The image features two overlapping circles on a light gray background. Each circle is composed of a thick white outer ring and a thinner gray inner ring. The circles overlap in the center. The text 'Open Data' is centered within the left circle, and 'Drupal' is centered within the right circle.

Open Data

Drupal



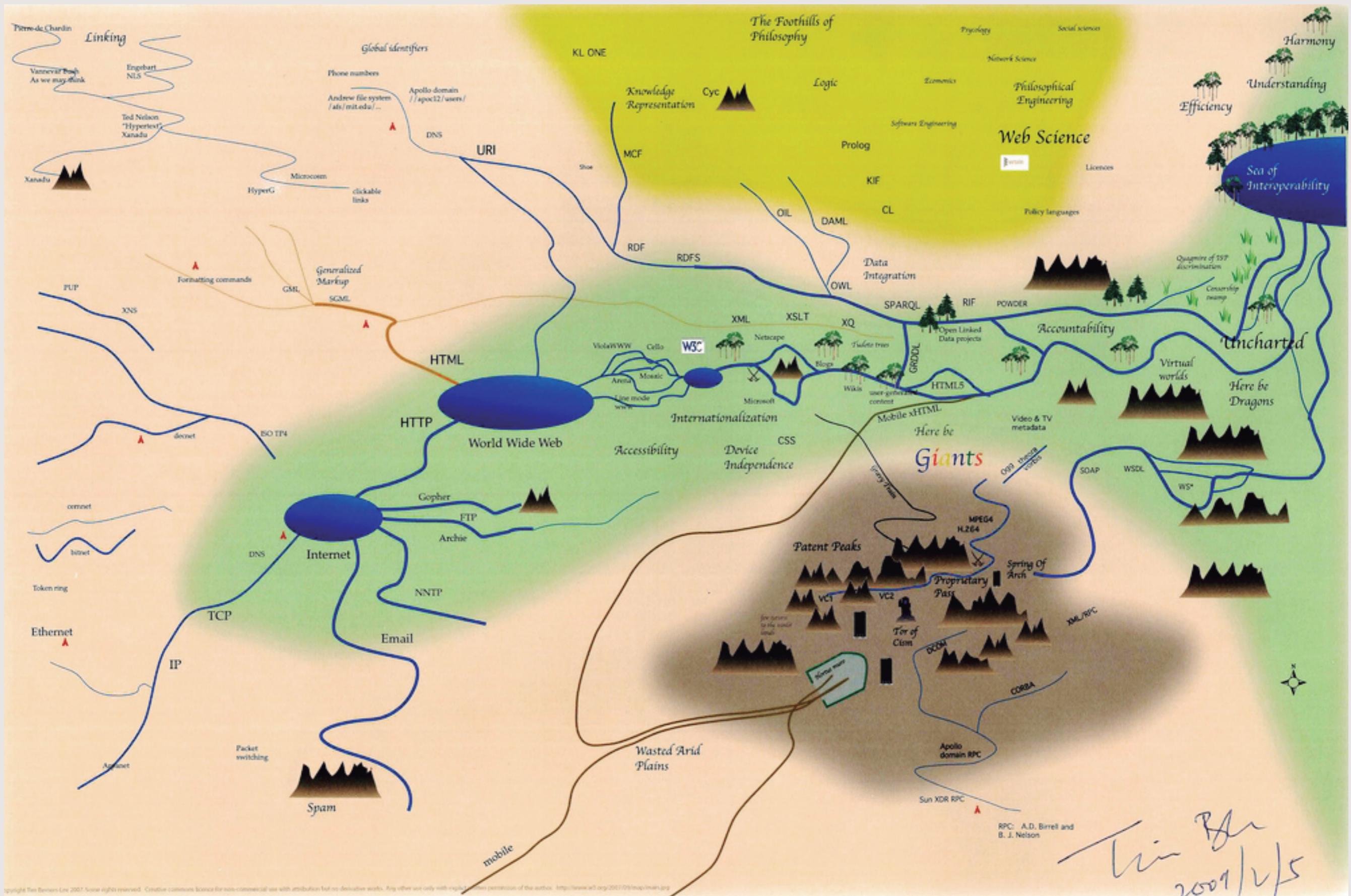
Pablo Martín Muñoz

@edipotrebol

Open Source Architect & Data Scientist

Miembro de OpenDataSev y Grupo Drupal SVQ

OUR little ROADMAP



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●●● *¿En dónde estamos?*

●●● *Una tapa de OpenData*

●●● *Integración de OpenData en Drupal*

●●● *Publicación y Consumo de datos en Drupal*

●●● *Y esto sirve para...*

¿En dónde estamos?

Estadios de Internet



●●● *Internet 1.0: Web*

●●● *Internet 2.0: Web Social*

●●● *Internet 3.0: Web Semántica*

Internet 1.0

●●● *Páginas HTML*

●●● *Hiperenlaces entre páginas HTML*

●●● *Todo el mundo tiene una web*



Telefonos:
(054 11) 4588-0069 / 4585-6837

Internet 2.0

●●● *Web Participativa*

●●● *Web colaborativa*

●●● *Se introducen las Web Apps (HTML5)*

●●● *Todo el mundo tiene un Twitter y un Facebook*



David Bisbal ✓

@davidbisbal

Bienvenidos a la página Oficial de DAVID BISBAL en Twitter. Welcome to DAVID BISBAL'S Official Twitter page. http://www.davidbisbal.com/es_ES

/Eventos

Almería, Andalucía, España · <http://www.davidbisbal.com>



5,589 TWEETS

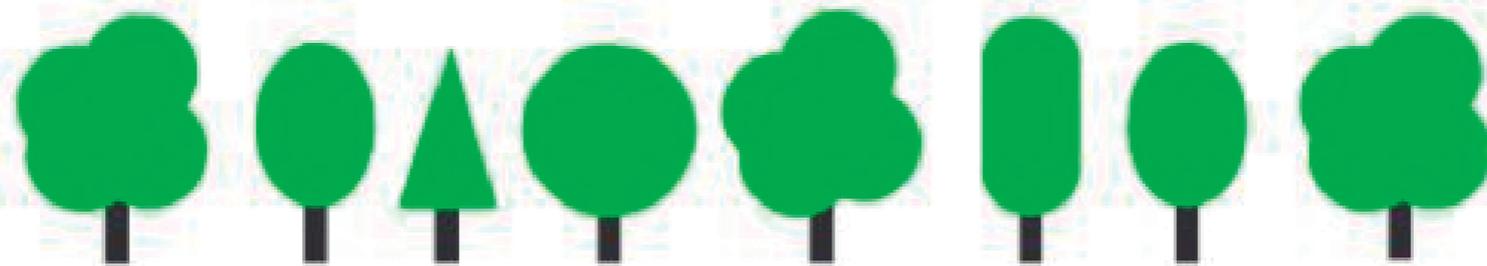
339 FOLLOWING

3,346,273 FOLLOWERS

Internet 3.0

- *Proveer de significado a los elementos*
- *Comunicación y colaboración entre webs*
- *Basado en estándares*
- *Inicios de OpenData*
- *La web de las cosas (The Internet of things)*

Hello!



**I'm a tree
and this is my feed.**

Una tapa de OpenData



OpenData es ...

Datos abiertos (open data en inglés) es una filosofía y práctica que persigue que determinados datos estén disponibles de forma libre a todo el mundo, sin restricciones de copyright, patentes u otros mecanismos de control. Tiene una ética similar a otros movimientos y comunidades abiertos como el Software libre, el código abierto (open source en inglés) y el acceso libre (open access en inglés).

- Wikipedia

http://es.wikipedia.org/wiki/Datos_abiertos

Las 5 estrellas del *Open (linked) Data*



make your stuff available on the web (whatever format)



make it available as structured data
(e.g. excel instead of image scan of a table)



non-proprietary format (e.g. csv instead of excel)



use URLs to identify things, so that people can point at your stuff



link your data to other people's data to provide context



RDF

● *Resource Description Framework*

● *Introduce semántica a los conceptos*

● *RDFa: Extensión RDF para xHTML*

● *Definido por la W3C*

RDF (ejemplo)



[Imagen] http://en.wikipedia.org/wiki/File:Rdf_graph_for_Eric_Miller.png





● *Sparql Protocol And RDF Query Language*

● *Lenguaje de consulta para formatos RDF*

● *Similar a SQL*

● *Definido por la W3C*

● *Sparql endpoint: Servicio que acepta consultas Sparql y devuelve datos*

Spqrql
(ejemplo)



¿Cuáles son las capitales de los países de África?

```
PREFIX abc: <http://example.com/exampleOntology#>
SELECT ?capital ?country
WHERE {
  ?x abc:cityname ?capital ;
     abc:isCapitalOf ?y .
  ?y abc:countryname ?country ;
     abc:isInContinent abc:Africa .
}
```

Integración de OpenData en Drupal





¿Qué es Drupal?

- *CMS*

- *LAMP como Stack Tecnológico*

- *API + Módulos*

- *GRAN comunidad*

- *“Don't mod core”*

Componentes de Drupal

- *Core*

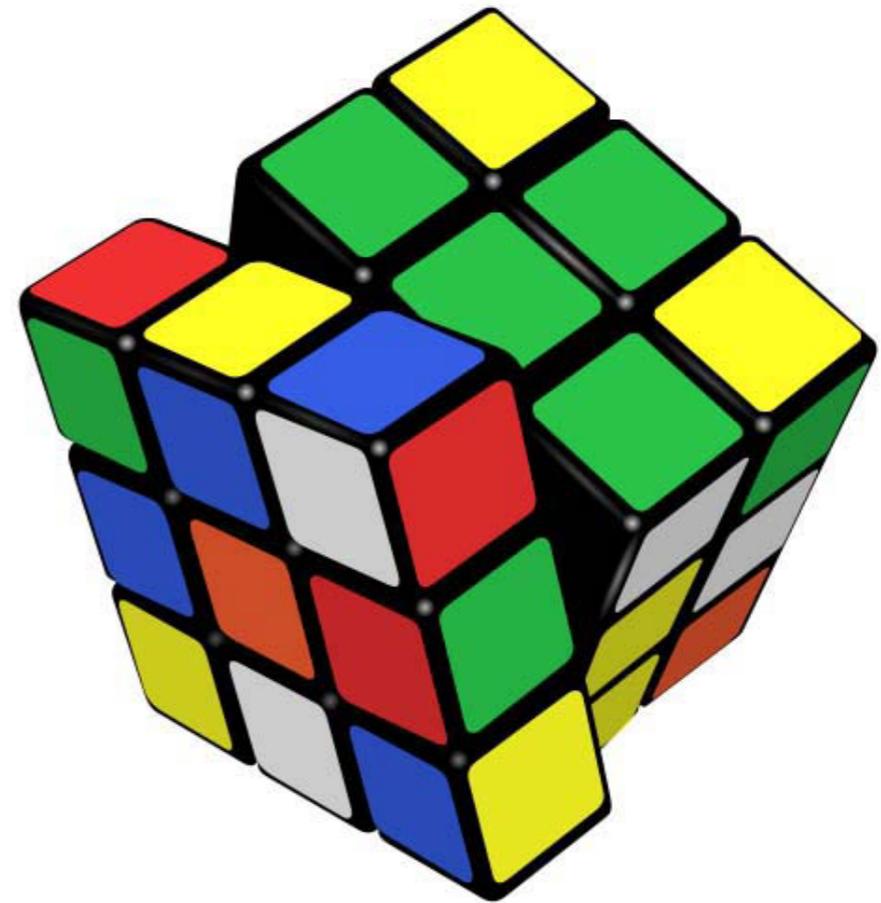
- *Módulos*

- *Tipos de contenido*

- *Vistas*

- *Agregadores*

- ...



Versiones de Drupal

*● Drupal 6 (anterior):
● Sin soporte nativo (Solo módulos).*

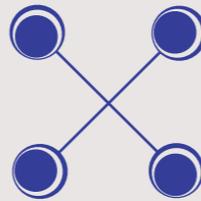
*● Drupal 7 (actual):
● Soporte nativo (más módulos adicionales).*

*● Drupal 8 (futura):
● Continuación de soporte nativo (I suppose)*

Módulos necesarios para la integración

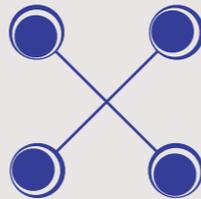
Chaos Tool Suite

RDFx (rdfx + rdfui)



Entity

Sparql



Views (views + views_ui)

Sparql_views

***Publicación y Consumo
de datos en Drupal***

Publicación: Cuestiones iniciales

● *Soporte nativo en core.*

● *Listado de espacios de nombres RDFs incluidos .*

● *Definición de propiedades RDF en campos de tipo de contenido.*



Publicación: Listado de espacios de nombre RDFs

[Home](#) » [Administration](#) » [Configuration](#) » [Web services](#) » [RDF publishing settings](#)

RDF publishing settings 

RDF MAPPINGS

RDF NAMESPACES

Manage the namespaces and associated prefixes used by the site. Prefixes allow URIs to be shortened in the form of [CURIEs](#) (Compact URIs). For example, the CURIE *dc:title* represents the URI <http://purl.org/dc/terms/title>.

PREFIX	NAMESPACE
dbpprop	http://dbpedia.org/property/
content	http://purl.org/rss/1.0/modules/content/
dc	http://purl.org/dc/terms/
foaf	http://xmlns.com/foaf/0.1/
og	http://ogp.me/ns#
rdfs	http://www.w3.org/2000/01/rdf-schema#
sioc	http://rdfs.org/sioc/ns#
sioct	http://rdfs.org/sioc/types#
skos	http://www.w3.org/2004/02/skos/core#
xsd	http://www.w3.org/2001/XMLSchema#
owl	http://www.w3.org/2002/07/owl#
rdf	http://www.w3.org/1999/02/22-rdf-syntax-ns#
rss	http://purl.org/rss/1.0/
site	http://localhost:8888/dod/ns#

Prefix *

Choose a prefix for this namespace, e.g. dc, foaf, sioc. This prefix will be used as an abbreviation for the namespace URI.

Namespace URI *

Enter the URI of the namespace. Make sure it ends with either / or #.

Save

admin/config/services/rdf/namespaces

Publicación: Definición de propiedades RDF en contenido

[Home](#) » [Administration](#) » [Configuration](#) » [Web services](#)

RDF publishing settings

RDF MAPPINGS

RDF NAMESPACES

Comment

Node

[SPARQL Endpoints Registry](#)

[SPARQL Views resource type](#)

[SPARQL Views resource](#)

File

[Taxonomy term](#)

[Taxonomy vocabulary](#)

User

Article comment

RDF Types: [sioc:Post](#), [sioc:Comment](#) ([edit](#))

FIELDS	RDF PREDICATES	MAPPING TYPE	DATATYPE	OPERATIONS
Comment	content:encoded	property		edit
title	dc:title	property		edit
created	dc:date, dc:created	property	xsd:dateTime	
changed	dc:modified	property	xsd:dateTime	
pid	sioc:reply_of	rel		
uid	sioc:has_creator	rel		
name	foaf:name	property		

Basic page comment

RDF Types: [sioc:Post](#), [sioc:Comment](#) ([edit](#))

FIELDS	RDF PREDICATES	MAPPING TYPE	DATATYPE	OPERATIONS
Comment	content:encoded	property		edit
title	dc:title	property		edit
created	dc:date, dc:created	property	xsd:dateTime	
changed	dc:modified	property	xsd:dateTime	
pid	sioc:reply_of	rel		
uid	sioc:has_creator	rel		
name	foaf:name	property		

Publicación: Definición de propiedades RDF en contenido

[Home](#) » [Administration](#) » [Structure](#) » [Content types](#)

Article 

EDIT

MANAGE FIELDS

MANAGE DISPLAY

RDF MAPPINGS

COMMENT FIELDS

COMMENT DISPLAY

Name *

Machine name: `article` [\[Edit\]](#)

The human-readable name of this content type. This text will be displayed as part of the list on the *Add new content* page. It is recommended that this name begin with a capital letter and contain only letters, numbers, and spaces. This name must be unique.

Description

Use `articles` for time-sensitive content like news, press releases or blog posts.

Describe this content type. The text will be displayed on the *Add new content* page.

Submission form settings

Title

Publishing options

Published , Promoted to front page

Display settings

Display author and date information.

Comment settings

Open, Threading , 50 comments per page

Menu settings

RDF Settings

RDF Type

Enter a comma-separated list of classes for this bundle using CURIE syntax. For example: `sioc:Item, foaf:Document`

RDF TITLE PREDICATE

RDF Predicates

Enter a comma-separated list of predicates for *title* using CURIE syntax. For example: `foaf:familyName, foaf:lastName`

Attribute Type

For fields containing literals—things such as plain text, html, numbers—use the `property` attribute. For fields containing references to other things—urls and node references, for example—use the `rel` or `rev` attribute.

Datatype

Enter the datatype for *title* using CURIE syntax. For a list of common datatypes, see [XML Schema datatypes](#).

Publicación: Definición de propiedades RDF en contenido

My account Log out

 **DOD**
Drupal & OpenData

Home

Home

Navigation

- ▶ Add content
- Build RDF index

Mi primer post semantico

View Edit Track Devel

Submitted by admin on Thu, 10/18/2012 - 15:51

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut

Elements Resources Network Sources Timeline Profiles Audits Console

```
<a id="main-content"></a>
<h1 class="title" id="page-title">
  Mi primer post semantico
</h1>
<div class="tabs">...</div>
<div class="region region-content">
  <div id="block-system-main" class="block block-system">
    <div class="content">
      <div id="node-4" class="node node-article node-full clearfix" about="/dod/node/4" typeof="sioc:Item foaf:Document">
        <div class="meta submitted">
          <span property="dc:date dc:created" content="2012-10-18T15:51:18+02:00" datatype="xsd:dateTime" rel="sioc:has_creator">...</span>
        </div>
        <div class="content clearfix">...</div>
      </div>
    </div>
  </div>
</div>
```

Computed Style Show inherited

Styles

element.style {

}

Matched CSS Rules

media="all" 4
.node-full { style.css:605
background: none;
border: none;
padding: 0;
}

div { user agent stylesheet
display: block;

Consumo: Los ingredientes

 *Fuente de datos*

 *Sistema de búsqueda*

 *Sistema de publicación*



Consumo: Los ingredientes

 *Fuente de datos: DBpedia*

 *Sistema de búsqueda: Sparql endpoint (DBpedia)*

 *Sistema de publicación: CMS Drupal 7*

Consumo: Modo de elaboración



- *Obtener Url de Endpoint Sparql (DBpedia)*
- *Instalación de Drupal 7 + Módulos necesarios*
- *En Drupal:*
 - Añadir "Sparql endpoint" con configuración de DBpedia
 - Añadir un "Sparql view resource type" y generar campos
 - Indicar en los campos del recurso el vocabulario RDF al que hace referencia
 - Generar vista de tipo Sparql
 - Seleccionar los campos en la vista
- *Voilà!!*

Consumo:

Obtener Url de Endpoint Sparql (DBpedia)

Virtuoso SPARQL Query Editor

Default Data Set Name (Graph IRI)

Query Text

```
select distinct ?Concept where {[ ] a ?Concept} LIMIT 100
```

(Security restrictions of this server do not allow you to retrieve remote RDF data, see [details](#).)

Results Format: (The CXML output is disabled, see [details](#))

Execution timeout: milliseconds (values less than 1000 are ignored)

Options: Strict checking of void variables

(The result can only be sent back to browser, not saved on the server, see [details](#).)

<http://dbpedia.org/sparql>

Consumo:
Instalación de Drupal 7 + Módulos necesarios

*Everyone knows it,
I think*



Consumo: Añadir "Sparql endpoint" con configuración de DBpedia

Home

Home ↗

Title *

DBPedia

Endpoint URI *

http://dbpedia.org/sparql

The URL used to access the endpoint. For example, http://dbpedia.org/sparql.

Dataset

ADVANCED QUERY OPTIONS

QUERY PARAMETERS

Key

Value

Add one more

Save

admin/structure/sparql_registry/create

Consumo: Añadir un "Sparql view resource type" y generar campos

Home » Administration » Structure » SPARQL Views resource types » Profile

Profile 

EDIT

MANAGE FIELDS

 Your settings have been saved.

LABEL	WEIGHT	PARENT	MACHINE NAME	FIELD
 page	<input type="text" value="1"/>	<input type="text" value="- None -"/>	field_page	Text
 homepage	<input type="text" value="2"/>	<input type="text" value="- None -"/>	field_homepage	Text
 name	<input type="text" value="3"/>	<input type="text" value="- None -"/>	field_name	Text
 Add new field				
<input type="text"/> Label	<input type="text" value="4"/>	<input type="text" value="- None -"/>	field_ <input type="text"/> A unique machine-readable name containing letters, numbers, and underscores.	<input type="text" value="- Select a field type -"/> Type of data to store.

admin/structure/sparql-views/manage/profile/fields

Consumo:

Indicar en los campos del recurso su vocabulario RDF

NAME RDF MAPPING

RDF Predicates

Enter a comma-separated list of predicates for *name* using CURIE syntax. For example: *foaf:familyName, foaf:lastName*

Attribute Type

For fields containing literals—things such as plain text, html, numbers—use the **property** attribute. For fields containing **rev** or **rev** attribute.

Datatype

Enter the datatype for *name* using CURIE syntax. For a list of common datatypes, see [XML Schema datatypes](#).

Consumo: Generar vista de tipo Sparql

[Home](#) » [Administration](#) » [Structure](#) » [Views](#)

Add new view 

View name *

Description

Show sorted by

Create a page

Page title

Path

<http://enredalab.com/dod/>

Display format

Items to display

Use a pager

Create a menu link

<admin/structure/views/add>

Consumo: Seleccionar los campos de la vista

Displays

Profiles* [+ Add](#)

[edit view name/description](#) ▼

Profiles details

Display name: Profiles

[view profiles](#) ▼

TITLE

Title: Profiles

FORMAT

Format: Unformatted list | [Settings](#)

Show: Fields | [Settings](#)

FIELDS

[add](#) ▼

Profile: URI (URI)

Profile: homepage (homepage)

Profile: page (page)

Profile: name

FILTER CRITERIA

[add](#)

SORT CRITERIA

[add](#)

PAGE SETTINGS

Path: /profiles_list

Menu: No menu

Access: None

HEADER

[add](#)

FOOTER

[add](#)

PAGER

Use pager: Full | Paged, 100 items

More link: Yes

▼ Advanced

CONTEXTUAL FILTERS

[add](#)

RELATIONSHIPS

[add](#)

NO RESULTS BEHAVIOR

[add](#)

EXPOSED FORM

Exposed form in block: No

Exposed form style: Basic | [Settings](#)

OTHER

Machine Name: page

Comment: No comment

Use AJAX: No

Hide attachments in summary: No

Query settings: [Settings](#)

Field Language: Current user's language

Caching: None

CSS class: None

Theme: Information

Consumo: Voilà!!



DOD

Drupal & OpenData

[My account](#) [Log out](#)

Home

Home



Pages

[Holy Trinity Cathedral Church](#)

[Isshin-ji一心寺](#)

[The Chief](#)

Navigation

- ▶ [Add content](#)
- [Build RDF index](#)
- [Import core RDF vocabularies](#)
- [Import external RDF vocabulary](#)
- [SPARQL endpoint](#)
- ▶ [Feed aggregator](#)



Y esto sirve para...

Y esto sirve para

○ *Conseguir sistemas:*
+ descriptivos
+ interoperables
- mantenimiento

○ *Alinearse con OpenData para:*
Acceso rápido a la información
Tecno-democracia
Liberación de información (we have the power)

```
<?php
  if ( $preguntas )      esperar_y_responder ( ) ;
  else
    echo 'Muchas gracias por la atención';
?>
```

echo "Thx!"

Design: @MarquiRuHe