

Semantic applications

*IVOA interoperability meeting
Champaign-Urbana 2012 May 21*

Semantics in Registry

- Use semantics to standardize the metadata used in the Resource descriptions
 - <content>
- Makes easier :
 - Resource creation : « What am I supposed to enter in this field ? »
 - Registry searches : taking profit from standardized contents

Semantics in Registry

- Vocabulary suggestion (see Nara 2010)

Resource Content

Subjects

Insert after selected

Delete selected

Subject

White Dwarfs *

Subject

Surface temperature *

Description

Semantics in Registry

- SKOS
- AJAX

Autosuggest / Autocomplete from SKOS vocabularies

Vocabulary to use

Search string

planet
planetar
planetoid
planetary
protoplanet
planetology
planetarium
planetesimal

Semantics in Registry

- Use thesaurus to broaden/refine queries
- Use broader/narrower relations
- Can be useful when doing faceted search (see ADSlabs new portal)

Annotations, tagging, microformats

- RDFa

```
<p xmlns:dc="http://purl.org/dc/elements/1.1/"  
  about="http://www.example.com/books/wikinomics">  
  In his latest book  
  <cite property="dc:title">Wikinomics</cite>,  
  <span property="dc:creator">Don Tapscott</span>  
  explains deep changes in technology,  
  demographics and business.  
  The book is due to be published in  
  <span property="dc:date" content="2006-10-01">October 2006</span>.  
</p>
```

- Microformats

- vcard, geo

```
The birds roosted at  
<span class="geo">  
  <span class="latitude">52.48</span>,  
  <span class="longitude">-1.89</span>  
</span>
```

Annotations, tagging, microformats

- Dynamically add remote content to document (see Naples & Pune interops)

Scholz A.; Giannini T.; Eisloffel J.; Nisini B.; Massi F.; Antonucci S.;

forming regions: A potential chemical clock?

esaroni R.; Codella C.; Schuller F.; Bronfman L.; Carey S.J.; Menten K.

discovered pulsar IGR J17480-2446.

.; Burderi L.; Di Salvo T.; Belloni T.; Iaria R.

the solar twin **18 Scorpii** derived from asteroseismology and in

ding T.R.; Broomhall A.-M.

.; Asplund M.; Castro M.

nteiro M.J.P.F.G.; Santos N.

towards the massive young s

.D.; Nuernberger D.E.A.; W

creting brown dwarf J05

ti L.; Covino E.; Herczeg G.;

(6/L10)

net host star.

ves R.

formation process by sho



* **18 Sco**

J2000: 16 15 37.269 -08 22 09.99

Search * 18 Sco in SIMBAD

Search * 18 Sco in CDS portal

Annotations for * 18 Sco



Annotations, tagging, microformats

- SKUA
 - Saving and sharing annotations
- User-contributed contents
- « Controlled » folksonomy

Outreach, multilingual

- Several languages in TRex
- Multilingual dictionary in Paris