Drupal 7 and Semantic Web Hands-on Tutorial

Advanced
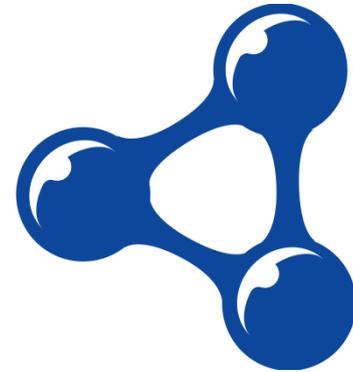
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Austin, TX – Sat, October 1st 2011

Towards RDF in Drupal core

"Video from the future"

DrupalCon Boston 2008

Dries' keynote

http://video.google.com/videoplay?docid=8487255297768440860

Towards RDF in Drupal core

Code sprint

May 2009

DERI Galway, Ireland
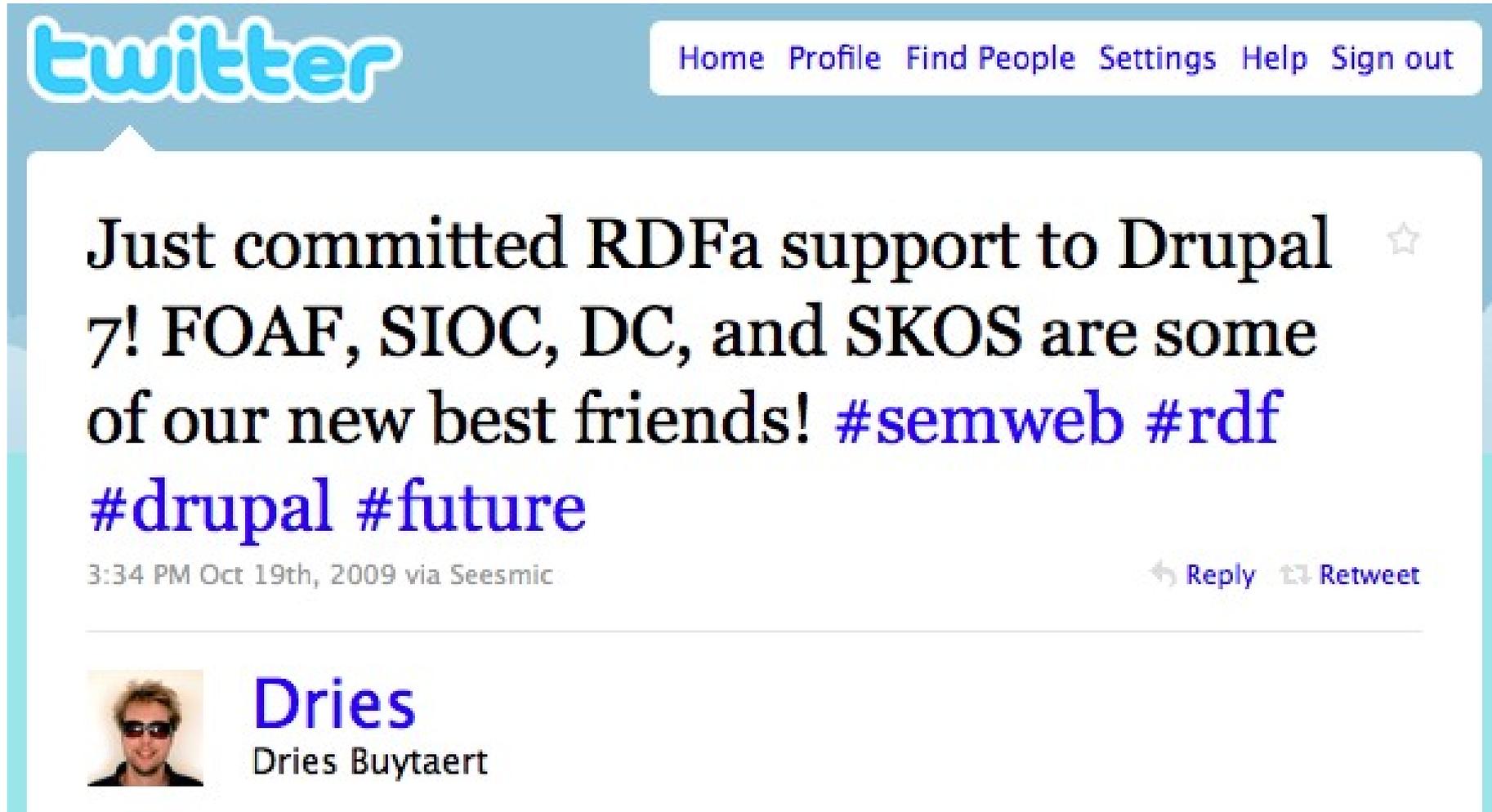
Towards RDF in Drupal core

Just committed RDFa support to Drupal 7! FOAF, SIOC, DC, and SKOS are some of our new best friends! #semweb #rdf #drupal #future

3:34 PM Oct 19th, 2009 via Seesmic

Dries
Dries Buytaert

http://twitter.com/dries/status/4997311434

RDF in Drupal 7

- Expose Drupal's data in RDF

- Automatically

- No RDF expertise required

- Module based

http://www.flickr.com/photos/neys/2386865187

Architecture

- User driven data model

- Structured data: instances of types with properties and relationships

- Content type = RDF class

- Field = RDF property

- Node = RDF resource

http://www.flickr.com/photos/docman/2216568210
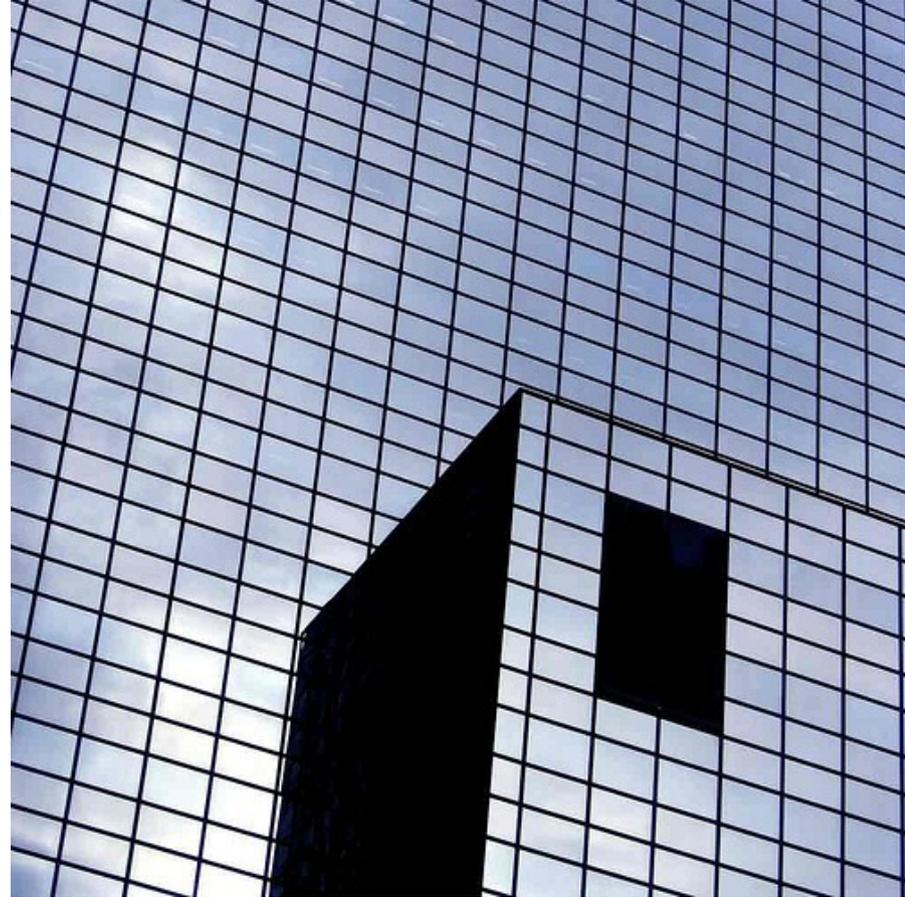
Content types and Fields

Person   Edit   **Manage fields**

Add fields and groups to the content type, and arrange them on content display
You can add a field to a group by dragging it below and to the right of the grou
Note: Installing the Advanced help module will let you access more and better

Label	Name	Type
Name	Node module form.	
First name	field_fn	Text
Last name	field_ln	Text
Picture	field_picture	Image
Colleagues	field_friend	Node reference
Current projects	field_current_project	Node reference

Content types and Fields

Global settings

These settings apply to the *Gender* field in every content type in which it appears.

☐ Required

Number of values:

[1   ▲▼]

Maximum number of values users can enter for this field.

Warning! Changing this setting after data has been created could result in the loss of data!

▽   Allowed values

Create a list of options as a list in **Allowed values list** or as an array in PHP code. These values will be the same for *Gender* in all content types.

Allowed values list:

Male
Female

Node

Stephane Corlosquet [View] Edit

First name: Stephane
Last name: Corlosquet
Homepage: http://openspring.net/
Email: stephane.corlosquet@deri.org
scorlosquet@gmail.com
**Colleagues:** Aidan Hogan
Andreas Harth
Axel Polleres
Tim Clark
Current projects: Drupal
Drupal Semantics
Science Collaboration Framework

Drupal 7 core RDF mappings
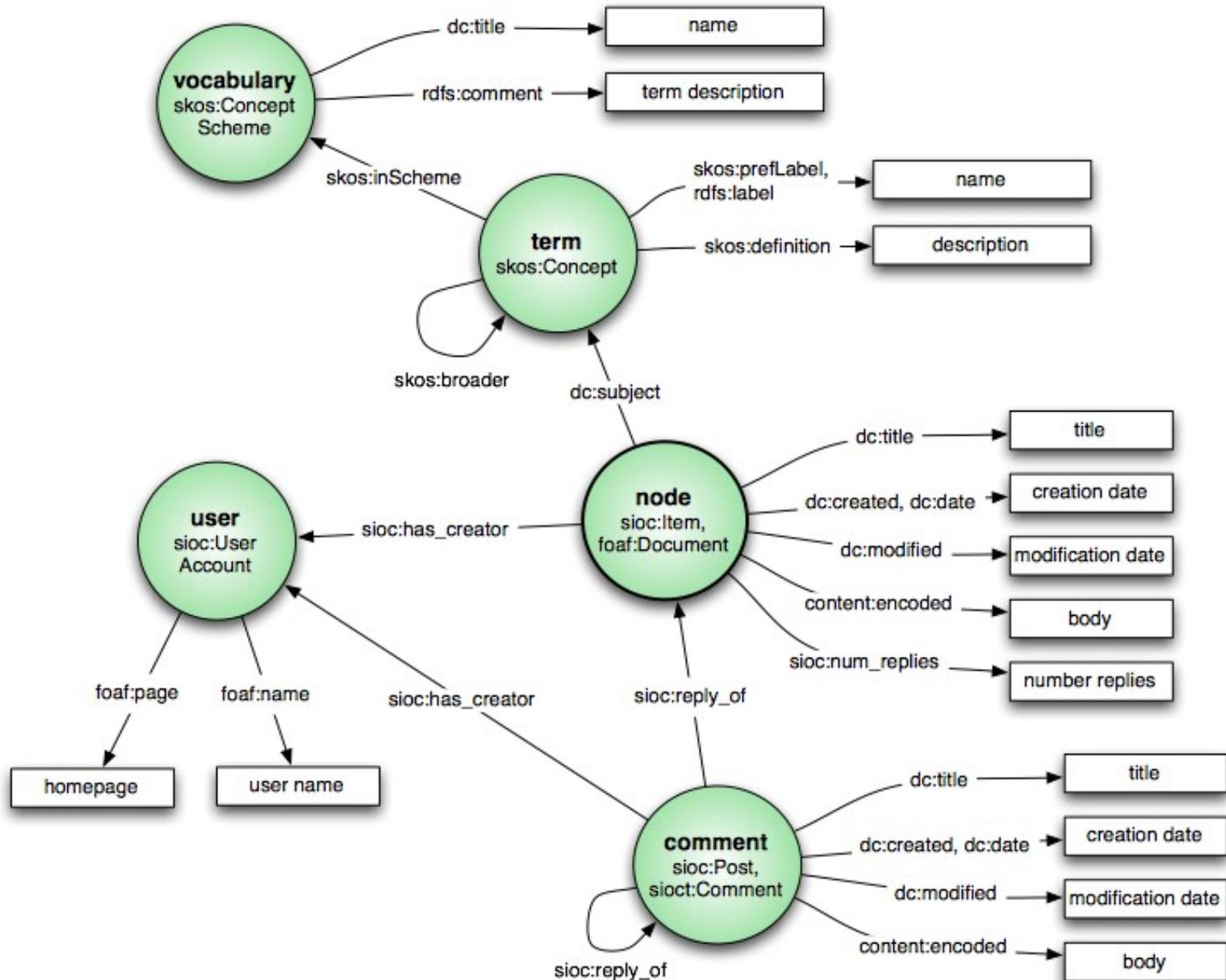
Drupal 7 RDFa benefits

- FOAF, SIOC, SKOS, DC "out of the box"

- All users have a WebID

    - user/3#me   => foaf:Person
    - WebID authentication

RDF UI (RDF Extentions)

RDF Mapping User Interface for site administrators to customize RDF mappings

SPARQL endpoint (SPARQL)

SPARQL Endpoint: anyone can query your site data with SPARQL queries

name	title
Axel Polleres	Embedding Non-Ground Logic Programs into Autoepistemic Logic for Knowledge-Base Combination.
Axel Polleres	Planning under Incomplete Knowledge.
Tim Clark	Computational knowledge integration in biopharmaceutical research.
Tim Clark	Globally distributed object identification for biological knowledgebases.
Tim Clark	Knowledge Integration in Biomedicine: Technology and Community.
Tim Clark	SWAN: A distributed knowledge infrastructure for Alzheimer disease research.

SPARQL Views

SPARQL Views: reuse remote data and display it on your site using Views. Credits to @linclark.

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Hands on

- Blog post as an RDF Graph (Sindice)
- RDF UI
- Node references

Hands on

- Content Negotiation
  - Install Rest WS module
  - Allow permission to 'Access the resource node'
  - RDF/XML   node/1.rdf
  - Turtle   node/1.ttl
  - N Triples   node/1.nt

- curl -H 'Accept: application/rdf+xml'

Thanks!

- Semantic Web discussion group: http://groups.drupal.org/semantic-web

- My blog, mostly on Semantic Web & Drupal: http://openspring.net/

- Twitter: @scorlosquet