



## DASISH annotations in Open Annotation

-Expressing annotations and relations between sources using standard vocabularies





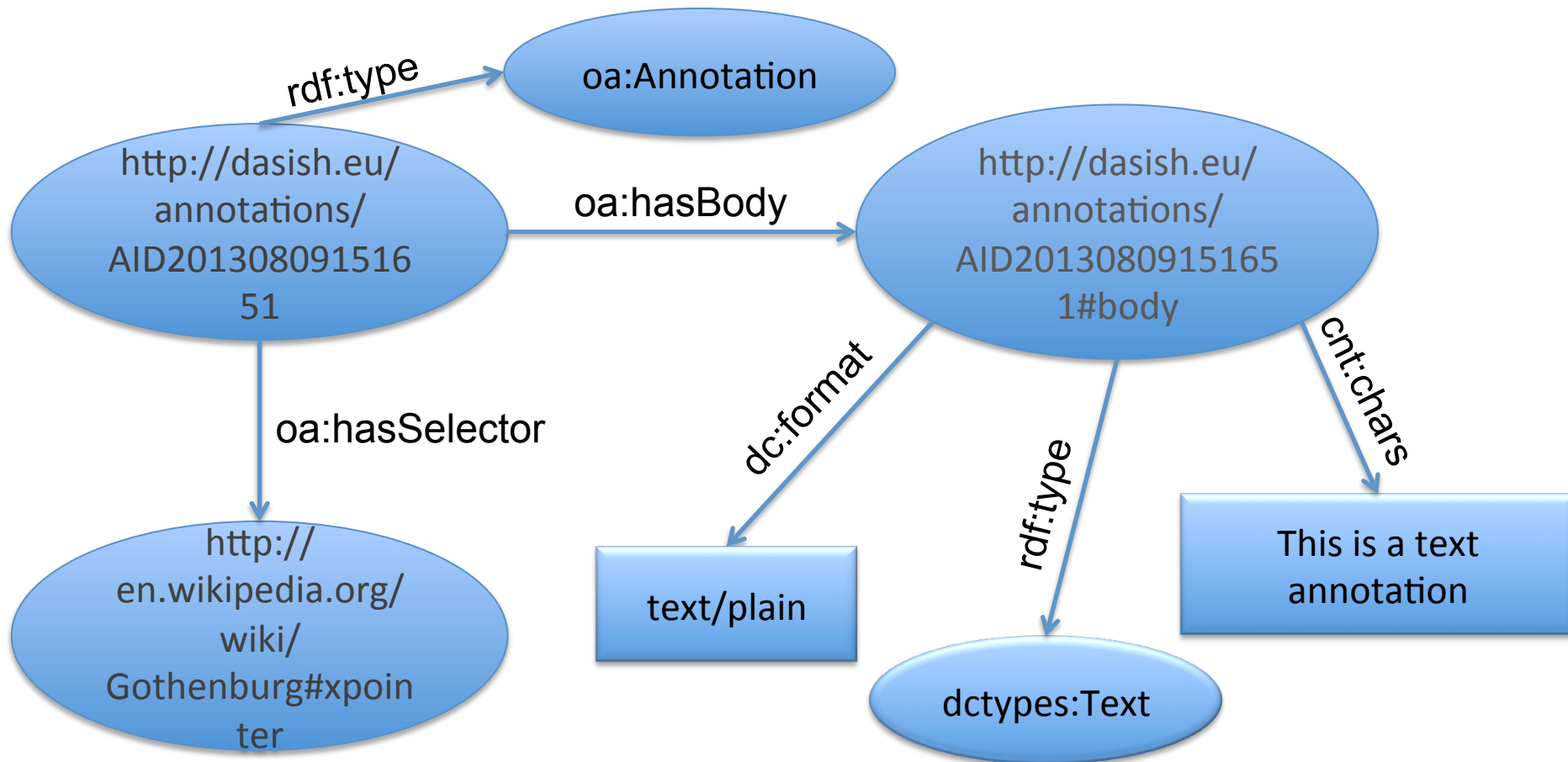
## New Annotation in XML

```
<annotation xmlns="http://www.dasish.eu/ns/addit"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xhtml="http://www.w3.org/1999/xhtml"
  xsi:schemaLocation="http://www.dasish.eu/ns/addit http://dasish.eu/DASISH-schema.xsd"
  URI="tempAID20131001160628"
  timeStamp="2013-10-01T14:05:41.000Z">
  <owner ref="http://dasish.eu/users/Uixyz"/>
  <headline>Gothenburg - Wikipedia, the free encyclopedia</headline>
  <body type="Note" ref="tmp20131001160628">This is a text annotation</body>
  <targetSources>
    <target>
      <newSource xml:id="tmp20131001160628">
        <link>http://en.wikipedia.org/wiki/Gothenburg#xpointer(start-point(string-range(//div[@id="mw-content-text"]/p[2]/text()[1],",15))/range-to(string-range(//div[@id="mw-content-text"]/p[2]/text()[1],",22)))</link>
        <version>2013-10-01T14:05:41.000Z</version>
      </newSource>
    </target>
  </targetSources>
  <permissions ref="tmpPermissionsListID20131001160628"/>
</annotation>
```





## Simplified graph for text annotation in Open Annotation





## Text annotation in Turtle

@prefix oa: <http://www.w3.org/ns/oa#> .

@prefix cnt: <http://www.w3.org/2011/content#> .

@prefix dc: <http://purl.org/dc/elements/1.1/> .

@prefix dctypes: <http://purl.org/dc/dcmitype/> .

```
<http://dasish.eu/annotations/AID> a oa:Annotation ;  
  oa:hasBody <http://dasish.eu/annotations/AID20130809151651#body> ;  
  oa:hasSelector <http://en.wikipedia.org/wiki/Gothenburg#xpointer()> .
```

```
<http://dasish.eu/annotations/AID#body> a cnt:ContentAsText, dctypes:Text ;  
  cnt:chars "This is a text annotation" ;  
  dc:format "text/plain" .
```

**Turtle** (Terse RDF Triple Language) is a format for expressing data in the [Resource Description Framework](#) (RDF) data model, similar to [SPARQL](#).  
~wikipedia





## Text annotation in RDF-XML

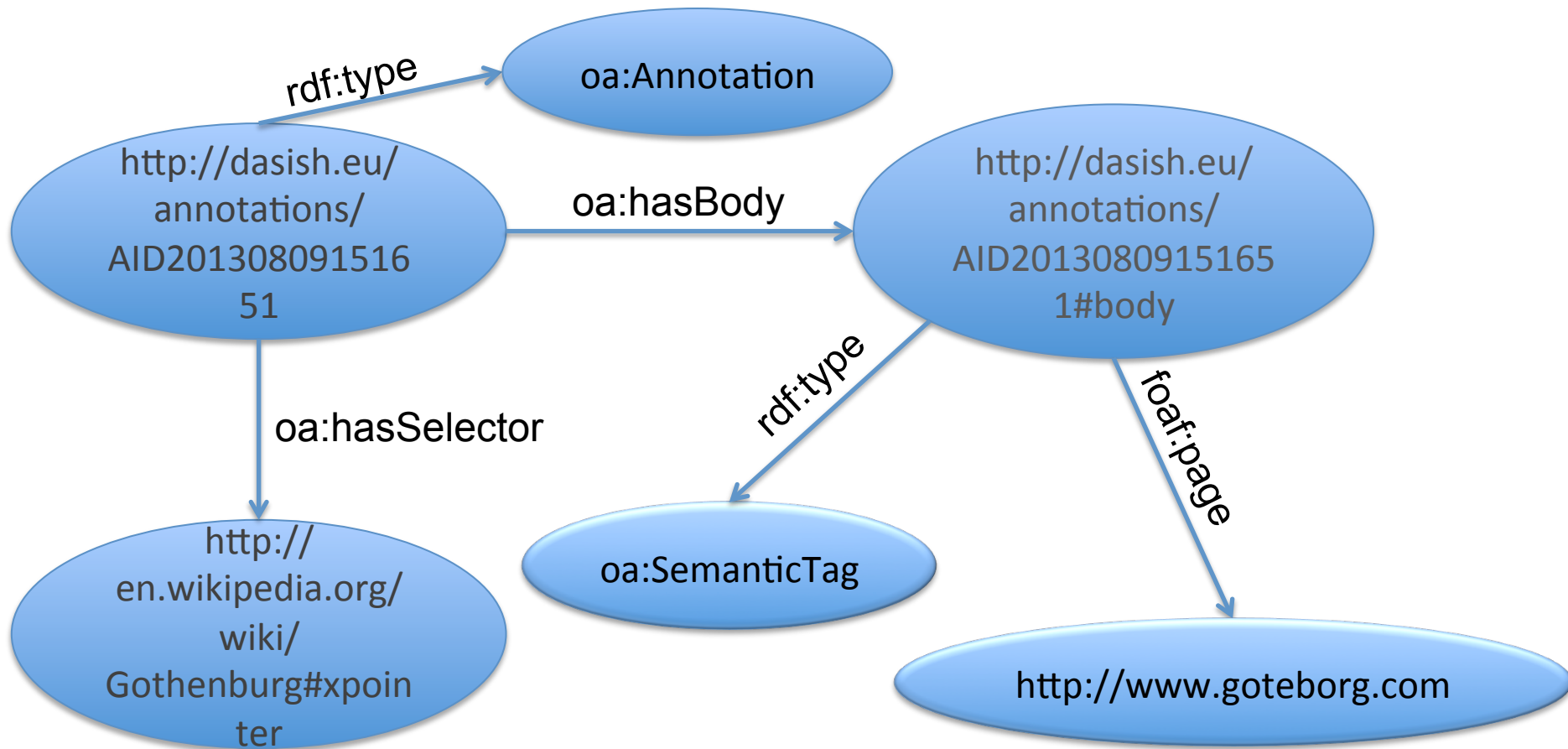
```
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:oa="http://www.w3.org/ns/oa#"
  xmlns:cnt="http://www.w3.org/2011/content#"
  xmlns:dc="http://purl.org/dc/elements/1.1/">

  <rdf:Description rdf:about="http://dasish.eu/annotations/AID">
    <oa:hasBody rdf:resource="http://dasish.eu/annotations/AID#body" />
    <oa:hasSelector rdf:resource="http://en.wikipedia.org/wiki/Gothenburg#xpointer()"/>
  </rdf:Description>

  <rdf:Description rdf:about="http://dasish.eu/annotations/AID#body">
    <rdf:type rdf:resource="http://purl.org/dc/dcmitype/Text"/>
    <cnt:chars>This is a text annotation</cnt:chars>
    <dc:format>text/plain</dc:format>
  </rdf:Description>
</rdf:RDF>
```



## Semantic Tag via Open Annotation





@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .  
 @prefix oa: <http://www.w3.org/ns/oa#> .  
 @prefix cnt: <http://www.w3.org/2011/content#> .  
 @prefix dc: <http://purl.org/dc/elements/1.1/> .  
 @prefix dcterms: <http://purl.org/dc/terms/> .  
 @prefix dctypes: <http://purl.org/dc/dcmitype/> .  
 @prefix foaf: <http://xmlns.com/foaf/0.1/> .

## Adding additional information in the serialization

```

<http://dasish.eu/annotations/AID> a oa:Annotation ;
  oa:hasBody <http://dasish.eu/annotations/AID#body> ;
  oa:hasTarget <http://dasish.eu/sources/SID> ;
  oa:annotatedBy <http://dasish.eu/users/Uixyz> ;
  oa:serializedBy <http://dasish.eu/web-annotator> .
  
```

```

<http://dasish.eu/users/Uixyz> a foaf:Person ;
  foaf:openid <http://provider.of.open.id/id> ;
  foaf:name "name" .
  
```

```

<http://dasish.eu/annotations/AID#body> a cnt:ContentAsText, dctypes:Text ;
  cnt:chars "This is a text annotation" ;
  dc:format "text/plain" .
  
```

```

<http://dasish.eu/sources/SID> a oa:SpecificResource ;
  oa:hasSelector <http://en.wikipedia.org/wiki/Gothenburg#xpointer()> ;
  oa:hasSource <http://en.wikipedia.org/wiki/Gothenburg> ;
  dc:title "Gothenburg - Wikipedia, the free encyclopedia" ;
  dcterms:hasVersion <http://dasish.eu/cached/CID1> .
  
```

```

<http://dasish.eu/cached/CID1> a dctypes:Image ;
  dc:format "image/png" ;
  oa:serializedBy <http://screenshot-tool.org> .
  
```

```

<http://en.wikipedia.org/wiki/Gothenburg#xpointer()> a oa:FragmentSelector ;
  dcterms:conformsTo <http://tools.ietf.org/rfc/rfc3023> ;
  rdf:value "http://en.wikipedia.org/wiki/Gothenburg#xpointer()" .
  
```





## Pundit uses RDF for communication ... in a strange way

- Open Annotation is not used as a vocabulary
- References between annotation, text, relations is not expressed

For the annotation framework all this could be done better.







# Pundit communication format client <-> server

```

- <rdf:RDF>
  - <rdf:Description rdf:about="http://www.w3.org/1999/02/22-rdf-syntax-ns#Property">
    <rdfs:label>RDF Property</rdfs:label>
  </rdf:Description>
  - <rdf:Description rdf:about="http://purl.org/pundit/ont/ao#fragment-text">
    <rdfs:label>Text Fragment</rdfs:label>
  </rdf:Description>
  - <rdf:Description rdf:about="http://www.w3.org/2000/01/rdf-schema#Resource">
    <rdfs:label>Resource</rdfs:label>
  </rdf:Description>
  - <rdf:Property rdf:about="http://purl.org/pundit/ont/oa#identifies">
    <rdfs:label>identifies</rdfs:label>
    <altLabel>identifies</altLabel>
    - <description>
      The selected text fragment is a Person, a Work, a Place or a well defined Entity
    </description>
  </rdf:Property>
  - <fragment-text rdf:about="http://metasound.dibet.univpm.it/release_bot/build/examples/dante-1.html#xpointer(start-p
to(string-range(//DIV[@about='http://metasound.dibet.univpm.it/release_bot/build/examples/dante-1.html']/DIV[1]/P[2]
    <rdfs:label>masterpiece </rdfs:label>
    <altLabel>masterpiece </altLabel>
    <description>masterpiece </description>
    <hasPageContext rdf:resource="http://release-bot.thepund.it/build/examples/authors_index.html"/>
    <isPartOf rdf:resource="http://metasound.dibet.univpm.it/release_bot/build/examples/dante-1.html"/>
  </fragment-text>
  - <rdfs:Resource rdf:about="http://www.w3.org/2006/03/wn/wn20/instances/synset-masterpiece-noun-1">
    <rdfs:label>masterpiece</rdfs:label>
    - <description>
      (the most outstanding work of a creative artist or craftsman)
    </description>
    <prefLabel>masterpiece</prefLabel>
  </rdfs:Resource>
</rdf:RDF>

```

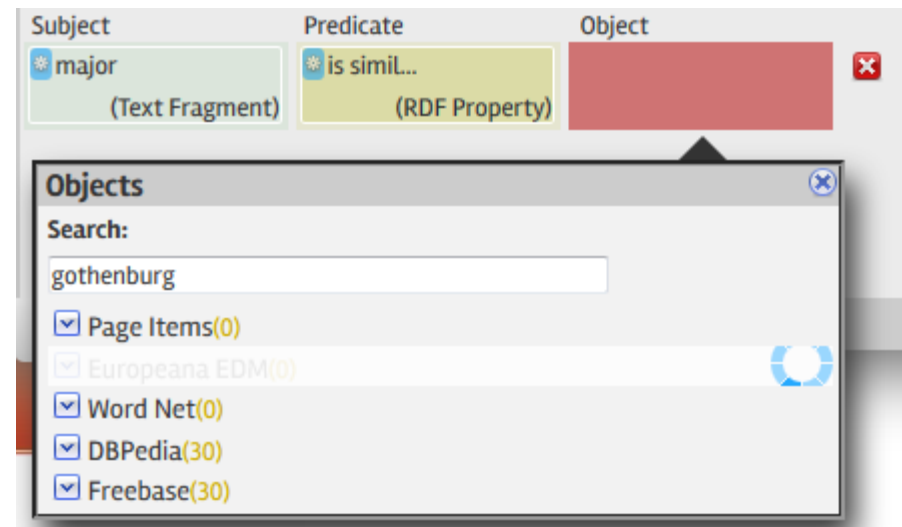




## The good parts in Pundit

- Takes advantage of RDF, relation types are configurable
- Good integration with dbpedia, freebase, Word Net etc.
- Describe relations between selected fragments
- Easy to create relations

Reimplementing this in a firefox extension would be a huge task.





## Relations

### Current way of describing a difference:

```
<body type="relation">  
  <relation>different</relation>  
  <this ref="http://dasish.eu/sources/SIDbbbb"/>  
  <that ref="http://dasish.eu/sources/SIDrrrr"/>  
</body>
```

### Describing a difference in RDF using a standard vocabulary:

```
<rdf:Description rdf:about="http://dasish.eu/sources/SIDbbbb">  
  <owl:differentFrom rdf:resource="http://dasish.eu/sources/SIDrrrr"/>  
</rdf:Description>
```