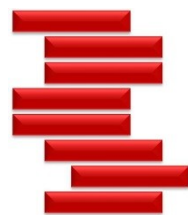


Schema.org



Balisage des pages web : historique

Langages et Modèles

1989 : HTML (W3C)
Métadonnées html



2005 : Microformats (CommerceNet)
hCalendar, hCard, hNews, hAtom



2008 : RDFa (W3C)
Ontologies du sémantique web : foaf, DublinCore



2010 : Microdata (W3C)



Des moteurs de plus en plus sémantiques

BUSINESS CENTER

Mar 24, 2009 5:10 pm

Google Rolls out Semantic Search Capabilities

By Juan Carlos Perez, IDG News



Google has given its Web search engine an injectic technology, as the search leader pushes into what the future of search on the Internet.

Ask.com ...

[Microdata chosen over RDFa for semantics by Google, Bing and Yahoo!](#) - [ebiquity.umbc.edu/.../microdata-rdfa-g...](#) - États-Unis - Traduire cette page

Amis : Search, Spam, Social Media

2 juin 2011 - Microdata chosen over RDFa for semantics by Google, Bing and Yahoo! - Tim Finin, 4:32pm 2 June 2011. Tweet. Google, Bing and Yahoo! are cooperating...

[Google, Yahoo! and Bing Announce Schema.org - semanticweb.com](#) - [semanticweb.com/google-yahoo-and-bing-annou...](#) - Traduire cette page

2 juin 2011 - In a collaborative effort reminiscent of sitemaps.org, Google, Yahoo! and Bing have announced the launch of schema.org. Perhaps the most significant...

Bing vs Google, the quiet semantic war

Posted on July 16, 2010 by lewisshpherd

On Wednesday night I had dinner at a burger joint with four old friends; two work in the intelligence community today on top-secret programs, and two others are technologists in the private sector who have done IC work for years. The five of us share a particular interest besides good burgers: semantic technology.




Associated Press

Google's Amit Singhal, shown in 2009, sees better matches for queries.

Google isn't replacing its current keyword-search system, which determines the importance of a website based on the words it contains, how often other sites link to it, and dozens of other measures. Rather, the company is aiming to provide more relevant results by incorporating technology called "semantic search," which refers to the process of understanding the actual meaning of words.

Amit Singhal, a top Google search executive, said in a recent interview that the search engine will better match search queries with a database...

Des moteurs de plus en plus sémantiques



google-refine
Google Refine, a power tool for working with messy data (formerly Freebase Gridworks)

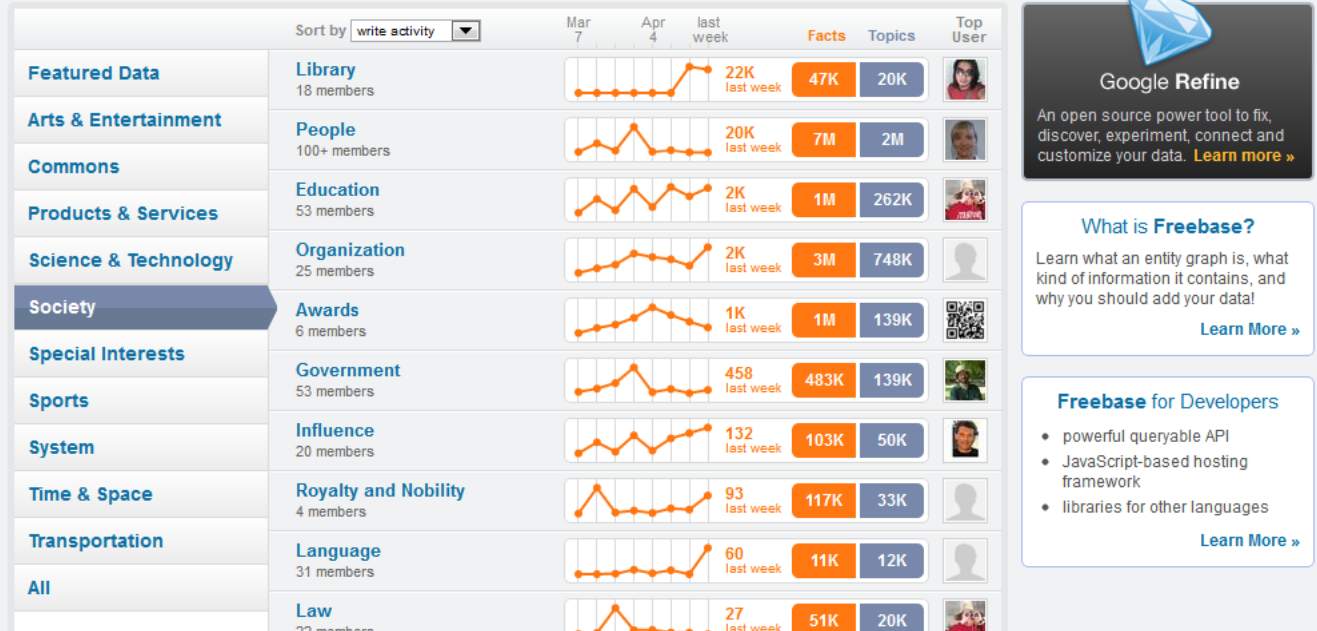
[Project Home](#) [Downloads](#) [Wiki](#) [Issues](#) [Source](#)

[Summary](#) [People](#)

[Google rachète Metaweb, spécialiste des données sémantiques](#)

[www.zdnet.fr](#) > [News](#) > [Internet](#)

19 juil. 2010 – Editeur de la base de données ouvertes Freebase, **Metaweb** se spécialise dans l'enrichissement de sites à partir de données ouvertes. Google ...




Sort by [write activity](#) ▼

Mar 7 Apr 4 last week

Facts Topics Top User

Category	Members	Line Graph	Activity (last week)	Facts	Topics	Top User
Featured Data	Library		22K	47K	20K	
Arts & Entertainment	People		20K	7M	2M	
Commons	Education		2K	1M	262K	
Products & Services	Organization		2K	3M	748K	
Science & Technology	Awards		1K	1M	139K	
Society	Government		458	483K	139K	
Special Interests	Influence		132	103K	50K	
Sports	Royalty and Nobility		93	117K	33K	
System	Language		60	11K	12K	
Time & Space	Law		27	51K	20K	
Transportation						
All						



Google Refine

An open source power tool to fix, discover, experiment, connect and customize your data. [Learn more »](#)

What is Freebase?

Learn what an entity graph is, what kind of information it contains, and why you should add your data!

[Learn More »](#)

Freebase for Developers

- powerful queryable API
- JavaScript-based hosting framework
- libraries for other languages

[Learn More »](#)

Juin 2011: création
d'une modélisation
commune pour le
contenu des pages
web



Un modèle adapté aux
Microdata et à RDFa



Search

About 12,900,000 results (0.21 seconds)

- Everything
- Images
- Maps
- Videos
- News
- Shopping
- Recipes**
- More

Ingredients	Yes	No
bananas	<input type="checkbox"/>	<input type="checkbox"/>
baking soda	<input type="checkbox"/>	<input type="checkbox"/>
pecans	<input type="checkbox"/>	<input type="checkbox"/>
walnuts	<input type="checkbox"/>	<input type="checkbox"/>
vanilla	<input type="checkbox"/>	<input type="checkbox"/>
vanilla extract	<input type="checkbox"/>	<input type="checkbox"/>
yoghurt	<input type="checkbox"/>	<input type="checkbox"/>
flour	<input type="checkbox"/>	<input type="checkbox"/>

- Any cook time**
- Less than 15 min
 - Less than 30 min
 - Less than 60 min

- Any calories**
- Less than 100 cal
 - Less than 300 cal
 - Less than 500 cal

Banana Bread



simplyrecipes.com/recipes/banana_bread/
 1 hr 5 mins
 Moist and delicious classic **banana bread recipe**. Easy to make, no need for a mixer. Ripe bananas, butter, sugar, egg, vanilla, baking soda, and flour.
 Ingredients: bananas, butter, sugar, eggs, vanilla, baking soda, flour

Banana Bread



www.foodnetwork.com/Recipes/Baking/Bread
 ★★★★★ 536 reviews - 3 hrs 10 mins
 Food Network invites you to try this **Banana Bread recipe**.
 Ingredients: sugar, butter, eggs, bananas, milk, cinnamon, flour, baking powder ...

Banana Banana Bread



allrecipes.com/recipe/banana-banana-bread/
 ★★★★★ 6774 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 ...
 Ingredients: flour, baking soda, butter, sugar, eggs

Best Banana Bread



www.food.com/recipe/best-banana-bread-2886
 ★★★★★ Rating: 5 - 416 reviews - 1 hr 8 mins - 283.9 cal
 You'll never need another **banana bread recipe** ever again!
 Ingredients: butter, sugar, eggs, bananas, flour, baking soda, vanilla

Banana bread



www.taste.com.au/recipes/3118/banana+bread
 ★★★★★ Rating: 5 - 407 reviews - 1 hr 5 mins
Banana bread recipe - Preheat oven to 180°C. Brush an 11 x 21cm (base measurement) loaf pan with melted dairy spread to lightly grease. Line the base and 2 ...

Banana bread



www.bbc.co.uk/food/recipes/bananabread_85720
 1 hr 30 mins
 This is an easy **recipe** that gives perfect results every time. Be sure to



banana bread recipe



Search

About 1,810 results (0.18 seconds)

Everything

Images

Maps

Videos

News

Shopping

Recipes

More

Show only

- In stock nearby
- Google Checkout
- Free shipping
- New items

Any category

Books

Any price

- Up to \$10
- \$10 – \$20
- \$20 – \$50
- Over \$50

\$ to

\$

Any store

- Amazon.com
- Barnes & Noble
- Sears

Your location: Glendale, CA 91203 - [Change](#)

Sort by: Relevance



[Recipe Best Banana Bread Ever](#)

Don't be fooled by other recipes *This is THE BEST banana bread* :) This Banana Bread is so rich moist and yummy that it doesn't last a day in my ...

[Add to Shopping List](#)

\$1.50

Free shipping
[Etsy - BowCheekyCreations](#)



[Banana Bread recipe card](#)

recipe card for Banana Bread Prep time: 15 minutes Baking Time: 1 hour 15 minutes Servings: 16 original index card shipped USPS first class mail.

[Add to Shopping List](#)

\$1.00

\$2.00 with est. tax & shipping
[eCrater - plansbyel](#)
★★★★☆ [45 reviews](#)



[Classic Banana Nut Bread Recipe](#)

There's banana nut bread, And then theres Donna's Classic Banana Nut Bread! This makes a base for meany wonderful desserts. But this is so ...

[Add to Shopping List](#)

\$0.99

[eCrater - thegreatestunknownco](#)



[Banana Bread Recipe: How to Make Banana Bread With Step-by-Step Illust](#)

Sound Bite Publications (Editor),NOOK Book (eBook), English-language edition, Pub by Sound Bite Publications

[Add to Shopping List](#)

\$0.99

\$1.08 with est. tax & free shipping
[Barnes & Noble](#)
★★★★☆ [32,723 reviews](#)



[Gluten Free Banana Bread Recipe](#)

A delicious recipe that adds tapioca and buttermilk or orange juice to bananas to make some of the best Gluten Free banana bread you will every eat!

[Add to Shopping List](#)

\$0.99

Free shipping
[eCrater - deliciousrecipes](#)



[Banana Bread Recipe Postcard](#)

Postcard. This is a tried and true recipe that I made a few changes to myself and enjoy every other weekend with my family for breakfast or brunch.

[Add to Shopping List](#)

\$1.00

\$5.08 with est. tax & shipping
[Zazzle](#)

Rich Snippets Testing Tool Beta

Use the Rich Snippets Testing Tool to check that Google can correctly parse your structured data markup and display it in search results.

Test your website

Enter a web page URL to see how it may appear in search results:

Examples: [Applications](#), [Authors](#), [Events](#), [Movie](#), [Music](#), [People](#), [Products](#), [Products with many offers](#), [Recipes](#), [Reviews](#), [TV Series](#)

Google search preview

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



[allrecipes.com/recipe/banana-banana-bread/](#) - [Cached](#)

★★★★★ 6778 reviews - 1 hr 20 mins - 229 cal

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.

Note that there is no guarantee that a Rich Snippet will be shown for this page on actual search results. For more details, see the [FAQ](#).

Extracted Author/Publisher for this page

Page does not contain authorship markup. [Learn more](#).

Extracted rich snippet data from the page

hrecipe

fn = Banana Banana Bread

yield = 1 - 9x5 inch loaf

author = Shelley Albeluhn

photo = <http://images.media-allrecipes.com/userphotos/140x140/00/25/41/254186.jpg>

nutrition

calories = 229

sodium = 223mg

fat = 8.8g

protein = 3.8g

cholesterol = 56mg

totaltime

value = PT1H20M

value in minutes = 80

cooktime

value = PT1H5M

value in minutes = 65

preptime

value = PT15M

value in minutes = 15

ingredient

value = 2 cups all-purpose flour

ingredient

value = 1 teaspoon baking soda

ingredient

value = 1/4 teaspoon salt



velo de course

jean delahousse 3 + Partager

Recherche

Environ 63 700 résultats (0,27 secondes)

- Tout
- Images
- Maps
- Vidéos
- Actualités
- Shopping
- Plus

Zone géographique : Paris - Changer Trier par : Pertinence

Choix de Vélos de Course | LeGuide.com
www.leguide.com/Velos_Course
Tous Les Vélos de Course Sont Ici Cherchez & Achetez A Prix Malin !

Peugeot Cycles | cycles.peugeot.fr
www.cycles.peugeot.fr
Découvrez la gamme de Vélos Peugeot Sport, VTT, VTC et Accessoires !

Vélo de Course - Cdiscount
www.cdiscount.com/Velo_Course
Profitez vite des Prix Cassés sur les Vélos de Course ! Stock Limité.

Afficher uniquement
 Livraison gratuite
 Articles neufs

Toutes les catégories
Bicyclettes
Pneus de vélo
Chaussures de cyclisme
Casques de vélo
Alarmes de voiture
Plus

Tous les prix
Jusqu'à 20 €
20 € - 30 €
30 € - 80 €
80 € - 300 €
Plus de 300 €

€ à
€ OK

Tous les marchands
Materiel-velo.com
Bikester.fr
xxcyclo.com
Franscoop

- ROUTE 66 Vélo de Route RL 03 Mixte**
Modèle RL03. Coloris : rouge et noir. Un **vélo de course** 27 vitesses idéal pour les utilisateurs occasionnels.
529,99 €
565,99 € (frais de port inclus)
Cdiscount
★★★★☆ 9 987 avis
- VIRENQUE Vélo de course Véloce**
Modèle Véloce. Coloris: noir mat. Le **Vélo de Course** idéal super équipé pour les utilisateurs réguliers.
629,99 €
665,99 € (frais de port inclus)
Cdiscount
★★★★☆ 9 987 avis
- VARIO Vélo de Route Mixte**
Modèle Ultimo. Coloris : blanc et noir. Un **vélo** de compétiteurs qui conviendra aussi bien aux femmes qu'aux hommes.
799,99 €
835,99 € (frais de port inclus)
Cdiscount
★★★★☆ 9 987 avis
- MARLIN Vélo de course Junior Gogo 24**
Modèle Gogo 24. Coloris : vert et blanc. **Vélo de course** cadre 34" adolescent idéal pour bien débuter. Dès 12 ans.
297,00 €
333,00 € (frais de port inclus)
Cdiscount
★★★★☆ 9 987 avis
- ROUTE 66 Vélo de Route RL01 Mixte**
Modèle RL01. Coloris : blanc et noir. Un **vélo de course** idéal pour les utilisateurs occasionnels.
369,99 €
405,99 € (frais de port inclus)
Cdiscount
★★★★☆ 9 987 avis

The Type Hierarchy <http://schema.org/docs/full.html>

Thing: description, image, name, url

CreativeWork: about, accountable, contentRating, contributor, copyright, genre, headline, inLanguage, interactionCount, sourceOrganization, thumbnail

Article: articleBody, articleSection

BlogPosting

NewsArticle: dateline

ScholarlyArticle

Blog: blogPost, blogPosts

Book: bookEdition, bookFormatType

ItemList: itemListElement, itemListOrder

WebPage

Event: attendee, attendees, duration, endDate, location, offer

BusinessEvent

ChildrensEvent

ComedyEvent

DanceEvent

EducationEvent

Festival

FoodEvent

Intangible

Enumeration

BookFormatType

ItemAvailability

OfferItemCondition

JobPosting: baseSalary, benefits, datePosted, educationRequirement, industry, jobLocation, occupationalCategory, qualifications, response

Language

Offer: aggregateRating, availability, itemCondition, itemOffered, price, priceRange

AggregateOffer: highPrice, lowPrice, offerCount

Quantity

Distance

Duration

Organization: address, aggregateRating, contactPoint, contactPoints, email, foundingDate, interactionCount, location, member, members, review, reviews

Corporation: tickerSymbol

EducationalOrganization: alumni

CollegeOrUniversity

ElementarySchool

HighSchool

MiddleSchool

Preschool

School

GovernmentOrganization

Person: additionalName, address, affiliation, alumniOf, award, awards, birthDate, child, email, familyName, faxNumber, follows, gender, givenName, homeLocation, honorific, nationality, parent, parents, performerIn, relatedTo, sibling, siblings, spouse, telephone

Place: address, aggregateRating, containedIn, event, events, faxNumber, geo, interact

AdministrativeArea

City

Country

State

CivicStructure: openingHours

Airport

Aquarium

Beach

Residence

ApartmentComplex

GatedResidenceCommunity

SingleFamilyResidence

TouristAttraction

Product: aggregateRating, brand, manufacturer, model, offers, productID, review, reviews

Thing > Person

A person (alive, dead, undead, or fictional).

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 Person		
additionalName	Text	An additional name for a Person, can be used for a middle name.
address	PostalAddress	Physical address of the item.
affiliation	Organization	An organization that this person is affiliated with. For example, a school/university, a club, or a team.
alumniOf	EducationalOrganization	An educational organizations that the person is an alumni of.
award	Text	An award won by this person or for this creative work.
awards	Text	Awards won by this person or for this creative work. (legacy spelling; see singular form, award)
birthDate	Date	Date of birth.
children	Person	A child of the person.
colleague	Person	A colleague of the person.
colleagues	Person	A colleague of the person (legacy spelling; see singular form, colleague).
contactPoint	ContactPoint	A contact point for a person or organization.
contactPoints	ContactPoint	A contact point for a person or organization (legacy spelling; see singular form, contactPoint).
deathDate	Date	Date of death.
email	Text	Email address.
familyName	Text	Family name. In the U.S., the last name of an Person. This can be used along with givenName instead of the Name property.
faxNumber	Text	The fax number.
follows	Person	The most generic uni-directional social relation.
gender	Text	Gender of the person.
givenName	Text	Given name. In the U.S., the first name of a Person. This can be used along with familyName instead of the Name property.
homeLocation	Place or ContactPoint	A contact location for a person's residence.
honorificPrefix	Text	An honorific prefix preceding a Person's name such as Dr/Mrs/Mr.
honorificSuffix	Text	An honorific suffix preceding a Person's name such as M.D. /PhD/MSCSW.
interactionCount	Text	A count of a specific user interactions with this item—for example, 20 UserLikes , 5 UserComments , or 300 UserDownloads . The user interaction type should be one of the sub types of UserInteraction .
jobTitle	Text	The job title of the person (for example, Financial Manager).
knows	Person	The most generic bi-directional social/work relation.
memberOf	Organization	An organization to which the person belongs.
nationality	Country	Nationality of the person.
parent	Person	A parent of this person.
parents	Person	A parents of the person (legacy spelling; see singular form, parent).
performerIn	Event	Event that this person is a performer or participant in.

http://jean.delahousse.free.fr/exemple-landingpage-thematique-person-V16

```
<!-- Description de la personne dans la page thématique -->
<div itemscope itemtype="http://schema.org/Person">
  <span itemprop="name">Francois Hollande</span>
  Homme politique PS</span>

<a href="http://www.twitter.com/fhollande" itemprop="url">twitter.com/fhollande</a>

<div itemprop="address" itemscope itemtype="http://schema.org/PostalAddress">
  <span itemprop="addressLocality">Paris</span>,
  <span itemprop="postalCode">75000</span>
  <span itemprop="addressCountry">France</span>
</div>

<div itemprop="memberOf" itemscope itemtype="http://schema.org/Organization">
  <span itemprop="name">PS</span>
</div>
</div>
```

```
<div itemscope itemtype="http://schema.org/Thing >NewsArticle">
  <span itemprop="name">Francois Holland prend soin de Bernadette Chirac</span>
  <span itemprop="url">http://www.lepoint.fr/politique/election-presidentielle-2012/pari-reu
  <span itemprop="description"> ..... Le passage hier et avant-hier de François Hollande da
  <span itemprop="author">Le Ruc</span>
  <span itemprop="publisher">Le Point</span>
  <meta itemprop="articleSection">Politique</meta>
  <span itemprop="datePublished">2012-01-22</span>
  <meta itemprop="interactionCount" content="UserTweets:1203"/>
```

L'échange

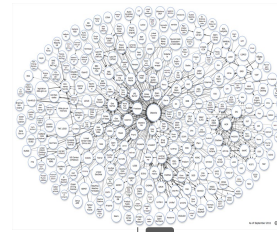
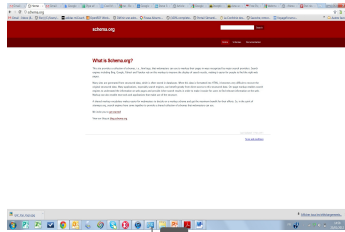
Les moteurs demandent aux entreprises plus de données structurées,
plus de connaissances réutilisables par des systèmes automatisés

En échange ils offrent aux entreprises

- une meilleure visibilité de leurs contenus par le RichSnippets

- une prise en compte des contenus dans les filtrages à facettes

Mise en place



Modèles de balisage adaptés aux contenus de l'entreprise

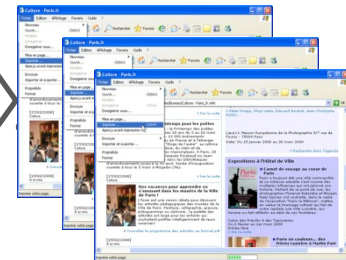
Choix de vocabulaires contrôlés adaptés lieux, sociétés.



Traitement de balisage des pages web

Contenus

Bases de données

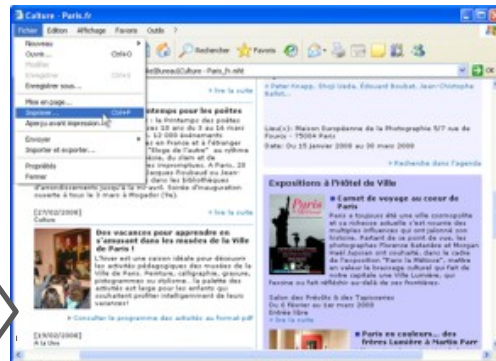
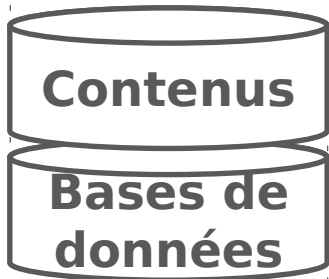


Schema.org pour l'intranet

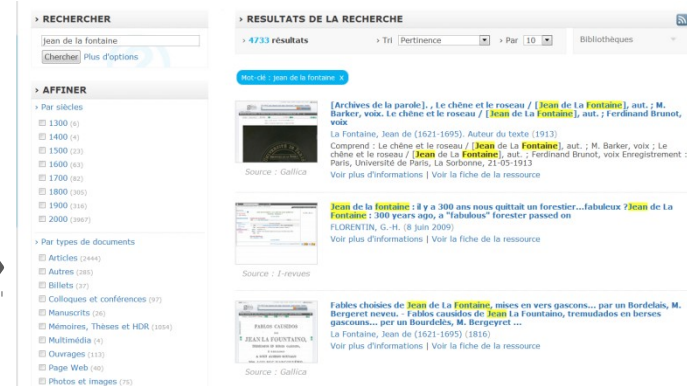
Schema.org offre un cadre standard pour baliser les pages des intranets et organiser des fonctions de recherche à facettes dans le portail interne

Intranet

Moteur de recherche intranet



```
<!-- Description de la personne dans la page thématique -->
<div itemprop="name" http://schema.org/Person">
  <span itemprop="name">Francois Hollande</span>
  Homme politique PS</span>
  <a href="http://www.twitter.com/thollande" itemprop="url">twitter.com/thollande/</a>
  <div itemprop="address" itemprop="http://schema.org/PostalAddress">
    <span itemprop="addressLocality">Paris</span>
    <span itemprop="postalCode">75000</span>
    <span itemprop="addressCountry">France</span>
  </div>
  <div itemprop="memberOf" itemprop="http://schema.org/Organization">
    <span itemprop="name">PS</span>
  </div>
  </div>
  <div itemprop="http://schema.org/Thing">NewsArticle">
    <span itemprop="name">Francois Hollande prend soin de Bernadette Chirac</span>
    <span itemprop="url">http://www.lepoint.fr/politique/election-presidentielle-2012/pari-reu
    <span itemprop="description">..... Le passage hier et avant-hier de Francois Hollande da
    <span itemprop="author">Le Ruedr</span>
    <span itemprop="publisher">Le Point</span>
    <meta itemprop="articleSection">Politique</meta>
    <span itemprop="datePublished">2012-01-22</span>
    <meta itemprop="interactionCount" content="UserTweets:1203"/>
```

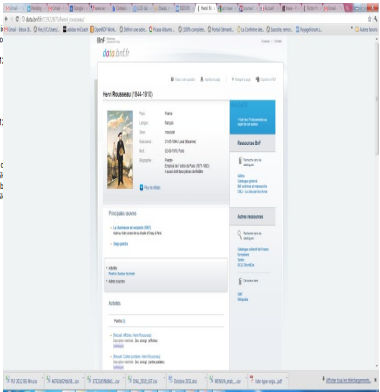


Schema.org et Open Data un exemple : data.bnf.fr

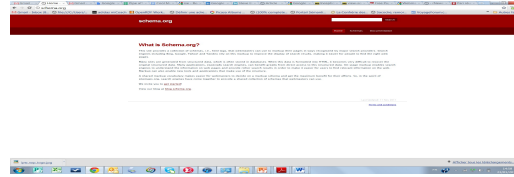
HTML + microdata

Extracted rich snippet data from the page

```
Person
name = Victor Hugo
title = author
Warning: If this markup is about a person, at least 2 of the following fields are needed: organization, location, or role. See the people help page for information.
author
site_name = data.bnf.fr
description = Toutes les informations de la BnF
description = Toutes les informations de la BnF
title = Victor Hugo (1802-1885) - Auteur - Resso
url = http://data.bnf.fr/1190796/victor_hugo/
image = http://gallica.bnf.fr/ark:/12148/bv1b691;
type = author
Item
Type: http://schema.org/person
name = Victor Hugo
image = http://gallica.bnf.fr/ark:/12148/bv1b691;
nationality = France
birthdate = 1802-02-26
deathdate = 1885-05-22
description = Ecrivain, Artiste, graphiste, auteur c
encoding = http://gallica.bnf.fr/ark:/12148/bp16
encoding = http://gallica.bnf.fr/ark:/12148/bv1b
arxivcodes = http://gallica.bnf.fr/ark:/12148/bv1b
```



Vie de



Un groupe de travail dirigé par Dan Brickley pour l'évolution de Schema.org

Des propositions d'évolutions qui sont traitées en continue par le groupe de travail

Mailing list : public-vocabs.w3.org

Adhésion de **Y**andex (moteur russe)

Des outils de test du balisage

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

Knowledge
CONSULT

Jean Delahousse

Jean.delahousse@knowledgeconsult.com

<http://jean-delahousse.info>

Exercice

Faire une page web décrivant en microdata et en s'appuyant sur la modélisation Schema.org un événement :

Le débat télévisé entre F. Hollande, membre du PS et N. Sarkozy, membre de l'UMP le 2/5/2012

<http://>

www.google.com/webmasters/tools/richsnippets?url=http%3A%2F%2Fjean.delah

<http://ftpperso.free.fr/index.pl>