

Social Networks and the Semantic Web



Frederik Gørvell de Lichtenberg

Facebook

Open Graph Protocol

Understand what kind of thing is being liked, and create a typed link back to the content page



Open Graph Protocol

- Simple and compact (small) schema one can use to markup a Web page
- RDFa as markup language
- Supported by IMDB, Microsoft, Rotten Tomatoes, Yelp among others
- In `<meta>` tags in `<head>` section



Object type specified in `og:type`

`og:type` takes string, available types represented by strings are those agreed upon by the community

```
<meta property="og:type" content="book" />
```

Global types:

Article, Book, Business, Fitness, Game, Music, Place, Product, Profile, Restaurant and Video

Three additional properties required:

`og:title`, `og:image` and `og:url`



Creating Typed Links Using OGP

Web page has been marked up using OGP types and properties, a Facebook “Like” button on the page

Like pressed creates connection between visitor and Web page. Shows up in “Likes and Interests”, and it will appear as a rich object in Facebook’s social graph



```
<head>
<meta property="og:type" content="book" />
<meta property="og:title" content="A Developer's Guide to the Se-
mantic Web" />
<meta property="og:site_name" content="Amazon.com" />
<meta property="og:description" content="this is a book about the
Semantic Web" />
<meta property="og:locale" content="en_US" />
<meta property="og:url"
    content="http://liyangyu.com/book_test0.html" />
<meta property="og:image"
    content="http://www.liyangyu.com/image/devGuide.jpg" />
<meta property="book:author" content="http://liyangyu.com" />
<meta property="book:isbn" content="978-3642159695" />
<meta property="book:release_date" content="2011-01-05" />
<meta property="book:tag" content="the Semantic Web" />
<meta property="book:tag" content="deveoper's guide" />
</head>
```





 **Liyang Yu** likes a book.
7 minutes ago  **Only Me**


this is a test of OGP schema

 **A Developer's Guide to the Semantic Web**
liyangyu.com

Like · Comment · Share

 **Liyang Yu** likes a link.
a few seconds ago  **Only Me**

this one does not have any OGP schema

 **liyang yu, Ph.D.**
www.liyangyu.com

Like · Comment · Share



GraphSearch

Facebook knows who likes what

Can search for:

“my friends who like books” or

“my friends who like books and also live in Atlanta”



Open Graph Issues

- Does not fully agree with the W3C's RDFa guideline.
`dc:title` —> `og:title`
`foaf:logo` —> `og:image`
- No classes, `og:type` always has to use a text string —> no class hierarchy, no domain of property
- Only one object on each page
- Developer simplicity is key goal



Twitter

Twitter Cards

Tweet with link to marked Web page will automatically have a Twitter Card inside it



Twitter Cards

Four different types of cards:

Summary Card, Summary Card with Large Image, App Card and Player Card

Twitter properties placed inside `<head>` section using `<meta>`

```
<meta name="twitter:card" content="summary" />
```

Fallback to Open Graph



```
<meta property="og:type" content="article" />
<meta property="og:url" content="http://6thfloor.blogs.nytimes.com/2013/09/10/why-roger-federer-is-the-greatest-of-all-time/" />
<meta property="og:site_name" content="The 6th Floor Blog" />
<meta property="og:description" content="Yes, he has a lousy record against Nadal. But he&#8217;s displayed a consistency and durability at a time when the competition is deeper than it has ever been." />
<meta property="og:image" content="http://graphics8.nytimes.com/images/2013/08/21/magazine/21-federer-steinberger/21-federer-steinberger-superJumbo.jpg"/>
<meta name="twitter:card" value="summary">
<meta property="twitter:title" content="Why Roger Federer Is the Greatest of All Time " />
<meta property="twitter:url" content="http://6thfloor.blogs.nytimes.com/2013/09/10/why-roger-federer-is-the-greatest-of-all-time/" />
<meta property="twitter:description" content="Yes, he has a lousy record against Nadal. But he&#8217;s displayed a consistency and durability at a time when the competition is deeper than it has ever been." />
<meta name="twitter:image" content="http://graphics8.nytimes.com/images/2013/08/21/magazine/21-federer-steinberger/21-federer-steinberger-thumbLarge-v2.jpg"/>
<meta name="twitter:site" value="@nytmag"><meta name="PT" content="Blogs" />
```





liyang yu @wyriwyg

7h

Why Roger Federer Is the Greatest of All Time nyti.ms/19F3Jq8

[Hide summary](#)

[Reply](#) [Delete](#) [Favorite](#) [More](#)

 NYT Magazine

Why Roger Federer Is the Greatest of All Time

Yes, he has a lousy record against Nadal. But he's displayed a consistency and durability at a time when the competition is deeper than it has ever been.



[View on web](#)

9:34 AM - 10 Nov 13 - [Details](#)

[Flag media](#)



Reply to [@wyriwyg](#)



Twitter Card Issues

- Even further away from Semantic Web standards
- Markup format is a collection of name-value pairs, which best remotely resembles the minimal form of RDFa
- One card per content page
- No URI, no way to uniquely identify a resource in the real world



Pinterest

Rich Pins

Show metadata right on the Pin itself



Rich Pins

- Six different types:
App, Article, Movie, Place, Product and Recipe
- Both schema.org and Open Graph Protocol can be used




```
<div id="review_totals" class="pdreview_sidebar fl "  
  itemscope=""  
    itemtype="http://schema.org/Product">  
    <meta itemprop="manufacturer" content="Bai Design"  
      itemtype="http://schema.org/Organization">  
    <meta itemprop="brand" content="Bai Design"  
      itemtype="http://schema.org/Organization">  
  
    <div itemscope=""  
      itemtype="http://schema.org/PriceSpecification">  
      <meta itemprop="price" content="25.51">  
      <meta itemprop="priceCurrency" content="USD" >  
    </div>  
  
    <meta itemprop="name" content="Landmark Studio Wall Clock">
```





Landmark Studio Wall Clock

\$25.51

 Wayfair


[See this on Wayfair](#)



```
<meta property="og:type" content="article" />
<meta property="og:url"
content="http://6thfloor.blogs.nytimes.com/2013/09/10/why-roger-
federer-is-the-greatest-of-all-time/" />
<meta property="og:site_name" content="The 6th Floor Blog" />
<meta property="og:description" content="Yes, he has a lousy rec-
ord against Nadal. But he&#8217;s displayed a consistency and du-
rability at a time when the competition is deeper than it has ev-
er been." />
<meta property="og:image" con-
tent="http://graphics8.nytimes.com/images/2013/08/21/magazine/21-
federer-steinberger/21-federer-steinberger-superJumbo.jpg"/>
```



Pin it Like Website Send



Visit 6thfloor.blogs.nytimes.com

Why Roger Federer Is the Greatest of All Time

The 6th Floor Blog

Yes, he has a lousy record against Nadal. But he's displayed a consistency and durability at a time when the competition is deeper than it has ever been.

Read this on The 6th Floor Blog



Rich Pins Issues

- Uses Open Graph Protocol
- Only supports microdata, not RDFa or RDFa Lite
- Cannot compare prices from different stores, does not uniquely identify URIs of products.



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