Bioschemas Event Specification

Bioschemas specification for describing events in Life-science informatics. These can include courses, workshops, meetings etc.

This document describes the Bioschemas Event vocabulary followed by some examples of how it can be used. The vocabulary is based off the schema.org <http://schema.org/Event> vocabulary.

|  |
| --- |
| **Note:** the new properties proposed in this document have been posted to the [Schema.org issues](https://github.com/schemaorg/schemaorg/issues/1029). |

## Mandatory Fields

The mandatory fields are the minimum required information to be included in registries, for example the [TeSS Training registry](http://tess.elixir-uk.org). They are also the most significant fields search engines will use to help connect users with your events.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Expected Type | Description |  |  |  |
| name | text | The name of the item | 1 |  |  |
| startDate | date | [The start date and time of the item (in ISO 8601 date format).](http://en.wikipedia.org/wiki/ISO_8601) |  |  |  |
| endDate | date | [The end date and time of the item (in ISO 8601 date format).](http://en.wikipedia.org/wiki/ISO_8601) |  |  |  |
| description | text | A short description of the item. |  |  |  |
| location | Text or Location | The location of the event, organization or action. Note that the location ‘name’ is required by Schema.org. |  |  |  |
| contact | Organization or Person | Main point of contact that can be contacted for general queries. This would be an event organiser or an administrator. |  |  |  |
| hostInstitution | Organization | The organization or institution responsible for hosting the event (not necessarily responsible for organizing). |  |  |  |

## Recommended Fields

Recommended fields aren’t necessary but are encouraged to help people find your resources. The ordering is from the most strongly to least strongly recommended.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Expected Type | Description |  |  |  |
| [url](https://schema.org/url) | [URL](https://schema.org/URL) | URL of the item.This property can be used to specify the URL of an event or can be a list of URLs if the page lists multiple events | Many | R |  |
| keywords | Text | Keywords to describe the event. Use terms that are not available in topic or target audience. | Many | R |  |
| targetAudience | Audience | A definition of the audience who will attend your events. Scientific topics that describe the research field of audience members (e.g. computer scientists). Please use one of the scientific ontology terms for class &lsquo;Topic&rsquo; from EDAM ontology. | Many | R | x |
| programme | Text or URL | A plan or schedule of activities or procedures to be followed. | One | R |  |
| deadline | Text | Deadlines dates for this event e.g. application deadline, poster submission, paper submission, early registration. | Many | R |  |
| prerequisite | [Text](https://schema.org/Text) | A list of prerequisites to be able to attend the event. | Many | R |  |
| capacity | Integer | Available number of spaces | One | R |  |
| eligibility | [Text](https://schema.org/Text) | Defines the type of eligibility to attend this event e.g first come first served. | Many | R | x |
| [alternateName](https://schema.org/alternateName) | [Text](https://schema.org/Text) | An alias for the item. Can be used for the subtitle of the event. | One | R |  |
| accreditation | [Organization orText](https://schema.org/Text) | Type of accreditation or organisation that accredits the event. | One | R |  |
| acceptanceNotificationDate | [Date](https://schema.org/Date) | Date for the host to confirm acceptance to applicants. | Many | R |  |
| spotlight | boolean | Event highlighted by the event provider.  Whether or not the event provider wishes to highlight this event as very important/significant. | One | R |  |

## Optional Fields

Optional fields tend to be quite specific and may not help people discover your event but could help them determine whether or not the event is useful for them.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Expected Type | Description |  |  |  |
| sponsor | Organization | The organization or institutions providing sponsorship for the event. | Many | O |  |
| registrationStatus | Registration Status | Enumerative type displaying the status of registration for an event. See the notes below. | One | O | x |
| socialMedia | [URL](https://schema.org/URL) | Link to social media websites like twitter or facebook. | Many | O |  |
| performer | Organization or Person | A performer at the event—for example, a presenter, musician, musical group or actor. Supersedesperformers. | Many | O |  |
| [offers](https://schema.org/offers) | [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. Can use eligibleCustomerType and eligibleDuration properties to express any special offers. | One | O |  |
| [review](https://schema.org/review) | [Review](https://schema.org/Review) | [A review of the item. Supersedes reviews.](https://schema.org/reviews) | Many | O |  |
| [subEvent](https://schema.org/subEvent) | [Event](https://schema.org/Event) | [An Event that is part of this event. For example, a conference event includes many presentations, each of which is a subEvent of the conference. Supersedes subEvents.](https://schema.org/subEvents) | Many | O |  |
| [superEvent](https://schema.org/superEvent) | [Event](https://schema.org/Event) | An event that this event is a part of. For example, a collection of individual music performances might each have a music festival as their superEvent. | One | O |  |
| eventId | [Text](https://schema.org/Text) | Unique Id for the event. | One | O |  |
| 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. | Many | O |  |
| lastUpdate | [Date](https://schema.org/Date) | Date when the event was last modified. | ONE | O |  |
| submitter | Organization or Person | The person or organization who submits an event to a repository or registry of events (such as iAnn, ISCB ). | Many | O |  |

## Event type definition

### Data fields

**Legend:**

*CN: Cardinality (one, many)*

*CG: Content Guideline (M: minimum; R: recommended; O: optional)*

*CV: Controlled Vocabulary*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| [name](https://schema.org/name) | [Text](https://schema.org/Text) | The name of the item. | One | M |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| [description](https://schema.org/description) | [Text](https://schema.org/Text) | A short description of the item. | One | M |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| hostInstitution | Organization | The organization or institution responsible for hosting the event (not necessarily responsible for organizing). | Many | M |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| contact | Organization or Person | Main point of contact that can be contacted for general queries. This would be an event organiser or an administrator. | Many | M |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| [startDate](https://schema.org/startDate) | [Date](https://schema.org/Date) | [The start date and time of the item (in ISO 8601 date format).](http://en.wikipedia.org/wiki/ISO_8601) | One | M |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| location | Place or PostalAddress | The location of the event, organization or action. Note that the location ‘name’ is required by Schema.org. | One | M |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| [endDate](https://schema.org/endDate) | [Date](https://schema.org/Date) | [The end date and time of the item (in ISO 8601 date format).](http://en.wikipedia.org/wiki/ISO_8601) | One | M |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Expected Type** | **Description** | **CN** | **CG** | **CV** |
| **Existing properties in** [**schema.org/Event**](https://schema.org/Event) | | | | | |
| [aggregateRating](https://schema.org/aggregateRating) | [AggregateRating](https://schema.org/AggregateRating) | The overall rating, based on a collection of reviews or ratings, of the item. |  |  |  |
| attendee | Organization or Person | A person or organization attending the event. Supersedes attendees. |  |  |  |
| [doorTime](https://schema.org/doorTime) | [DateTime](https://schema.org/DateTime) | The time admission will commence. |  |  |  |
| [duration](https://schema.org/duration) | [Duration](https://schema.org/Duration) | [The duration of the item (movie, audio recording, event, etc.) in ISO 8601 date format.](http://en.wikipedia.org/wiki/ISO_8601) |  |  |  |
|  |  |  |  |  |  |
| [eventStatus](https://schema.org/eventStatus) | [EventStatusType](https://schema.org/EventStatusType) | An eventStatus of an event represents its status; particularly useful when an event is cancelled or rescheduled. |  |  | x |
| inLanguage | Language or Text | The language of the content or performance or used in an action. Please use one of the language codes from the IETF BCP 47 standard. Supersedes language. |  |  |  |
|  |  |  |  |  |  |
| [offers](https://schema.org/offers) | [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. Can use eligibleCustomerType and eligibleDuration properties to express any special offers. | One | O |  |
| organizer | Organization or Person | An organizer of an Event. | Many | R |  |
| performer | Organization or Person | A performer at the event—for example, a presenter, musician, musical group or actor. Supersedesperformers. | Many | O |  |
| [previousStartDate](https://schema.org/previousStartDate) | [Date](https://schema.org/Date) | Used in conjunction with eventStatus for rescheduled or cancelled events. This property contains the previously scheduled start date. For rescheduled events, the startDate property should be used for the newly scheduled start date. In the (rare) case of an event that has been postponed and rescheduled multiple times, this field may be repeated. |  |  |  |
| recordedIn | CreativeWork | The CreativeWork that captured all or part of this Event. Inverse property: recordedAt. |  |  |  |
| [review](https://schema.org/review) | [Review](https://schema.org/Review) | [A review of the item. Supersedes reviews.](https://schema.org/reviews) | Many | O |  |
|  |  |  |  |  |  |
| [subEvent](https://schema.org/subEvent) | [Event](https://schema.org/Event) | [An Event that is part of this event. For example, a conference event includes many presentations, each of which is a subEvent of the conference. Supersedes subEvents.](https://schema.org/subEvents) | Many | O |  |
| [superEvent](https://schema.org/superEvent) | [Event](https://schema.org/Event) | An event that this event is a part of. For example, a collection of individual music performances might each have a music festival as their superEvent. | One | O |  |
| [typicalAgeRange](https://schema.org/typicalAgeRange) | [Text](https://schema.org/Text) | The typical expected age range, e.g. '7-9', '11-'. |  |  |  |
| [workFeatured](https://schema.org/workFeatured) | [CreativeWork](https://schema.org/CreativeWork) | Can be used to reference training materials. |  |  |  |
| **Proposed new properties for the Event type** | | | | | |
| eventId | [Text](https://schema.org/Text) | Unique Id for the event. | One | O |  |
| prerequisite | [Text](https://schema.org/Text) | A list of prerequisites to be able to attend the event. | Many | R |  |
| ~~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.~~ | ~~Many~~ | ~~O~~ |  |
| accreditation | Organization or [Text](https://schema.org/Text) | Type of accreditation or organisation that accredits the event. | One | R |  |
| eligibility | [Text](https://schema.org/Text) | Defines the type of eligibility to attend this event e.g first come first served. | Many | R | x |
| capacity | Integer | Available number of spaces | One | R |  |
|  |  |  |  |  |  |
| 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. | Many | O |  |
| socialMedia | [URL](https://schema.org/URL) | Link to social media websites like twitter or facebook. | Many | O |  |
| lastUpdate | [Date](https://schema.org/Date) | Date when the event was last modified. | ? | O |  |
| deadline | Text | Deadlines dates for this event e.g. application deadline, poster submission, paper submission, early registration. | Many | R |  |
| acceptanceNotificationDate | [Date](https://schema.org/Date) | Date for the host to confirm acceptance to applicants. | Many | R |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| keywords | CV and/or [Text](https://schema.org/Text) | Keywords to describe the event. In Life Science, use terms that are not available in “topic” or “targetAudience”. Use text keywords or ontology terms from other ontologies that could complement EDAM topics. | Many | R |  |
| targetAudience | Audience | In Life Science, use Scientific topics that describe the research field of audience members (e.g. computer scientists). Please use one of the scientific ontology terms for class ‘Topic’ from EDAM ontology. | Many | R | x |
| spotlight | boolean | Event highlighted by the event provider.  Whether or not the event provider wishes to highlight this event as very important/significant. | One | R |  |
| programme | Text or URL | A plan or schedule of activities or procedures to be followed. | One | R |  |
| submitter | Organization or Person | The person or organization who submits an event to a repository or registry of events (such as iAnn, ISCB ). | Many | O |  |
|  |  |  |  |  |  |
| sponsor | Organization | The organization or institutions providing sponsorship for the event. | Many | O |  |
| registrationStatus | Registration Status | Enumerative type displaying the status of registration for an event. See the notes below. | One | O | x |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Properties inherited from** [**schema.org/Thing**](https://schema.org/Thing) | | | | | |
| [additionalType](https://schema.org/additionalType) | [URL](https://schema.org/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](https://schema.org/alternateName) | [Text](https://schema.org/Text) | An alias for the item. Can be used for the subtitle of the event. | One | R |  |
|  |  |  |  |  |  |
| image | ImageObject or URL | An image of the item. This can be a URL or a fully described ImageObject.Inverse property: mainEntity. |  |  |  |
| mainEntityOfPage | CreativeWork or URL | Indicates a page (or other CreativeWork) for which this thing is the main entity being described. See background notes for details. Inverse property: mainEntity. |  |  |  |
|  |  |  |  |  |  |
| [potentialAction](https://schema.org/potentialAction) | [Action](https://schema.org/Action) | Indicates a potential Action, which describes an idealized action in which this thing would play an 'object' role. |  |  |  |
| [sameAs](https://schema.org/sameAs) | [URL](https://schema.org/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. | One | O |  |
| [url](https://schema.org/url) | [URL](https://schema.org/URL) | URL of the item.This property can be used on a page listing many events, to indicate each individual event’s page. | Many | R |  |

Here is an example snippet showing the attributes you can use on an Event. For complete examples see the “Further examples” section at the end of this document.

|  |
| --- |
| **Example 1. Attributes/properties of an Event** |
| <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><meta itemprop="startDate" content="2015-04-15T">Wednesday 14 April 2015</div>  ...  </div> |

### Controlled Vocabularies (CV)

Some data fields suggest the use of controlled vocabularies or enumerations. We will rely on existing vocabularies and ontologies wherever possible but define new collections of terms for very specific purposes as required.

This section contains a list of fields that require a controlled vocabulary, enumeration or an ontology term, and specifies what is acceptable for each. The fields involved are:

* **eventType**

*Must be* one of:

|  |  |
| --- | --- |
| **Value** | **Description** |
| Workshops and courses | A workshop or a course event |
| Meetings and conferences | A meeting or a conference event |
| Receptions and networking | A reception or a networking event |
| Awards and prizegivings | An award or a prize giving event |

* **topic**

*Must be* one of the [EDAM Topic](http://edamontology.org/topic_0003) class values.

* **targetAudience**

*Should be* blank or one of the [EDAM Topic](http://edamontology.org/topic_0003) class values.

* **eligibility**

*Should be* blank or one (possibly two) of:

|  |  |
| --- | --- |
| **Value** | **Description** |
| First come first served | Registrations will be accepted in the order received |
| Registration of interest | The organisers will select successful registrants from a list of interested parties |
| By invitation | Only invited parties may register *(this option may be used on its own or in conjunction with either of the others by specifying both values, e.g. for an event where people are individually invited but only the first X will be able to register)* |

* **registrationStatus**

*Should be* blank or one of:

|  |  |
| --- | --- |
| **Value** | **Description** |
| Proposed | Currently being planned, not yet confirmed |
| Pre-open | Confirmed but not yet open for registration |
| Open | Open for registration |
| Cancelled | Cancelled |
| Full | Fully booked |

* **eventStatus**

*Should be* blank or one of:

|  |  |
| --- | --- |
| **Value** | **Description** |
| EventCancelled | Event cancelled |
| EventPostponed | Event postponed |
| EventRescheduled | Event rescheduled |
| EventScheduled | Event happening |

Topic and targetAudience work together to specify what the event is about and who should attend. For example if the event is a statistics training session for biologists, then topic would be statistics and targetAudience would be biology. If it is an event for geneticists about genetics then both topic and targetAudience would be genetics.

### Content Guidelines (CG)

To make it as easy as possible to implement a basic Event model, we suggest a very small set of minimum (M) fields to include. For optimal discovery and integration we suggest some additional recommended (R) fields. All other fields are optional (O), but if included will enhance the user experience.

Fields that *must be* present (M) in order to comply with the specification are:

* name
* description
* eventType
* topic
* hostInstitution
* [startDate](https://schema.org/startDate)
* [endDate](https://schema.org/endDate)
* location
* fee
* contact

### Cardinality

The Schema.org specification permits any field to be included any number of times. Whether this is desirable depends on the context and intended use of the data. This specification includes suggestions as to the cardinality of selected fields, as indicated in the data model table above.

The table notates cardinalities in the following way:

|  |  |
| --- | --- |
| **Notation** | **Definition** |
| One | There may only be a maximum of one instance of this property type. For example, an event may only have a maximum of one start date. |
| Many | There can be multiple instances of this property type. For example, there may be more than one sponsor of an event. |

|  |
| --- |
| **Example 2. Cardinality in Event properties as microdata within HTML** |
| <div itemscope itemtype="[http://schema.org/Event](http://schema.org/LifeScienceEvent)">  ...  <div>Type:  <span itemprop="eventType">Workshop</span>,  <span itemprop="eventType">Meeting</span>  </div>  <div>Start: <meta itemprop="startDate" content="2015-04-15T">Wednesday 14 April 2015</div>  ...  </div> |

*An example of a property type with multiple cardinality (eventType) and single cardinality (startDate).*

### Identifiers

TBD

## Implementation Guidelines

Schema.org [suggests](http://schema.org/docs/gs.html) implementing metadata, including the Event specification, using Microdata, RDFa, or JSON-LD. Depending on the context, any of these can be used for embedding compliant event data in an event provider’s web pages or other online resources and services.

### Microdata

Microdata can be used for embedding properties from the specification directly into existing web pages and HTML tags to enrich event descriptions. This microdata can be extracted and further processed by search engines and other applications, but does not affect the ‘look and feel’ of the web page it is embedded in. Using microdata is the easiest method of implementing the specification, as it requires minimal intervention on event providers’ part. Example below depicts the use of microdata within HTML tags.

|  |
| --- |
| **Example 3. Embedding 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">Workshops and courses</span></div>  <div>Date: <meta itemprop="startDate" content="2015-04-15T">Wednesday 14 April 2015</div>  ...  </div> |

For more information, please refer to the [Microdata Guide on Schema.org](https://schema.org/docs/gs.html).

### RDFa

[RDFa](https://en.wikipedia.org/wiki/RDFa) (or [Resource Description Framework](https://en.wikipedia.org/wiki/Resource_Description_Framework) in Attributes[[1]](https://en.wikipedia.org/wiki/RDFa#cite_note-n-1)) is a [W3C](https://en.wikipedia.org/wiki/W3C) Recommendation that adds a set of attribute-level extensions to [HTML](https://en.wikipedia.org/wiki/HTML), [XHTML](https://en.wikipedia.org/wiki/XHTML) and various XML-based document types for embedding rich [metadata](https://en.wikipedia.org/wiki/Metadata) within web documents. Example below explains the use of RDFa within HTML tags.

|  |
| --- |
| **Example 4. Embedding Event properties as RDFa within HTML** |
| <div vocab="http://schema.org/" typeof="Event">  <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> |

For more information, please refer to the [RDFa wiki](http://rdfa.info/).

### JSON-LD

[JSON-LD](https://en.wikipedia.org/wiki/JSON-LD) (JavaScript Object Notation for Linked Data), is a method of transporting [Linked Data](https://en.wikipedia.org/wiki/Linked_Data) using [JSON](https://en.wikipedia.org/wiki/JSON). Example below represents an Event described in JSON-LD format.

|  |
| --- |
| **Example 5. Representing an Event in JSON-LD format** |
| <script type="application/ld+json">  {  "@context": "http://schema.org/",  "@type": "Event",  "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> |

For more information, please refer to the [JSON-LD specification](http://www.w3.org/TR/json-ld/).

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# Glossary

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Ontology/Controlled vocabulary | For the purposes of this document the terms ontology and controlled vocabulary are interchangeable. [Wikipedia](https://en.wikipedia.org/wiki/Ontology_%28information_science%29) defines ontologies as:  *“In* [*computer science*](https://en.wikipedia.org/wiki/Computer_science) *and* [*information science*](https://en.wikipedia.org/wiki/Information_science)*, an ontology is a formal naming and definition of the types, properties, and interrelationships of the* [*entities*](https://en.wikipedia.org/wiki/Entities) *that really or fundamentally exist for a particular* [*domain of discourse*](https://en.wikipedia.org/wiki/Domain_of_discourse)*. It is thus a practical application of philosophical* [*ontology*](https://en.wikipedia.org/wiki/Ontology)*, with a* [*taxonomy*](https://en.wikipedia.org/wiki/Taxonomy_%28general%29)*.”* |
| EDAM ontology | [EDAM ontology](http://edamontology.org/page) is one of the ontologies available in the life sciences domain, for classifying and describing bioinformatics operations, types of data, formats, and scientific topics. |
| EDAM ontology topic | EDAM ontology topics describe general bioinformatics subjects or categories, such as a field of study, data, processing, analysis or technology - starting from very general terms such as “biology” and “bioinformatics” to more specific ones such as "sequence analysis", "alignment", "sequencing", "microarrays", etc. |

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# Further examples

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| **Example 6. Event containing all the minimum (M) fields** |
| *Microdata:*  <div itemscope itemtype="[http://schema.org/Event](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="topic">Biomedical science</span>, <span itemprop="topic">Human disease</span>  </div>  </div>  *RDFa:*  <div vocab="http://schema.org/" typeof="Event">  <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="topic">Biomedical science</span>, <span property="topic">Human disease</span>  </div>  </div>  *JSON-LD:*  <script type="application/ld+json">  {  "@context": "http://schema.org",  "@type": "Event",  "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",  "topic": "Biomedical science",  "topic": "Human disease"  }  </script> |

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| **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/Event](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/Event](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> |

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| **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/Event](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> |