

Metamarket

Local Data as Linked Data

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The Corporate Semantic Web (CSW)

Main Goal:

- To build knowledge out of enterprise data.

Methodologies:

- Ontologies – aspect oriented ontology modularization
- Building knowledge by Semantic Mining enterprise event data
- Knowledge Discovery and Semantic Annotation

Applications:

- Knowledge backed Q&A Systems
- Smart Content Navigation
- Semantic Collaborative Development Platforms
- Realtime Decision Systems
- Market Research Applications

Local Business Challenges

- Little amount of digital data. Developers do not consider their needs (The start-up buzz: "think big")
- Pay on advertising that doesn't get a good return. Traditional digital advertising solutions do not really perform in a local market.
- Market Research is expensive. Basic studies start at 10000 EUR
- Mobile interaction quickly became part of people everyday lives. Only few local businesses can afford the cost of development of the necessary mobile application.

LOD State

<http://datahub.io/organization/lodcloud2014>

- 1001 were described by the data providers themselves in the datahub.io dataset catalog.
- 196 datasets were discovered by a crawl of the Linked Data web conducted in April 2014 – *actually some endpoints are already unreachable*
- We did not find a dataset on market research.
- We don't know how many datasets are updated periodically

Metamarket

- A Linked Data store ([Franz Allegro Graph](#)) of market data
- Ontology based on Schema.org (with small additions from different namespaces)
- Data easy to be used by state of the art CSW tools.
- Data Access options:
 - Knowledge Engineer: SPARQL endpoint, Ontology Browser
 - Developer (REST) API
 - User apps: visualizations, navigation, ...
 - Streamed Linked Data support for real-time processing capabilities towards fast decision support.

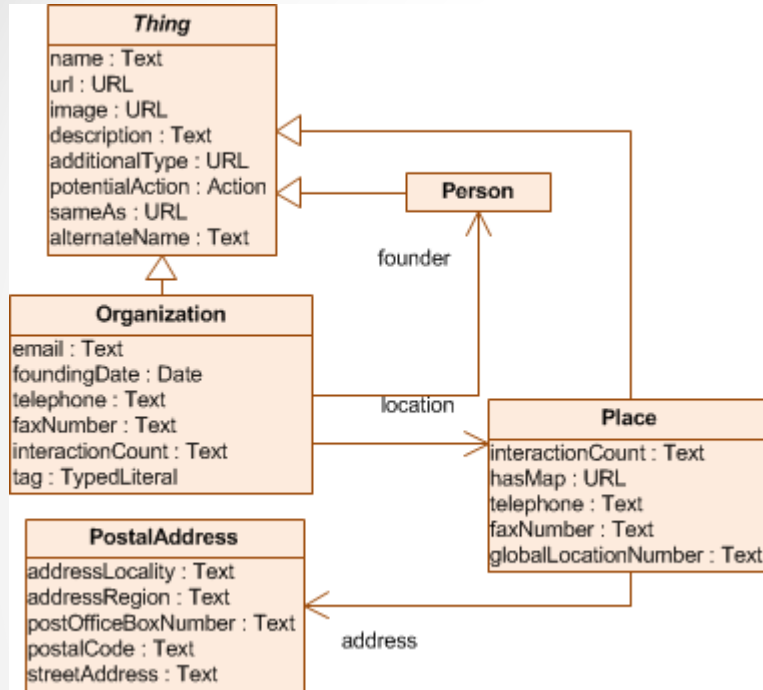
Metamarket Goals

1. To help Local Businesses by creating digital market data. It provides data to identify and analyze the market needs, market size and market competition to enable better, more cost-effective decision making.
2. Open API for intelligent applications to enhance local business activities and make new business insights possible.
3. A data provider for apps targeting local communities

Schema.org

1. A large collection of schemas that webmasters can use to markup HTML pages in ways recognized by major search providers.
2. Schema.org has a RDFS serialization:
<http://schema.rdfs.org/>
3. Metamarket uses only a limited subset of classes and properties: Person, Place, Organization, Event, ...

Metamarket – Persons and Organizations



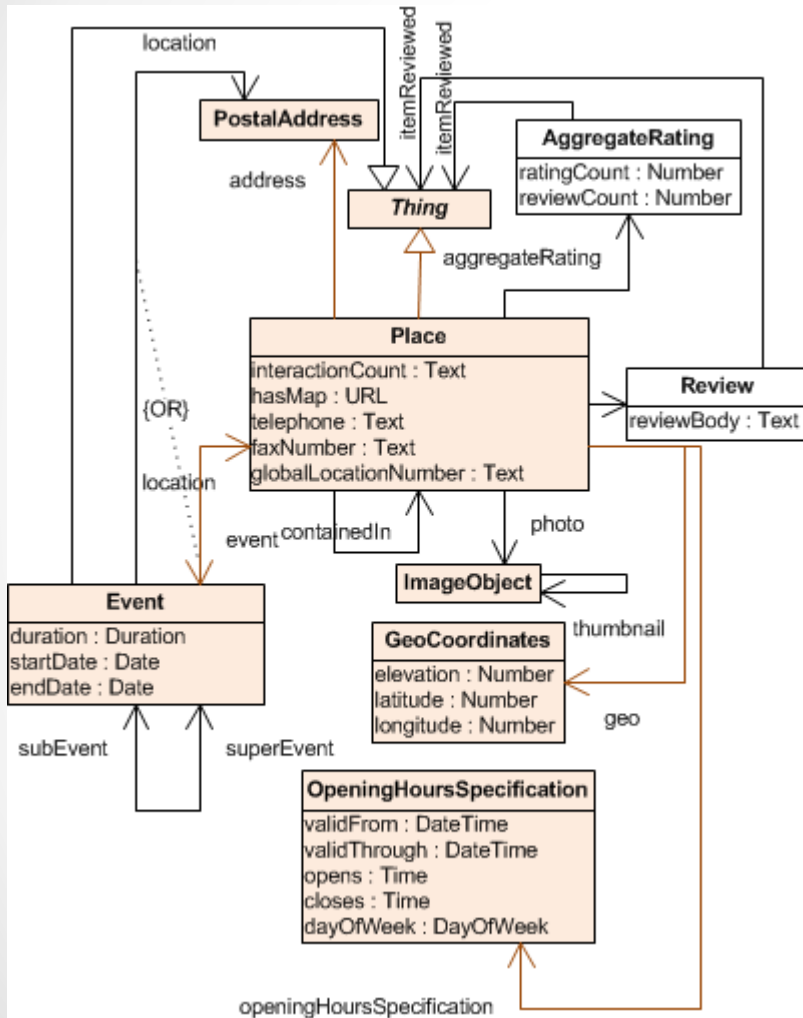
```

@prefix m <http://metamarket.info/>
@prefix org: <http://metamarket.info/org/>
@prefix place: <http://metamarket.info/place/>
@prefix person: <http://metamarket.info/person/>
@prefix s: <http://schema.org/>
@prefix xs: <http://www.w3.org/2001/XMLSchema#>
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
    
```

```

org:28c10e01-8541-434f-9dbb-2bca59a13a33 [
  s:name "...";
  s:location [
    place:5708abb0-763f-4798-9093-8ca7d032e9b2;
    place:987a18d7-cefb-4a8f-a36a-7ca017b405e7;
  ];
  m:tag [
    "EDV-Dienste";
    "Business2Business";
    "Marketing und Kommunikation";
    "Software-Programmierung";
  ];
  m:joinDate "2013-02-01T00:00:00+01:00"^^xs:dateTime;
  rdf:type s:Organization;
  s:founder person:6c0d3c56-b406-40ab-ad6e-20674a916c3a;
].
    
```

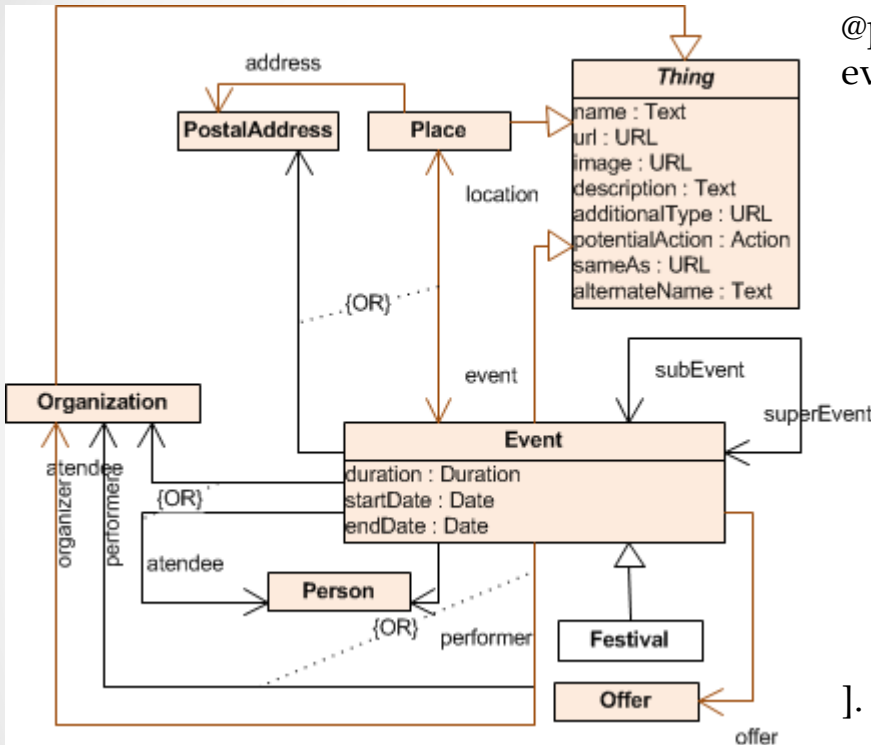

Metamarket - Place



```

place:5708abb0-763f-4798-9093-8ca7d032e9b2 [
  s:faxNumber "...
  s:address _:b39220121x1600
  s:name "...
  rdf:type s:Place
  s:telephone "...
  s:geo _:b39220121x1601
].
  
```

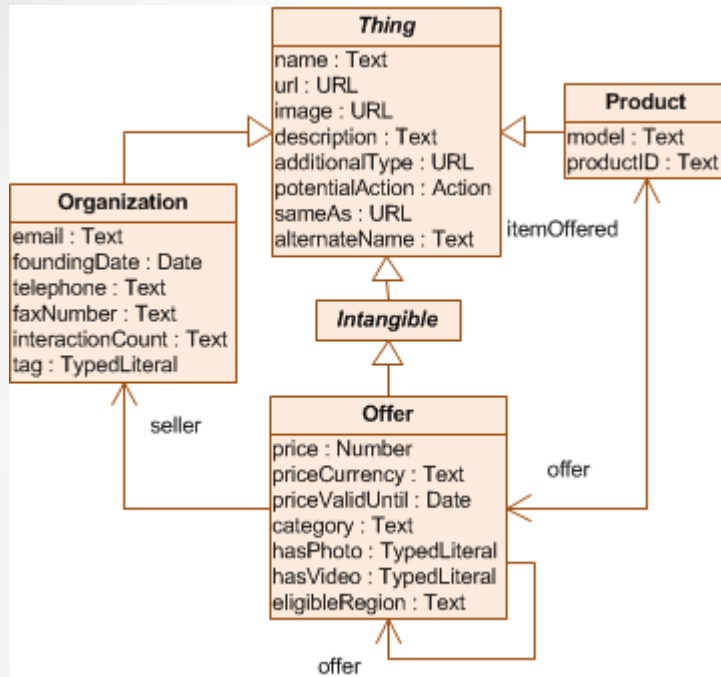
Metamarket - Event



```

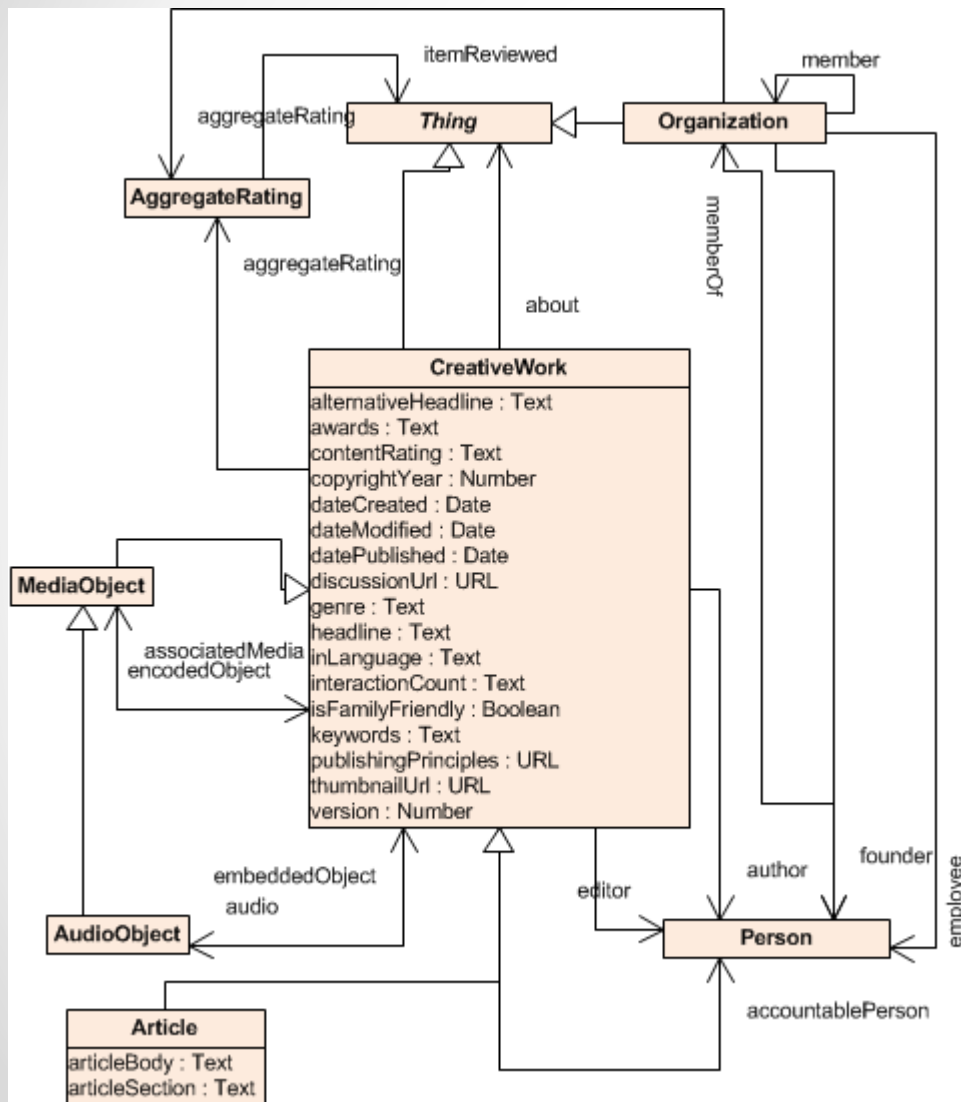
@prefix event: <http://metamarket.info/event/>
event:9c20fa82-c227-42ca-a263-ab1ed7c5d0dd [
  s:organizer org:9a303878-f96e-4cbb-bc22-f8248cca65a7;
  s:summary "...";
  s:inLanguage "de-DE";
  s:startDate "2014-06-20T13:00:00+02:00"^^xs:dateTime;
  s:endDate "2014-06-22T23:45:00+02:00"^^xs:dateTime;
  s:tag "Festival";
  s:name "...";
  rdf:type s:Event;
  m:hasVideo "false";
  s:duration "P00Y00M02DT10H45M00S"^^xs:duration;
  s:dateCreated "2014-06-04T15:01:05+02:00"^^xs:dateTime;
  m:hasPhoto "true";
  s:location place:e5f98d07-9347-48ba-b013-44859619fb57;
].
  
```

Metamarket - Offer



```
@prefix offer: <http://metamarket.info/offer/>
offer:3438b918-a0c3-4f7d-9a59-2ecb1b98febc [
  s:validFrom "2014-05-13T15:00:00+02:00"^^xs:dateTime;
  s:seller org:9a303878-f96e-4cbb-bc22-f8248cca65a7;
  s:validThrough "2014-05-13T16:00:00+02:00"^^xs:dateTime;
  m:inLanguage "de-DE";
  s:name "...";
  rdf:type s:Offer;
  s:dateCreated "2014-05-13T10:45:28+02:00"^^xs:dateTime;
  m:hasPhoto "true";
].
```

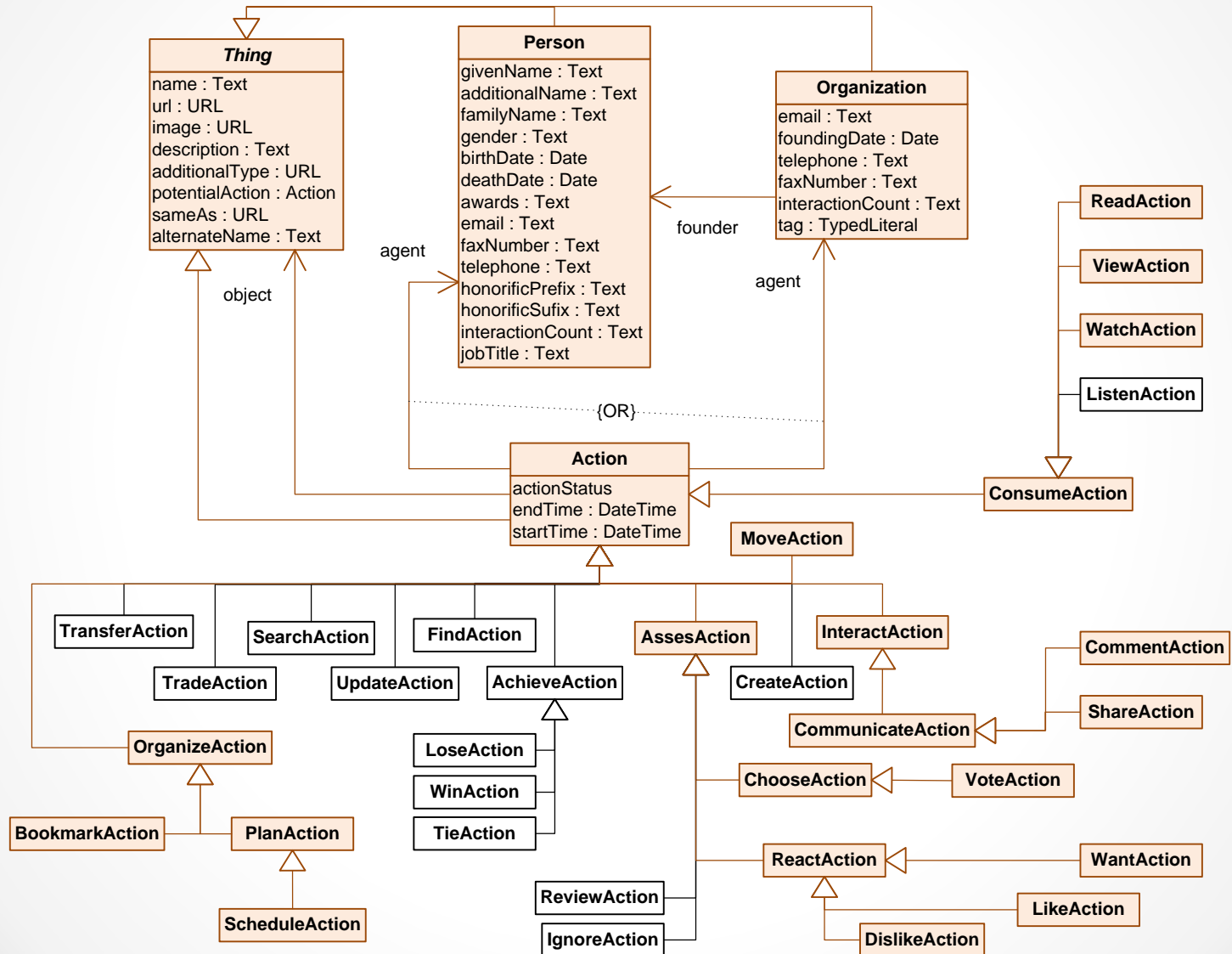
Metamarket - Article



```

@prefix post: <http://metamarket.info/post/>
post:7ff00341-162d-4f2d-953d-0b1ebcfd6f1 [
  s:keywords "Biergarten";
  s:keywords "Sport";
  s:inLanguage "de-DE";
  s:headline "...";
  s:name "...";
  rdf:type s:BlogPosting;
  m:hasVideo "false";
  s:dateCreated
    "2014-01-06T15:49:46+01:00"^^xs:dateTime;
  m:hasPhoto "true";
  s:author org:9a303878-f96e-4cbb-bc22-f8248cca65a7;
].
  
```

Metamarket – Actions (1)



Metamarket – Actions (2)

```
@prefix il: <http://www.intelleo.eu/ontologies/activities/ns#>
_:b39220121x101817 [
  il:occursIn s:WebApplication;
  s:endTime "2014-09-21T20:32:53+00:00"^^xs:dateTime;
  s:agent person:1de51d2f-d87f-4d22-851a-5633113e6b32;
  s:object post:de812871-bcb8-4d33-8ca6-fe9c729c2429;
  s:rdf:type s:ReadAction;
  s:startTime "2014-09-21T20:31:16+00:00"^^xs:dateTime;
  m:duration "P00Y00M00DT00H01M37S"^^xs:duration;
].
```

Like to Learn More?

- Contact Us: info@binarypark.org
- Visit: <http://www.metamarket.info>
- Follow us on Facebook, Twitter

Acknowledgments

We would like to thank CSW Team which made this presentation possible.