Open (Government) Data mit Drupal und Integration mittels Windows Azure

Ivo Radulovski & Jürgen Mayrbäurl

Why Drupal?

- Easy to integrate data
- RDFa in core (Drupal 7)
- Tools for integration and visualization
- Good precedence cases

RDF & Drupal

All entity types

- node
- comment
- user
- file
- term
- vocabulary

Drupal 7 RDFa goodness

- FOAF, SIOC, SKOS, DC "out of the box"
- All users have a WebID URI
- user/3#me => foaf:Person

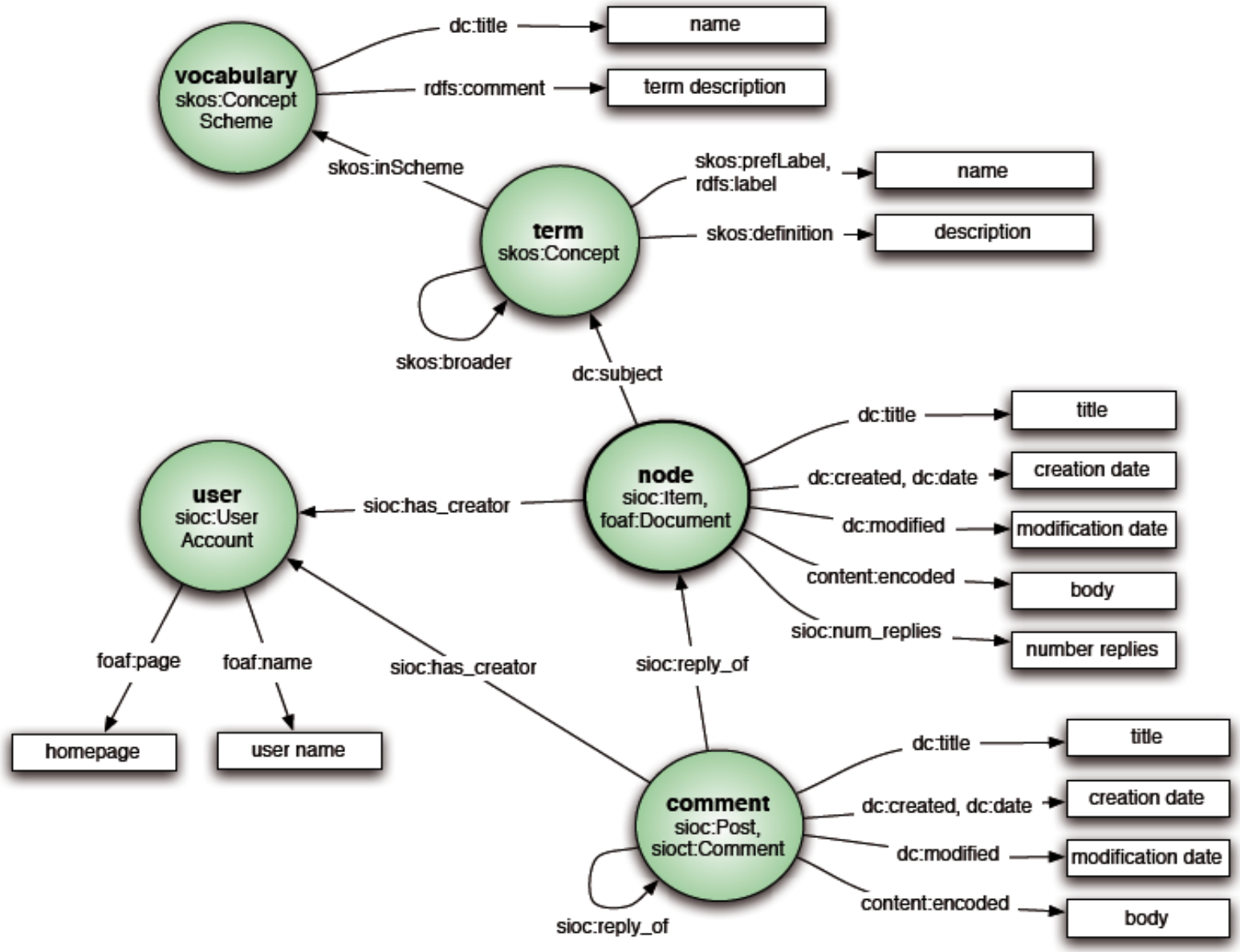
pro peo ple

RDF & Drupal - Attributes

- title
- date (created, updated)
- all fields*
- comment count
- reply of (comment)
- creator

* provided a mapping has been defined for it

RDF & Drupal 7 default mapping

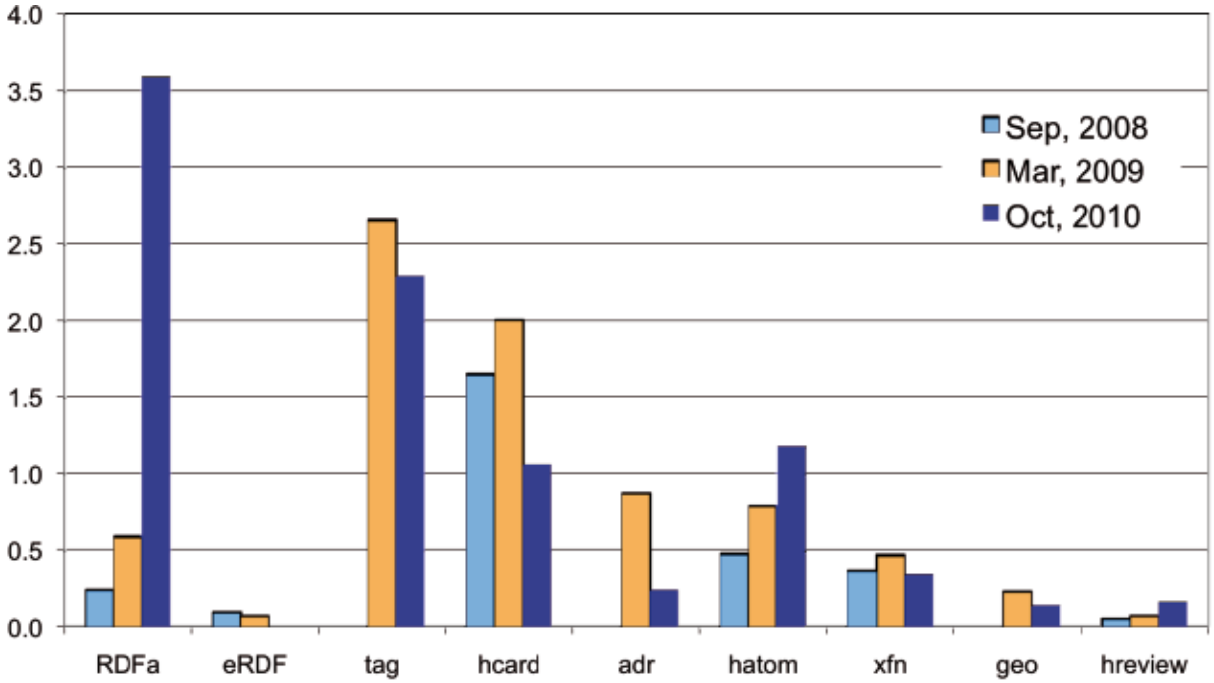


RDF & Drupal - History of Semantics in Drupal

- rdf.php (2000, Dries)
- FOAF, vCard (2004, walkah)
- Relationship (2005, dman)
- Semantic Search (2006, hendler)
- RDF (2007, Arto)
- OpenCalais (febbraro, 2008)
- RDF CCK (2008, scor)

RDFa growth

- fastest growing data format on the Web
- 3.6% of the pages in the Web
- 510% growth in the last year



http://tripletalk.wordpress.com/2011/01/25/rdfa-deployment-across-the-web/

RDF & Drupal - Why RDF and RDFa?

- W3C standards
- BBC, New York Times, Reuters, Facebook
- Google, Yahoo!

Google

YAHOO!

BBC

The New York Times

facebook

pro
peo
ple

RDF & Drupal - Credits

Mark Birbeck	Christopher Ruppel	Johannes Keizer
Alex Bronstein	Kanok Ausawawaranun	Hobury
John Breslin	John Breslin	Benjamin Doherty
Benjamin Doherty	Scriptall	Giorgos Kontopoulos
Stefan Freudenberg	cocoate	Thomas Speer
Rolf Guescini	Frank Febbraro	Łukasz Kowalski
Daniel F. Kudwien	Dirk Ruediger	Raul Pedro Fernandes Santos
Florian Lorétan	Lin Clark	Alexander Langer
Frédéric Marand	Prometheus	Robert Douglass
Benjamin Melançon	William Hayes	Rob Loach
John Morahan	Christopher Albrecht	Andrew Kennedy
Dries Buytaert	Roundabout Publications	Knud Möller
Angie Byron	Aris Vidalis	Udo Gerhards
catch	Gerard Roos	Kevin Bridges
chx	Ludovico Fischer	Peter Galiba
Peter Wolanin		
Barry Jaspan		
yched		

Some OpenData Platforms based on Drupal

- The World Bank
- NY State Senate
- Data.gov.uk
- and others…

Drupal – how to get data?

- **Feeds module** (earlier FEED API + addons: FeedAPI RDF processor)
  - One-off imports and periodic aggregation of content
  - Import or aggregate RSS/Atom feeds
  - Import or aggregate CSV files
  - Import or aggregate OPML files
  - PubSubHubbub support
  - Create nodes, users, taxonomy terms or simple database records
  - Extensible to import any other kind of content
  - Granular mapping of input elements to Drupal content elements
  - Exportable configurations
  - Batched import for large files
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Drupal – how to get data & manipulate?

- Feeds: XPath Parser, JSONPath, REGEX, YouTube, Flickr, Social Parser, CSV, Excel, OAI-PMH Fetcher and Parser, Slideshare, KML, Wordpress, Salesforce, ICCD,…
- Feed Scraper, FeedAPI Extensible Parser, Querypath / Feeds QueryPath Parser, iCal feed Parser, Safe HTML, XML parser
- Sparql modules, SPARQL Views
- CKAN
- World Bank API
- Many other APIs

Drupal – how to get data & manipulate?

- OpenCalais
- Tagging
- Yahoo Terms
- Auto Tagging
- Keyword Analysis
- Alchemy
- …

Drupal – how to visualize data?

- OpenLayers
  - NiceMap
  - TileMill
  - Mapnik
  - Geocommons
  - Osgeo
- Google Visualization API, Charts, Tagmap, Tagadelic, Cumulus, Timeline, Timelinemap, Genes4all,…

Drupal – how to visualize data?

– **Drupal NiceMap**

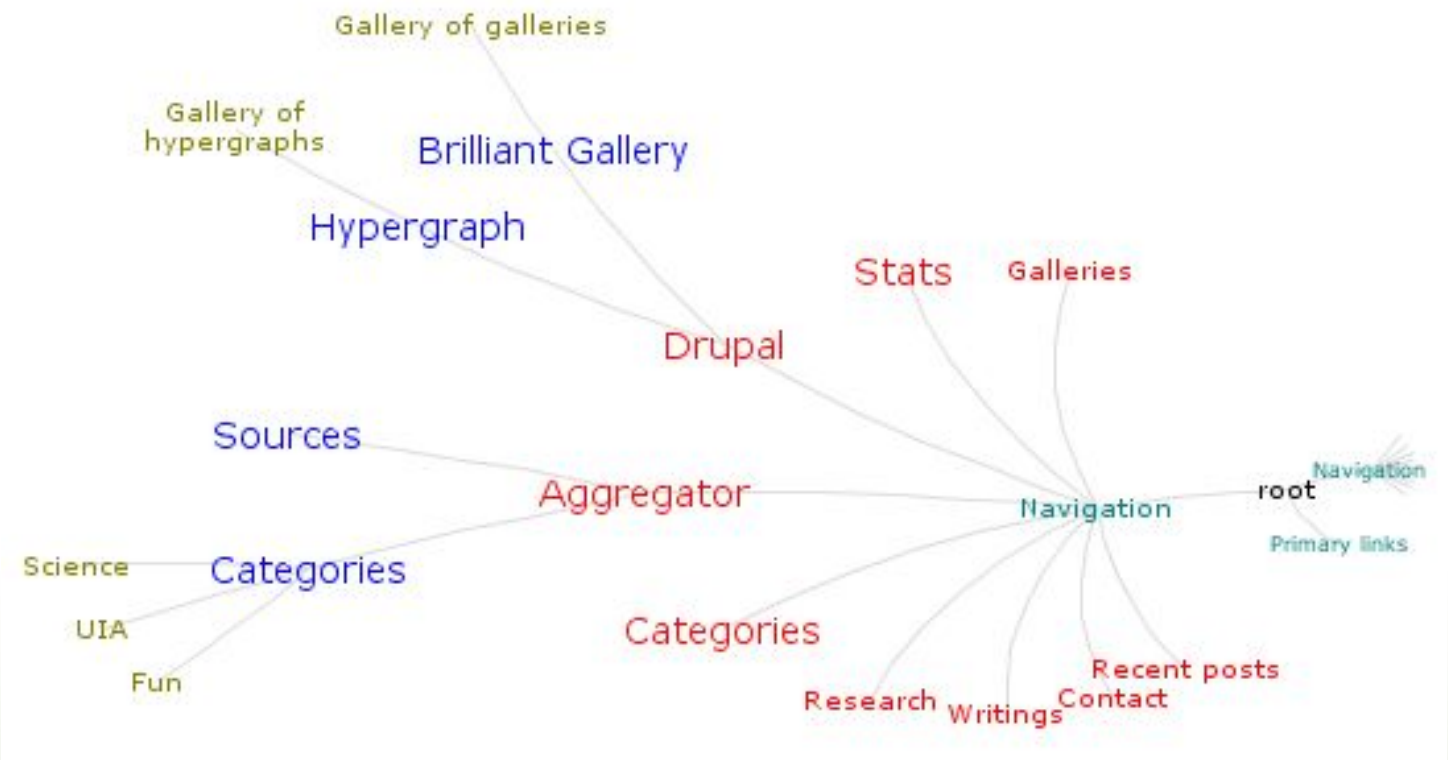
Stumble Safely developed by Development Seed

Drupal – how to visualize data?

– **Drupal Tagadelic / Cumulus**

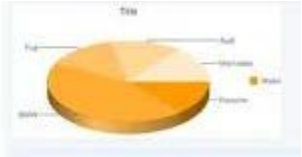
Drupal – how to visualize data?

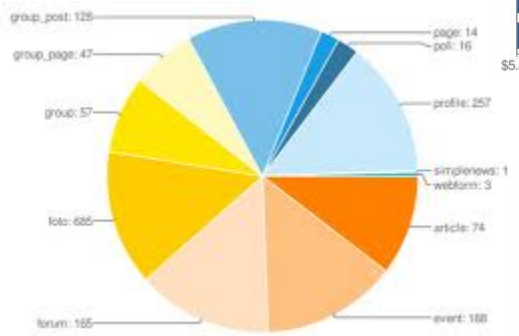
– **Drupal Hypergraph**

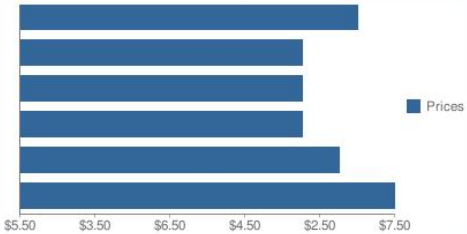


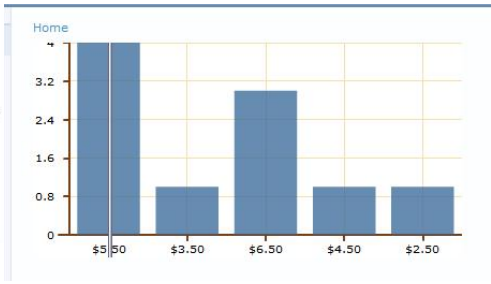
Drupal – how to visualize data?

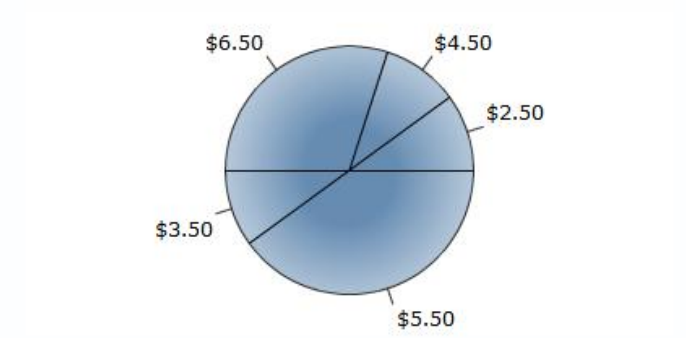
– **Drupal Charts**

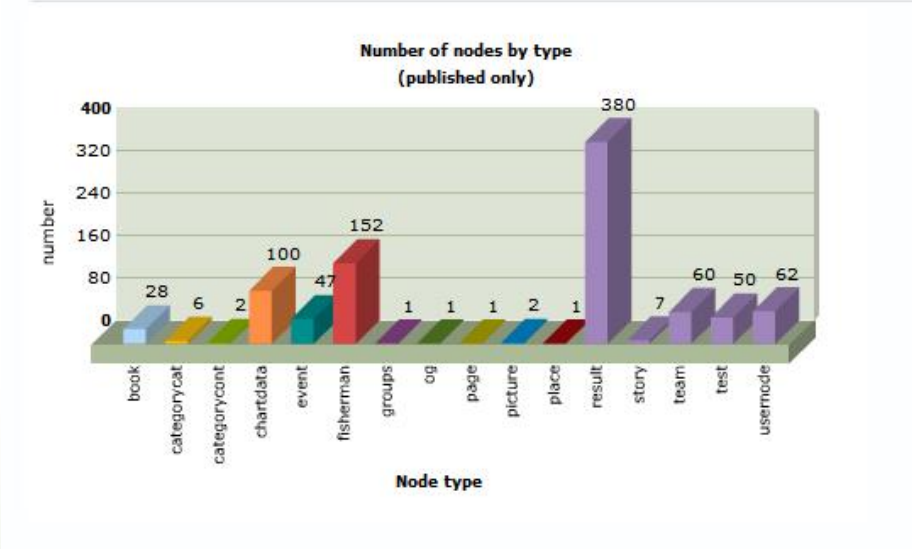






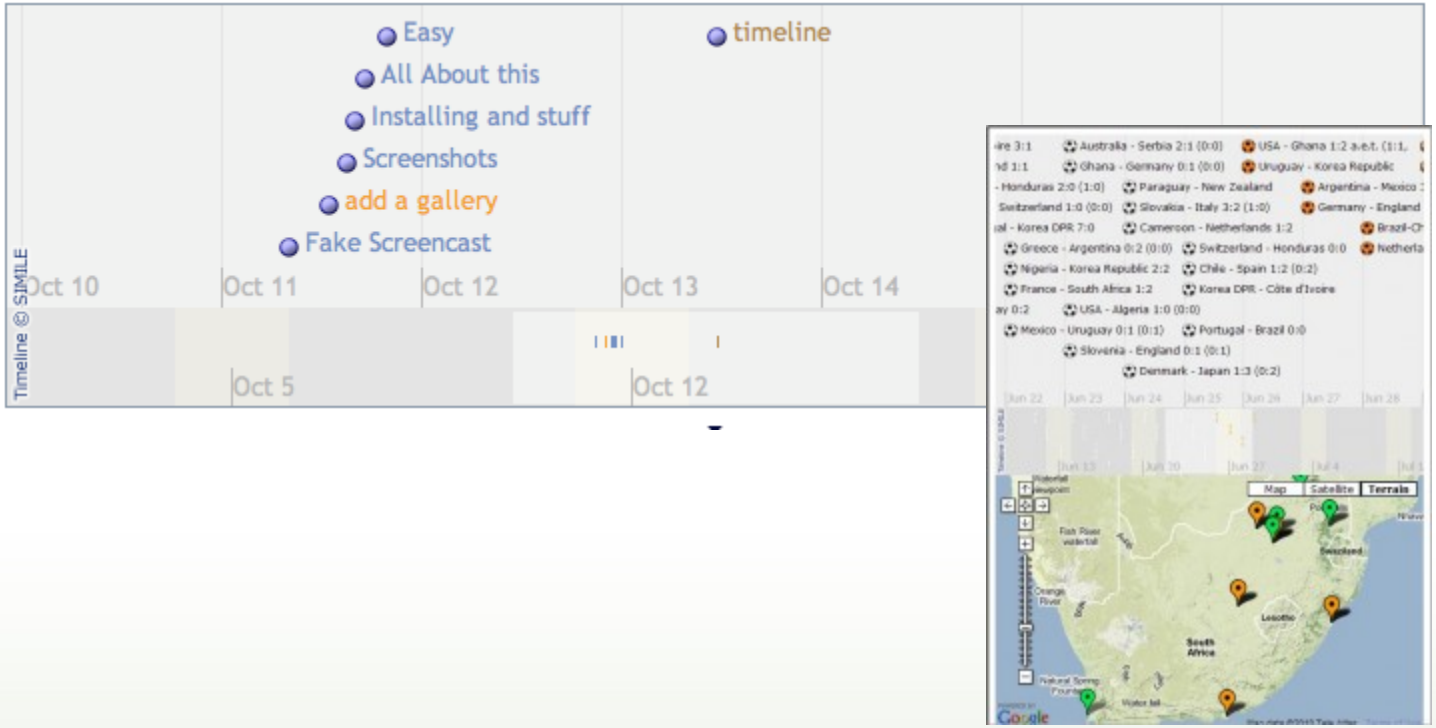






Drupal – how to visualize data?

– **Drupal Timeline / Timeline Map**



Drupal – how to visualize data?

– **Drupal Tagmap**

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NEXT?

OPENGOVERNMENT
data initiative

Home Data Developers

Welcome to Open Government Data Initiative (OGDI)

The Open Government Data Initiative (OGDI) is an initiative led by Microsoft Public Sector Developer Evangelism team. OGD uses the Windows Azure Platform to make it easier to publish and use a wide variety of public data from government agenci OGDI is also a free, open source 'starter kit' with code that can be used to publish data on the Internet in a Web-friendly format with easy-to-use, open API's. OGDI-based web API's can be accessed from a variety of client technologies such as Silverlight, Flash, JavaScript, PHP, Python, Ruby, mapping web sites, etc.

OGDI

"The cloud platform for **data reuse**"

Whether you are a business wishing to use government data, a government developer, or a 'citizen developer', these open AP will enable you to build innovative applications, visualizations and mash-ups that empower people through access to governmen information. [illegible] access to some publicly-availa data sets along with sample code and resources for writing applications using the OGDI APIs.

Email us at askogdi@microsoft.com if you have government data sets that you would like us to publish or if you have other questions.

Browse the Data

Browse, query, and view sample datasets.

For Developers

Read brief developer notes and learn how to use the OGDI API.

Announcements and News

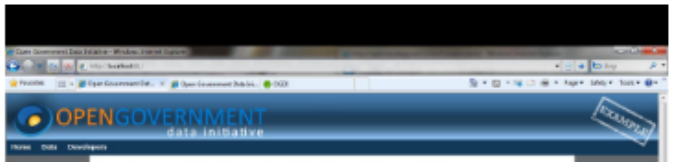
Training Videos For v2 Are Coming Soon

Stay tuned!

Thursday, June 17, 2010, 4:13:35 PM

OGDI v2 Is Available Now

Get started with OGDI



OGDI is Open Source Software, which runs on Azure and which

- Enables Government to publish open data in a reusable format (machine readible) ***Availability***
- Enables citizens to have more visibility into governments services ***Transparency***
- Enables ISVs to develop new applications and create more local economic value ***Charging***
- Enables developers to use their existing skills to contribute to Open Source, runs on a Cloud infrastructure and develop new types of applications and services ***Non discriminatory***
- OGDI Source code is free and customizable: code can be used to publish data on the Internet in a Web-friendly format with easy-to-use, open API's. API's can be accessed from Silverlight, Flash, JavaScript, PHP, Python, Ruby, mapping web sites, etc. ***Non discriminatory***
- Available as open source starter kit on Codeplex ***Availability***

Open Data Projects Developed Using Microsoft Technologies

VanGuide – http://vanguide.cloudapp.net VanGuide utilizes Windows Azure, OGDI, Bing Maps, Silverlight, Windows Phone 7

Waste Dep. Paris - http://www.excaliburautomobile.com/MSFT/VersaillesPAVBing.html Utilizes Windows Azure, Silverlight, Bing Maps

Edmonton Find-A-Home – http://findahome.cloudapp.net Utilizes Bing Maps, Windows Azure, OGDI

Miami 311 – http://miami311.cloudapp.net Utilizes Windows Azure, Silverlight, Bing Maps, CRM

Mobile application

VanGuide code on Codeplex (Open Data Application Framework ODAF) – http://odaf.codeplex.com

VanGuide Windows Phone 7 Code on Codeplex - http://vanguidewp7.codeplex.com

Microsoft

Open Data is real

Demo

http://dev.govdata.eu

Microsoft

Drupal & OGDI

- Drupal as a front-end
- OGDI offering the data service
- Easy to get started

- http://data.edmonton.ca/DataBrowser/coe/HistoricalBuildings

Microsoft

European trial platform: 1 year timeframe

Data Service data.govdata.eu :
1-2 Azure compute instance
1 Azure storage instances
(configuration only)

Interactive SDK dev.govdata.eu **:**
1 or 2 Azure storage instances

European platform
www.govdata.eu
Services run by MS

Bel
1 A

Nether
1 Azu

Italy Data Storage :
1 Azure storage instances

Country or Gov Agency
Azure data storages

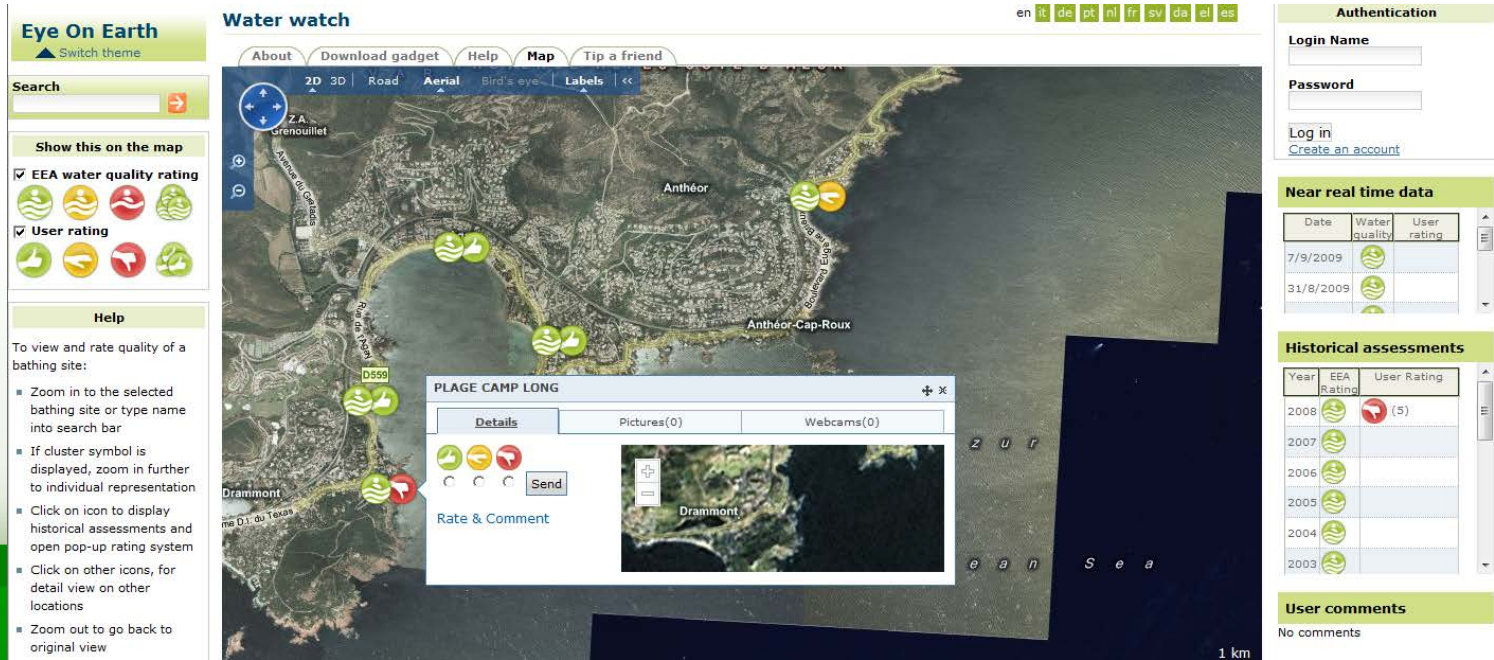
Resources

- MS Interoperability & Open Government
- Open Government Data Initiative – OGDI
- OGDI on Codeplex – http://ogdi.codeplex.com
- Microsoft - Shared Source Initiative
- Open Data Application Framework (ODAF) on Codeplex – http://odaf.codeplex.com/
- Windows Azure – http://www.microsoft.com/windowsazure/pricing
- EU PSI directive
- PSI Legislative instruments by Member States (link tbd)
- MS PSI Consultation submission

Microsoft

EU Projects

- **Eye on Earth** – http://www.eyeonearth.eu Utilizes Windows Azure, Silverlight, Bing Maps
- **Water Watch** - http://eoe.eea.europa.eu/ Combines Gov statistics with public feedback, Interactive, 2-way communications with ratings, Downloadable Gadget for Vista



Open Data
=
Opportunity

Microsoft®

Be what's next.™

pro
peo
ple

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