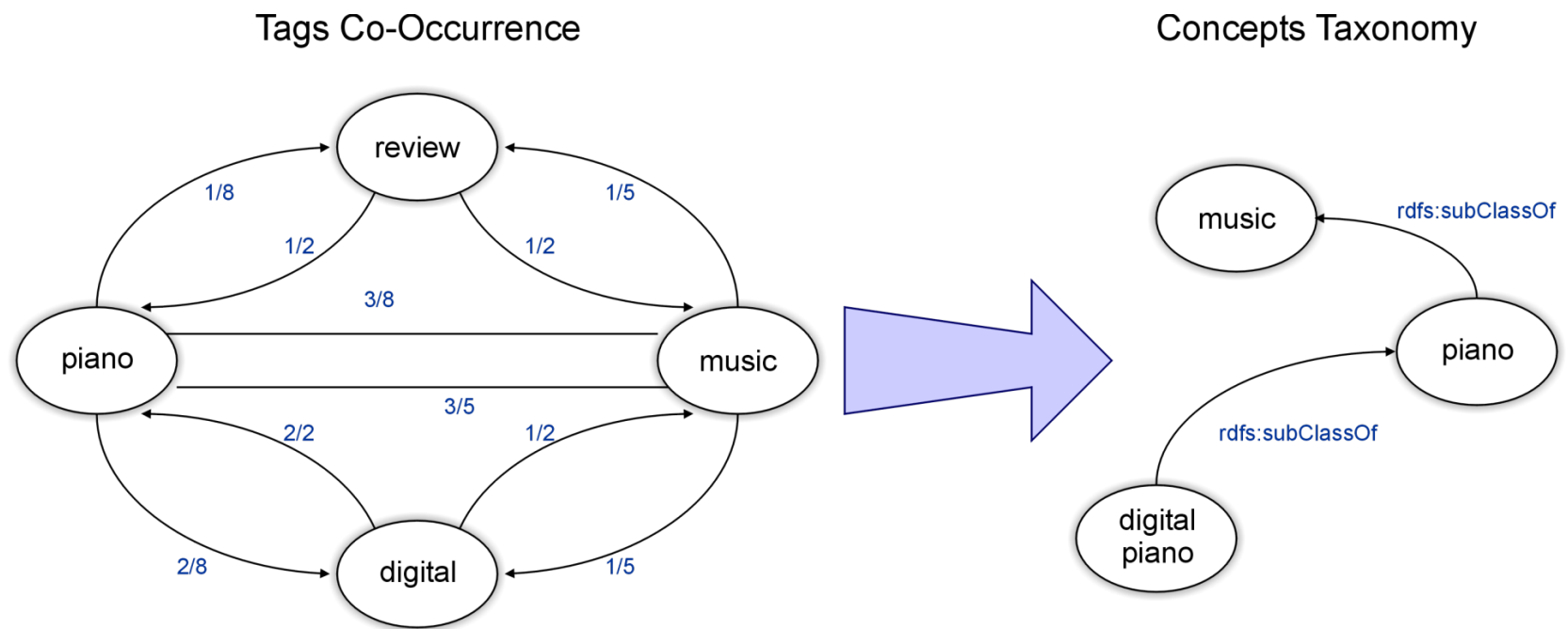




```
Resource 16668
  Tags = {Hungary, Balaton..., Europe}
```



Mining hierarchical relationships from co-occurrence of tags by Halpin et al.



LODr: semantic tagging for social data

SPARQL

SPARQL (pronounced "sparkle") is an RDF query language; its name is a recursive acronym that stands for SPARQL Protocol and RDF Query Language. It is standardized by the RDF Data Access Working Group (DAWG) of the World Wide Web Consortium. Initially released as a Candidate Recommendation in April 2006, but returned to Working Draft status in October 2006, due to two open issues. In June 2007, SPARQL advanced to Candidate Recommendation once again.

Related URIs (co-occurence)

XSL Transformations

Related URIs (direct relationships)

Nothing yet

Related URIs (shared properties)

GRDDL **Semantic Web Web 2.0** XSL Transformations

Items

BLOCS • CARTE • LIGNE DE TEMPS

6 item

Trier par : libellés, puis par... • ☒ Grouper selon le tri

Source

6 <http://bibsonomy.org>

Created

 [Named graphs, provenance and trust \[details\]](#)

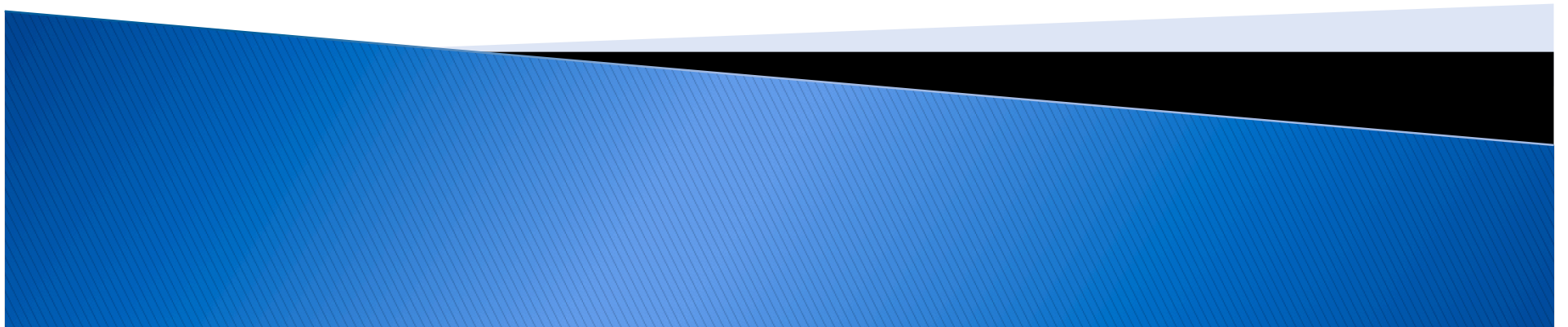
 [Scalable Querying Service over Fuzzy Ontologies \[details\]](#)

Faviki: bookmarking meets DBpedia

▼		Collexis - High Definition Search	Nov 19
		Expert; Semantics; Visualization (computer graphics); Web search engine. [3 people]	
▼		Technology Review: Bendable Magnetic Interface	save spam?
		Interface (computer science); Microsoft; Sensor; Somatosensory system; UI.	
▼		Earth: HP's	Nov 19
		An Interface in Computer science refers to a set of named operations that can be invoked by clients. Interface generally refers to an abstraction that an entity provides of itself to the outside.....source: Wikipedia network, Sensor. [1 person]	
▼		Learn More about Pivot Microsoft Pivot	Nov 19
		Data; Microsoft; Research; UI; Visualization (computer graphics). [8 people]	
▼		Google Image Swirl	Nov 18
		Google; Image; Photography; Visualization (computer graphics). [11 people]	
▼		Pearltrees: A Design Interface for Remapping the Web - ReadWriteStart	Nov 18
		Interaction; Map; Navigation; World Wide Web. [1 person]	
▼		"Streams of Content, Limited Attention: The Flow of Information through Social Media"	Nov 17
		Danah Boyd; Network; Stream; Web 2.0; World Wide Web. [4 people]	

Semantics in online community sites

Unifying conversations



User Wikier

Linking IRC to the Web of Data

[Front page](#) > [users](#) > [Wikier](#)

[About](#)

Oldest and most recent messages from this user

[2009-06-25T05:58:50]	#sioc	<Wikier>	morning #sioc
[2009-07-13T07:29:55]	#swig	<Wikier>	http://blog.ifrade.es/2009/07/12/back-from-gcds/
[2009-07-22T06:52:43]	#swig	<Wikier>	thanks for the pointer
[2009-07-30T10:35:41]	#sioc	<Wikier>	forget it xD

Available formats

[content-negotiated](#)
[html](#)
[turtle](#) (see [SIOC](#))

User channels

[#sioc](#) ([backlog](#))
[#swig](#) ([backlog](#))



The person holding this user account claims to have the Web ID (FOAF) of <http://www.wikier.org/foaf#wikier>.

Name Sergio Fernández

Website <http://www.wikier.org/>

Weblog <http://www.wikier.org/blog>

Image



Knows [CaptSolo](#)

Knows [Cloud_](#)

Knows [tuukkah](#)

Knows [cygri](#)

Knows [danbri](#)

Resolving reference to get additional data (<http://dev.sioc-project.org/swaml/sioc-dev/2006-Sep/post22.rdf>)... OK, now 4282 triples

Resolving referenc
ioc-dev/2006-Sep
Resolving refere
ioc-dev/2006-Aug
Resolving refere
ioc-dev/2006-Jul
Resolving refere
ioc-dev/2006-Aug
Resolving refere
ioc-dev/2006-Jan
Resolving refere
ioc-dev/2006-May
Resolving refere
ioc-dev/2006-Jul
Resolving refere
ioc-dev/2006-Jun
Resolving refere
ioc-dev/2006-Aug
Resolving refere
ioc-dev/subscrib
Total triples lo

Buxon, a sioc:Forum visor

URI: <http://dev.sioc-project.org/swaml/sioc-dev/index.rdf>

Jump to

- ▶ Re: SIOC extensions proposal
- Re: SIOC extensions proposal
- Drupal exporter - update
- PHP API documentation
- ▶ Microformats and SIOC
- ▶ SWAML 0.0.1
- Article about "Web 2.0" projects
- ▶ PNG please
- ▶ SIOC properties cardinality
- ▶ Contd: AtomOWL and SIOC Integration
- ▶ Re: Contd: AtomOWL and SIOC Integration
- Re: Contd: AtomOWL and SIOC Integration
- Literal Mistake
- Update: OpenLink Suggestion re. SIOC
- ▼ sioc:Forum examples?
- Re: sioc:Forum examples?
- Re: sioc:Forum examples?
- [Fwd: SAWSDL and SIOC]

Search

Text:

01/01/1995

From

31/31/2010

To



Find

Post URI: <http://dev.sioc-project.org/swaml/sioc-dev/2006-Nov/post1.rdf>
From: Sergio Fdez <<http://dev.sioc-project.org/swaml/sioc-dev/subscribers.rdf#s1>>
To: SIOC-Dev Mailing List <<http://dev.sioc-project.org/swaml/sioc-dev/index.rdf>>
Subject: sioc:Forum examples?
Date: Wed, 01 Nov 2006 22:22:37 +0100

Hi all,

in the last SWAML release [1] it was published a sioc:Forum visor called buxon [2]. I already added it on wiki of SIOC implementations [3].

So far it's been only tested with sioc:Forum's exported by SWAML [4]. Then we need more examples to test the tool.

I'm trying to make it works with the data [5] generated by another tool [6], but it uses incompatible SIOC properties, as sioc:modified_at.

Then I would thank for any other example that helps me to certify that Buxon works correctly.

Regards,

- [1] http://developer.berlios.de/forum/forum.php?forum_id=22844
- [2] http://swaml.berlios.de/images/screenshots/buxon_02.png
- [3] <http://esw.w3.org/topic/SIOC/Implementations>
- [4] <http://swaml.berlios.de/demo/index.rdf>
- [5] <http://b4mad.net/2006/05/30/googlegroups-sioc-dev.rdf>
- [6] <http://b4mad.net/datenbrei/archives/2006/05/30/generating-sioc-data-out-of-mailing-list-archives/>

--

W/O/O... Sergio Fdez
 W/I/I/I... GNU/LINUX User: #298803
 W/U/U/U... Web: <http://www.wikier.org/>

loaded post <http://dev.sioc-project.org/swaml/sioc-dev/2006-Nov/post1.rdf>

Mailing lists



jbreslin@srvgal18-vm5: /home/jbreslin

Buxon, a sioc:Forum visor



09:23

boards.ie > Games > Quake
quake.ie - WWWBoard

User CP FAQ Members List Calendar New Posts Search Quick Links Log Out

Bulletin boards

```
<foaf:Document rdf:about="">
  <dc:title>SIOC profile for boards.ie</dc:title>
  <dc:description>A SIOC profile describes the structure and contents of a community site (e.g., weblog) in a machine
processable form. For more information refer to the <a href="http://rdfs.org/sioc">SIOC project
page</a></dc:description>
  <foaf:primaryTopic rdf:resource="http://vbulletin.sioc-project.org/showthread.php?t=1"/>
  <admin:generatorAgent rdf:resource="http://wiki.sioc-project.org/index.php/PHPExportAPI?version=1.01"/>
  <admin:generatorAgent rdf:resource="http://sw.deri.org/svn/sw/2005/08/sioc/vbulletin"/>
</foaf:Document>

<sioc:Thread rdf:about="http://vbulletin.sioc-project.org/showthread.php?t=1">
  <sioc:link rdf:resource="http://vbulletin.sioc-project.org/showthread.php?t=1"/>
  <sioc:num_views>1166</sioc:num_views>
  <dc:title>quake.ie - WWWBoard</dc:title>
  <dc:terms:created>1998-02-12T15:36:23</dc:terms:created>
  <sioc:has_parent>
    <sioc:Forum rdf:about="http://vbulletin.sioc-project.org/forumdisplay.php?f=13">
      <rdfs:seeAlso
rdf:resource="http://vbulletin.sioc-project.org/sioc.php?sioc_type=forum&sioc_id=13"/>
      </sioc:Forum>
    </sioc:has_parent>
    <sioc:container_of>
      <sioc:Post rdf:about="http://vbulletin.sioc-project.org/showpost.php?p=1">
        <rdfs:seeAlso
rdf:resource="http://vbulletin.sioc-project.org/sioc.php?sioc_type=post&sioc_id=1"/>
        <sioc:next_by_date rdf:resource="http://vbulletin.sioc-project.org/showpost.php?p=2"/>
      </sioc:Post>
    </sioc:container_of>
    <sioc:container_of>
      <sioc:Post rdf:about="http://vbulletin.sioc-project.org/showpost.php?p=2">
        <rdfs:seeAlso
rdf:resource="http://vbulletin.sioc-project.org/sioc.php?sioc_type=post&sioc_id=2"/>
        <sioc:previous_by_date rdf:resource="http://vbulletin.sioc-project.org/showpost.php?p=1"/>
        <sioc:next_by_date rdf:resource="http://vbulletin.sioc-project.org/showpost.php?p=3"/>
      </sioc:Post>
    </sioc:container_of>
    <sioc:container_of>
      <sioc:Post rdf:about="http://vbulletin.sioc-project.org/showpost.php?p=3">
        <rdfs:seeAlso
rdf:resource="http://vbulletin.sioc-project.org/sioc.php?sioc_type=post&sioc_id=3"/>
        <sioc:previous_by_date rdf:resource="http://vbulletin.sioc-project.org/showpost.php?p=2"/>

```




SMOB

Semantic-MicroBlogging

SMOB

What's on your mind?

(You have 122 characters left)

SMOB - #linkeddata

Current location

Galway, Ireland (seat of a first-order administrative division)

Interlinking

Links will be suggested while typing ... (space required after each #tag)

#linkeddata

Via dbpedia

☒ Linked Data (http://dbpedia.org/resource/Linked_Data)

Via sindice

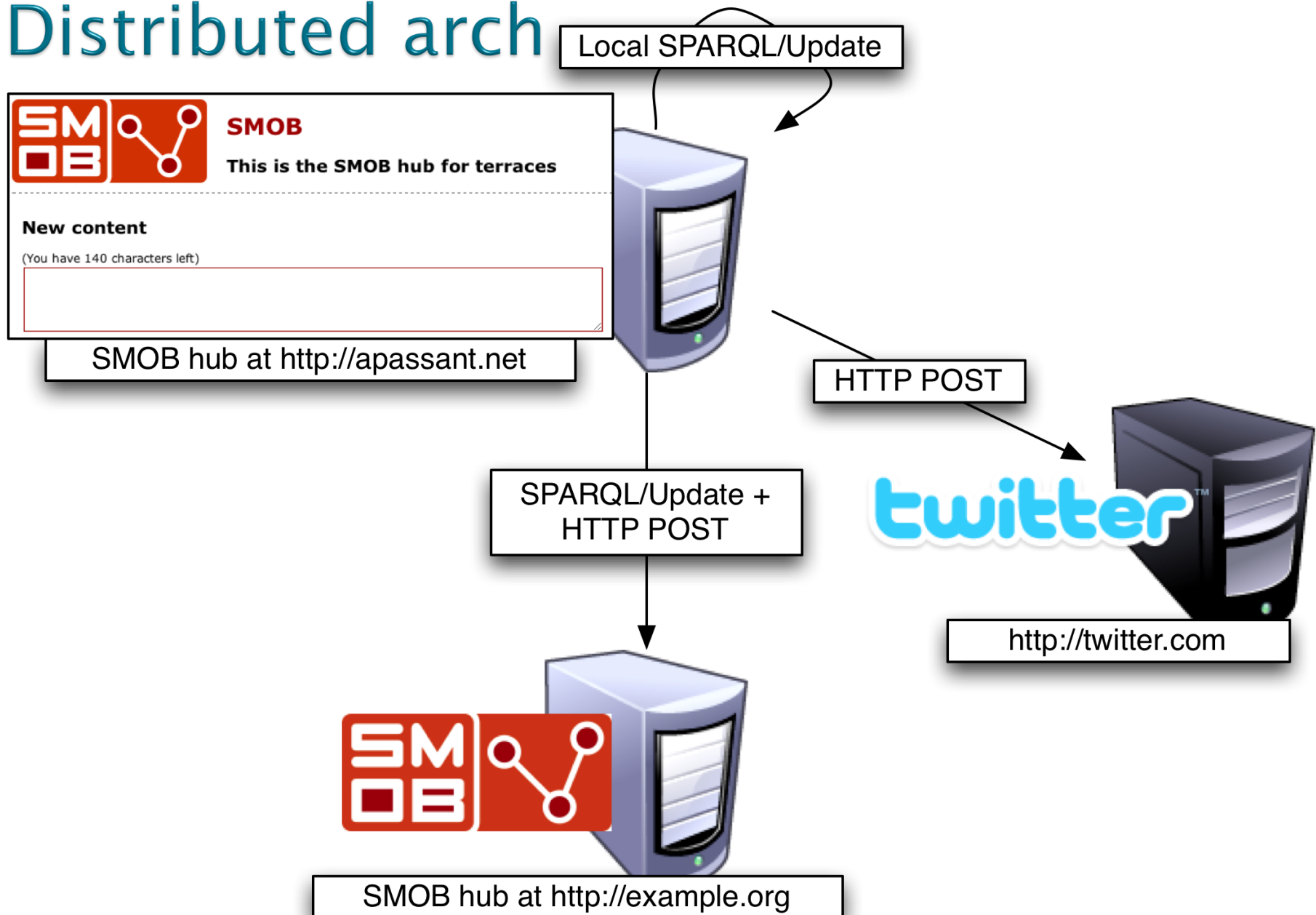
- ☐ linkeddata (<http://vanirsystems.com/danielsblog/tag/linkeddata/>)
- ☐ tag linkeddata (<http://depth-first.com/articles/tag/linkeddata>)
- ☐ BibSonomy :: tag :: linkeddata (<http://bibsonomy.org/tag/linkeddata>)
- ☐ linkeddata « Reallywow (<http://blog.reallywow.com/archives/tag/linkeddata>)
- ☐ linkeddata - Semantic Dreamer (<http://semanticdreamer.com/tag/linkeddata/>)
- ☐ Notices tagged with linkeddata - Identi.ca (<http://identi.ca/tag/linkeddata>)
- ☐ » linkeddata Marc Hibbins (<http://blog.marchibbins.com/category/linkeddata/>)
- ☐ linkeddata : Casual.info.in.a.bottle (<http://www.dagoneye.it/blog/tag/linkeddata/>)
- ☐ linkeddata: Blogs, Photos, Videos and more on Technorati (<http://technorati.com/tag/linkeddata>)

Broadcast

- ☒ Twitter as terraces
- ☒ Ping Sindice

SMOB it!

Distributed arch



Semantic #tagging

- ▶ User-driven interlinking
- ▶ Real-time URIs are suggested when writing content
- ▶ Added ability to add new webservices (e.g. enterprise microblogging)



What's on your mind?

(You have 93 characters left)

Working on ~~#linkeddata~~ ~~#microblogging~~ with SMOB

Current location

Galway, Ireland (seat of a first-order administrative division)

Interlinking

Links will be suggested while typing ... (space required after each #tag)

#linkeddata

#microblogging

Via dbpedia

☒ Linked Data (http://dbpedia.org/resource/Linked_Data)

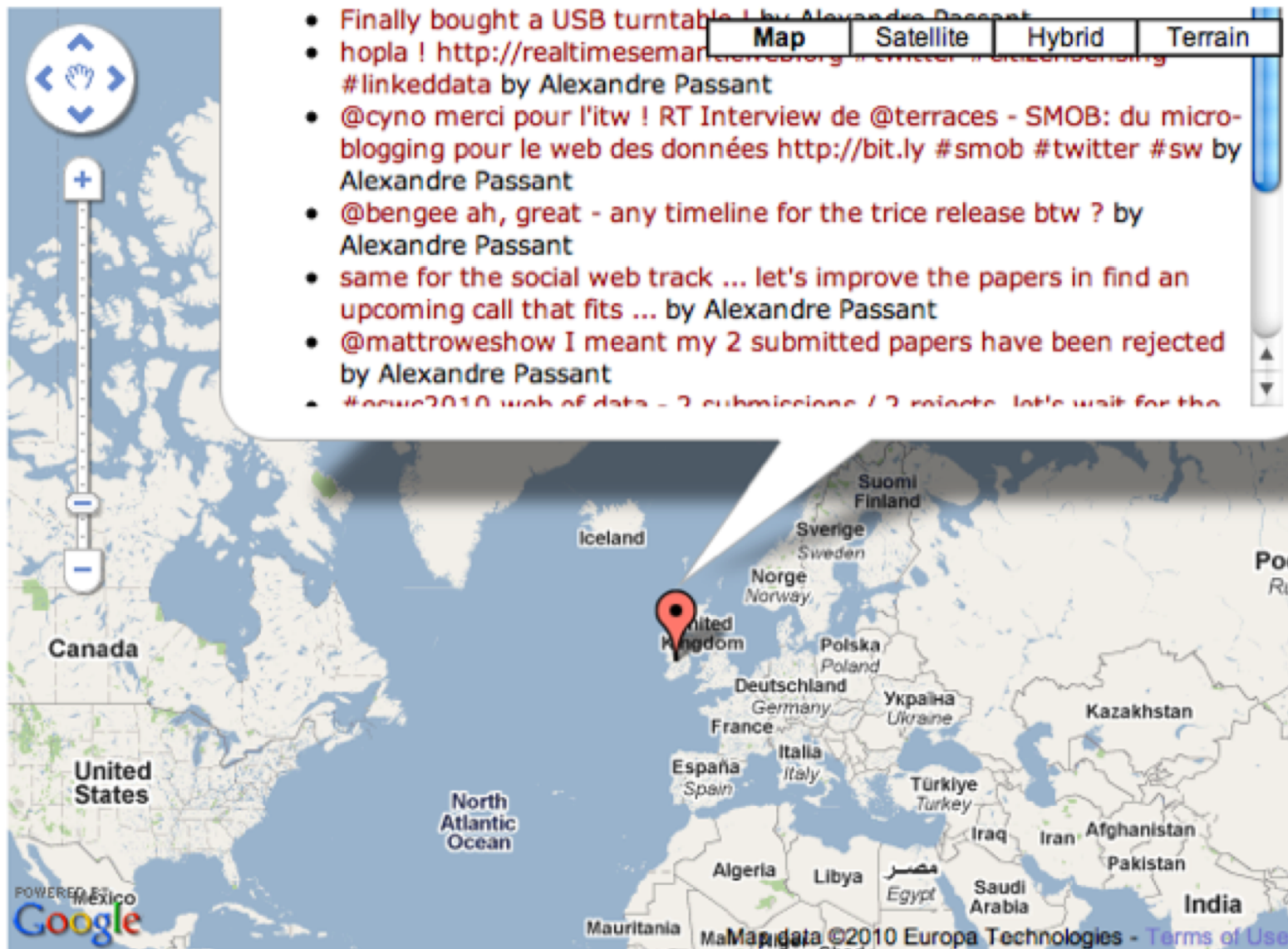
Via sindice

☐ linkeddata (<http://vanirsystems.com/danielsblog/tag/linkeddata/>)

☐ tag linkeddata (<http://depth-first.com/articles/tag/linkeddata>)

☐ BibSonomy :: tag :: linkeddata (<http://bibsonomy.org/tag/linkeddata>)

Semantic microblogging mashups



- Finally bought a USB turntable 1 by Alexandre Passant
- hopla ! <http://realtimesemantic.org> #linkeddata by Alexandre Passant
- @cyno merci pour l'itw ! RT Interview de @terraces - SMOB: du microblogging pour le web des données <http://bit.ly> #smob #twitter #sw by Alexandre Passant
- @bengee ah, great - any timeline for the trice release btw ? by Alexandre Passant
- same for the social web track ... let's improve the papers in find an upcoming call that fits ... by Alexandre Passant
- @mattroweshow I meant my 2 submitted papers have been rejected by Alexandre Passant
- #ecwc2010 web of data - 2 submissions / 2 rejects let's wait for the

Map Satellite Hybrid Terrain

Canada United States North Atlantic Ocean Mexico

POWERED BY Google

Map data ©2010 Europa Technologies - Terms of Use

Twitter Annotations

- ▶ Forthcoming (when?!) initiative by Twitter:
 - Attach arbitrary metadata to any tweet
 - Overall limit for the metadata payload
 - May be able to attach RDF-type statements
- ▶ Going beyond geotemporal annotations:
 - "type":{"attribute":"value"}
 - "movie":{"title":"Avatar"}
 - *Keep an eye on bottleno.se from Nova Spivack*

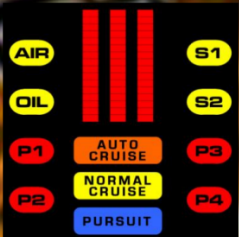
image from tinyurl.com/twannotation

image from knightriderfestival.com



_MichaelKnight @The_KITT: I need yah buddy!

1 minute ago via wristtweet



The_KITT Don't worry @_MichaelKnight, I'm on my way...

less than a minute ago via TwitKITT

geo:lat, long

26.58, -97.83

vehicle:velocityMPH

173

vehicle:fuelLevelPercentage

88

smiley:characters

:-S

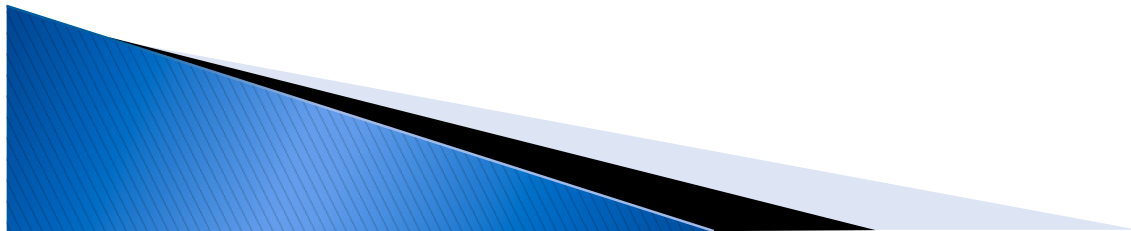
sioc:has_container

tinyurl.com/KITTAerts

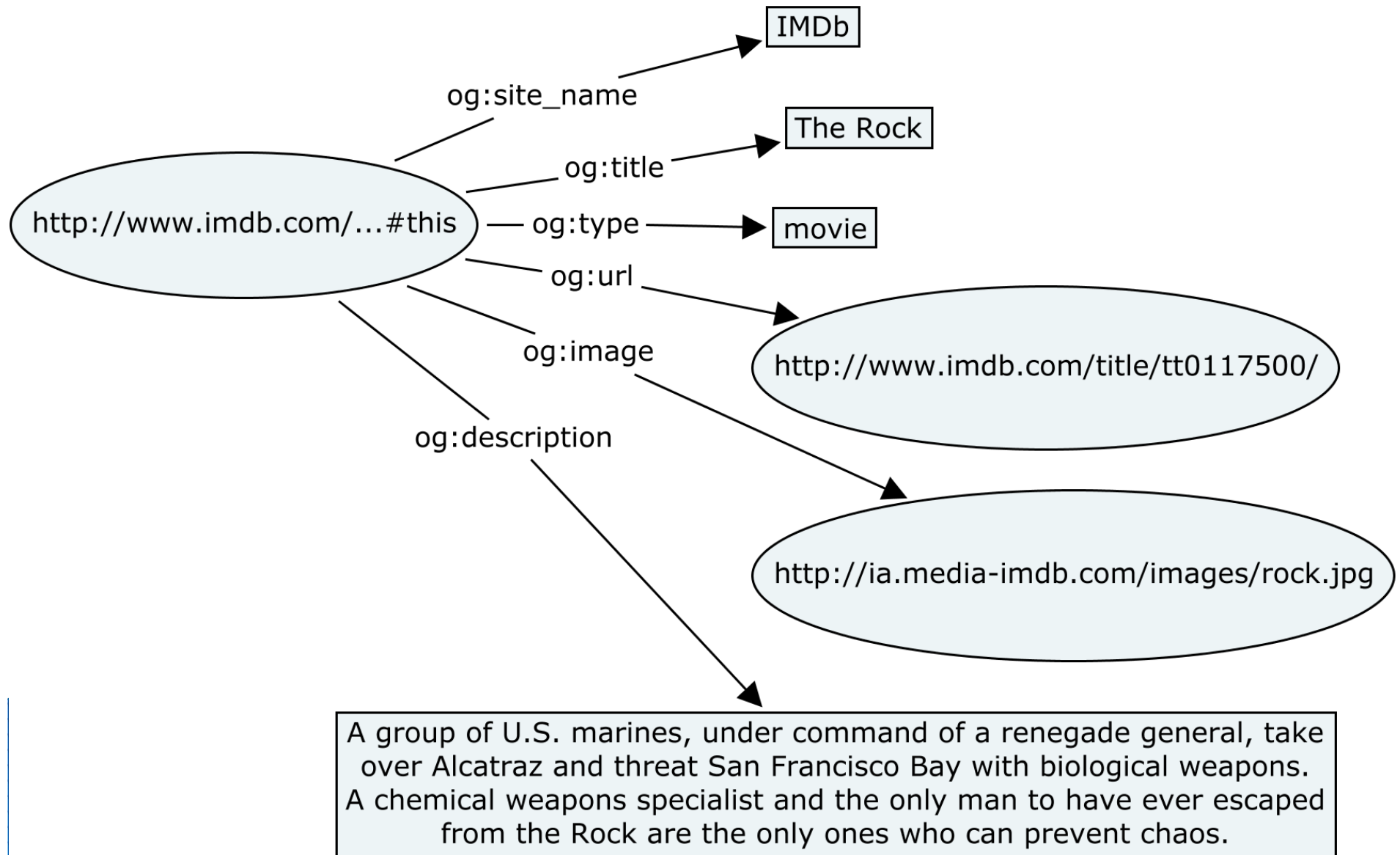
What if your car could tweet?

Facebook Open Graph

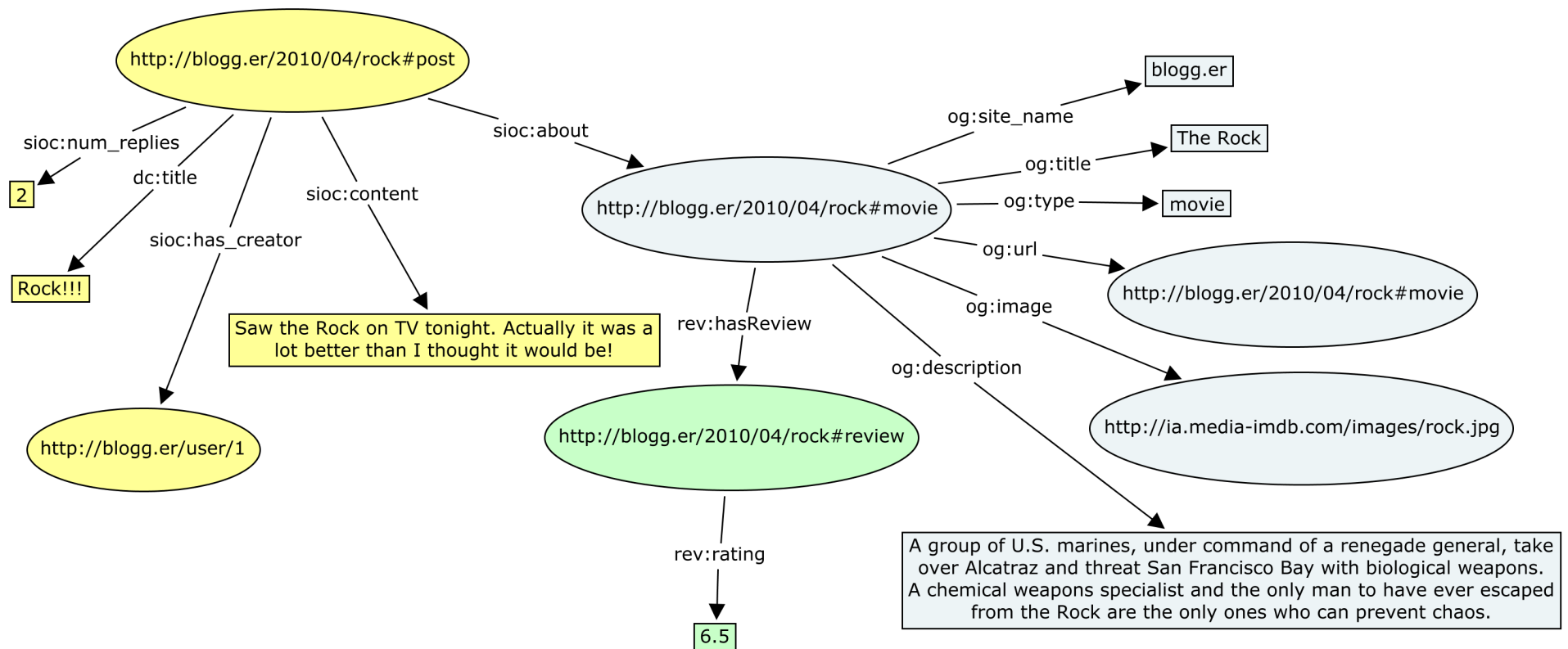
- ▶ Allows metadata from external pages to be embedded (claimed) within Facebook:
 - e.g. metadata about a restaurant (name, location, contacts) could be imported into a Facebook news feed via a “Like” button
- ▶ Good for Facebook, good for the Semantic Web?
 - Yes!



A sample thing described using the OGP



How we could link Open Graph things to blog posts / reviews



OGP in RDF (FOAF, DC, SIOC, GR)

The screenshot shows the GitHub interface for the `facebook/open-graph-protocol` repository. The user `johnbreslin` is logged in, with navigation links for `Dashboard`, `Inbox`, `Account Settings`, and `Log Out`. The repository page includes tabs for `Source`, `Commits`, `Network (2)`, and `Graphs`. The `Commits` tab is active, showing a commit by `johnbreslin` (author) and `daveman692` (committer) about 11 hours ago. The commit message is: "Added the Website, Blog and Article types. Added a few more isDefinedBy relations." The commit hash is `9cb8522b6b87b08ef93d`. Below the commit message, the file `schema.php` is shown with 42 lines. The code in `schema.php` defines XML namespaces for `og`, `foaf`, `dc`, `sioct`, and `sioct`, and defines an `og:Band` class with an `isDefinedBy` relation to the `og` namespace.

github
SOCIAL CODING

johnbreslin Dashboard Inbox 0 Account Settings Log Out

Explore GitHub Gist Blog Help Search GitHub...

facebook / open-graph-protocol

Unwatch Your Fork Download Source 11 2

Source Commits Network (2) Graphs Tree: 9cb8522

Switch Branches (1) Switch Tags (0) Comments Contributors

HTTP Git Read-Only http://github.com/facebook/open-graph-protocol. This URL has Read-Only access

Added the Website, Blog and Article types.
Added a few more isDefinedBy relations.

johnbreslin (author)
about 11 hours ago

daveman692 (committer)
about 11 hours ago

commit 9cb8522b6b87b08ef93d
tree c81bfebad9a51ff61d9
parent 1a6e30eac27ab12d35b8

schema.php 42

schema.php View file @ 9cb8522

```
... @@ -13,6 +13,8 @@
13 13   xmlns:og="http://opengraphprotocol.org/schema/"
14 14   xmlns:foaf="http://xmlns.com/foaf/0.1/"
15 15   xmlns:dc="http://purl.org/dc/elements/1.1/"
16 +  xmlns:sioct="http://rdfs.org/sioct/ns#"
17 +  xmlns:sioct="http://rdfs.org/sioct/types#"
16 18   xml:base="http://opengraphprotocol.org/schema/"
17 19   xml:geo="http://www.w3.org/2003/01/geo/wgs84_pos#"
18 20   xml:vcards="http://www.w3.org/2006/vcard/ns#"
... @@ -28,97 +30,137 @@
28 30
29 31   <rdfs:Class rdf:about="http://opengraphprotocol.org/schema/Band">
30 32     <rdfs:label xml:lang="en-US">Band</rdfs:label>
33 +   <rdfs:isDefinedBy rdf:resource="http://opengraphprotocol.org/schema/">
31 34   </rdfs:Class>
32 35
```

Drupal and RDFa

Drupal™

Drupal Homepage

Login / Register

Search Drupal.org

Search

Refine your search ▾

Friendly and powerful: Drupal 7

We are proud to present to you our best work yet – Drupal 7, the friendly and powerful content management platform for building nearly any kind of website: from blogs and micro-sites to collaborative social communities.

Get started with Drupal 7



Runs on Drupal 7: Examiner.com

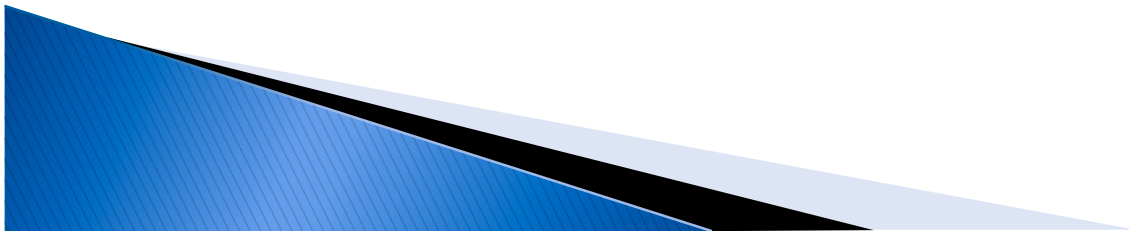
RDFa in Drupal 7

- ▶ Drupal is the CMS used by whitehouse.gov, warnerbrosrecords.com, uk.sun.com, motogp.com...
- ▶ Back-end for 1–2% of all websites
- ▶ Version 7 was released in January 2011 with RDFa in the core distribution

image from tinyurl.com/drupaper

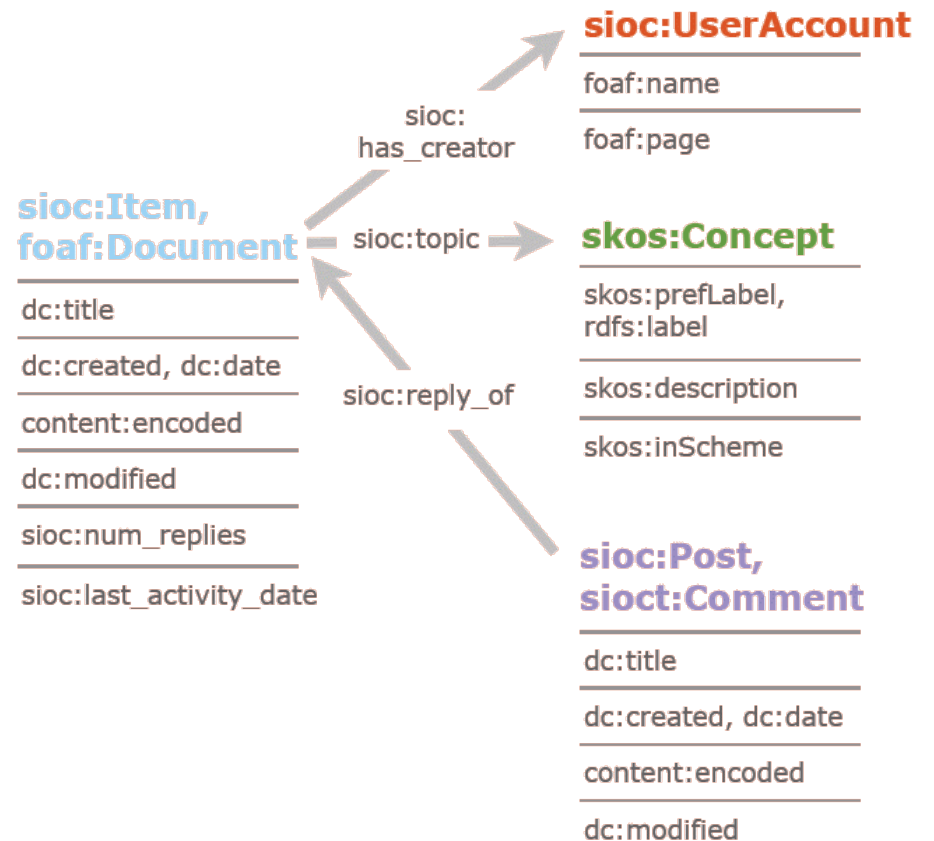
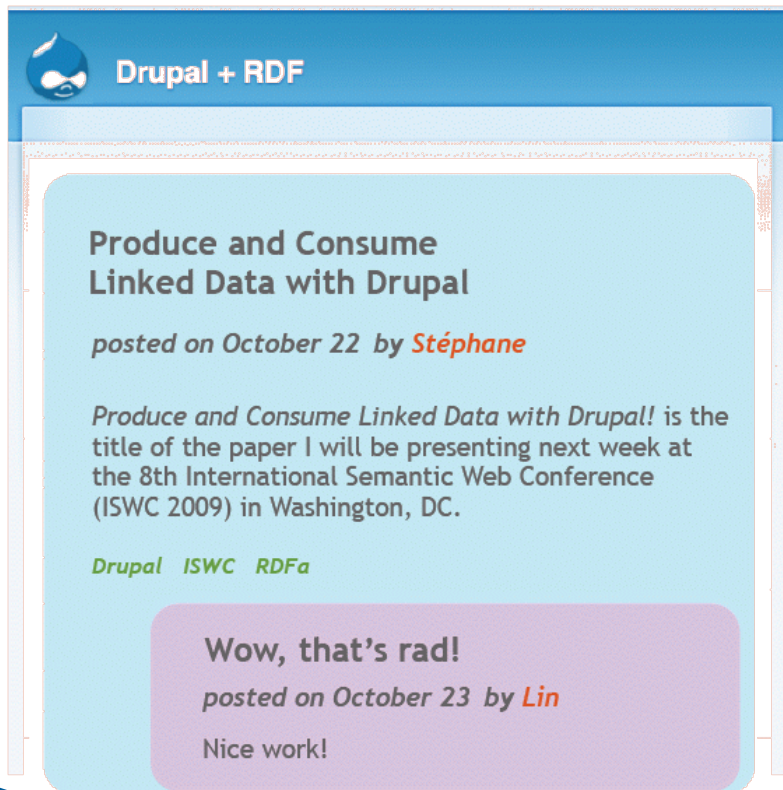
RDFa in Drupal 7: Motivation

- ▶ Advantages for publishers:
 - easy to import data between sites
 - better search snippets
 - easy to create mash-ups
- ▶ Fits naturally with Drupal form-based structure
 - Entities, types, fields
 - RDFa exposes already-existing structure in a more interoperable way



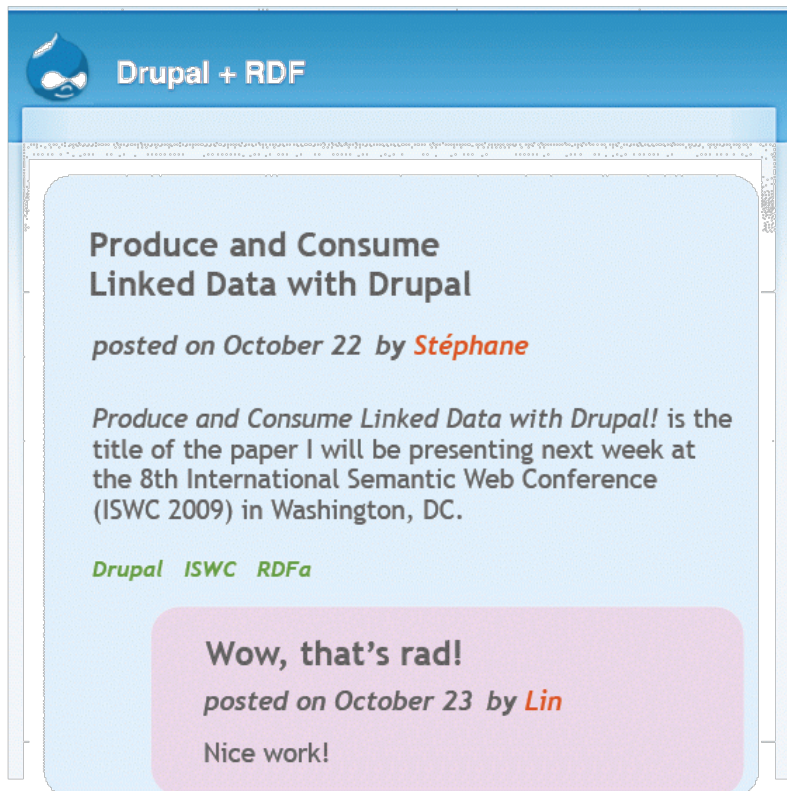
Out of the box support

- ▶ Content structures mapped to RDF



Out of the box support

► RDFa embedded in HTML



```
posted on
<span property="dc:date dc:created"
      content="2009-10-22T08:03:26-05:00"
      datatype="xsd:dateTime">
  October 22
</span>
by
<span rel="sioc:has_creator">
  <span about="/user/6"
        typeof="sioc:UserAccount"
        property="foaf:name">
    stephane
  </span>
</span>
```

Additional capabilities

- ▶ Mapping of entities and fields to RDF terms

Home > Administer > Content management > Page

Page Edit Manage fields **Manage RDF mappings** Display fields

There are no fields configured for this content type. You can [Add a new field](#).

Specify the RDF class of this content type. You can also map the CCK fields to existing RDF properties.

RDF class:

foaf:Person A person.

foaf:Agent An agent (eg. person, group, software or physical artifact).

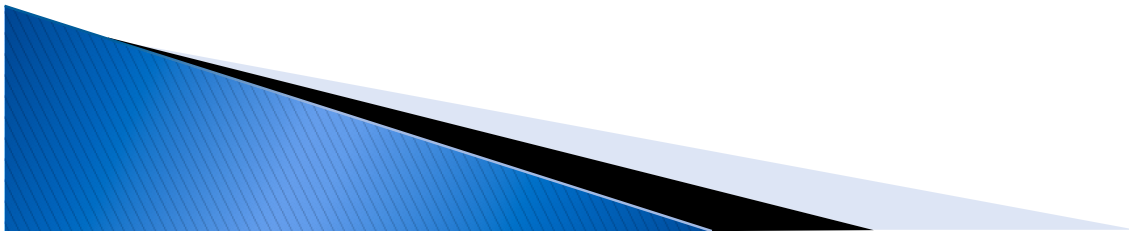
foaf:PersonalProfileDocument A personal profile RDF document.

e mapped to.

Type	RDF property
	O
	O

Additional capabilities

- ▶ Mapping of entities and fields to RDF terms
- ▶ Data can be queried via SPARQL endpoint
- ▶ Retrieval of RDF from remote sites via SPARQL



RDFa on newsweek.com

```
333     <p class="text" property="dc:abstract">
334         In February, Yahoo got to watch with schadenfreude as Google drove its
new Buzz social network straight over a cliff with inadequate privacy controls. Now
Yahoo has decided it wants to head for pretty much the same cliff, just with a
slightly firmer grip on the wheel.
335         <a rel="dcterms:source" href="/blogs/techtonic-
shifts/2010/06/02/merging-email-and-social-networking-yahoo-tries-to-avoid-google-
s-mistakes.html" class="more">More <span class="guillemets">&rsaquo;</span></a>
336     </p>
337 </div>
338
339     <aside class="grid-2 last"><a class="blog-logo" href="/blogs/techtonic-
shifts.html"></a>
340 <a href="/tag/technology.html" class="primary-tag" title="Primary Tag"
property="dc:subject" ctag:label foaf:primaryTopic" typeof="ctag:Tag"
resource="/content/newsweek/tag/technology.html" rel="ctag:means">Technology</a>
341 <span class="byline">by <span class="author"><a typeof="foaf:person"
property="dc:creator" rel="foaf:publications" content="Nick Summers"
href="/authors/nick-summers.html">Nick Summers</a></span></span><time
property="dc:created" pubdate="true" datetime="2010-06-02">Jun 02, 2010</time><a
class="comments-link" property="sioc:num_replies" title="Number of Comments"
href="/blogs/techtonic-shifts/2010/06/02/merging-email-and-social-networking-yahoo-
tries-to-avoid-google-s-mistakes.html"><span class="js-kit-comments-count"
uniq="/content/newsweek/blogs/techtonic-shifts/2010/06/02/merging-email-and-social-
networking-yahoo-tries-to-avoid-google-s-mistakes">10</span></a>
342     </aside>
343 </article></div>
344 <div class="newsweeknow section">
```

SearchMonkey > Start Overview > Discussion



Discussion

- Show the number of comments and thread date for discussions

Semantic search

EXAMPLE

[Official Facebook Scrabble Spells Doubt for Hasbro and EA ...](#)[July 07, 2008] ... finally getting ready to unveil their official **version of Scrabble** on **Facebook**. ...
launched an official **version of Scrabble** for **Facebook** ... ~ by Mike Holder (32 Comments)[gameblog.com/article/83985-official-facebook-version-of-scrabble...](#) - [Cached](#)

DESCRIPTION

Display blog or forum information directly in Yahoo! Search. Add code to indicate to Yahoo! that a discussion exists on your page, and when we next crawl your site, we'll take care of the rest. From your markup, we'll be able to extract structured data from your site and render it automatically in an enhanced result in search results.

[facebook Scrabble Spells Doubt for Hasbro and EA ...](#)

[08] ... finally getting ready to unveil their official **version of Scrabble** on **Facebook**. ...
n official **version of Scrabble** for **Facebook** ... ~ by Mike Holder (32 Comments)
[gameblog.com/article/83985-official-facebook-version-of-scrabble...](#) - [Cached](#)

1. ADD CODE / MARKUP TO YOUR SITE

Copy this code and replace the example text with your data to see enhanced discussion information in Yahoo! Search.

- Use [RDFa](#) markup to embed discussion metadata directly in your markup. You can provide a post date, the post content, the author, and more.
- Use [hatom](#) markup for an alternative way to embed discussion metadata.
- Use [DataRSS XML](#) to send your data to Yahoo! privately, using a feed. Once you have constructed your DataRSS feed, you must submit the feed to Yahoo!.

RDFa

Microformats

DataRSS XML

REQUIRED

Click any item to toggle description on or off

xmlns:sioc

(url)

sioc:Post

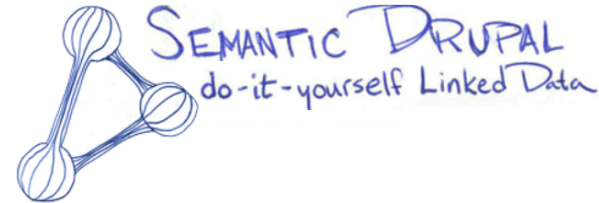
-

RECOMMENDED

EXAMPLE 1

```
<div typeof="sioc:Forum"
  xmlns:sioc="http://rdfs.org/sioc/ns#"
  xmlns:dc="http://purl.org/dc/terms/"
  >
  <div rel="sioc:container_of">
    <div typeof="sioc:Post">
```


References



- ▶ <http://semantic-drupal.com/>
- ▶ ISWC 2010 tutorial: “Combine the Web of Data and the Web of Documents (RDFa and Drupal 7)”
 - Ivan Herman, Stéphane Corlosquet, Lin Clark
 - <http://www.w3.org/2010/Talks/RDFa-Drupal-Tutorial/>
- ▶ IBM developerWorks: “The Semantic Web, Linked Data and Drupal,”
 - “Part 1: Expose your data using RDF” (Lin Clark)
 - <http://www.ibm.com/developerworks/library/wa-rdf/>
 - “Part 2: Combine linked datasets with Drupal 7 and SPARQL Views” (Stéphane Corlosquet, Lin Clark)
 - <http://www.ibm.com/developerworks/library/wa-datasets/>

Agenda

Introduction

- ▶ Social and Semantic Web
- ▶ Data portability
- ▶ Ontologies

Applications: General

- ▶ Semantic Tagging
- ▶ Semantic Microblogging
- ▶ Facebook Open Graph
- ▶ Drupal 7

Applications: Wikis

- ▶ Wikis and semantics
- ▶ Semantic MediaWiki
- ▶ Collaboration

Using Semantic Social Data

- ▶ Distributed Social Web
- ▶ Recommendations
- ▶ Enhanced visualisations
- ▶ Social network analysis