

Drupal 7 and Semantic Web Hands-on Tutorial



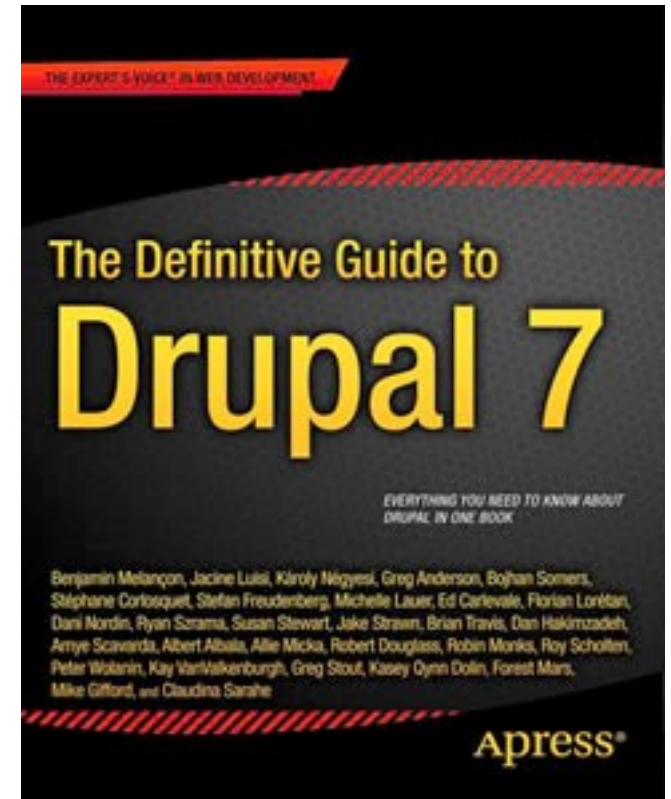
Rich Snippets



Stéphane Corlosquet, <scorlosquet@gmail.com>
Austin, TX – Sat, October 1st 2011

About the speaker

- 5 years with Drupal
- Drupal core maintainer (RDF)
- Drupal Security Team member
- Co-authored the **Definitive Guide to Drupal 7**
- Co-maintain RDF Extensions, SPARQL, schema.org
- Software engineer at MIND Informatics in Boston.



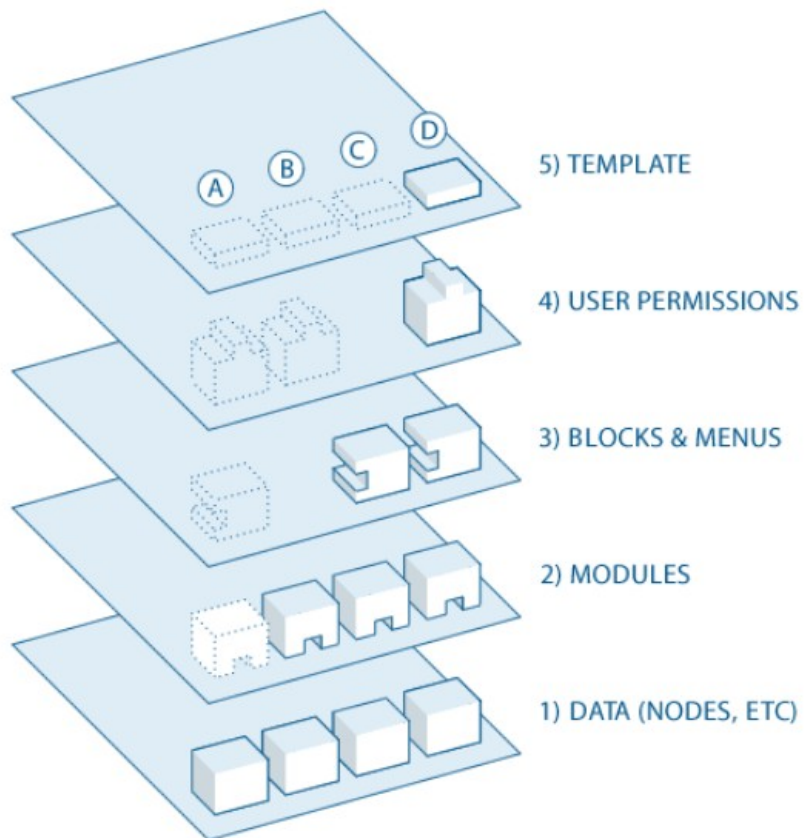
What is Drupal?

Drupal

- Small news site in 2000
- Open Source - 2001
- Content Management System
- LAMP stack
- Non-developers can build sites and publish content
- Control panels instead of code



Drupal



- Open & modular architecture
- Extensible by modules
- Standards-based
- Low resource hosting
- Scalable

Building a Drupal site



LEGO® Store
Special Mini
Model Build



April 2009

Built by: _____

LEGO Parts List

| | |
|---|---|
|  2x2 Brick (1) |  2x2 Roof tile (4) |
|  1x2 Brick (1) |  2x4 Ridge tile (1) |
|  1x2 Brick (3) |  2x2 Ridge tile (1) |
|  1x1 Brick (2) |  1x3 Plate (1) |
|  1x1 Brick (4) |  1x3 Plate (3) |
|  1x1 Brick (5) |  1x6 Plate |
|  1x2 Plate (6) |  1x4 Plate (3) |
|  1x1 Plate (2) |  1x4 Plate (7) |
|  1x1 Plate (3) |  1x2 Plate with knob (1) |
|  2x4 Roof tile (4) |  1x1 Round Plate (1) |
|  1x2 Roof tile (1) | |

See what's coming up
next month in the LEGO
Store Monthly Mini Build!

Ask a Store Associate
for more details or visit
www.LEGO.com/LEGOstores.

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Building a Drupal site



<http://www.flickr.com/photos/georgivar/4795856532/>

Building a Drupal site

- Create the content types you need:
Blog, article, wiki, forum, polls, image, video, podcast, e-commerce... (be creative)



Building a Drupal site

- Enable the features you want:

Comments, tags, voting/rating, location, translations, revisions, search...



Building a Drupal site

- Place links in the navigation bars and blocks
- Build Views over your data



Building a Drupal site

Thousands of free contributed modules

- Google Analytics
- Wysiwyg
- Captcha
- Calendar
- XML sitemap
- Five stars
- Twitter
- ...



Drupal inside

- Database storage (PDO)
- Cron
- Queue / batch API
- File management
- User management
- Form API
- Security



A large crowd of people, likely attendees at a conference, is shown from a high angle. The crowd is dense and fills most of the frame. In the foreground, a blue text box is overlaid on the image. The background shows a large hall with stage lighting and a curved ceiling.

The Drupal Community

**“It’s really the Drupal community and not so much the software that makes the Drupal project what it is. So fostering the Drupal community is actually more important than just managing the code base.” -
Dries Buytaert**

200+ Local user groups



including <http://groups.drupal.org/boston>

Doubles in size each release

- Drupal 6 - 330,000+ sites
- Drupal 7 - 160,000+ sites
- Estimation of 2% of the Web (source: Dries Buytaert)

Who uses Drupal?

the WHITE HOUSE PRESIDENT BARACK OBAMA ★★★★★ THE WHITE HOUSE WASHINGTON ★★★★★ Get Email Updates | Contact Us

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Your
**WEEKLY
ADDRESS**

The President discusses the benefits of health reform that Americans will receive in the first year, and how reform will help build a new foundation for American families.

Watch the Video

1 2 3 4



Samantha Appleton, 1/8/10

A NEW FOUNDATION



The President's Plan for Health Insurance Reform
Cut through the rhetoric on health insurance reform. Read the essentials of the President's plan, and watch a video with highlights of his speech to Congress.

[Learn More](#)

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PHOTO *of the* DAY

Who uses Drupal?

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CBS Should Thank Jeff Zucker

Opening This Weekend

Bloomberg Flips on Stuy Town

It's Official: Stuy Town Default

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THE DAILY TRANSOM

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sep.10.08



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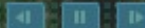
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SOCIETY

+ ENGINEERING
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in the field



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Breaking News



Advanced blood analysis may speed diagnosis of heart attacks

Who uses Drupal?

YAHOO!

IBM



SAP

Sun
microsystems

Jabber



SONY & BMG
MUSIC ENTERTAINMENT

ubuntu

SECOND.
LIFE

UNIVERSAL

FedEx[®]
Corporation



eclipse

UNIVERSAL MUSIC GROUP

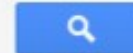
<http://buytaert.net/tag/drupal-sites>

Rich Snippets

Google



banana bread recipes



Advanced search

Search

About 5,210,000 results (0.40 seconds)

Everything

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Videos

News

Shopping

Recipes

More

San Francisco, CA

Change location

Ingredients

bananas
baking soda
walnuts
pecans
vanilla extract
baking powder
cinnamon
sour cream

Yes No

[Banana Banana Bread Recipe - Allrecipes.com](#)

allrecipes.com/recipe/banana-banana-bread/ - Cached



★★★★★ 6501 reviews - 1 hr 20 mins - 229 cal

Why compromise the banana flavor? This **banana bread** is moist and delicious with loads of banana flavor! Friends and family love my **recipe** and say it's by far ...

[Banana Bread I Recipe](#) - [Brown Sugar Banana Nut Bread I](#) - [Nutty Banana Bread](#)

[Banana Bread Recipes - Allrecipes.com](#)

[allrecipes.com > Recipes > Bread](http://allrecipes.com/Recipes/Bread) - Cached

Looking for the perfect **banana bread recipe**? Allrecipes has more than 120 ...

[Janet's Rich Banana Bread Recipe - Allrecipes.com](#)

allrecipes.com/recipe/janets-rich-banana-bread/ - Cached



★★★★★ 1327 reviews - 1 hr 10 mins - 218 cal

Sour cream guarantees a moist and tender **loaf**. And **bananas** are sliced ...

[Show more results from allrecipes.com](#)

[Banana Bread Recipe | Simply Recipes](#)

simplyrecipes.com/recipes/banana_bread/ - Cached



1 hr 5 mins

Jun 15, 2006 – Moist and delicious classic **banana bread recipe**. Easy to make, no need for a mixer. Ripe bananas, butter, sugar, egg, vanilla, baking soda, ...

[Banana Nut Muffins](#) - [Orange Bread](#) - [Glazed Lemon Bread](#)

[Banana Bread Recipe : : Food Network](#)

[www.foodnetwork.com > Recipes > Baking > Bread](http://www.foodnetwork.com/Recipes/Baking/Bread) - Cached



★★★★★ 487 reviews - 3 hrs 10 mins

3 days ago – Food Network invites you to try this **Banana Bread recipe**.

Yahoo!

YAHOO!

cascal mountain view

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Cascal

cascalrestaurant.com

(650) 940-9500

400 Castro St, Mountain View, CA ▾

[Menu](#) | [More Info](#) »

★★★★★ (65)

65 Reviews - I am so sick of people suggesting Cascal who have never been there. Don't let the decor fool you - that was done by someone with taste... [more](#)

[Make Reservation](#)

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Cascal - Welcome to the Journey

www.cascalrestaurant.com

[Tapas](#)

[Special](#)

[Lunch](#)

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[More results from cascalrestaurant.com](#) »

Cascal - Mountain View, CA

★★★★★ (1237 Reviews) - (650) 940-9500 - Mountain View, CA

(650) 940-9500 - 400 Castro St - "The prosciutto wrapped dates and mushroom empanadas are amazing."

www.yelp.com/biz/cascal-mountain-view - [Cached](#)

[More results from yelp.com](#) »


Cascal Restaurant - Contact - Cascal - Welcome to the Journey

Cascal is centrally located at the corner of California and Castro streets in the heart of downtown Mountain View, California.

www.cascalrestaurant.com/about_contact.asp - [Cached](#)

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avatar reviews 

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[Avatar - Rotten Tomatoes](#)

It might be more impressive on a technical level than as a piece of storytelling, but **Avatar** reaffirms James Cameron's singular gift for imaginative, absorbing ...
www.rottentomatoes.com/m/avatar


83%
279 reviews

[Avatar :: rogerebert.com :: Reviews](#)

Jake Sully Sam Worthington Neytiri Zoe Saldana Grace Sigourney Weaver Col. Miles Quaritch Stephen Lang Trudy Chacon Michelle Rodriguez
rogerebert.suntimes.com/apps/pbcs.dll/article?AID=/20091211/REVIEWS/912119998

[Avatar Review](#)

Avatar Review Poetry :: Prose :: **Reviews** :: Interviews :: Art. Home; About; Submissions; Index of Contributors; Current Issue. AV13: Summer 2011; Past Issues. AV12: Summer 2010
www.avatarreview.net

[Avatar Review :: Movies :: Reviews :: Paste](#)

Never before have so many cynics wanted to hate a movie, and never have they been so thoroughly thwarted, as with James Cameron's **Avatar**. I had more than my share of ...
www.pastemagazine.com/articles/2009/12/avatar-review.html

[Avatar Reviews, Ratings, Credits, and More at Metacritic](#)

Expert score: 83/100 · PG-13 · 162 min · 35 reviews
Jake Sully is a former Marine confined to a wheelchair. But despite his broken body, Jake is still a warrior at heart. He is recruited to travel light years to the ...
www.metacritic.com/redirectcritic?m=avatar

Why Structured Data in HTML

- Help machines extract relevant data from HTML
- Can make use of this data in amazing ways (e.g. enhanced search results)

Structured Data in HTML

- Add or alter HTML attributes
- Syntaxes
 - Microformats (@class)
 - RDFa (@property, @about, @typeof, ...)
 - Microdata (@itemscope, @itemtype, @itemprop, ...)

Schema.org

schema.org

Search

Home

Schemas

Documentation

What is Schema.org?

This site provides a collection of schemas, i.e., html tags, that webmasters can use to markup their pages in ways recognized by major search providers. Search engines including Bing, Google and Yahoo! rely on this markup to improve the display of search results, making it easier for people to find the right web pages.

Many sites are generated from structured data, which is often stored in databases. When this data is formatted into HTML, it becomes very difficult to recover the original structured data. Many applications, especially search engines, can benefit greatly from direct access to this structured data. On-page markup enables search engines to understand the information on web pages and provide richer search results in order to make it easier for users to find relevant information on the web. Markup can also enable new tools and applications that make use of the structure.

A shared markup vocabulary makes easier for webmasters to decide on a markup schema and get the maximum benefit for their efforts. So, in the spirit of sitemaps.org, Bing, Google and Yahoo! have come together to provide a shared collection of schemas that webmasters can use.

We invite you to [get started!](#)

New! View our blog at blog.schema.org.

Schema.org

- Describe the type of your content (Person, Event, Recipe, Product, Book, Movie, etc.)
- Each type has a set of properties
 - Common properties: name, description, image, url
 - Specific properties depending on the type (see type page on schema.org)

Thing > Event

An event happening at a certain time at a certain location.

| Property | Expected Type | Description |
|---------------------------------------|--|--|
| Properties from Thing | | |
| description | Text | A short description of the item. |
| image | URL | URL of an image of the item. |
| name | Text | The name of the item. |
| url | URL | URL of the item. |
| Properties from Event | | |
| attendees | Person or Organization | A person attending the event. |
| duration | Duration | The duration of the item (movie, audio recording, event, etc.) in ISO 8601 date format . |
| endDate | Date | The end date and time of the event (in ISO 8601 date format). |
| location | Place or PostalAddress | The location of the event or organization. |
| offers | Offer | An offer to sell this item—for example, an offer to sell a product, the DVD of a movie, or |
| performers | Person or Organization | The main performer or performers of the event—for example, a presenter, musician, or |
| startDate | Date | The start date and time of the event (in ISO 8601 date format). |


Schema.org module for Drupal

- UI instead of code
- Map your content types and fields to the schema.org terms

The screenshot displays the configuration page for a content type in the Schema.org module. On the left, there are several settings sections: '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', and 'Schema.org settings'. The main area is titled 'Type' and contains a text input field with 'art' typed in. Below the input is a list of schema.org terms: ApartmentComplex, ArtGallery, Article, AutoPartsStore (highlighted with a mouse cursor), DepartmentStore, NewsArticle, PerformingArtsTheater, ScholarlyArticle, and VisualArtsEvent. At the bottom of the form are two buttons: 'Save content type' and 'Delete content type'.

Example: Event

PROGRAM | LOGISTICS | NEWS | ATTENDEES | SPONSORS | REGISTER | LOG IN




BAD CAMP
2011
Bay Area Drupal Camp

name ←

date ← **201**
location ← **ATTENDING**
description ←

October 21 to 23, 2011
UC Berkeley, California
A culmination of the brightest Drupal minds in the technology hub of the world



BADcamp 2011
The Bay Area Drupal camp is the largest FREE Drupal event in the world.
Come join us October 21st - 23rd at **UC Berkeley**, in California.
[Register](#)
[Build your schedule](#)

Schedule of events

OCTOBER 21
Free Drupal Training
Core Developer Summit
Higher Education Summit
Non-Profit Summit

OCTOBER 22
BADcamp Sessions & BoFs
An Evening of Drupal

OCTOBER 23



Rich Snippet testing tool

- <http://www.google.com/webmasters/tools/richsnippets>

[Dries Buytaert | Schema.org Drupal 7 playground](#)



schema.openspring.net/node/2 - [Cached](#)

Co-founder & CTO - Acquia

The excerpt from the page will show up here. The reason we can't show text from your webpage is because the text depends on the query the user types.

[BADCamp 2011 | Schema.org Drupal 7 playground](#)

schema.openspring.net/node/3 - [Cached](#)

Fri, Oct 21, 2011 - Berkeley, CA

The excerpt from the page will show up here. The reason we can't show text from your webpage is because the text depends on the query the user types.

[Apple pie | Schema.org Drupal 7 playground](#)



schema.openspring.net/node/4 - [Cached](#)

1 hr 30 mins

The excerpt from the page will show up here. The reason we can't show text from your webpage is because the text depends on the query the user types.