Proposed new properties for the Schema.org Event type

# Recommendation [DAY] [MONTH] 2015

This version: [github link]

Latest published version: [github link]

Previous version: [github link]

Editors: [Names]

Authors: [Names]

Contributors: [Names]

# 

# Abstract

Several Life Science organisations in Europe have been looking at standard ways to describe Life Science events, in order to share event information more effectively. Some of these organisations came together to formally agree the properties needed to describe a Life Science event. The properties were put in a draft specification, with the idea that the specification would be proposed as a new ‘Life Science Event’ type in Schema.org. However, most of the properties in the specification were generic and useful for any event, and the remaining ones were not easily transferrable. The generic properties were extracted from the specification and are here proposed as additions to the Event type in Schema.org.

# 

# Table of Contents

[Recommendation [DAY] [MONTH] 2015](#_jdeykt68ile4)

[Abstract](#_iwpofulctdmg)

[Status of this Document](#_nrwnogeyt0xk)

[Table of Contents](#_1tqzfb2ey71m)

[Introduction](#_1xnqhnfcb6qv)

[Problem statement](#_d8m1wki81zva)

[Proposed solution](#_8yrtvifis3z)

[Rationale](#_l5gn97lkcv9k)

[Consensus](#_yxnpdchrh3dp)

[Adoption](#_wpa9sj4z7kju)

[Reuse](#_o93vjwbgv4kd)

[Goals](#_yam6mb62d1fa)

[Scope](#_rzhigwco4xdc)

[Data model](#_c3bnvhbso6yj)

[LifeScienceEvent type definition](#_uc6mc8iukqe)

[Data fields](#_2fbsxcd60sp9)

[Controlled Vocabularies (CV)](#_hwrilg1hj6p0)

[Content Guidelines (CG)](#_aseflhc840ye)

[Cardinality](#_ugktfe6ssxha)

[Identifiers](#_d06qmi8p44tv)

[Implementation Guidelines](#_8vosxnycv8rb)

[Microdata](#_l5ii5j50d7c8)

[RDFa](#_kg4bvzc6psy9)

[JSON-LD](#_gfutfxtjn960)

[Glossary](#_s457h9uql3j5)

[Further examples](#_4gyoon21375)

# 

# 

# Introduction

Conferences, workshops, meetings and other events play an important role in knowledge sharing and the acquisition of new skills. Though there are several technological solutions for event sharing, events are still not described in a consistent manner that would make them easy to discover, exchange or compare. In addition, the existing [Event type](https://schema.org/Event) in Schema.org is missing properties for some important fields that people are using for events on the web (e.g. Sponsor, Event ID, Deadline).

Because there is no comprehensive standard to follow, the dissemination, discovery and aggregation of events is not as effective as it could be. As a result, the advertisement of an event in third party websites normally requires manual curation to shape the content to each provider’s requirements.

In 2015 multi-institutional team from [ELIXIR](https://www.elixir-europe.org), [Pistoia Alliance](http://www.pistoiaalliance.org), [GOBLET](http://mygoblet.org), [TeSS](https://tess.elixir-uk.org), [BioSharing](https://biosharing.org) and [BBMRI](http://bbmri-eric.eu/) came together to try and standardise the properties needed to describe Life Science information (events, organisations, training materials). The initiative was called Bioschemas.org. You can find more about the project on the [bioschemas GitHub pages](https://github.com/BioSchemas).

Several previous attempts had already been made to standardise the description of Life Science events. Research was done as to which fields were being used in the wild, and agreement of common properties was reached both by the above organisations and [ISCB](http://www.iscb.org) and [SIB](https://www.isb-sib.ch).

Bioschemas.org formalised these agreements by putting them into [a specification](https://docs.google.com/document/d/1CzE_EGDp_II7skKCUFzZUQ7ZSkImkwcEPiQJVpX8YNk/edit). The idea was that this specification would act as a candidate for a new ‘Life Science Event’ type in Schema.org, an extension of the existing ‘Event’ type.

But it was realised that nearly all of the properties of the new extension were generic, and useful for many event descriptions. Consequently the more specific properties were removed and the remaining general properties are here proposed as additions to the Schema.org ‘Event’ type.

## Proposed solution

The new properties here are a result of an inductive process of collating what properties are already being used on many websites, so it is hoped that this would lead to easier adoption by those sites, and would encourage the adoption of Schema.org markup for events for the sites that don’t already use it.

The enhanced Events type would better support the description, discoverability, exchange and aggregation of event information.

# 

# New properties for the Event type

|  |  |  |
| --- | --- | --- |
| **Property** | **Expected Type** | **Description** |
| eventId | [Text](https://schema.org/Text) | Unique Id for the event. |
| prerequisite | [Text](https://schema.org/Text) | A list of prerequisites to be able to attend the event. |
| fee | [Offer](https://schema.org/Offer) | An offer to provide this item—for example, an offer to sell a product, rent the DVD of a movie, or give away tickets to an event. |
| accreditation | Organization or [Text](https://schema.org/Text) | Type of accreditation or organisation which accredits the event. |
| eligibility | [Text](https://schema.org/Text) | Defines the type of eligibility to attend this event e.g first come, first served; By invitation; Registration of interest. |
| capacity | Integer | Available number of spaces. |
| contact | Organization or Person | Main point of contact that can be contacted for general queries. This would be an event organiser or an administrator. |
| attachment | [URL](https://schema.org/URL) | Any files or related websites which give more information about this event. e.g. flyers, third party sites handling tickets. |
| socialMedia | [URL](https://schema.org/URL) | Link to social media websites like Twitter or Facebook. |
| lastUpdate | [Date](https://schema.org/Date) | Date when the event was last modified. |
| deadline | Text | Deadlines dates for this event e.g. application deadline, poster submission, paper submission, early registration. |
| acceptanceNotificationDate | [Date](https://schema.org/Date) | Date for the host to confirm acceptance to applicants. |
| eventType | Text | The Event organizer can use a standard list or taxonomy of terms that is appropriate to their sector or culture e.g. Webinar, Conference, Race, Concert, Product launch. |
| topic | Text | Topics that describe the content of the event. Event organiser can use a standard vocabulary from their sector. This is a predefined vocabulary, unlike the keywords below, which are free-tagging. Examples might include HIstory, Statistics, Marketing, with subcategories to each topic. |
| keywords | Keywords | Keywords to describe the event. Use terms that are not available in the predefined topics above. |
| targetAudience | Audience | Could be based on the predefined topics above, or another standardised description. The targetAudience can be combined with topic to understand an event better e.g. an event with the topic ‘Computer Programming’ and targetAudience of ‘Lifelong learners’ may be a very different to an event with the same topic but a targetAudience of ‘Physicists’. |
| spotlight | Boolean | Event highlighted by the event provider. Whether or not the event provider wishes to highlight this event as very important/significant. |
| programme | Text or URL | A plan or schedule of activities or procedures the event will follow. |
| submitter | Organization or Person | The person or organization who submits an event to a repository, registry or portal of events (such as iAnn, ISCB in Life Sciences). |
| hostInstitution | Organization | The organization or institution responsible for hosting the event (not necessarily responsible for organizing). |
| sponsor | Organization | The organization or institutions providing sponsorship for the event. |
| registrationStatus | Registration Status | The status of registration for an event e.g. Open, Cancelled, Full. |

## Examples

### Microdata

|  |
| --- |
| **Example 3. Embedding the proposed Event properties as microdata within HTML** |
| <div itemscope itemtype="http://schema.org/Event">  <div itemprop="name">Epigenomics of Common Diseases</div>  <div itemprop="description">This conference will bring together leading scientists from the fields of epigenomics, genetics and bioinformatics. </div>  <div>Event type: <span itemprop="eventType">Conference</span></div>  <div>Topic: <span itemprop="topic">Epigenomics, Disease</span></div>  <div>Target audience: <span itemprop="targetAudience">Epigenomics, Disease</span></div>  <div>Date: <meta itemprop="startDate" content="2015-04-15T">Wednesday 14 April 2015</div>  <div>Deadline: <span itemprop="deadline">21 January 2016</span></div>  ...  </div> |

### 

### RDFa

|  |
| --- |
| **Example 4. Embedding LifeScienceEvent properties as RDFa within HTML** |
| <div vocab="http://schema.org/" typeof="LifeScienceEvent">  <div property="name">Epigenomics of Common Diseases</div>  <div property="description">This conference will bring together leading scientists from the fields of epigenomics, genetics and bioinformatics. </div>  <div>Event type: <span property="eventType">Workshops and courses</span></div>  <div>Date: <meta property="startDate" content="2015-04-15T">Wednesday 14 April 2015</div>  ...  </div> |

### JSON-LD

|  |
| --- |
| **Example 5. Representing LifeScienceEvent in JSON-LD format** |
| <script type="application/ld+json">  {  "@context": "http://schema.org/",  "@type": "LifeScienceEvent",  "name": "Epigenomics of Common Diseases",  "description": "This conference will bring together leading scientists from the fields of epigenomics, genetics and bioinformatics.",  "eventType": "Workshops and courses",  "startDate": "2015-04-15T",  ...  }  </script> |

# 

# 

# Further examples

|  |
| --- |
| **Example 6. LifeScienceEvent containing all the minimum (M) fields** |
| *Microdata:*  <div itemscope itemtype="<http://schema.org/LifeScienceEvent>">  <meta itemprop="eventId" content="id6593990">  <div itemprop="name">Epigenomics of Common Diseases</div>  <div itemprop="description">This conference will bring together leading scientists from the fields of epigenomics, genetics and bioinformatics. </div>  <div>Event type: <span itemprop="eventType">Workshops and courses</span></div>  <div>Date: <meta itemprop="startDate" content="2015-04-15T">Wednesday 14 April 2015</div>  <div itemprop="location" itemscope itemtype="<http://schema.org/Place>">  Location:  <span itemprop="name">Greensands Conference Centre</span>  <div itemprop="address" itemscope itemtype="http://schema.org/PostalAddress">  <span itemprop="streetAddress">6 Burridge Road</span><br>  <span itemprop="addressLocality">Manchester</span><br>  <span itemprop="postalCode">M15 3RT</span><br>  <span itemprop="addressCountry">UK</span>  </div>  </div>  <div itemprop="offers" itemscope itemtype="<http://schema.org/Offer>">  Price:  <span itemprop="priceCurrency" content="GBP">£</span><span  itemprop="price" content="100.00">100.00</span>  </div>  <div itemprop="contact">  <div itemscope itemtype="<http://schema.org/Person>">  Contact:  <span itemprop="name">Jane Doe</span>  (<a href="mailto:jane-doe@nwu.ac.uk" itemprop="email">  jane-doe@nwu.ac.uk</a>)  </div>  </div>  <div itemprop="hostInstitution">  Host institution:  <div itemscope itemtype="<http://schema.org/Organization>">  <span itemprop="name">North West University</span>  </div>  </div>  <div>Link: <a itemprop="url" href="http://www.nwu.ac.uk/event-url">North West University website</a></div>  <div>Topics:<span itemprop="scientificTopic">Biomedical science</span>, <span itemprop="scientificTopic">Human disease</span>  </div>  </div>  *RDFa:*  <div vocab="http://schema.org/" typeof="LifeScienceEvent">  <meta property="eventId" content="id6593990">  <div property="name">Epigenomics of Common Diseases</div>  <div property="description">This conference will bring together leading scientists from the fields of epigenomics, genetics and bioinformatics. </div>  <div>Event type: <span property="eventType">Workshops and courses</span></div>  <div><meta property="startDate" content="2015-04-15T">Wednesday 14 April 2015</div>  <div property="location" typeof="Place">  Location:  <span property="name">Greensands Conference Centre</span>  <div property="address" typeof="postalAddress">  <span property="streetAddress">6 Burridge Road</span><br>  <span property="addressLocality">Manchester</span><br>  <span property="postalCode">M15 3RT</span><br>  <span property="addressCountry">UK</span>  </div>  </div>  <div property="offers" typeof="Offer">  Price:  <span property="priceCurrency" content="GBP">£</span><span  property="price" content="100.00">100.00</span>  </div>  <div property="contact">  <div typeof="Person">  Contact:  <span property="name">Jane Doe</span>  (<a href="mailto:jane-doe@nwu.ac.uk" property="email">  jane-doe@nwu.ac.uk</a>)  </div>  </div>  <div property="hostInstitution">  Host institution:  <div typeof="Organization">  <span property="name">North West University</span>  </div>  </div>  <div>Link: <a property="url" href="http://www.nwu.ac.uk/event-url">North West University website</a></div>  <div>Topics:<span property="scientificTopic">Biomedical science</span>, <span property="scientificTopic">Human disease</span>  </div>  </div>  *JSON-LD:*  <script type="application/ld+json">  {  "@context": "http://schema.org",  "@type": "LifeScienceEvent",  "eventId": "id6593990",  "name": "Epigenomics of Common Diseases",  "description": "This conference will bring together leading scientists from the fields of epigenomics, genetics and bioinformatics.",  "type": "Workshops and courses",  "startDate": "2015-04-15T",  "location": {  "name": "Greensands Conference Centre",  "@type": "Place",  "address": {  "@type": "PostalAddress",  "streetAddress": "6 Burridge Road",  "addressLocality": "Manchester",  "postalCode": "M15 3RT",  "addressCountry": "UK"  }  },  "contact": {  "@type": "Person",  "name": "Jane Doe",  "email": "jane.doe@nwu.ac.uk"  },  "offers": {  "@type": "Offer",  "price": "100.00",  "priceCurrency": "GBP"  },  "hostInstitution": {  "@type": "Organization",  "name": "North West University"  },  "url": "http://www.nwu.ac.uk/event-url",  "scientificTopic": "Biomedical science",  "scientificTopic": "Human disease"  }  </script> |

|  |
| --- |
| **Example 7. Using the url property as the event organiser and as a third party event advertiser** |
| **As the event organiser**  You can include a hidden link to an external event advertiser on your site by using the “same as” property:  <div itemscope itemtype="<http://schema.org/LifeScienceEvent>">  ...  <div>Link:  <a itemprop="url" href="http://www.nwu.ac.uk/event-url">Epigenomics of Common Diseases</a>  <link itemprop="sameAs" href="<http://external>advertiser.com/nwu-event"/>  </div>  ...  </div>  **As an external event advertiser**  It is recommended that you add a link on your site to the source of the information about the event:  <div itemscope itemtype="<http://schema.org/LifeScienceEvent>">  ...  <div>Link:  <a itemprop="url" href="<http://www.externaladvertiser.com/nwu-event>"> Epigenomics of Common Diseases</a>  <link itemprop="sameAs" href="http://www.nwu.ac.uk/event-url"/>  </div>  ...  </div> |

|  |
| --- |
| **Example 8. Using the proposed new ontologyTerm type** |
| Example of a keyword field using terms from different ontologies. In this case a term from EDAM, a term from MeSH and a custom term.  <div itemscope itemtype="<http://schema.org/LifeScienceEvent>">  …  Keywords:  <div itemscope itemtype="<http://schema.org/ontologyTerm>">  <link itemprop="ontologyName" href="<http://purl.bioontology.org/ontology/EDAM>">  <meta itemprop="termId" content="data\_0006">  <span itemprop="termName">Metagenomics</span>  <div>,  <div itemscope itemtype="<http://schema.org/ontologyTerm>">  <link itemprop="ontologyName" href="https://www.nlm.nih.gov/mesh/">  <meta itemprop="termId" content="D056186">  <span itemprop="termName">Metagenomics</span>  <div>  <div itemscope itemtype="https://schema.org/CreativeWork">  <meta itemprop="keywords" content="disease, bioinformatics">  <span>Disease, Bioinformatics</span>  <div>  ...  </div> |