

Schema.org in Two Parts: From Use to Extension

Part 2: Extending Potential Possibilities

Richard Wallis

Evangelist and Founder

Data Liberate

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@rjw



schema.org

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Chair of:

- Schema Bib Extend W3C Community Group
 - Schema.org for bibliographic data
 - bib.schema.org

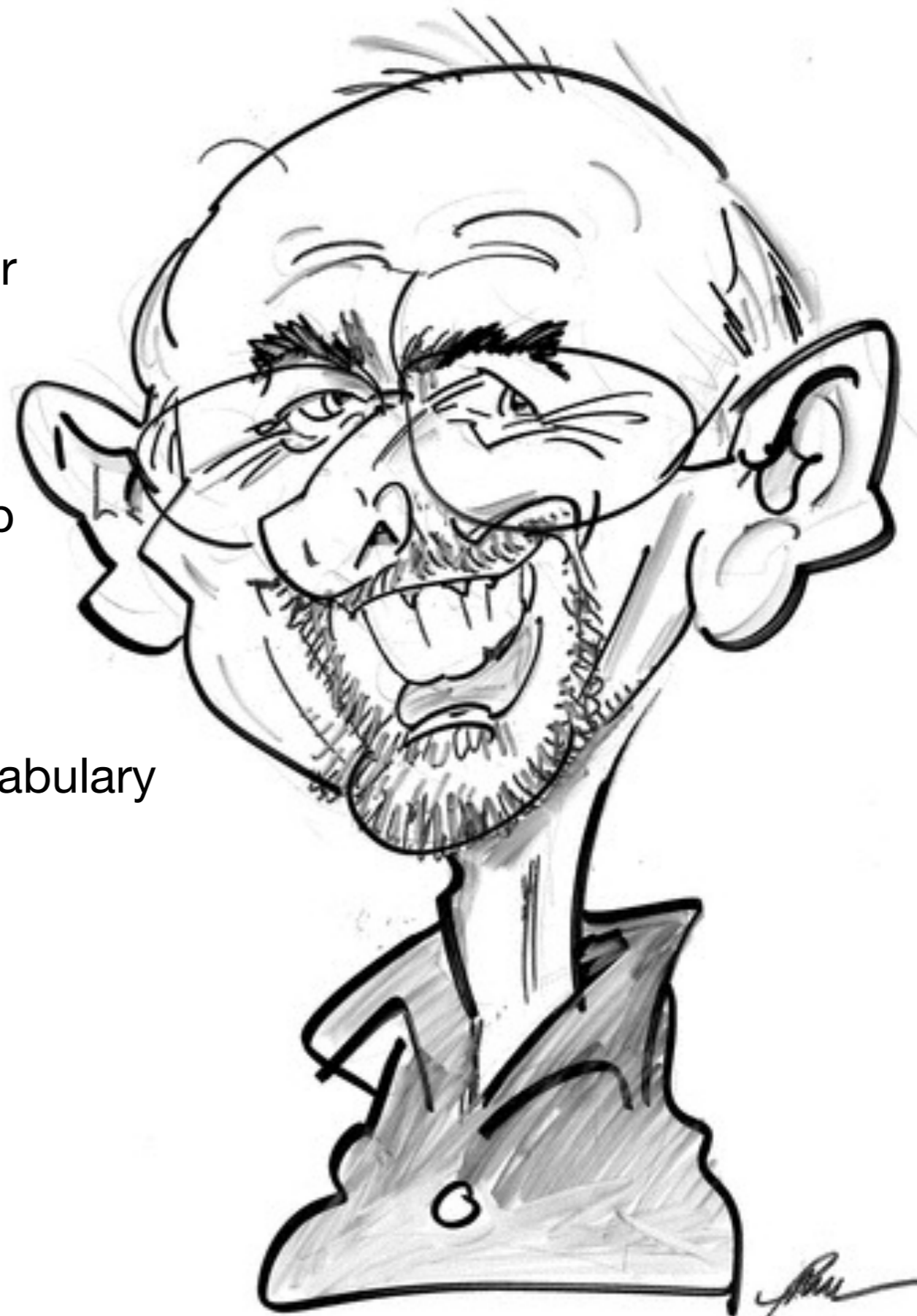


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 - Bibliographic Schema.org extension vocabulary

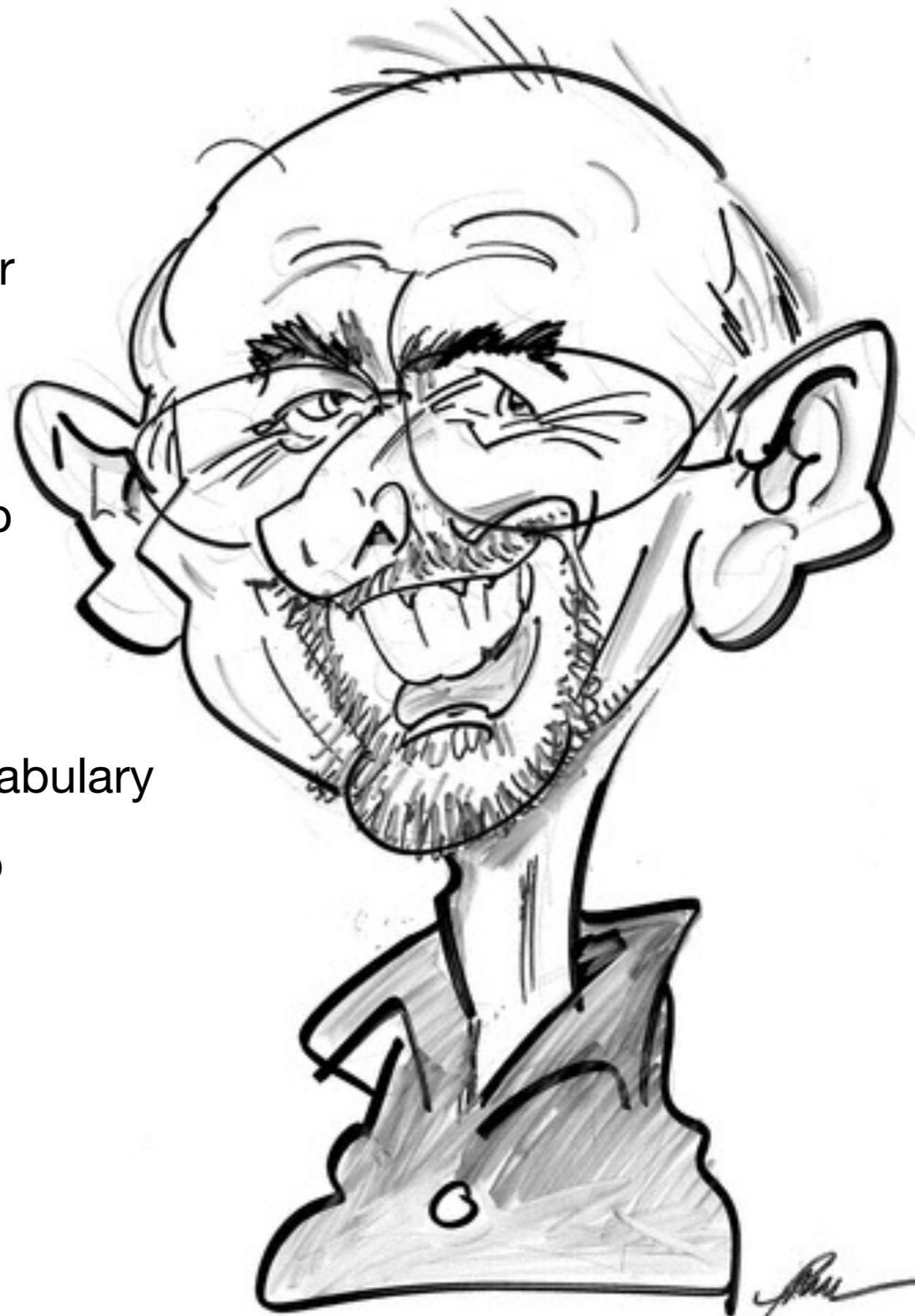


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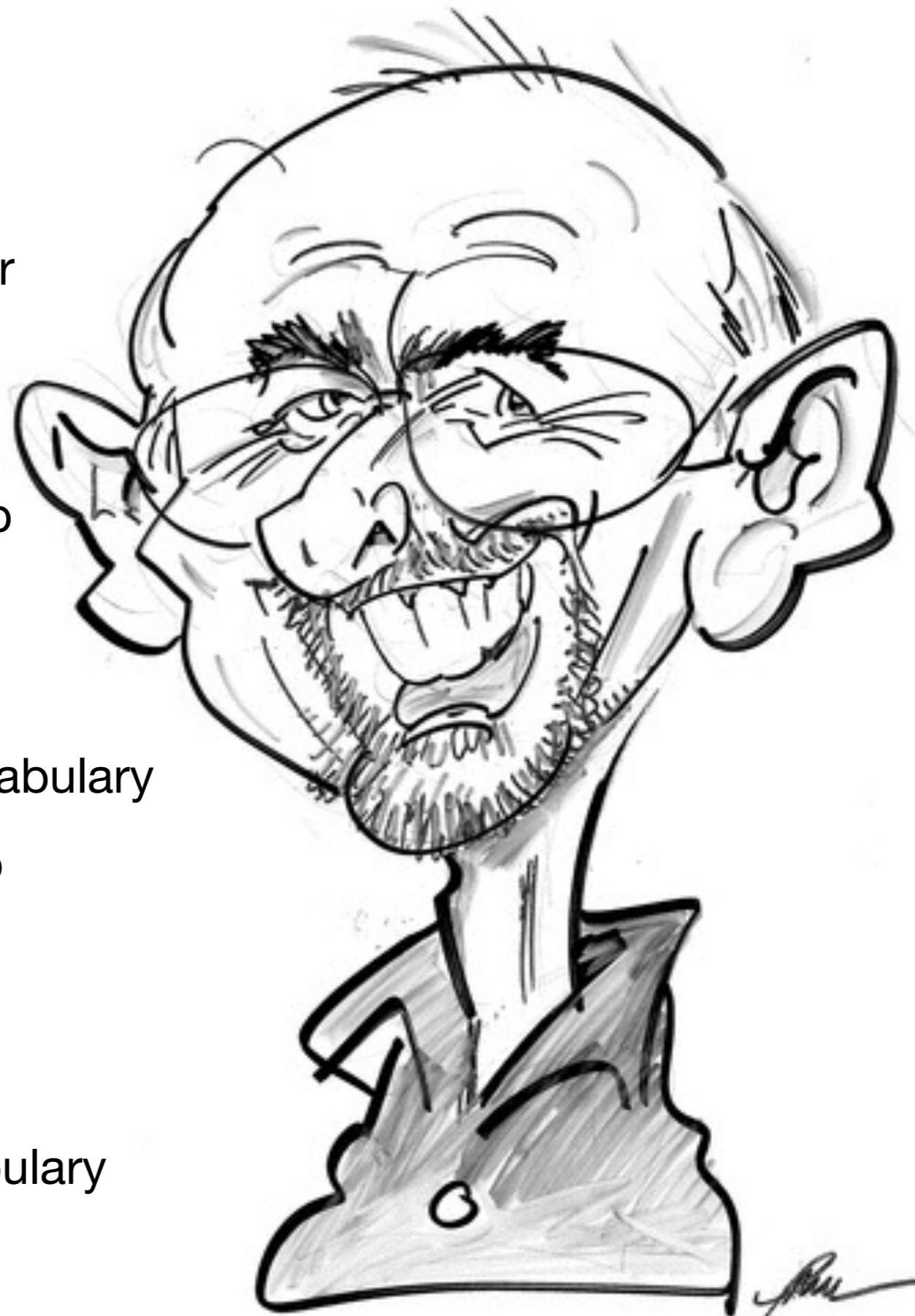
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- Google – on the Schema.org site and vocabulary



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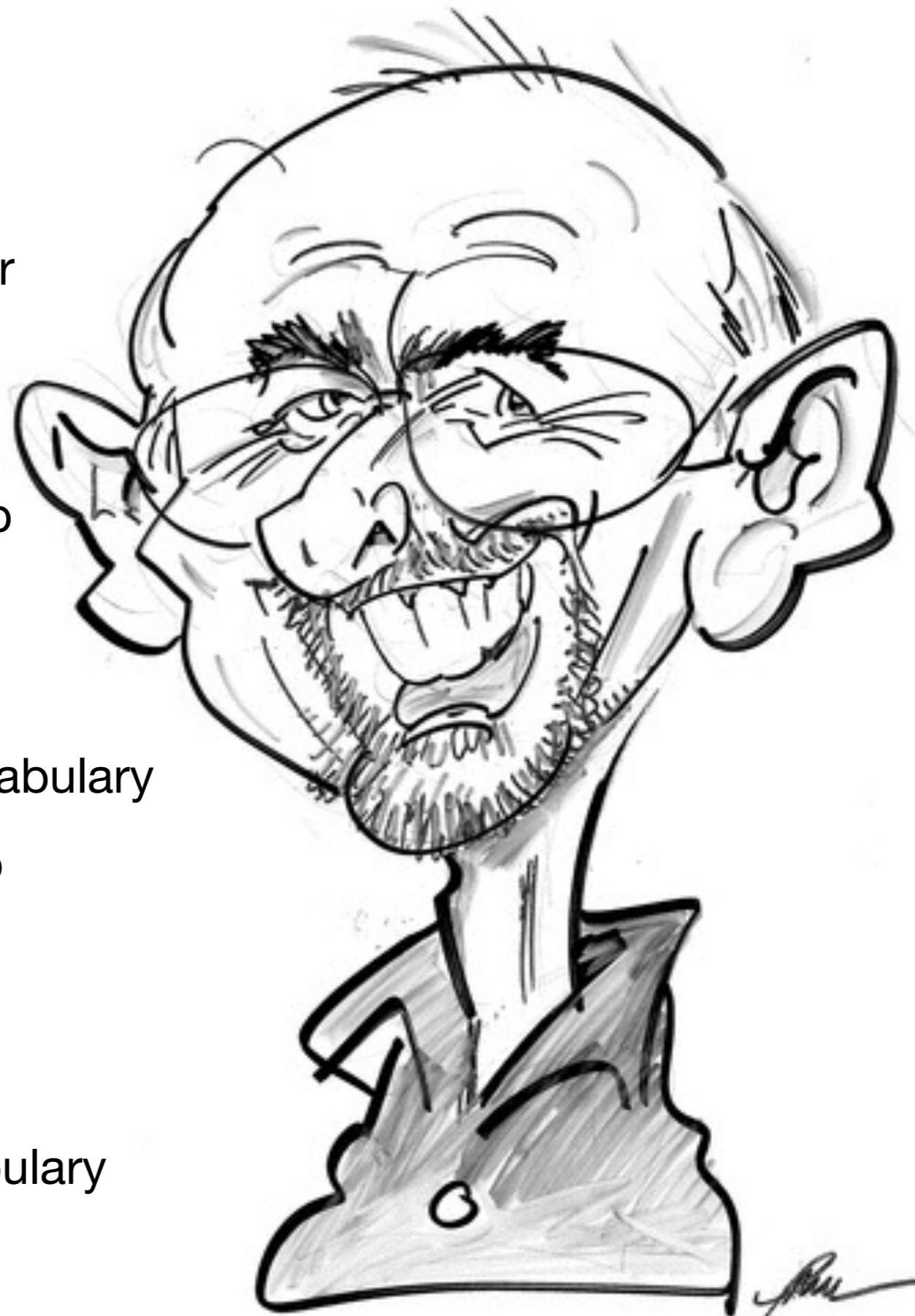
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- FIBO – Financial Industry Business Ontology



schema.org



Introducing schema.org: Search engines come together for a richer web

Posted: Thursday, June 02, 2011

G+1

79



Webmaster Level: All

Today we're announcing [schema.org](#), a new initiative from Google, Bing and Yahoo! to create and support a common set of schemas for structured data markup on web pages. Schema.org aims to be a one stop resource for webmasters looking to add markup to their pages to help search engines better understand their websites.

At Google, we've supported structured markup for a couple years now. We introduced [rich snippets](#) in 2009 to better represent search results describing [people](#) or containing [reviews](#). We've since expanded to new kinds of rich snippets, including [products](#), [events](#), [recipes](#), and more.

[Salad - Thai Green Mango Salad Recipe](#)



★★★★★ 5 reviews - Total cook time: 20 mins

You asked for a one-page printable version of my step-by-step Green Mango Salad recipe, so here it is! This salad will blow you away with its ...

[thaifood.about.com/od/thaisnacks/r/greenmangosalad.htm](#) -

[Cached](#) - [Similar](#)

Example of a rich snippet: a search result enhanced by structured markup. In this case, the rich snippet contains a picture, reviews, and cook time for the recipe.

Adoption by the webmaster community has grown rapidly, and today we're able to show rich snippets in search results more than ten times as often as when we started two years ago.

We want to continue making the open web richer and more useful. We know that it takes time and effort to add this markup to your pages, and adding markup is much harder if every search engine asks for data in a different way. That's why we've come together with other search engines to support a common set of schemas, just as we came together to support a common standard for [Sitemaps](#) in 2006. With [schema.org](#), site owners can improve how their sites appear in search results not only on Google, but on Bing, Yahoo! and potentially other search engines as well in the future.

Now let's discuss some of the details of [schema.org](#) relevant to you as a webmaster:



Introducing schema.org: Search engines come together for a richer web

Posted: Thursday, June 02, 2011



Webmaster Level: All

Today we're announcing a common set of schema.org types for webmasters to use.

support a common resource for sites.

09 to 15 of

1) Schema.org contains a lot of new markup types. We've added more than 100 new types as well as ported over all of the existing rich snippets types. If you've looked at adding rich snippets markup before but none of the existing types were relevant for your site, it's worth taking another look. Here are a few popular types:

- Creative works: [CreativeWork](#), [Book](#), [Movie](#), [MusicRecording](#), [Recipe](#), [TVSeries](#)
- Embedded non-text objects: [AudioObject](#), [ImageObject](#), [VideoObject](#)
- Event
- Organization
- Person
- [Place](#), [LocalBusiness](#), [Restaurant](#)
- [Product](#), [Offer](#), [AggregateOffer](#)
- [Review](#), [AggregateRating](#)

Or, view a full list of all schema.org types.

The new markup types may be used for future rich snippets formats as well as other types of improvements to help people find your content more easily when searching.

...markup. In this case, the rich snippet contains a name for the recipe.

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...the open web richer and more useful. We know that it takes time and effort to add this and adding markup is much harder if every search engine asks for data in a different way. ...support a common standard for Sitemaps in 2006. With schema.org, site owners can improve how their content appear in search results not only on Google, but on Bing, Yahoo! and potentially other search engines as well in the future.

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2011
June
2

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Posted: Thursday, June 02, 2011

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Or, view a full list of all schema.org types. The new markup types will help people find your site more easily and we started two years ago to help the open web richer and more useful. We know that it takes a lot of time and adding markup is much harder if every search engine asks for data in a different way. We've come together with other search engines to support a common set of schemas, just as we did when we supported a common standard for [Sitemaps](#) in 2006. With schema.org, site owners can improve how their sites appear in search results not only on Google, but on Bing, Yahoo! and potentially other search engines as well in the future.

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Schema.org

schema.org

Introducing Schema.org

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Schema.org

- A [Linked Data] vocabulary



schema.org

Schema.org

- A [Linked Data] vocabulary
- RDF (triples)



schema.org

Schema.org

- A [Linked Data] vocabulary
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- Three serialisations
 - Microdata, RDFa, JSON-LD



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- Three serialisations
 - Microdata, RDFa, JSON-LD
- A web vocabulary to describe stuff!



schema.org

Knowledge Graph



Official Blog

Insights from Googlers into our products, technology, and the Google culture

Introducing the Knowledge Graph: things, not strings

May 16, 2012

Cross-posted on the [Inside Search Blog](#)

Search is a lot about discovery—the basic human need to learn and broaden your horizons. But searching still requires a lot of hard work by you, the user. So today I'm really excited to launch the Knowledge Graph, which will help you discover new information quickly and easily.

Take a query like [taj mahal]. For more than four decades, search has essentially been about matching keywords to queries. To a search engine the words [taj mahal] have been just that—two words.

But we all know that [taj mahal] has a much richer meaning. You might think of one of the world's most beautiful monuments, or a Grammy Award-winning musician, or possibly even a casino in Atlantic City, NJ. Or, depending on when you last ate, the

Search blog ...



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News and updates on Google's products, technology and more

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S. R. Ranganathan
Mathematician

Shiyali Ramamrita Ranganathan was a mathematician and librarian from India. His most notable contributions to the field were his five laws of library science and the development of the first major ... [Wikipedia](#)

Born: August 9, 1892, Sirkazhi, India
Died: September 27, 1972, Bengaluru, India
Parents: Ramamrita Ayyar, Seethalakshmi
Education: Madras Christian College, University College London

Books

- Prolegomena to Library Classification 1937
- The Five Laws of Library Science 1931
- Library Book Selection 1952
- Classified Catalogue Code: With an Introduction 1958
- Documentation: Genesis and Development

People also search for

- Paul Otlet
- Melvil Dewey
- Velaga Venkatapuram
- Suzanne Briet
- Michael Gorman

2012
May
16



Official Blog

Insights from Googlers into our products, technology, and the Google culture

Knowledge Graph: things, not strings

Bart Simpson
Fictional Character
Bartholomew JoJo "Bart" Simpson is a fictional character in the American animated television series The Simpsons and part of the Simpson family.
Wikipedia
Played by: Nancy Cartwright
Born: April 1, 1979
Creator: Matt Groening
Gender: Male

People also search for
Homer Simpson
Marge Simpson
Lisa Simpson
Maggie Simpson
Milhouse Van Houten

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Books

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Knowledge Graph

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Knowledge Panel

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Info Box

Linux (pronounced /ˈlɪnəks/ LIN-əks or, less frequently, /ˈlɪznəks/ LYN-əks) is a Unix-like and mostly POSIX-compliant computer operating system (OS) assembled under the model of free and open-source software development and distribution.



[Linux - Wikipedia, the free encyclopedia](https://en.wikipedia.org/wiki/Linux)
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More about Linux

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Info Box

Answer Box

Mount Everest / Elevation

8,848 m

K2 8,611 m

Mount Kilimanjaro 5,895 m

Denali 6,194 m

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Rich Snippets

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[thatfood.about.com/od/thaisnacks/r/thai-green-mango-salad.htm](#)

Cached · Similar



Knowledge Graph

Powered by the Graph



schema.org

schema.org

- In use on over 10 million domains

schema.org

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- Broad vocabulary v2.2:

schema.org

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 - Types: 642 Properties: 992 Values: 219

schema.org

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A de facto vocabulary for
structured data on the web

schema.org

Welcome to Schema.org

Schema.org is a collaborative, community activity with a mission to create, maintain, and promote schemas for structured data on the Internet, on web pages, in email messages, and beyond.

Schema.org vocabulary can be used with many different encodings, including RDFa, Microdata and JSON-LD. These vocabularies cover entities, relationships between entities and actions, and can easily be extended through a well-documented extension model. Over 10 million sites use Schema.org to markup their web pages and email messages. Many applications from Google, Microsoft, Pinterest, Yandex and others already use these vocabularies to power rich, extensible experiences.

Schema.org is sponsored by Google, Microsoft, Yahoo and Yandex. The vocabularies are developed by an open [community](#) process, using the [public-schemaorg@w3.org](#) mailing list and through [GitHub](#).

A shared vocabulary makes it easier for webmasters and developers to decide on a schema and get the maximum benefit for their efforts. It is in this spirit that the sponsors, together with the larger community have come together, to provide a shared collection of schemas.

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

View our blog at [blog.schema.org](#) or see [release history](#).

Richard

schema.org/docs/schemas.html

schema.org

Search

Home Schemas Documentation

Organization of Schemas

The schemas are a set of 'types', each associated with a set of properties. The types are arranged in a hierarchy. The core vocabulary currently consists of [642 Types](#), [992 Properties](#), and [219 Enumeration values](#).

Browse the full hierarchy:

- [One page per type](#)
- [Full list of types, shown on one page](#)

Or you can jump directly to a commonly used type:

- Creative works: [CreativeWork](#), [Book](#), [Movie](#), [MusicRecording](#), [Recipe](#), [TVSeries](#) ...
- Embedded non-text objects: [AudioObject](#), [ImageObject](#), [VideoObject](#)
- [Event](#)
- [Health and medical types](#): notes on the health and medical types under [MedicalEntity](#).
- [Organization](#)
- [Person](#)
- [Place](#), [LocalBusiness](#), [Restaurant](#) ...
- [Product](#), [Offer](#), [AggregateOffer](#)
- [Review](#), [AggregateRating](#)
- [Action](#)

Using the [extension mechanism](#) the core vocabulary is extended by the following hosted extensions:

- [auto.schema.org](#)
- [bib.schema.org](#)

See also the [releases](#) page for recent updates and project history.

We also have a small set of [primitive data types](#) for numbers, text, etc. More details about the data model, etc. are available [here](#).

[Terms and conditions](#)

Thing

Thing

The most generic type of item.

Usage: Between 100,000 and 250,000 domains

[more...]

Property	Expected Type	Description
Properties from Thing		
<u>additionalType</u>	<u>URL</u>	An additional type for the item, typically used for adding more specific types from external vocabularies in microdata syntax. This is a relationship between something and a class that the thing is in. In RDFa syntax, it is better to use the native RDFa syntax – the 'typeof' attribute – for multiple types. Schema.org tools may have only weaker understanding of extra types, in particular those defined externally.
<u>alternateName</u>	<u>Text</u>	An alias for the item.
<u>description</u>	<u>Text</u>	A short description of the item.
<u>image</u>	<u>ImageObject</u> or <u>URL</u>	An image of the item. This can be a <u>URL</u> or a fully described <u>ImageObject</u> .
<u>mainEntityOfPage</u>	<u>CreativeWork</u> or <u>URL</u>	Indicates a page (or other CreativeWork) for which this thing is the main entity being described. See <u>background notes</u> for details. Inverse property: <u>mainEntity</u> .
<u>name</u>	<u>Text</u>	The name of the item.
<u>potentialAction</u>	<u>Action</u>	Indicates a potential Action, which describes an idealized action in which this thing would play an 'object' role.
<u>sameAs</u>	<u>URL</u>	URL of a reference Web page that unambiguously indicates the item's identity. E.g. the URL of the item's Wikipedia page, Freebase page, or official website.
<u>url</u>	<u>URL</u>	URL of the item.

CreativeWork

Thing > CreativeWork

The most generic kind of creative work, including books, movies, photographs, software programs, etc.

Usage: Between 250,000 and 500,000 domains

[more...]

Property	Expected Type	Description
Properties from CreativeWork		
about	Thing	The subject matter of the content.
accessibilityAPI	Text	Indicates that the resource is compatible with the referenced accessibility API (WebSchemas wiki lists possible values).
accessibilityControl	Text	Identifies input methods that are sufficient to fully control the described resource (WebSchemas wiki lists possible values).
accessibilityFeature	Text	Content features of the resource, such as accessible media, alternatives and supported enhancements for accessibility (WebSchemas wiki lists possible values).
accessibilityHazard	Text	A characteristic of the described resource that is physiologically dangerous to some users. Related to WCAG 2.0 guideline 2.3 (WebSchemas wiki lists possible values).
accountablePerson	Person	Specifies the Person that is legally accountable for the CreativeWork.
aggregateRating	AggregateRating	The overall rating, based on a collection of reviews or ratings, of the item.
alternativeHeadline	Text	A secondary title of the CreativeWork.
associatedMedia	MediaObject	A media object that encodes this CreativeWork. This property is a synonym for encoding .
audience	Audience	An intended audience, i.e. a group for whom something was created. Supersedes serviceAudience .
audio	AudioObject	An embedded audio object.
author	Person or Organization	The author of this content. Please note that author is special in that HTML 5 provides a special mechanism for indicating authorship via the rel tag. That is equivalent to this and may be used interchangeably.
award	Text	An award won by or for this item. Supersedes awards .
character	Person	Fictional person connected with a creative work.
citation	Text or	A citation or reference to another creative work, such as another publication, web page, scholarly article, etc.

workExample	CreativeWork	Example/instance/realization/derivation of the concept of this creative work. eg. The paperback edition, first edition, or eBook. Inverse property: exampleOfWork .
Properties from Thing		
additionalType	URL	An additional type for the item, typically used for adding more specific types from external vocabularies in microdata syntax. This is a relationship between something and a class that the thing is in. In RDFa syntax, it is better to use the native RDFa syntax – the 'typeof' attribute – for multiple types. Schema.org tools may have only weaker understanding of extra types, in particular those defined externally.
alternateName	Text	An alias for the item.
description	Text	A short description of the item.
image	URL or ImageObject	An image of the item. This can be a URL or a fully described ImageObject .
mainEntityOfPage	URL or CreativeWork	Indicates a page (or other CreativeWork) for which this thing is the main entity being described. See background notes for details. Inverse property: mainEntity .
name	Text	The name of the item.
potentialAction	Action	Indicates a potential Action, which describes an idealized action in which this thing would play an 'object' role.
sameAs	URL	URL of a reference Web page that unambiguously indicates the item's identity. E.g. the URL of the item's Wikipedia page, Freebase page, or official website.
url	URL	URL of the item.

Instances of [CreativeWork](#) may appear as values for the following properties

Property	On Types	Description
cheatCode	VideoGameSeries or VideoGame	Cheat codes to the game.
citation	CreativeWork	A citation or reference to another creative work, such as another publication, web page, scholarly article, etc.
discusses	UserComments	Specifies the CreativeWork associated with the UserComment.
encodesCreativeWork	MediaObject	The CreativeWork encoded by this media object.
exampleOfWork	CreativeWork	A creative work that this work is an example/instance/realization/derivation of. inverse property: workExample .
gameTip	VideoGame	Links to tips, tactics, etc.
hasPart	CreativeWork	Indicates a CreativeWork that is (in some sense) a part of this CreativeWork. inverse property: isPartOf .
isPartOf	CreativeWork	Indicates a CreativeWork that this CreativeWork is (in some sense) part of. inverse property: hasPart .
license	CreativeWork	A license document that applies to this content, typically indicated by URL.

Richard

← → ↻ 🏠 schema.org/CreativeWork

Available properties in extensions

- From CreativeWork: [publisherImprint](#), [translationOfWork](#), [workTranslation](#)

More specific Types

- [Article](#)
- [Blog](#)
- [Book](#)
- [Clip](#)
- [Code](#)
- [Comment](#)
- [CreativeWorkSeason](#)
- [CreativeWorkSeries](#)
- [DataCatalog](#)
- [Dataset](#)
- [Diet](#)
- [EmailMessage](#)
- [Episode](#)
- [ExercisePlan](#)
- [Game](#)
- [Map](#)
- [MediaObject](#)
- [Movie](#)
- [MusicComposition](#)
- [MusicPlaylist](#)
- [MusicRecording](#)
- [Painting](#)
- [Photograph](#)
- [PublicationIssue](#)
- [PublicationVolume](#)
- [Question](#)
- [Recipe](#)
- [Review](#)
- [Sculpture](#)
- [Season](#)
- [Series](#)
- [SoftwareApplication](#)
- [SoftwareSourceCode](#)
- [TVSeason](#)
- [TVSeries](#)
- [VisualArtwork](#)
- [WebPage](#)
- [WebPageElement](#)

Richard

schema.org/CreativeWork

Product details
224 pages
Publisher: Little, Brown, and Company - May 1, 1991
Language: English
ISBN-10: 0316769487
Reviews:
5 stars - **"A masterpiece of literature"**
by John Doe. Written on May 4, 2006
I really enjoyed this book. It captures the essential challenge people face as they try make sense of their lives and grow to adulthood.
4 stars - **"love it LOLOLlll!"**
by Bob Smith, Written on June 15, 2006
Catcher in the Rye is a fun book. It's a good book to read.

Without Markup Microdata RDFa JSON-LD

```
<div>
Resistance 3: Fall of Man
by Sony
Platform: Playstation 3
Rated: Mature

</div>
```

Without Markup Microdata RDFa JSON-LD

```
<div>
  <dl>
    <dt>Name:</dt>
    <dd>Holt Physical Science</dd>
    <dt>Brief Synopsis:</dt>
    <dd>NIMAC-sourced textbook</dd>
    <dt>Long Synopsis:</dt>
    <dd>N/A</dd>
    <dt>Book Quality:</dt>
    <dd>Publisher Quality</dd>
    <dt>Book Size:</dt>
    <dd>598 Pages</dd>
    <dt>ISBN-13:</dt>
    <dd>9780030426599</dd>
    <dt>Publisher:</dt>
    <dd>Holt, Rinehart and Winston</dd>
  </dl>
</div>
```

Richard

schema.org/CreativeWork

Product details
 224 pages
 Publisher: Little, Brown, and Company - May 1, 1991
 Language: English
 ISBN-10: 0316769487
 Reviews:
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 as they try make sense of their lives and grow to adulthood.
 4 stars - **"love it LOLOLlll!"**
 by Bob Smith, Written on June 15, 2006
 Catcher in the Rye is a fun book. It's a good book to read.

Without Markup **Microdata** RDFa JSON-LD

```
<div itemscope itemtype="http://schema.org/CreativeWork">

<span itemprop="name">Resistance 3: Fall of Man</span>
by <span itemprop="author">Sony</span>,
Platform: Playstation 3
Rated:<span itemprop="contentRating">Mature</span>
</div>
```

Without Markup **Microdata** RDFa JSON-LD

```
<div>
<dl>
<dt>Name:</dt>
<dd>Holt Physical Science</dd>
<dt>Brief Synopsis:</dt>
<dd>NIMAC-sourced textbook</dd>
<dt>Long Synopsis:</dt>
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schema.org/CreativeWork

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 I really enjoyed this book. It captures the essential challenge people face
 as they try make sense of their lives and grow to adulthood.
 4 stars - **"love it LOLOLlll!"**
 by Bob Smith, Written on June 15, 2006
 Catcher in the Rye is a fun book. It's a good book to read.

Without Markup Microdata **RDFa** JSON-LD

```
<div vocab="http://schema.org/" typeof="CreativeWork">

<span property="name">Resistance 3: Fall of Man</span>
by <span property="author">Sony</span>,
Platform: Playstation 3
Rated:<span property="contentRating">Mature</span>
</div>
```

Without Markup Microdata **RDFa** JSON-LD

```
<div>
<dl>
<dt>Name:</dt>
<dd>Holt Physical Science</dd>
<dt>Brief Synopsis:</dt>
<dd>NIMAC-sourced textbook</dd>
<dt>Long Synopsis:</dt>
<dd>N/A</dd>
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<dt>Book Size:</dt>
<dd>598 Pages</dd>
<dt>ISBN-13:</dt>
<dd>9780030426599</dd>
<dt>Publisher:</dt>
```


CreativeWork - schema.org x Richard

schema.org/CreativeWork

Product details
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4 stars - **"love it LOLOLllll!"**
by Bob Smith, Written on June 15, 2006
Catcher in the Rye is a fun book. It's a good book to read.

Without Markup Microdata RDFa **JSON-LD**

```
<script type="application/ld+json">
{
  "@context": "http://schema.org",
  "@type": "CreativeWork",
  "author": "Sony",
  "contentRating": "Mature",
  "image": "videogame.jpg",
  "name": "Resistance 3: Fall of Man"
}
</script>
```

Without Markup Microdata RDFa **JSON-LD**

```
<div>
  <dl>
    <dt>Name:</dt>
    <dd>Holt Physical Science</dd>
    <dt>Brief Synopsis:</dt>
    <dd>NIMAC-sourced textbook</dd>
    <dt>Long Synopsis:</dt>
    <dd>N/A</dd>
    <dt>Book Quality:</dt>
    <dd>Publisher Quality</dd>
    <dt>Book Size:</dt>
    <dd>598 Pages</dd>
    <dt>ISBN-13:</dt>
```

Book

Thing > CreativeWork > Book

A book.

Usage: Between 10,000 and 50,000 domains

[more...]

Property	Expected Type	Description
Properties from Book		
bookEdition	Text	The edition of the book.
bookFormat	BookFormatType	The format of the book.
illustrator	Person	The illustrator of the book.
isbn	Text	The ISBN of the book.
numberOfPages	Integer	The number of pages in the book.
Properties from CreativeWork		
about	Thing	The subject matter of the content.
accessibilityAPI	Text	Indicates that the resource is compatible with the referenced accessibility API (WebSchemas wiki lists possible values).
accessibilityControl	Text	Identifies input methods that are sufficient to fully control the described resource (WebSchemas wiki lists possible values).
accessibilityFeature	Text	Content features of the resource, such as accessible media, alternatives and supported enhancements for accessibility (WebSchemas wiki lists possible values).
accessibilityHazard	Text	A characteristic of the described resource that is physiologically dangerous to some users. Related to WCAG 2.0 guideline 2.3 (WebSchemas wiki lists possible values).
accountablePerson	Person	Specifies the Person that is legally accountable for the CreativeWork.
aggregateRating	AggregateRating	The overall rating, based on a collection of reviews or ratings, of the item.
alternativeHeadline	Text	A secondary title of the CreativeWork.
associatedMedia	MediaObject	A media object that encodes this CreativeWork. This property is a synonym for encoding.
audience	Audience	An intended audience, i.e. a group for whom something was created. Supersedes serviceAudience .

Person

[Thing](#) > [Person](#)

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

Usage: Over 1,000,000 domains

[\[more...\]](#)

Property	Expected Type	Description
Properties from Person		
additionalName	Text	An additional name for a Person, can be used for a middle name.
address	Text or 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 or Organization	An organization that the person is an alumni of. Inverse property: alumni .
award	Text	An award won by or for this item. Supersedes awards .
birthDate	Date	Date of birth.
birthPlace	Place	The place where the person was born.
brand	Brand or Organization	The brand(s) associated with a product or service, or the brand(s) maintained by an organization or business person.
children	Person	A child of the person.
colleague	Person	A colleague of the person. Supersedes colleagues .
contactPoint	ContactPoint	A contact point for a person or organization. Supersedes contactPoints .
deathDate	Date	Date of death.
deathPlace	Place	The place where the person died.
duns	Text	The Dun & Bradstreet DUNS number for identifying an organization or business person.
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

Person

Thing > Person

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

Usage: Over 1,000,000 domains

[more...]

Property	Expected Type	Description
Properties from Person		
additionalName	Text	An additional name for a Person, can be used for a middle name.
address	Text or 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 or Organization	An organization that the person is an alumni of. Inverse property: alumni .
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birthDate	Date	Date of birth.
birthPlace	Place	The place where the person was born.
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colleague	Person	A colleague of the person. Supersedes colleagues .
contactPoint	ContactPoint	A contact point for a person or organization. Supersedes contactPoints .
deathDate	Date	Date of death.
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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

LocalBusiness

[Thing](#) > [Organization](#) > [LocalBusiness](#)

[Thing](#) > [Place](#) > [LocalBusiness](#)

A particular physical business or branch of an organization. Examples of LocalBusiness include a restaurant, a particular branch of a restaurant chain, a branch of a bank, a medical practice, a club, a bowling alley, etc.

Usage: Between 500,000 and 1,000,000 domains

[\[more...\]](#)

Property	Expected Type	Description
Properties from LocalBusiness		
branchCode	Text	A short textual code (also called "store code") that uniquely identifies a place of business. The code is typically assigned by the parentOrganization and used in structured URLs. For example, in the URL http://www.starbucks.co.uk/store-locator/etc/detail/3047 the code "3047" is a branchCode for a particular branch.
currenciesAccepted	Text	The currency accepted (in ISO 4217 currency format).
openingHours	Text	The opening hours for a business. Opening hours can be specified as a weekly time range, starting with days, then times per day. Multiple days can be listed with commas ',' separating each day. Day or time ranges are specified using a hyphen '-'. - Days are specified using the following two-letter combinations: Mo, Tu, We, Th, Fr, Sa, Su. - Times are specified using 24:00 time. For example, 3pm is specified as 15:00. - Here is an example: <code><time itemprop="openingHours" datetime="Tu,Th 16:00-20:00">Tuesdays and Thursdays 4-8pm</time></code> . - If a business is open 7 days a week, then it can be specified as <code><time itemprop="openingHours" datetime="Mo-Su">Monday through Sunday, all day</time></code> .
paymentAccepted	Text	Cash, credit card, etc.
priceRange	Text	The price range of the business, for example \$\$\$.
Properties from Place		
	PropertyValue	A property-value pair representing an additional characteristics of the entity, e.g. a product feature or another characteristic for which there is no matching property in schema.org.

ACME Home Cleaning offers a variety of services in Massachusetts, including:

```
<ul>
  <li>House cleaning</li>
  <ul>
    <li>Apartment light cleaning</li>
    <li>House light cleaning up to 2 bedrooms</li>
    <li>House light cleaning 3+ bedrooms</li>
  </ul>
  <li>One-time services</li>
  <ul>
    <li>Window washing</li>
    <li>Carpet deep cleaning</li>
    <li>Move in/out cleaning</li>
  </ul>
</ul>
```

Without Markup Microdata RDFa **JSON-LD**

```
<script type="application/ld+json">
{
  "@context": "http://schema.org",
  "@type": "LocalBusiness",
  "address": {
    "@type": "PostalAddress",
    "addressLocality": "Mexico Beach",
    "addressRegion": "FL",
    "streetAddress": "3102 Highway 98"
  },
  "description": "A superb collection of fine gifts and clothing to accent your stay in Mexico Beach.",
  "name": "Beachwalk Beachwear & Giftware",
  "telephone": "850-648-4200"
}
</script>
```

Without Markup Microdata RDFa **JSON-LD**

GreatFood
4 stars - based on 250 reviews
1901 Lemur Ave
Sunnyvale, CA 94086

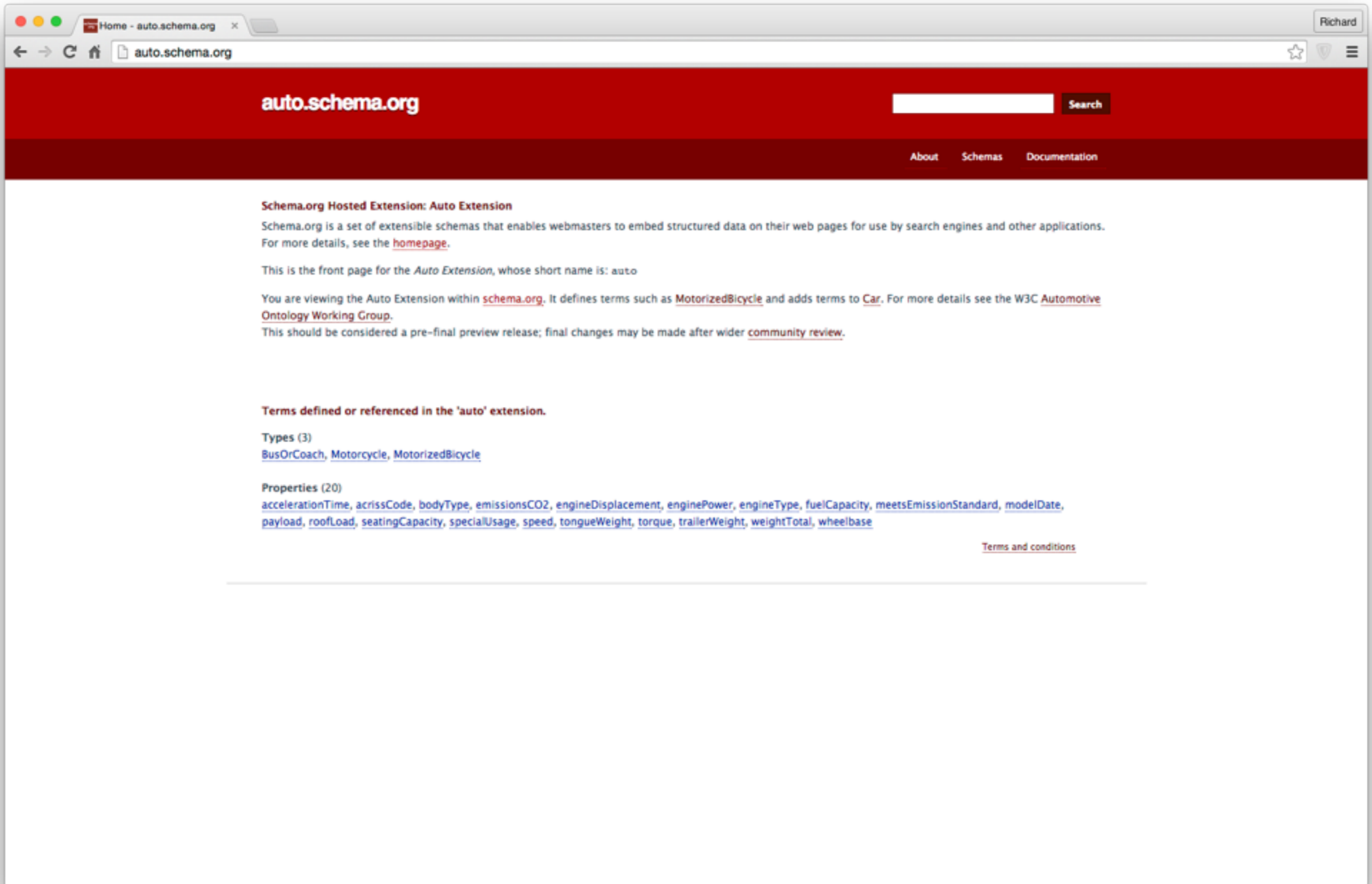
Examples

Without Markup Microdata RDFa **JSON-LD**

```
<script type="application/ld+json">
{
  "@context": "http://schema.org/",
  "@id": "#record",
  "@type": "Book",
  "additionalType": "Product",
  "name": "Le concerto",
  "author": "Perchault, Guy",
  "offers": {
    "@type": "Offer",
    "availability": "http://schema.org/InStock",
    "serialNumber": "CONC91000937",
    "sku": "780 R2",
    "offeredBy": {
      "@type": "Library",
      "@id": "http://library.anytown.gov.uk",
      "name": "Anytown City Library"
    },
    "businessFunction": "http://purl.org/goodrelations/v1#LeaseOut",
    "itemOffered": "#record"
  }
}
</script>
```

Without Markup Microdata RDFa JSON-LD

```
<!-- A Library Example with Holdings -->
<body>
<h1>In search of Haydn [videorecording] / Phil Grabsky Films.com & Seventh Art Productions in association with
<h2>Record details</h2>
<ul>
  <li><strong>Publisher:</strong>[Brighton, UK] :Seventh Art Productions,[2011]</li>
</ul>
<table>
  <tr><td>Subject:</td>
    <td>Haydn, Joseph, 1732-1809.<br>Composers > Austria > Biography.<br></td>
  </tr>
  <tr><td>Genre:</td>
```



Schema.org Hosted Extension: Auto Extension

Schema.org is a set of extensible schemas that enables webmasters to embed structured data on their web pages for use by search engines and other applications. For more details, see the [homepage](#).

This is the front page for the *Auto Extension*, whose short name is: `auto`

You are viewing the Auto Extension within [schema.org](#). It defines terms such as [MotorizedBicycle](#) and adds terms to [Car](#). For more details see the W3C [Automotive Ontology Working Group](#).

This should be considered a pre-final preview release; final changes may be made after wider [community review](#).

Terms defined or referenced in the 'auto' extension.

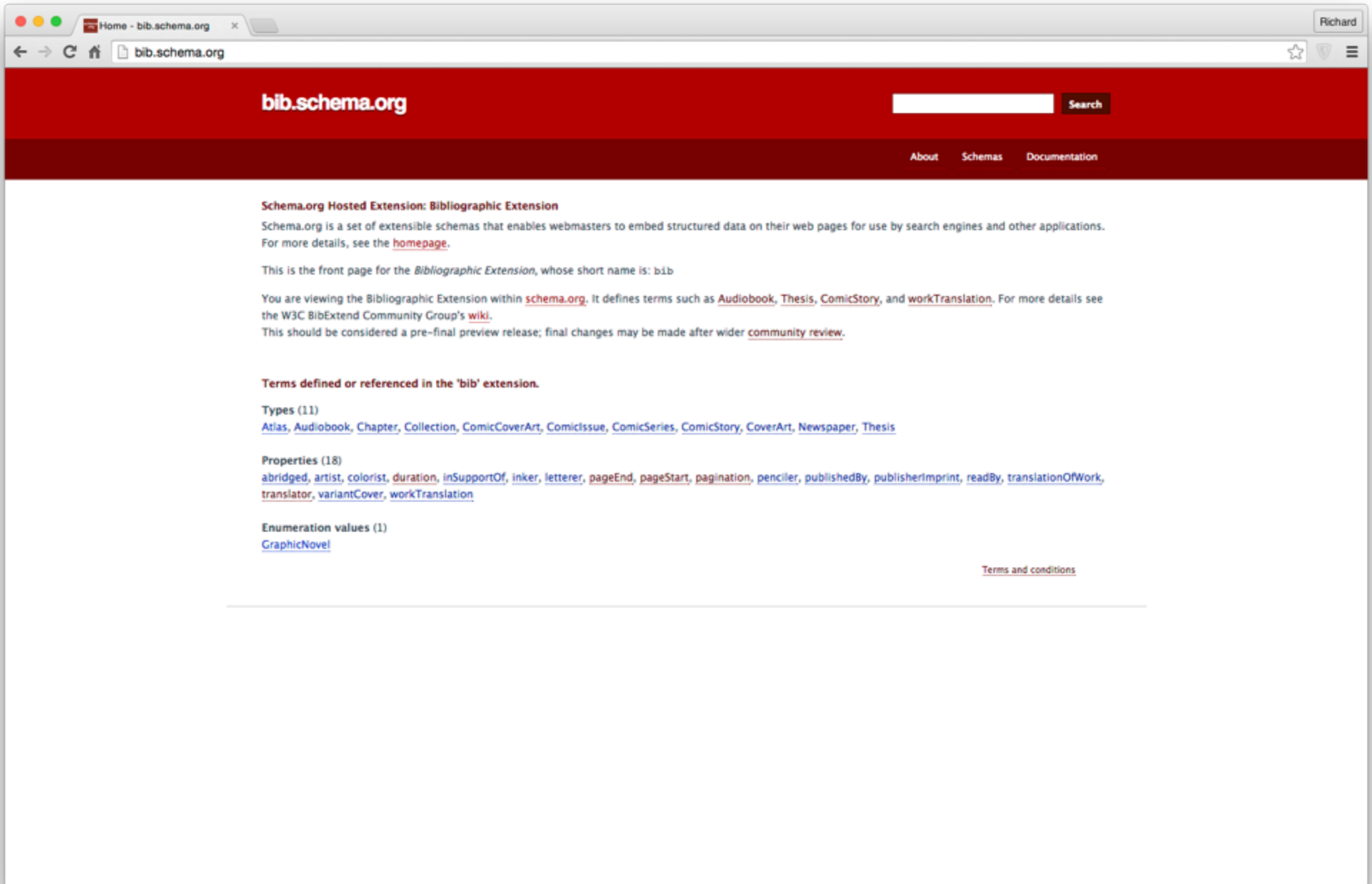
Types (3)

[BusOrCoach](#), [Motorcycle](#), [MotorizedBicycle](#)

Properties (20)

[accelerationTime](#), [acrissCode](#), [bodyType](#), [emissionsCO2](#), [engineDisplacement](#), [enginePower](#), [engineType](#), [fuelCapacity](#), [meetsEmissionStandard](#), [modelDate](#), [payload](#), [roofLoad](#), [seatingCapacity](#), [specialUsage](#), [speed](#), [tongueWeight](#), [torque](#), [trailerWeight](#), [weightTotal](#), [wheelbase](#)

[Terms and conditions](#)



Audiobook - bib.schema.org

bib.schema.org/Audiobook

bib.schema.org Search

Home Schemas Documentation

extension shown: bib [x]

Audiobook

Defined in the bib.schema.org extension. (This is an initial exploratory release.)
 Canonical URL: <http://schema.org/Audiobook>

[Thing](#) > [CreativeWork](#) > [Book](#) > [Audiobook](#)
[Thing](#) > [CreativeWork](#) > [MediaObject](#) > [AudioObject](#) > [Audiobook](#)

An audiobook.

Usage: Fewer than 10 domains [\[more...\]](#)

Property	Expected Type	Description
Properties from Audiobook		
duration	Duration	The duration of the item (movie, audio recording, event, etc.) in ISO 8601 date format .
readBy	Person	A person who reads (performs) the audiobook.
Properties from AudioObject		
transcript	Text	If this MediaObject is an AudioObject or VideoObject, the transcript of that object.
Properties from MediaObject		
associatedArticle	NewsArticle	A NewsArticle associated with the Media Object.
bitrate	Text	The bitrate of the media object.
contentSize	Text	File size in (mega/kilo) bytes.
contentUrl	URL	Actual bytes of the media object, for example the image file or video file.
duration	Duration	The duration of the item (movie, audio recording, event, etc.) in ISO 8601 date format .
embedUrl	URL	A URL pointing to a player for a specific video. In general, this is the information in the <code>src</code> element of an <code>embed</code> tag and should not be the same as the content of the <code>loc</code> tag.
encodesCreativeWork	CreativeWork	The CreativeWork encoded by this media object.
encodingFormat	Text	mp3, mpeg4, etc.
expires	Date	Date the content expires and is no longer useful or available. Useful for videos.
height	QuantitativeValue or Distance	The height of the item.

Full Hierarchy

Schema.org is defined as two hierarchies: one for textual property values, and one for the things that they describe.

Thing

This is the main schema.org hierarchy: a collection of types (or "classes"), each of which has one or more parent types. Although a type may have more than one super-type, here we show each type in one branch of the tree only. There is also a parallel hierarchy for [data types](#).

Select vocabulary view:

- Core plus 'bib' extension
- Core plus all extensions
- Extension 'bib'

Core plus 'bib' extension vocabularies

- [Thing](#)
 - [Action](#)
 - [AchieveAction](#)
 - [LoseAction](#)
 - [TieAction](#)
 - [WinAction](#)
 - [AssessAction](#)
 - [ChooseAction](#)
 - [VoteAction](#)
 - [IgnoreAction](#)
 - [ReactAction](#)
 - [AgreeAction](#)
 - [DisagreeAction](#)
 - [DislikeAction](#)
 - [EndorseAction](#)
 - [LikeAction](#)
 - [WantAction](#)
 - [ReviewAction](#)
 - [ConsumeAction](#)
 - [DrinkAction](#)
 - [EatAction](#)
 - [InstallAction](#)
 - [ListenAction](#)
 - [ReadAction](#)
 - [UseAction](#)
 - [WearAction](#)
 - [ViewAction](#)
 - [WatchAction](#)
 - [ControlAction](#)

Full Hierarchy - bib.schema.org

bib.schema.org/docs/full.html

Thing

This is the main schema.org hierarchy: a collection of types (or "classes"), each of which has one or more parent types. Although a type may have more than one super-type, here we show each type in one branch of the tree only. There is also a parallel hierarchy for [data types](#).

Select vocabulary view:

Core plus 'bib' extension Core plus all extensions Extension 'bib'

Extension: 'bib'

- [Thing](#)
 - [CreativeWork](#)
 - [Atlas](#)
 - [Book](#)
 - [Audiobook](#)
 - [Chapter](#)
 - [Collection](#)
 - [ComicStory](#)
 - [ComicCoverArt](#)
 - [CreativeWorkSeries](#)
 - [Periodical](#)
 - [ComicSeries](#)
 - [Newspaper](#)
 - [MediaObject](#)
 - [AudioObject](#)
 - [Audiobook](#)
 - [PublicationIssue](#)
 - [ComicIssue](#)
 - [Thesis](#)
 - [VisualArtwork](#)
 - [CoverArt](#)
 - [ComicCoverArt](#)

Data Types

- [DataType](#)
 - [Boolean](#)
 - [False](#)
 - [True](#)
 - [Date](#)
 - [DateTime](#)
 - [Number](#)
 - [Float](#)
 - [Integer](#)
 - [Text](#)
 - [URL](#)
 - [Time](#)

An experimental [D3](#)-compatible [JSON](#) version is also available.

Richard

bib.schema.org

Search

Home Schemas Documentation

extension shown: bib [x]

Audiobook

Defined in the bib.schema.org extension. (This is an initial exploratory release.)
 Canonical URL: <http://schema.org/Audiobook>

[Thing](#) > [CreativeWork](#) > [Book](#) > [Audiobook](#)
[Thing](#) > [CreativeWork](#) > [MediaObject](#) > [AudioObject](#) > [Audiobook](#)

An audiobook.

Usage: Fewer than 10 domains [\[more...\]](#)

Property	Expected Type	Description
Properties from Audiobook		
duration	Duration	The duration of the item (movie, audio recording, event, etc.) in ISO 8601 date format .
readBy	Person	A person who reads (performs) the audiobook.
Properties from AudioObject		
transcript	Text	If this MediaObject is an AudioObject or VideoObject, the transcript of that object.
Properties from MediaObject		
associatedArticle	NewsArticle	A NewsArticle associated with the Media Object.
bitrate	Text	The bitrate of the media object.
contentSize	Text	File size in (mega/kilo) bytes.
contentUrl	URL	Actual bytes of the media object, for example the image file or video file.
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embedUrl	URL	A URL pointing to a player for a specific video. In general, this is the information in the <code>src</code> element of an <code>embed</code> tag and should not be the same as the content of the <code>loc</code> tag.
encodesCreativeWork	CreativeWork	The CreativeWork encoded by this media object.
encodingFormat	Text	mp3, mpeg4, etc.
expires	Date	Date the content expires and is no longer useful or available. Useful for videos.
height	Distance or QuantitativeValue	The height of the item.
playerType	Text	Player type required—for example, Flash or Silverlight.

Applying Schema.org

Smart Trees



01386 462706

- Home
- About Us
- Experience
- Gallery
- Find Us
- Contact Us
- Booking



Xmas Opening Times

Sat 28th Nov – Mon 21st Dec

Saturday:

10:00 am to 4:00 pm

Sunday:

10:00 am to 4:00 pm

Whats new in 2015

- Open additional days
- Enhanced musical walkways
- Sensory Play Area

[BOOK GROTTO NOW!!!!](#)



Add a little Christmas Magic to your event by hiring our Reindeer!! Visit the Reindeer Home Page for more info.....

[Reindeer Home Page](#)

Christmas Tree Sales

Open 7 Days a week!




```
219
220
221 <div vocab="http://schema.org/" id="wp-footer">
222
223 <span typeof="LocalBusiness">
224   <link property="url" href="http://smarttrees.co.uk"/>
225   <meta property="name" content="Smart Trees"/>
226   <link property="logo" href="http://www.smarttrees.co.uk/wp-content/uploads/2015/09/Smarttrees-Icon-300x300.jpg"/>
227   <link property="image" href="http://smarttrees.co.uk/wp-content/themes/SmartTrees2014-1/images/header.png"/>
228   <link property="url" href="http://smarttrees.co.uk"/>
229   <meta property="description" content="Smart Trees - Santa Grotto - Magical Christmas Experience"/>
230   <meta property="email" content="grotto@smarttrees.co.uk"/>
231   <link property="telephone" href="tel:+441386462706"/>
232   <meta property="faxNumber" content="01386 462015"/>
233   <link property="sameAs" href="https://www.facebook.com/Smart-Trees-212802948805553"/>
234   <link property="sameAs" href="https://twitter.com/smarttreegrotto"/>
235   <link property="parentOrganization" href="http://smartcut.co.uk"/>
236   <link property="address" typeof="PostalAddress" href="http://smarttrees.co.uk/#address"/>
237   <link property="location" typeof="PostalAddress" href="http://smarttrees.co.uk/#address"/>
238   <span property="openingHoursSpecification" typeof="OpeningHoursSpecification">
239     <meta property="opens" content="10:00"/>
240     <meta property="closes" content="16:00"/>
241     <link property="dayOfWeek" href="http://purl.org/goodrelations/v1#Saturday"/>
242     <link property="dayOfWeek" href="http://purl.org/goodrelations/v1#Sunday"/>
243     <meta property="validFrom" content="2015-11-28"/>
244     <meta property="validThrough" content="2015-11-29"/>
245   </span>
246   <span property="openingHoursSpecification" typeof="OpeningHoursSpecification">
247     <meta property="opens" content="10:00"/>
248     <meta property="closes" content="16:00"/>
249     <link property="dayOfWeek" href="http://purl.org/goodrelations/v1#Saturday"/>
250     <link property="dayOfWeek" href="http://purl.org/goodrelations/v1#Sunday"/>
251     <meta property="validFrom" content="2015-12-05"/>
252     <meta property="validThrough" content="2015-12-06"/>
253   </span>
254   <span property="openingHoursSpecification" typeof="OpeningHoursSpecification">
255     <meta property="opens" content="10:00"/>
256     <meta property="closes" content="16:00"/>
257     <link property="dayOfWeek" href="http://purl.org/goodrelations/v1#Saturday"/>
258     <link property="dayOfWeek" href="http://purl.org/goodrelations/v1#Sunday"/>
259     <meta property="validFrom" content="2015-12-12"/>
260     <meta property="validThrough" content="2015-12-13"/>
261   </span>
262   <span property="openingHoursSpecification" typeof="OpeningHoursSpecification">
263     <meta property="opens" content="10:00"/>
264     <meta property="closes" content="16:00"/>
265     <link property="dayOfWeek" href="http://purl.org/goodrelations/v1#Friday"/>
266     <link property="dayOfWeek" href="http://purl.org/goodrelations/v1#Saturday"/>
267     <link property="dayOfWeek" href="http://purl.org/goodrelations/v1#Sunday"/>
268     <link property="dayOfWeek" href="http://purl.org/goodrelations/v1#Monday"/>
269     <meta property="validFrom" content="2015-12-18"/>
270     <meta property="validThrough" content="2015-12-21"/>
271   </span>
272 </span>
273 <span property="address" typeof="PostalAddress" resource="http://smarttrees.co.uk/#address">
274   <meta property="streetAddress" content="Field Farm, Hill Furze Road"/>
275   <meta property="addressLocality" content="Bishampton, Pershore"/>
276   <meta property="addressRegion" content="Worcestershire"/>
277   <meta property="postalCode" content="WR10 2LE"/>
278   <meta property="addressCountry" content="UK"/>
279   <meta property="email" content="grotto@smarttrees.co.uk"/>
280   <link property="telephone" href="tel:+441386462706"/>
281 </span>
282 <!-- Powered by WPTouch: 3.8.9 --><script type='text/javascript'>/*!|CDATA[
283 var ee18n={"ajax_url":"http://www.smarttrees.co.uk/wp-admin/admin-ajax.php","wp_debug":"","ts_embed_iframe_title":"Copy and Paste the following!","ans_no_country":"In order to proceed, you need to select the
Country that your State/Province belongs to.,"ans_no_name":"In order to proceed, you need to enter the name of your State/Province.,"ans_no_abbreviation":"In order to proceed, you need to enter an abbreviation
```



Smart Trees



01386 462706

- Home
- About Us
- Experience
- Gallery
- Find Us
- Contact Us
- Booking



Xmas Opening Times

Sat 28th Nov – Mon 21st Dec
Saturday:
10:00 am to 4:00 pm
Sunday:
10:00 am to 4:00 pm

Whats new in 2015

- Open additional days
- Enhanced musical walkways
- Sensory Play Area

[BOOK GROTTO NOW!!!!](#)



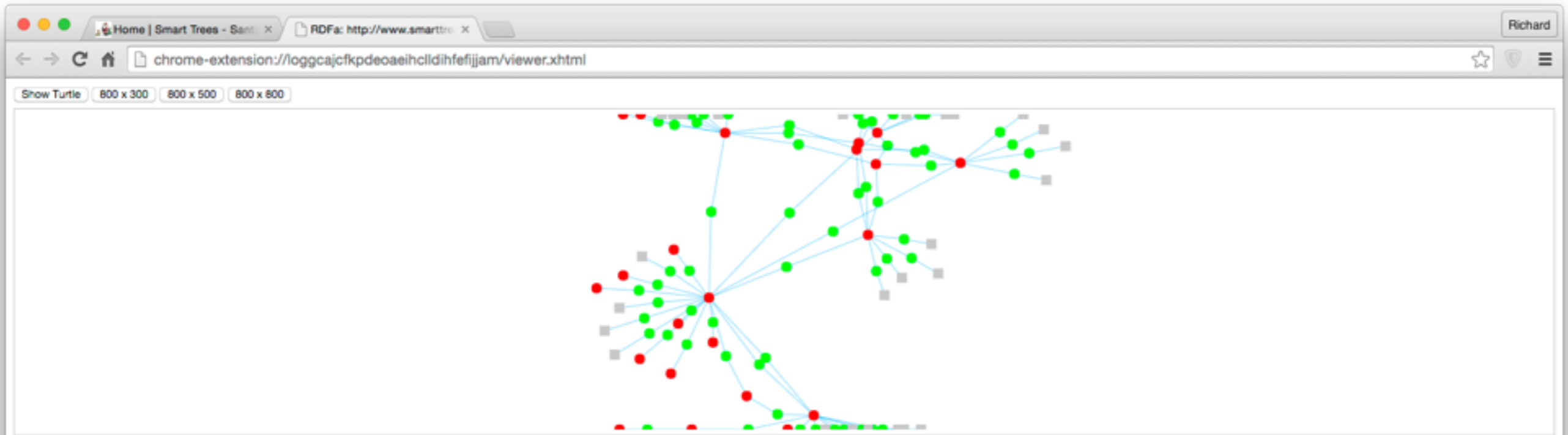
Add a little Christmas Magic to your event by hiring our Reindeer!! Visit the Reindeer Home Page for more info.....

[Reindeer Home Page](#)

Christmas Tree Sales

Open 7 Days a week!





Subject	Predicate	Object
<http://www.smarttrees.co.uk/>	rdfa:usesVocabulary	schema:
<http://www.smarttrees.co.uk/>	schema:address	<http://smarttrees.co.uk/#address>
<_:1>	rdf:type	schema:LocalBusiness
<_:1>	schema:url	<http://smarttrees.co.uk>
<_:1>	schema:name	"Smart Trees"@en-GB
<_:1>	schema:logo	<http://www.smarttrees.co.uk/wp-content/uploads/2015/09/Smarttrees-Icon-300x300.jpg>
<_:1>	schema:image	<http://smarttrees.co.uk/wp-content/themes/SmartTrees2014-1/images/header.png>
<_:1>	schema:description	"Smart Trees - Santa Grotto - Magical Christmas Experience"@en-GB
<_:1>	schema:email	"grotto@smarttrees.co.uk"@en-GB
<_:1>	schema:telephone	<tel:+441386462706>
<_:1>	schema:faxNumber	"01386 462015"@en-GB
<_:1>	schema:sameAs	<https://www.facebook.com/Smart-Trees-212802948805553>
<_:1>	schema:sameAs	<https://twitter.com/smarttreegrotto>
<_:1>	schema:parentOrganization	<http://smartcut.co.uk>
<_:1>	schema:address	<http://smarttrees.co.uk/#address>
<_:1>	schema:location	<http://smarttrees.co.uk/#address>
<_:1>	schema:openingHoursSpecification	<_:2>
<_:1>	schema:openingHoursSpecification	<_:3>
<_:1>	schema:openingHoursSpecification	<_:4>
<_:1>	schema:openingHoursSpecification	<_:5>
<http://smarttrees.co.uk/#address>	rdf:type	schema:PostalAddress
<http://smarttrees.co.uk/#address>	schema:streetAddress	"Field Farm, Hill Furze Road"@en-GB
<http://smarttrees.co.uk/#address>	schema:addressLocality	"Bishampton, Pershore"@en-GB
<http://smarttrees.co.uk/#address>	schema:addressRegion	"Worcestershire"@en-GB
<http://smarttrees.co.uk/#address>	schema:postalCode	"WR10 2LZ"@en-GB
<http://smarttrees.co.uk/#address>	schema:addressCountry	"UK"@en-GB
<http://smarttrees.co.uk/#address>	schema:email	"grotto@smarttrees.co.uk"@en-GB
<http://smarttrees.co.uk/#address>	schema:telephone	<tel:+441386462706>
<_:2>	rdf:type	schema:OpeningHoursSpecification

Structured Data Testing Tool

Products > Search > Structured Data > Structured Data Testing Tool

http://www.smarttrees.co.uk/

FETCH & VALIDATE

CANCEL

Shortlink

Results - Filter by use case

```
1 <!DOCTYPE html>
2 <html lang="en-GB">
3 <head>
4 <meta charset="UTF-8"/>
5 <title>Home | Smart Trees - Santa Grotto - Magical Christmas Experience |
  01386 462706</title>
6 <meta name="description" content="Festive sleigh ride to Santa's Christmas
  tree lined Grotto, stroke real reindeer and be led by elves to meet Father
  Christmas and receive a present."/>
7 <!-- Created by Artisteer v4.2.0.60623 -->
8 <meta name="viewport" content="initial-scale = 1.0, maximum-scale = 1.0,
  user-scalable = no, width = device-width"/>
9 <!--[if lt IE 9]><script
  src="https://html5shiv.googlecode.com/svn/trunk/html5.js"></script><![
  endif]-->
10 <link rel="stylesheet" href="http://www.smarttrees.co.uk/wp-
  content/themes/SmartTrees2014-1/style.css" media="screen"/>
11 <link rel="pingback" href="http://www.smarttrees.co.uk/xmlrpc.php"/>
12 <meta name="generator" content="Event Espresso Version 4.8.24.p"/>
<script type="text/javascript">window._wpemojiSettings=
{"baseUrl":"http://s.w.org/images/core/emoji/72x72/", "ext":".png", "s
ource":{"concatemoji":"http://www.smarttrees.co.uk/wp-includes/js/wp-
emoji-release.min.js?ver=4.3.1"};function(a,b,c){function d(a){var
c=b.createElement("canvas"),d=c.getContext&&c.getContext("2d");return
d&&d.fillText?(d.textBaseline="top",d.font="600 32px Arial","flag"===a?
(d.fillText(String.fromCharCode(55356,56812,55356,56807),0,0),c.toDataURL()
.length>3e3):
(d.fillText(String.fromCharCode(55357,56835),0,0),0!==(d.getImageData(16,16,
1,1).data[0])):1}function e(a){var
c=b.createElement("script");c.src=a,c.type="text/javascript",b.getElementsB
yTagName("head")[0].appendChild(c)}var f,g;c.supports=
function(d,e){return d("script")&&f||c.DOMReady||c.readyState&&function{
```

LocalBusiness (1)

All good

LocalBusiness

url:	http://smarttrees.co.uk/
name:	Smart Trees
logo:	http://www.smarttrees.co.uk/wp-content/uploads/2015/09/Smarttrees-loc on-300x300.jpg
image:	http://smarttrees.co.uk/wp-content/themes/SmartTrees2014-1/images/h eader.png
url:	http://smarttrees.co.uk/
description:	Smart Trees - Santa Grotto - Magical Christmas Experience
email:	grotto@smarttrees.co.uk
faxNumber:	01386 462015
sameAs:	https://www.facebook.com/Smart-Trees-212802948805553
sameAs:	https://twitter.com/smarttreegrotto
telephone [Unspecified type]:	
parentOrganization [Unspecified type]:	
address [PostalAddress]:	http://smarttrees.co.uk/#address
streetAddress:	Field Farm, Hill Furze Road
addressLocality:	Bishampton, Pershore
addressRegion:	Worcestershire
postalCode:	WR10 2LZ
email:	grotto@smarttrees.co.uk
addressCountry [Country]:	
name:	UK
telephone [Unspecified type]:	



Structured data validator

i You can use the Microformat validator to check the semantic markup of your site to make sure that indexing robots can extract all the structured data without a problem

The validator lets you check all the most common microformats: [microdata](#), [schema.org](#), [microformats](#), [OpenGraph](#) and [RDF](#). However, not all formats support special snippets or the use of annotated data. You can find more information on how Yandex uses annotated data in our [Help Sections](#).

More information about the validator can be found [here](#).

Webpage URL

Examples: [Organisation](#) [address](#), [Recipes](#), [Reviews](#)

or enter HTML code fragment here

Ctrl + Enter

- [Add URL](#)
- [Robots.txt analysis](#)
- [Report spam](#)
- [Remove URL](#)
- [Structured data validator](#)**
- [XML feed validator](#)
- [Sitemap validator](#)

Results

This is how the microformat parser processes your page:

```
rdfanode
resource = http://www.smarttrees.co.uk/
http://schema.org/address
resource = http://smarttrees.co.uk/#address
type = http://schema.org/PostalAddress
http://schema.org/postalCode = WR10 2LZ
http://schema.org/streetAddress = Field Farm, Hill Furze Road
http://schema.org/email = grotto@smarttrees.co.uk
http://schema.org/telephone = tel:+441386462706
http://schema.org/addressLocality = Bishampton, Pershore
http://schema.org/addressRegion = Worcestershire
http://schema.org/addressCountry = UK
```

rdfanode

WARNING: This is beta software, there are bugs. This tool is not yet ready for production use. That said, it's pretty useful already, and the bugs preventing production use will be sorted out soon.

Examples: Person Social Network Event Place Product SVG

```
<div vocab="http://schema.org/" id="wp-footer">
<span typeof="LocalBusiness">
  <link property="url" href="http://smarttrees.co.uk"/>
  <meta property="name" content="Smart Trees"/>
  <link property="logo" href="http://www.smarttrees.co.uk/wp-content/uploads/2015/09/Smarttrees-Icon-300x300.jpg"/>
  <link property="image" href="http://smarttrees.co.uk/wp-content/themes/SmartTrees2014-1/images/header.png"/>
  <link property="url" href="http://smarttrees.co.uk"/>
  <meta property="description" content="Smart Trees - Santa Grotto - Magical Christmas Experience"/>
  <meta property="email" content="grotto@smarttrees.co.uk"/>
  <link property="telephone" href="tel:+441386462706"/>
  <meta property="faxNumber" content="01386 462015"/>
  <link property="sameAs" href="https://www.facebook.com/Smart-Trees-212802948805553"/>
  <link property="sameAs" href="https://twitter.com/smarttreegrotto"/>
  <link property="parentOrganization" href="http://smartcut.co.uk"/>
  <link property="address" typeof="PostalAddress" href="http://smarttrees.co.uk/#address"/>
  <link property="location" typeof="PostalAddress" href="http://smarttrees.co.uk/#address"/>
  <span property="OpeningHoursSpecification" typeof="OpeningHoursSpecification">
    <meta property="opens" content="10:00"/>
    <meta property="closes" content="16:00"/>
    <link property="dayOfWeek" href="http://purl.org/goodrelations/v1#Saturday"/>
    <link property="dayOfWeek" href="http://purl.org/goodrelations/v1#Sunday"/>
    <meta property="validFrom" content="2015-11-28"/>
    <meta property="validThrough" content="2015-11-29"/>
  </span>
</span>
```

Visualization Raw Data



Website content, unless otherwise noted, is released into the public domain.

Structured Data Linter

Examples More 2.3.0

Enter a URL below to see what structured data your page contains. You can alternatively upload a local file or paste some markup. Read more [about the Structured Data linter](#).

Lint by URL Lint by File Upload Lint by Direct Input

<http://www.smarttrees.co.uk/>

Submit


Verify SSL

Examples: Review ([RDFa MD](#)) People ([RDFa MD](#)) Event ([RDFa MD](#)) Recipe ([RDFa MD](#)) Product ([RDFa MD](#))

Enhanced search result preview

*Disclaimer: this preview is only shown as a example of what a search engine **might** display. It is to the discretion of each search engine provider to decide whether your page will be displayed as an enhanced search result or not in their search results pages.*

Smart Trees
www.smarttrees.co.uk/



Field Farm, Hill Furze Road, Bishampton, Pershore, Worcestershire, UK, WR10 2LZ
an actual search result may display other content relating to your search terms here.

Smart Trees
www.smarttrees.co.uk/



an actual search result may display other content relating to your search terms here.

Raw structured data extracted from the page:

#id	http://www.smarttrees.co.uk/(0)	
schema:address	#id	http://smarttrees.co.uk/#address(5)
	rdf:type	schema:PostalAddress schema:Thing schema:Instantiable schema:StructureValue schema>ContactPoint rdfa:Resource
	schema:addressCountry	UK
	schema:addressLocality	Bishampton, Pershore
	schema:addressRegion	Worcestershire
	schema:email	grotto@smarttrees.co.uk
	schema:postalCode	WR10 2LZ
	schema:streetAddress	Field Farm, Hill Furze Road
	schema:telephone	tel:+441386462706
	rdfa:usedVocabulary	http://schema.org/
#id	http://schema.org/LocalBusiness(2)	

RDFa with schema.org codelab: overview

By [Dan Scott](#), June 27, 2014

About this codelab

In this codelab, you're going to take a variety of library web pages and enhance them so that they contain structured data. You will use the [schema.org](#) vocabulary and express it via RDFa attributes.

Audience: Beginner

Prerequisites: To complete this codelab, you will need a basic familiarity with HTML. The exercises can be found in [codelab.zip](#), with the solutions found in the `rdfa_exercises` subdirectory. There are frequent checkpoints through the code lab, so if you get stuck at any point, you can use the checkpoint file to resume and work through this codelab at your own pace.

Codelab sections

The codelab contains a number of different types of web pages with sample markup exercises; we highly recommend that you work through the **Book** codelab first, as it covers all of the basics of RDFa and schema.org, before diving into any other exercises.

1. [Book](#): This is the **core** exercise, introducing RDFa and schema.org. Work through this before attempting anything else.
2. [Library holdings](#): This exercise builds on the **Book** exercise, adding the representation of holdings as Offers.
3. [Library branch information](#): This exercise covers how to represent branch information such as hours of operation, location, contact information, and branch relationships.
4. [Periodicals](#): This exercise introduces the proposed schema.org extension for periodicals.



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RDFa with schema.org codelab: Book

By [Dan Scott](#), June 27, 2014

About this codelab

In this codelab, you're going to take a catalog page that describes a book and enhance it so that it contains structured data. You will use the [schema.org](#) vocabulary and express it via RDFa attributes.

Audience: Beginner

Prerequisites: To complete this codelab, you will need a basic familiarity with HTML. The exercises can be found in [codelab.zip](#), with the solutions found in the `rdfa_exercises` subdirectory. There are frequent checkpoints through the code lab, so if you get stuck at any point, you can use the checkpoint file to resume and work through this codelab at your own pace.

Exercise 1: From basic HTML to RDFa: first steps

In this exercise, you will learn the basic steps required to add simple RDFa structured data to an existing library catalog page for a book.

1.1. View the page source HTML

Open [step1/rdfa_book.html](#) in a text editor. You should see something like the following HTML source for the web page:

```
<!DOCTYPE html>
<html>
<head>
  <title>Las Vegas-Clark County Library District /All Locations</title>
  <style>...</style>
</head>
<body>
  <div id="coverImage">
    <div class="jacket"><img src=
      "http://store.scholastic.com/content/stores/media/products/58/9780545522458_default_pdp.gif"
      border="0"></div>

    <div class="bibMedia"></div>
  </div>

  <table id="bib_detail" width="100%" border="0" cellpadding="2" cellspacing="1" class="bibDetail">
    <tr class="bibInfoEntry">
      <td>
        <table width="100%" cellpadding="0" cellspacing="3">
          <tr>
            <td class="bibInfoLabel">Author</td>
            <td class="bibInfoData"><a href= "/search-S12?aNix%2C+Garth./anix+garth/-3,-1,0,B/browse">Nix, Garth.</a></td>
          </tr>
          <tr>
            <td class="bibInfoLabel">Title</td>
            <td class="bibInfoData"><strong>Blood ties / Garth Nix and Sean Williams.</strong></td>
          </tr>
        </table>
      </td>
    </tr>
  </table>
```


This article has an author, and if you check the documentation for [Book](#) you will find that there is indeed an `author` property. Notice that the expected type of the `author` property is either a `Person` or `Organization` type. For now, go ahead and add the `@property="author"` attribute to the `<a>` element for the author's name.

Note: You might be tempted to add the attribute to the `<tr>` element of the HTML document, but the scope of the `<tr>` element includes more than just the name of the author, so you would be asserting (falsely!) that the author was "Author Nix, Garth".

Check your markup

1.4.9. Improve the author property

Check the results from various structured data parsers. Do they match your expectations? Look closely at the `author` value; you probably did not expect the value of the `author` property to be a URL. This is one of the subtleties of RDFa; `a` elements are special, in that the `href` attribute value is used for an RDFa property value rather than the content of the `<a>` element.

Let's fix that: move the `@property="author"` attribute to the `td` element that surrounds the `a` element. Run your structured data parsers again to ensure that you're getting the results that you expect.

Check your markup

```
<!DOCTYPE html>
...
<body vocab="http://schema.org/" typeof="Book">
...
  <tr>
    <td class="bibInfoLabel">Author</td>
    <td class="bibInfoData" property="author"><a href= "/search-S127/aNix%2C+Garth./anix+garth/-3,-1,0,B/browse">Nix, Garth.</a></td>
  </tr>
...

```

1.4.10. Add a `datePublished` property for the type

Right now a date of publication is visible on the page, but as the data just lives inside an undifferentiated string of text, it would difficult for a machine to know what the data means. To remove this uncertainty, wrap the date in a `<time>` tag and add the `@property="datePublished"` attribute.

Check your markup

Checkpoint: Your HTML page should now look like [step2/check_b.html](#)

1.4.11. Add an `image` property for the `Book` type

Every type in `schema.org` can have an `image` property. One potential use case for search engines is to use the `image` property to guide the search engine to choose the appropriate image from a page that might contain multiple images to provide a more visually attractive search result. Your catalog page contains an image. Add the `@property="image"` attribute to the `` element.

Check your markup

1.4.12. Add book-specific properties to the `Book` entity

When you look at the documentation for the `schema.org` `Book` type, one of the properties that is specific to the `Book` type is the `author` property.

Applying Schema.org

Useful Links

- www.smarttrees.co.uk
- Green Turtle RDFa
Google Chrome Extension
- Google Structured Data Testing Tool
<https://developers.google.com/structured-data/testing-tool/>
- Yandex Structured Data Validator
<https://webmaster.yandex.com/microtest.xml>
- RDFa Play
<http://rdfa.info/play/>
- Structured Data Linter
<http://linter.structured-data.org/>
- Dan Scott's RDFa Codelab
https://coffeecode.net/swib14/preconference/rdfa_exercises/

Extending Schema.org

schemaorg/schemaorg x Richard

← → C GitHub, Inc. [US] https://github.com/schemaorg/schemaorg

This repository Search Pull requests Issues Gist

schemaorg / schemaorg Unwatch 167 Star 650 Fork 144

Code Issues 303 Pull requests 24 Wiki Pulse Graphs

Schema.org - schemas and (appengine) software <http://schema.org/>

1,650 commits 43 branches 2 releases 26 contributors

Branch: sdo-deimos New pull request New file Find file HTTPS https://github.com/schemaor Download ZIP

danbri Merge pull request #902 from dcmi/sdo-deimos Latest commit 07ca213 2 hours ago

data	examples for LRMI properties	12 days ago
docs	Stray 2.x updated to 2.2.	26 days ago
scripts	Update for current work.	24 days ago
templates	Noted new known work-in-progress domain.	24 days ago
tests	Updated estimate of number of examples from 450 to 500 ;)	3 months ago
.gitattributes	per https://help.github.com/articles/dealing-with-line-endings	2 years ago
.gitignore	gitignore	2 years ago
LICENSE	Initial commit	2 years ago
README.md	Linked intro to Github doc	28 days ago
RELEASING.TXT	Post-release activities.	26 days ago
SOFTWARE_README.md	Update SOFTWARE_README.md	2 months ago
api.py	Removed bogus global variable (dup'd one in sdoapp.py).	26 days ago
app.yaml	Setup for sdo-deimos	24 days ago
parsers.py	Revert "Removing chatty logging."	3 months ago
sdoapp.py	Updated RELEASES.TXT for version snapshots.	26 days ago

Welcome to Schema.org

This is the Schema.org project repository. It contains all the schemas, examples and software use to publish schema.org. For the site itself, please see <http://schema.org/> instead.

Issues and proposals are managed here by participants of the W3C Schema.org Community Group. See <http://www.w3.org/community/schemaorg> for the group. If you are interested to participate please join the group at W3C, introduce yourself and find or file issues here that engage your interest. If you are new to Git and GitHub, there's a useful [introduction to Github](#) in the W3C Wiki.

Issue #1 (<https://github.com/schemaorg/schemaorg/issues/1>) in Github is an entry point for release planning. It should provide an overview of upcoming work, in terms of broad themes, specific issues and release milestones.

Our next milestone release has the working name 'sdo-ganymede'. See <https://github.com/schemaorg/schemaorg/issues/510> for an entry point, or else navigate issues via label or milestone withing Github. Every change to the site comes via discussions here. Substantive changes are recorded in our [release notes](#). A preview of the [draft new release notes](#) can be found as part of the test site for our next release. Every month or so, after final review by the Schema.org Steering Group, we make a formal release.

Software

For most collaborators, all you need to know about the software is how to run it. Essentially you will need to have the Python version of Google App Engine SDK running on the platform of your choice. You can then make test builds of schema.org running on your own machine accessible as <http://localhost:8080/> or else post them on appspot.com for collaboration. See <https://cloud.google.com/appengine/docs> for details.

More information about the software is also available in [SOFTWARE_README.md](#)

See also notes in the wiki: <https://github.com/schemaorg/schemaorg/wiki/Contributing>

Formats and standards

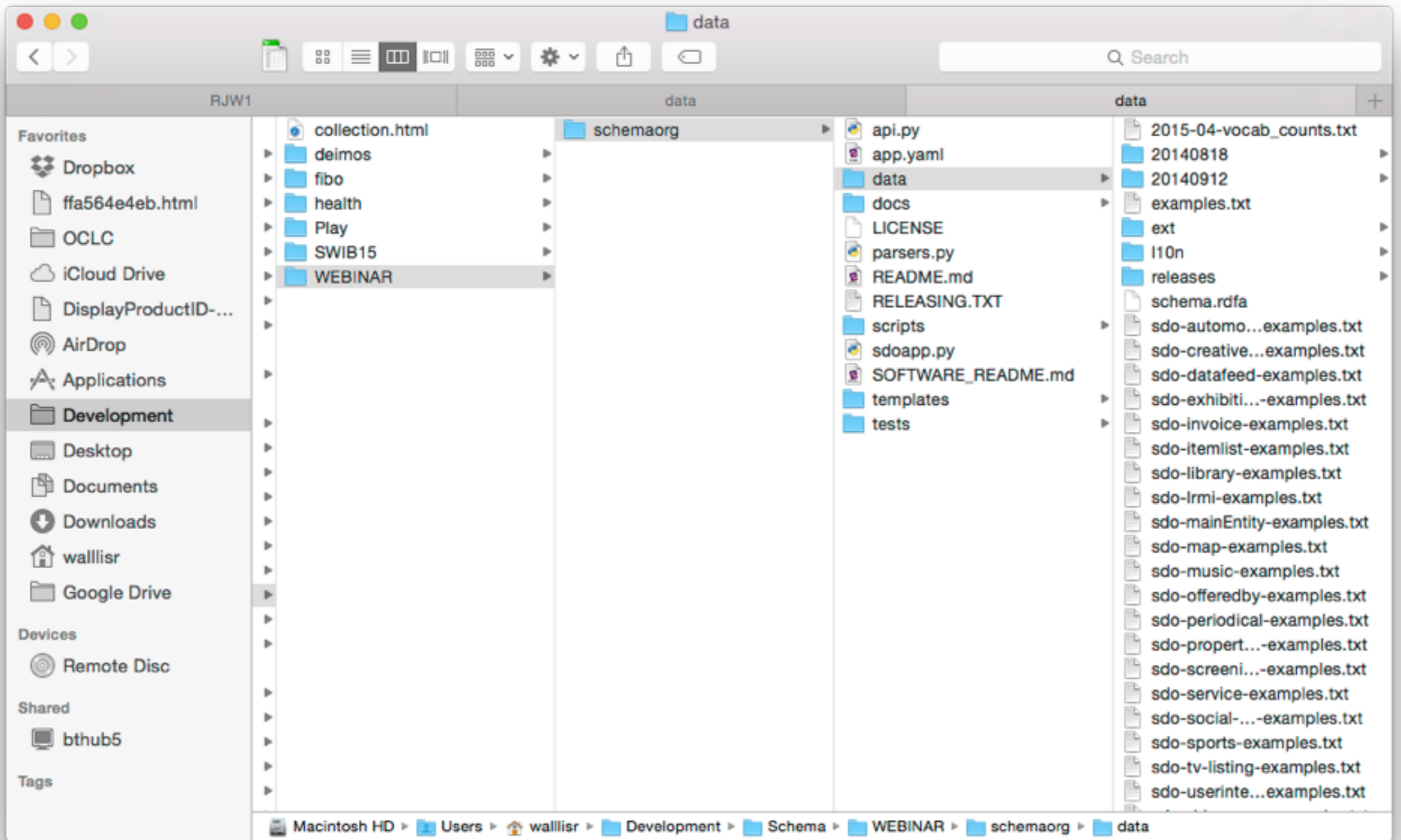
```
WEBINAR — bash — 89x28
bash

RJW1:WEBINAR wallisr$
RJW1:WEBINAR wallisr$ git clone https://github.com/schemaorg/schemaorg.git
```



```
schemaorg -- bash -- 89x28
bash

RJW1:WEBINAR walllir$
RJW1:WEBINAR walllir$ git clone https://github.com/schemaorg/schemaorg.git
Cloning into 'schemaorg'...
remote: Counting objects: 6510, done.
remote: Total 6510 (delta 0), reused 0 (delta 0), pack-reused 6509
Receiving objects: 100% (6510/6510), 28.34 MiB | 3.36 MiB/s, done.
Resolving deltas: 100% (4151/4151), done.
Checking connectivity... done.
RJW1:WEBINAR walllir$ ls
schemaorg
RJW1:WEBINAR walllir$ cd schemaorg/
RJW1:schemaorg walllir$ ls
LICENSE                app.yaml                sdoapp.py
README.md              data                    templates
RELEASING.TXT          docs                     tests
SOFTWARE_README.md    parsers.py
api.py                  scripts
RJW1:schemaorg walllir$
```



```
schema.rdfa
<!DOCTYPE html>
<html>
  <head>
    <title>Schema.org master file: RDFS in RDFa</title>
    <meta charset="UTF-8" />
    <style type="text/css">
      span.h {
        padding-left: 0px;
        font-weight: bold;
      }
      span {
        display: block;
        padding-left: 10px;
      }
    </style>
  </head>
  <body>
    <h1>Schema.org core schema</h1>

    <p>This is the RDFa representation of the schema.org schema, the underlying representation of the schema.org vocabulary.</p>

    <p>It is represented in a form based on W3C RDF/RDFS. We encourage proposals for schema.org improvements to be expressed in this same style. For Discussion please use the W3C <a href="mailto:public-vocabs@w3.org">Web schemas</a> group.</p>
    <p>See <a href="http://schema.org/docs/datamodel.html">datamodel</a> for more details.</p>
    <p>Note: the style of RDFa used here may change in the future. To see the substantive content of the schema, view the HTML source markup. We use a simple subset of RDFa for syntax, including prefixes that are declared in the <a href="http://www.w3.org/2011/rdfa-context/rdfa-1.1">RDFa initial context</a>.</p>

    <hr />

    <div typeof="rdfs:Class" resource="http://schema.org/Thing">
      <span class="h" property="rdfs:label">Thing</span>
      <span property="rdfs:comment">The most generic type of item.</span>
    </div>
  </body>
</html>
```



```
schema.rdfa
<div typeof="rdfs:Class" resource="http://schema.org/CreativeWork">
  <span class="h" property="rdfs:label">CreativeWork</span>
  <span property="rdfs:comment">The most generic kind of creative work, including books, movies, photographs, software
programs, etc.</span>
  <span>Subclass of: <a property="rdfs:subClassOf" href="http://schema.org/Thing">Thing</a></span>
  <span>Source: <a property="dc:source"
href="http://www.w3.org/wiki/WebSchemas/SchemaDotOrgSources#source_rNews">rNews</a></span></div>
<div typeof="rdfs:Class" resource="http://schema.org/WebPage">
  <span class="h" property="rdfs:label">WebPage</span>
  <span property="rdfs:comment">A web page. Every web page is implicitly assumed to be declared to be of type WebPage, so the
various properties about that webpage, such as <code>breadcrumb</code> may be used. We recommend explicit declaration
if these properties are specified, but if they are found outside of an itemscope, they will be assumed to be about the page.</span>
  <span>Subclass of: <a property="rdfs:subClassOf" href="http://schema.org/CreativeWork">CreativeWork</a></span>
</div>
<div typeof="rdfs:Class" resource="http://schema.org/AboutPage">
  <span class="h" property="rdfs:label">AboutPage</span>
  <span property="rdfs:comment">Web page type: About page.</span>
  <span>Subclass of: <a property="rdfs:subClassOf" href="http://schema.org/WebPage">WebPage</a></span>
</div>
<div typeof="rdfs:Class" resource="http://schema.org/Organization">
  <span class="h" property="rdfs:label">Organization</span>
  <span property="rdfs:comment">An organization such as a school, NGO, corporation, club, etc.</span>
  <span>Subclass of: <a property="rdfs:subClassOf" href="http://schema.org/Thing">Thing</a></span>
</div>
<div typeof="rdfs:Class" resource="http://schema.org/Place">
  <span class="h" property="rdfs:label">Place</span>
  <span property="rdfs:comment">Entities that have a somewhat fixed, physical extension.</span>
  <span>Subclass of: <a property="rdfs:subClassOf" href="http://schema.org/Thing">Thing</a></span>
</div>
<div typeof="rdfs:Class" resource="http://schema.org/LocalBusiness">
  <span class="h" property="rdfs:label">LocalBusiness</span>
  <span property="rdfs:comment">A particular physical business or branch of an organization. Examples of LocalBusiness include
a restaurant, a particular branch of a restaurant chain, a branch of a bank, a medical practice, a club, a howling alley.
```

Schema.org master file: RC x Richard

file:///Users/wallisr/Development/Schema/WEBINAR/schemaorg/data/schema.rdfa

Schema.org core schema

This is the RDFa representation of the schema.org schema, the underlying representation of the schema.org vocabulary.

It is represented in a form based on W3C RDF/RDFS. We encourage proposals for schema.org improvements to be expressed in this same style. For Discussion please use the W3C [Web schemas](#) group.

See [datamodel](#) for more details.

Note: the style of RDFa used here may change in the future. To see the substantive content of the schema, view the HTML source markup. We use a simple subset of RDFa for syntax, including prefixes that are declared in the [RDFa initial context](#).

Thing
The most generic type of item.

CreativeWork
The most generic kind of creative work, including books, movies, photographs, software programs, etc.
Subclass of: [Thing](#)
Source: [rNews](#)

WebPage
A web page. Every web page is implicitly assumed to be declared to be of type WebPage, so the various properties about that webpage, such as `breadcrumb` may be used. We recommend explicit declaration if these properties are specified, but if they are found outside of an itemscope, they will be assumed to be about the page.
Subclass of: [CreativeWork](#)

AboutPage
Web page type: About page.
Subclass of: [WebPage](#)

Organization
An organization such as a school, NGO, corporation, club, etc.
Subclass of: [Thing](#)

Place
Entities that have a somewhat fixed, physical extension.
Subclass of: [Thing](#)

LocalBusiness
A particular physical business or branch of an organization. Examples of LocalBusiness include a restaurant, a particular branch of a restaurant chain, a branch of a bank, a medical practice, a club, a bowling alley, etc.
Subclass of: [Organization](#)
Subclass of: [Place](#)

FinancialService
Financial services business.
Subclass of: [LocalBusiness](#)

ProfessionalService
Original definition: "provider of professional services."

The general [ProfessionalService](#) type for local businesses was deprecated due to confusion with [Service](#). For reference, the types that it included were: [Dentist](#), [AccountingService](#), [Attorney](#), [Notary](#), as well as types for several kinds of [HomeAndConstructionBusiness](#): [Electrician](#), [GeneralContractor](#), [HousePainter](#), [Locksmith](#), [Plumber](#), [Plumber](#), [RoofingContractor](#). [LegalService](#) was introduced as a more inclusive supertype of [Attorney](#).
Subclass of: [LocalBusiness](#)

LegalService
A LegalService is a business that provides legally-oriented services, advice and representation, e.g. law firms.

As a [LocalBusiness](#) it can be described as a [provider](#) of one or more [Service\(s\)](#).
Subclass of: [LocalBusiness](#)


AccountingService


```
schema.rdfa
</div>
<div typeof="rdf:Property" resource="http://schema.org/exerciseCourse">
  <span class="h" property="rdfs:label">exerciseCourse</span>
  <span property="rdfs:comment">A sub property of location. The course where this action was taken.</span>
  <link property="rdfs:subPropertyOf" href="http://schema.org/location" />
  <span>Domain: <a property="http://schema.org/domainIncludes"
href="http://schema.org/ExerciseAction">ExerciseAction</a></span>
  <span>Range: <a property="http://schema.org/rangeIncludes" href="http://schema.org/Place">Place</a></span>
</div>
<div typeof="rdf:Property" resource="http://schema.org/countryOfOrigin">
  <span class="h" property="rdfs:label">countryOfOrigin</span>
  <span property="rdfs:comment">The country of the principal offices of the production company or individual responsible for
the movie or program.</span>
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/Movie">Movie</a></span>
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/TVEpisode">TVEpisode</a></span>
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/TVSeason">TVSeason</a></span>
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/TVSeries">TVSeries</a></span>
  <span>Range: <a property="http://schema.org/rangeIncludes" href="http://schema.org/Country">Country</a></span>
</div>
<div typeof="rdf:Property" resource="http://schema.org/creator">
  <span class="h" property="rdfs:label">creator</span>
  <span property="rdfs:comment">The creator/author of this CreativeWork. This is the same as the Author property for
CreativeWork.</span>
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/CreativeWork">CreativeWork</a></span>
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/UserComments">UserComments</a></span>
  <span>Range: <a property="http://schema.org/rangeIncludes" href="http://schema.org/Organization">Organization</a></span>
  <span>Range: <a property="http://schema.org/rangeIncludes" href="http://schema.org/Person">Person</a></span>
</div>
<div typeof="rdf:Property" resource="http://schema.org/currenciesAccepted">
  <span class="h" property="rdfs:label">currenciesAccepted</span>
  <span property="rdfs:comment">The currency accepted (in <a href="#39;http://en.wikipedia.org/wiki/ISO_4217&#39;&gt;ISO
4217 currency format</a>).</span>
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/LocalBusiness">LocalBusiness</a></span>
  <span>Range: <a property="http://schema.org/rangeIncludes" href="http://schema.org/Text">Text</a></span>
</div>
<div typeof="rdf:Property" resource="http://schema.org/customer">
  <span class="h" property="rdfs:label">customer</span>
  <span property="rdfs:comment">Party placing the order or paying the invoice.</span>
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/Order">Order</a></span>
```


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Richard

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[Google App Engine SDK for Java](#)
[Google App Engine SDK for Go](#)

Previous SDKs

SDKs for previous versions of App Engine can be accessed at <https://console.cloud.google.com/storage/appengine-sdks/deprecated/>. You will need to log in with your Google credentials to access this page.

Download the Google Plugin for Eclipse

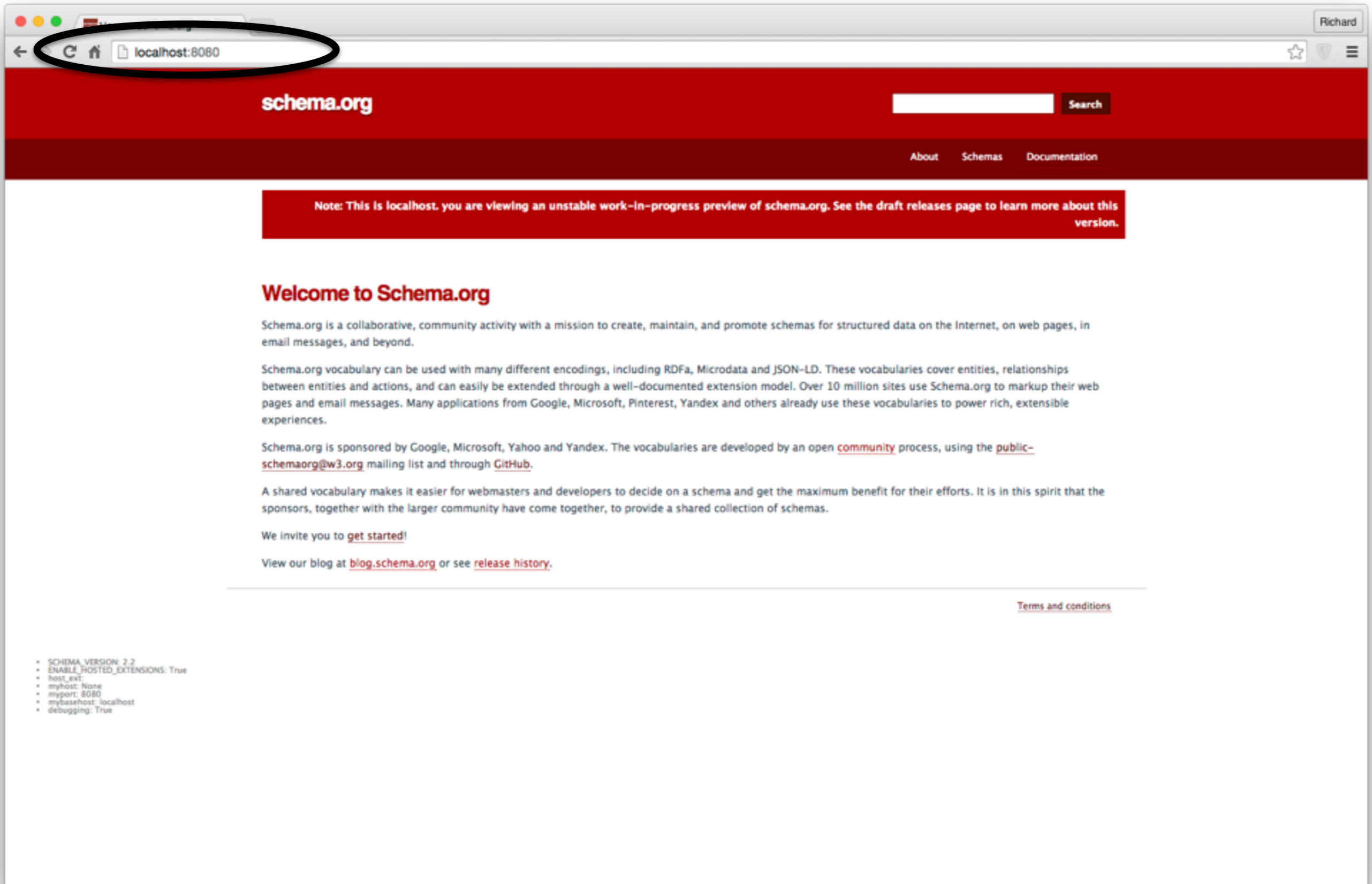
Click [here](#) for instructions on how to download and install the [Google Plugin for Eclipse](#).

Open Source

Mirrors of the open source App Engine SDK are available via the [Google App Engine project page](#) hosted on Google Code.

Was this page helpful? Let us know how we did:

```
WEBINAR - Python - 89x28
Python
RJW1:WEBINAR walllir$ pwd
/Users/walllir/Development/Schema/WEBINAR
RJW1:WEBINAR walllir$ dev_appserver.py schemaorg
WARNING 2015-12-01 16:32:59,977 simple_search_stub.py:1126] Could not read search indexes
from /var/folders/8z/k425nczs6211mpghh62ppk8m0000gp/T/appengine.sdo-deimos.walllir/search_indexes
INFO 2015-12-01 16:32:59,982 api_server.py:204] Starting API server at: http://localhost:65033
INFO 2015-12-01 16:32:59,989 dispatcher.py:197] Starting module "default" running at:
http://localhost:8080
INFO 2015-12-01 16:32:59,992 admin_server.py:118] Starting admin server at: http://localhost:8000
```




```
schema.rdfa
<span class="h" property="rdfs:label">Thing</span>
<span property="rdfs:comment">The most generic type of item.</span>
</div>

<div typeof="rdfs:Class" resource="http://schema.org/CreativeWork">
  <span class="h" property="rdfs:label">CreativeWork</span>
  <span property="rdfs:comment">The most generic kind of creative work, including books, movies, photographs, software
programs, etc.</span>
  <span>Subclass of: <a property="rdfs:subClassOf" href="http://schema.org/Thing">Thing</a></span>
  <span>Source: <a property="dc:source"
href="http://www.w3.org/wiki/WebSchemas/SchemaDotOrgSources#source_rNews">rNews</a></span></div>

<div typeof="rdfs:Class" resource="http://schema.org/WebPage">
  <span class="h" property="rdfs:label">WebPage</span>
  <span property="rdfs:comment">A web page. Every web page is implicitly assumed to be declared to be of type WebPage, so the
various properties about that webpage, such as <code>breadcrumb</code>; may be used. We recommend explicit declaration
if these properties are specified, but if they are found outside of an itemscope, they will be assumed to be about the page.</span>
  <span>Subclass of: <a property="rdfs:subClassOf" href="http://schema.org/CreativeWork">CreativeWork</a></span>
</div>

<div typeof="rdfs:Class" resource="http://schema.org/MyType">
  <span class="h" property="rdfs:label">MyType</span>
  <span property="rdfs:comment">Richard's test Type.</span>
  <span>Subclass of: <a property="rdfs:subClassOf" href="http://schema.org/Thing">Thing</a></span>
</div>

<div typeof="rdfs:Class" resource="http://schema.org/AboutPage">
  <span class="h" property="rdfs:label">AboutPage</span>
  <span property="rdfs:comment">Web page type: About page.</span>
  <span>Subclass of: <a property="rdfs:subClassOf" href="http://schema.org/WebPage">WebPage</a></span>
</div>

<div typeof="rdfs:Class" resource="http://schema.org/Organization">
  <span class="h" property="rdfs:label">Organization</span>
  <span property="rdfs:comment">An organization such as a school, NGO, corporation, club, etc.</span>
  <span>Subclass of: <a property="rdfs:subClassOf" href="http://schema.org/Thing">Thing</a></span>
</div>

<div typeof="rdfs:Class" resource="http://schema.org/Place">
```



```
schema.rdfa
<span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/Movie">Movie</a></span>~
<span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/TVEpisode">TVEpisode</a></span>~
<span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/TVSeason">TVSeason</a></span>~
<span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/TVSeries">TVSeries</a></span>~
<span>Range: <a property="http://schema.org/rangeIncludes" href="http://schema.org/Country">Country</a></span>~
</div>~
<div typeof="rdf:Property" resource="http://schema.org/creator">~
  <span class="h" property="rdfs:label">creator</span>~
  <span property="rdfs:comment">The creator/author of this CreativeWork. This is the same as the Author property for
CreativeWork.</span>~
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/CreativeWork">CreativeWork</a></span>~
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/UserComments">UserComments</a></span>~
  <span>Range: <a property="http://schema.org/rangeIncludes" href="http://schema.org/Organization">Organization</a></span>~
  <span>Range: <a property="http://schema.org/rangeIncludes" href="http://schema.org/Person">Person</a></span>~
</div>~
<div typeof="rdf:Property" resource="http://schema.org/myProperty">~
  <span class="h" property="rdfs:label">myProperty</span>~
  <span property="rdfs:comment">myProperty description.</span>~
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/MyType">MyType</a></span>~
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/UserComments">UserComments</a></span>~
  <span>Range: <a property="http://schema.org/rangeIncludes" href="http://schema.org/Person">Person</a></span>~
</div>~
<div typeof="rdf:Property" resource="http://schema.org/currenciesAccepted">~
  <span class="h" property="rdfs:label">currenciesAccepted</span>~
  <span property="rdfs:comment">The currency accepted (in &lt;a href="#39;http://en.wikipedia.org/wiki/ISO_4217&#39;&gt;ISO
4217 currency format&lt;/a&gt;).</span>~
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/LocalBusiness">LocalBusiness</a></span>~
  <span>Range: <a property="http://schema.org/rangeIncludes" href="http://schema.org/Text">Text</a></span>~
</div>~
<div typeof="rdf:Property" resource="http://schema.org/customer">~
  <span class="h" property="rdfs:label">customer</span>~
  <span property="rdfs:comment">Party placing the order or paying the invoice.</span>~
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/Order">Order</a></span>~
  <span>Domain: <a property="http://schema.org/domainIncludes" href="http://schema.org/Invoice">Invoice</a></span>~
  <span>Range: <a property="http://schema.org/rangeIncludes" href="http://schema.org/Organization">Organization</a></span>~
  <span>Range: <a property="http://schema.org/rangeIncludes" href="http://schema.org/Person">Person</a></span>~
</div>~
```

MyType - schema.org

localhost:8080/MyType

Richard

schema.org

Search

Home Schemas Documentation

MyType

Thing > MyType

Richard's test Type.

Usage: Fewer than 10 domains [\[more...\]](#)

Property	Expected Type	Description
Properties from MyType		
myProperty	Person	myProperty description.
Properties from Thing		
additionalType	URL	An additional type for the item, typically used for adding more specific types from external vocabularies in microdata syntax. This is a relationship between something and a class that the thing is in. In RDFa syntax, it is better to use the native RDFa syntax – the 'typeof' attribute – for multiple types. Schema.org tools may have only weaker understanding of extra types, in particular those defined externally.
alternateName	Text	An alias for the item.
description	Text	A short description of the item.
image	ImageObject or URL	An image of the item. This can be a URL or a fully described ImageObject .
mainEntityOfPage	URL or CreativeWork	Indicates a page (or other CreativeWork) for which this thing is the main entity being described. See background notes for details. Inverse property: mainEntity .
name	Text	The name of the item.
potentialAction	Action	Indicates a potential Action, which describes an idealized action in which this thing would play an 'object' role.
sameAs	URL	URL of a reference Web page that unambiguously indicates the item's identity. E.g. the URL of the item's Wikipedia page, Freebase page, or official website.
url	URL	URL of the item.

Schema Version 2.2

Git-2.6.3-32-bit.exe

Show All

MyType - schema.org x Home - sdo-fibo x Richard

https://console.developers.google.com/home/dashboard?project=sdo-fibo

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Google Developers Console sdo-fibo

Home Dashboard

Dashboard Activity

Project: sdo-fibo
ID: sdo-fibo (#1081623740741)

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sdo-archive sdo-archive
sdo-extendnav sdo-extendnav
sdo-rjwtest1 sdo-rjwtest1

Filter by project name or project ID

All projects
bibliograph-t1 bibliograph-t1
sdo-archive sdo-archive
sdo-bib sdo-bib
sdo-extendnav sdo-extendnav
✓ sdo-fibo sdo-fibo

Create a project...

Browse packages

Activities (Idle)
Create Project: sdo-webinar
See all activity

```
app.yaml
#application: schemaorgae~
#application: webschemas~
application: sdo-webinar~
~
version: 1~
runtime: python27~
api_version: 1~
#threadsafe: true~
threadsafe: false~
~
handlers:~
~
- url: /favicon.ico~
  static_files: docs/favicon.ico~
  upload: docs/favicon.ico~
  mime_type: image/x-icon~
~
- url: /docs/schema_org_rdfa.html~
  static_files: data/schema.rdfa~
  upload: data/schema.rdfa~
  application_readable: True~
  mime_type: text/html~
~
- url: /docs/jsonldcontext.json.*~
  script: sdoapp.app~
~
- url: /docs/full.*.html~
  script: sdoapp.app~
~
- url: /docs/schemas.html~
  script: sdoapp.app~
~
- url: /docs/tree.json.*~
  script: sdoapp.app~
```

Line: 3 Column: 14 YAML Soft Tabs: 4

```
WEBINAR - Python - 89x28
Python
RJW1:WEBINAR wallisr$ appcfg.py update schemaorg
04:54 PM Application: sdo-webinar; version: 1
04:54 PM Host: appengine.google.com
04:54 PM
Starting update of app: sdo-webinar, version: 1
04:54 PM Getting current resource limits.
04:54 PM Scanning files on local disk.
Could not guess mimetype for docs/schemaorg.owl. Using application/octet-stream.
Could not guess mimetype for docs/schemaorg.owl. Using application/octet-stream.
04:54 PM Cloning 31 static files.
04:54 PM Cloning 90 application files.
04:54 PM Compilation starting.
04:54 PM Compilation completed.
04:54 PM Starting deployment.
04:54 PM Checking if deployment succeeded.
04:54 PM Deployment successful.
04:55 PM Checking if updated app version is serving.
```


MyType

Thing > [MyType](#)

Richard's test Type.

Usage: Fewer than 10 domains

[more...]

Property	Expected Type	Description
Properties from MyType		
myProperty	Person	myProperty description.
Properties from Thing		
additionalType	URL	An additional type for the item, typically used for adding more specific types from external vocabularies in microdata syntax. This is a relationship between something and a class that the thing is in. In RDFa syntax, it is better to use the native RDFa syntax – the 'typeof' attribute – for multiple types. Schema.org tools may have only weaker understanding of extra types, in particular those defined externally.
alternateName	Text	An alias for the item.
description	Text	A short description of the item.
image	URL or ImageObject	An image of the item. This can be a URL or a fully described ImageObject .
mainEntityOfPage	URL or CreativeWork	Indicates a page (or other CreativeWork) for which this thing is the main entity being described. See background notes for details. Inverse property: mainEntity .
name	Text	The name of the item.
potentialAction	Action	Indicates a potential Action, which describes an idealized action in which this thing would play an 'object' role.
sameAs	URL	URL of a reference Web page that unambiguously indicates the item's identity. E.g. the URL of the item's Wikipedia page, Freebase page, or official website.
url	URL	URL of the item.



```
examples.txt
TYPES: #eg-1 Person,PostalAddress,addressRegion,postalCode,address,streetAddress,telephone,email,url,addressLocality~
~
PRE-MARKUP:~
~
Jane Doe~
~
~
Professor~
20341 Whitworth Institute~
405 Whitworth~
Seattle WA 98052~
(425) 123-4567~
<a href="mailto:jane-doe@xyz.edu">jane-doe@illinois.edu</a>~
~
Jane's home page:~
<a href="http://www.janedoe.com">janedoe.com</a>~
~
Graduate students:~
<a href="http://www.xyz.edu/students/alicejones.html">Alice Jones</a>~
<a href="http://www.xyz.edu/students/bobsmith.html">Bob Smith</a>~
~
MICRODATA:~
~
<div itemscope itemtype="http://schema.org/Person">~
  <span itemprop="name">Jane Doe</span>~
  ~
  ~
  <span itemprop="jobTitle">Professor</span>~
  <div itemprop="address" itemscope itemtype="http://schema.org/PostalAddress">~
    <span itemprop="streetAddress">~
      20341 Whitworth Institute~
      405 N. Whitworth~
    </span>~
    <span itemprop="addressLocality">Seattle</span>~
    <span itemprop="addressRegion">WA</span>~
    <span itemprop="postalCode">98052</span>~
  </div>~
  <span itemprop="telephone">(425) 123-4567</span>~
  <a href="mailto:jane-doe@xyz.edu" itemprop="email">~
    jane-doe@xyz.edu</a>~
  ~
  Jane's home page:~
  <a href="http://www.janedoe.com" itemprop="url">janedoe.com</a>~
</div>
```

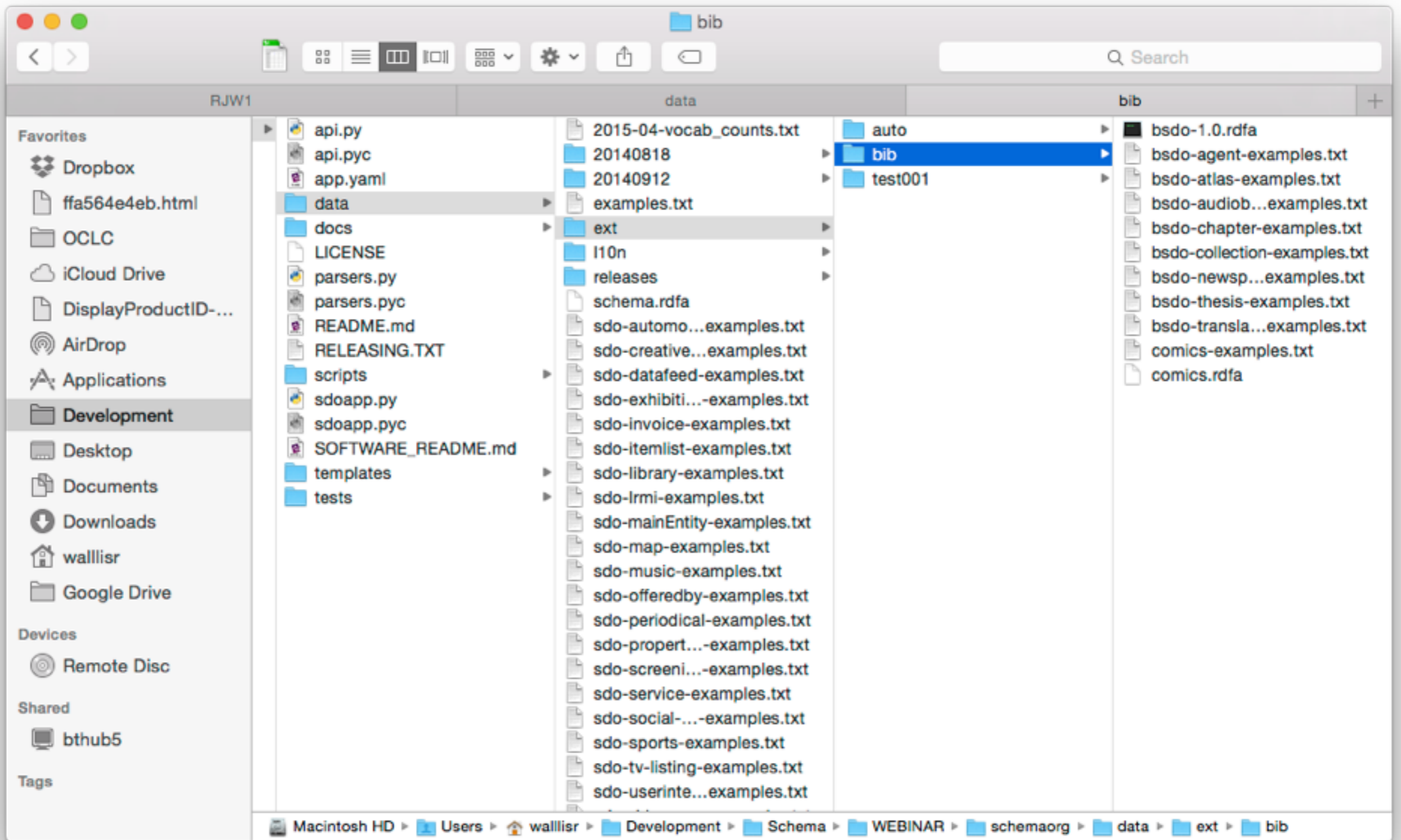
Line: 1 Column: 1 HTML Tab Size: 4

```
examples.txt
<div vocab="http://schema.org/" typeof="Person">
  <span property="name">Jane Doe</span>
  
  <span property="jobTitle">Professor</span>
  <div property="address" typeof="PostalAddress">
    <span property="streetAddress">
      20341 Whitworth Institute
      405 N. Whitworth
    </span>
    <span property="addressLocality">Seattle</span>,
    <span property="addressRegion">WA</span>
    <span property="postalCode">98052</span>
  </div>
  <span property="telephone">(425) 123-4567</span>
  <a href="mailto:jane-doe@xyz.edu" property="email">
    jane-doe@xyz.edu</a>
  Jane's home page:
  <a href="http://www.janedoe.com" property="url">janedoe.com</a>
  Graduate students:
  <a href="http://www.xyz.edu/students/alicejones.html" property="colleague">
    Alice Jones</a>
  <a href="http://www.xyz.edu/students/bobsmith.html" property="colleague">
    Bob Smith</a>
</div>
JSON:
<script type="application/ld+json">
{
  "@context": "http://schema.org",
  "@type": "Person",
  "address": {
    "@type": "PostalAddress",
    "addressLocality": "Seattle",
    "addressRegion": "WA",
    "postalCode": "98052",
    "streetAddress": "20341 Whitworth Institute 405 N. Whitworth"
  },
  "colleague": [
```

Line: 1 Column: 1

HTML

Tab Size: 4



Extending Schema.org

Useful Links

- Schema.org GitHub Repository
<https://github.com/schemaorg/schemaorg>
- Git client downloads
<https://git-scm.com/downloads>
- Git clone command for schemaorg
`git clone https://github.com/schemaorg/schemaorg.git`
- Google App Engine download
<https://cloud.google.com/appengine/downloads>
- Google Developers Console
<https://console.developers.google.com>
- Appspot test instance
<http://sdo-webinar.appspot.com/>

Schema.org Summary

- Launched in 2011
- Now V2.2 - 643 Types, 993 Properties, 219 Values
- One significant source of data for Knowledge Graphs
- Currently 2 extensions - bib.schema.org & auto.schema.org
- Flat namespace - including extensions
- Embedded in html using Microdata, RDFa, or JSON-LD
- Several test tools/sites to help
- Source based on Google App Engine - held in GitHub
- Can extend & test locally
- Can share on free development App Engine at appspot.com

Schema.org

Useful Links

- Schema.org
<http://schema.org>
- Schema.org extensions
<http://auto.schema.org> <http://bib.schema.org>
- Schema.org W3C Community Group / Mail List
<https://www.w3.org/community/schemaorg/>
- GitHub repository
<https://github.com/schemaorg/schemaorg>
- Dan Scott's RDFa Codelab
https://coffeecode.net/swib14/preconference/rdfa_exercises/
- Schema.org Blog
<http://blog.schema.org/>
- Data Liberate Blog
<http://dataliberate.com/>

Schema.org in Two Parts: From Use to Extension

Part 2: Extending Potential Possibilities

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schema.org