

# The best-laid schemes

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EDITEUR

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# About EDItEUR

- a not-for-profit membership organisation
- develops, supports and promotes metadata and identification standards for the global book, e-book and serials supply chains
- acknowledged centre of expertise on standards and metadata for the industry
- based in London, but a global membership of publishers, distributors, wholesalers, retailers, subscription agents, libraries, system vendors, rights organizations and trade associations

# About EDItEUR

- best known for ONIX, *Thema*, EDItX standards
- also provides management services to ISBN and ISNI International Agencies, IDF and LCC
- EDItEUR has four full-time staff, 1.4 FTE part-time staff, plus access to world-class consultants in both book and serials sectors
- we work closely with other standards bodies, to ensure our standards meet the needs of their stakeholders too

# What is schema.org?

- ‘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’
- in this context, ‘structured data’ is not the content of web pages (which is HTML) – but *metadata embedded inside the HTML of the web page*
- most internet users use a search engine that uses schema.org data to enhance its search results
- it is a form of search engine optimisation (SEO)
- builds Google’s Knowledge Graph

## 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](mailto: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](http://blog.schema.org) or see [release history](#) for version 3.1.

# What is schema.org?

- in practical terms, it's a metadata vocabulary of entities and their properties, together with a method for embedding this metadata in web pages
- entities include CreativeWork, Book, Product, Person, Organisation...
- but also Event, Flight, BedDetails, LiquorStore... 
- properties of Book include isbn, author, illustrator, edition, numberOfPages, isFamilyFriendly... 
- ~10 million websites with schema.org markup
- supported by Google, Bing, Yahoo!, Yandex



**Illustrator:** Thomas Taylor, Mary GrandPré



# schema.org as *Microdata*

<i>The Mill on the Floss</i>



# schema.org as Microdata

`<i>The Mill on the Floss</i>`

`<em>The Mill on the Floss</em>`

# schema.org as Microdata

`<i>The Mill on the Floss</i>`

`<em>The Mill on the Floss</em>`

`<cite>The Mill on the Floss</cite>`



# schema.org as Microdata

`<i>The Mill on the Floss</i>`

`<em>The Mill on the Floss</em>`

`<cite>The Mill on the Floss</cite>`

`<span itemscope itemtype="http://schema.org/book">`

`<cite itemprop="name">The Mill on the Floss</cite>`

`<span>`



# Web page

**The Mill on the Floss (Penguin Classics)  
by George Eliot**



**Product details – Paperback**

**ISBN – 978-0-00-123456-7**

**Published by – Penguin Random House**

**Imprint – Penguin**

**Publication date – 12th October 2015**

**US and CA Price – \$17.99 / C\$18.99**

**UK Price – £11.99**

```
<div itemscope itemtype="http://schema.org/Book">
  <h6>
    <cite itemprop="name">The Mill on the Floss</cite>
    (<span itemprop="isPartOf" itemscope itemtype="http://schema.org/BookSeries">
      <span itemprop="name">Penguin Classics</span>
    </span>)
  </h6>
  <p>by
    <span itemprop="author" itemscope itemtype="http://schema.org/Person">
      <span itemprop="name">
        <span itemprop="givenName">George</span>
        <span itemprop="familyName">Eliot</span>
      </span>
    </span>
  </p>
  <p>&#x2605;&#x2605;&#x2605;&#x2605;&#x2B52;</p>
  <link itemprop="bookFormat" href="http://schema.org/Paperback"/>
  <dl>
    <dt>Product details</dt>
    <dd>Mass-market paperback</dd>
    <dt>ISBN</dt>
    <dd itemprop="isbn" content="9780001234567">978-0-00-123456-7</dd>
    <dt>Published by</dt>
    <dd itemprop="publisher" itemscope itemtype="http://schema.org/Organization"
      itemid="#PRH">
      <span itemscope itemtype="http://schema.org/Book" itemid="#PRH"
        itemprop="name">Penguin Classics</span>
    </dd>
  </dl>
</div>
```

```
<div
  <h6>
    <cite
      (<span
        <span
          >The Mill on the Floss</cite>
          >Penguin Classics</span>
        </span>)
    </h6>
    <p>by
      <span
        <span
          <span
            >George</span>
            >Eliot</span>
          </span>
        </span>
      </p>
    <p>&#x2605;&#x2605;&#x2605;&#x2605;&#x2B52;</p>
    <link
    <dl>
      <dt>Product details</dt>
      <dd>Mass-market paperback</dd>
      <dt>ISBN</dt>
      <dd
        >978-0-00-123456-7</dd>
      <dt>Published by</dt>
      <dd
        >
```

## Book

All (1) ▼

## Book

0 ERRORS 0 WARNINGS ^

@type	Book
name	The Mill on the Floss
bookFormat	http://schema.org/Paperback
isbn	9780001234567
datePublished	2015-10-12
isPartOf	
@type	BookSeries
name	Penguin Classics
author	
@type	Person
name	George Eliot
givenName	George
familyName	Eliot
publisher	
@type	Organization
@id	http://www.example.com/#PRH
name	Penguin Random House
brand	
@type	Brand
offers	
@type	Offer
eligibleRegion	US
priceCurrency	USD
price	17.99
offers	
@type	Offer
eligibleRegion	CA
priceCurrency	CAD
price	18.99
offers	
@type	Offer
eligibleRegion	GB
priceCurrency	GBP
price	11.99



**schema.org in ONIX**

# schema.org as JSON-LD

- alternative approach
  - instead of ‘decorating’ the HTML with Microdata – effective but requires developer knowledge – you can add a JSON-LD data snippet to the HTML page
  - JSON method allows savvy publishers to provide an easy-to-use block of data that all recipients could add to the end of their web pages
    - not limited to highly technical ONIX recipients
    - of course, highly technical data recipients can take the ONIX data and do more

# JSON and JSON-LD

- JSON is Javascript Object Notation
  - not really limited to Javascript – a generalised data format of name-value pairs used with many programming languages and dev frameworks
  - very loose ‘typing’
  - JSON data must be Unicode

```
{  
  "firstName": "John",  
  "lastName": "Smith",  
  "isAlive": true,  
  "age": 25,  
  "address":  
    {  
      "streetAddress": "21 2nd Street",  
      "city": "New York",  
      "state": "NY",  
      "postalCode": "10021-3100"  
    }  
}
```



# JSON and JSON-LD

- JSON is Javascript Object Notation
  - not really limited to Javascript – a generalised data format of name-value pairs used with many programming languages and dev frameworks
  - very loose ‘typing’
  - JSON data must be Unicode
- JSON-LD is JSON, but modified to carry data triples in Linked Data style
  - special @context and @type property names

```
<div>
  <h6>
    <cite>The Mill on the Floss</cite> (Penguin
    Classics)
  </h6>
  <p>by George Eliot</p>
</div>
```

```
<script type="application/ld+json">
{
  "@context"      : "http://schema.org/",
  "@type"         : "Book",
  "name"          : "The Mill on the Floss",
  "isPartOf" : {
    "@type"       : "BookSeries",
    "name"        : "Penguin Classics" },
  "author" : {
    "@type"       : "Person",
    "givenName"   : "George",
    "familyName"  : "Eliot" }
}
</script>
```

# JSON snippet in ONIX

```
<TextContent>  
  <TextType>24</TextType>  
  <ContentAudience>oo</ContentAudience>  
  <Text>{ "@context" : "http://schema.org/", "@type" :  
    "Book", "name" : "The Mill on the Floss", "isPartOf" :  
    { "@type" : "BookSeries", "name" : "Penguin  
    Classics" }, "author" : { "@type" : "Person", "givenName" :  
    "George", "familyName" : "Eliot" } }</Text>  
</TextContent>
```

- curly brackets, colons, commas are critical
  - use same Structured Data Testing Tool to check your data



Google

Structured Data Testing Tool

Sign in

NEW TEST

1<script type="application/ld+json">

2{

3"@context" : "http://schema.org/",

4"@type" : "Book",

5"name" : "The Mill on the Floss",

6"bookFormat" : "Paperback",

7"isbn" : "9780001234567",

8"datePublished": "2015-10-12",

9"isPartOf" :

10{

11"@type" : "BookSeries",

12"name" : "Penguin Classics"

13},

14"author" :

15{

16"@type" : "Person",

17"givenName" : "George",

18"familyName" : "Eliot"

19},

20"publisher" :

21{

22"@type" : "Organization",

23"name" : "Penguin Random House",

24"brand" :

25{

26"@type" : "Brand",

27"name" : "Penguin"

28}

29},

30"offers" :

31[

32{

33"@type" : "Offer",

34"eligibleRegion" : "US",

35"priceCurrency" : "USD",

36"price" : 17.99

37},

38{

39"@type" : "Offer",

40"eligibleRegion" : "CA",

41"priceCurrency" : "CAD",

42"price" : 18.99

43},

44{

Book

All (1)

Book0 ERRORS0 WARNINGS

@type	Book
name	The Mill on the Floss
bookFormat	http://schema.org/Paperback
isbn	9780001234567
datePublished	2015-10-12
isPartOf	
@type	BookSeries
name	Penguin Classics
author	
@type	Person
givenName	George
familyName	Eliot
publisher	
@type	Organization
name	Penguin Random House
brand	
@type	Brand
name	Penguin
offers	
@type	Offer
eligibleRegion	US
priceCurrency	USD
price	17.99
offers	
@type	Offer
eligibleRegion	CA

# The practical result?

- any data recipient can insert the JSON-LD snippet into a web page about the book – for example a ‘buy page’ in a web store
- significantly higher search ranking for that page in organic search results
- rich snippets adjacent to search result pages
- two warnings: Unicode, and security





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