1. Vocabularies in VOResource

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A system for managing vocabularies
- content_level
- content_type
- date_role
- relationship_type

2. Background

VOResource 1.0 had some “term lists” defined in its schema. That was a pain for maintenance.
(Though “XML Schema Versioning Policies” will help).
So: VOResource 1.1 will have four vocabularies.

3. Managing Vocabularies

This takes up a system devised by Norman Gray for Datalink, adding:
- Support for multiple vocabularies
- Metadata definition file
- Support for deprecated synonyms

The net effect is that from a fairly simple input, a “rich” semantic resource is created, which supports date-based versioning and adapts to client requests.

4. .htaccess Automagic

On the server end, things are arranged such that requesting the base vocabulary URI gives a redirect to the current version (so we don’t need to clobber old versions when we issue new ones), requesting the vocabulary URI gives a (more or less nicely) formatted HTML rendering of the vocabulary, and clients that want Turtle or RDF+XML can get that from the vocabulary URI as well.

$ url=http://docs.g-vo.org/vocab-test/date_role
$ curl -a $url | grep moved
<p>The document has moved <a href="http://docs.g-vo.org/vocab-test/date_role/">here</a>.</p>

$ curl -al $url | xmllstarlet fo | grep -A 4 creation
<td class="predicate">creation</td><td class="label">Creation</td><td class="description">The date that the resource was created (deprecated in favour of Created)</td>
<td class="parent">#Created</td><td class="preferred">#Created</td>

$ curl -al -H "Accept: text/turtle" $url | head -5
@base <http://www.ivoa.net/ref/date_role>.
@prefix dc: <http://purl.org/dc/terms/>.
@prefix dcterms: <http://purl.org/dc/terms/>.
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema/>.
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#>.
5. Input Format

Vocabulary information is input in a simple CSV format, giving term, subproperty level, label, description, synonym

Copyrighted;1;Copyrighted;"The specific, documented date at
Collected;1;Collected;"A (representative) date at which the
representative;1;Representative;"A rough indication of the
Created;1;Created;"The date the resource itself was put tog
creation;1;Creation;The date that the resource was created

This lets you code two semantic relationships:
- Hyponym ("is-a"): list the more specialised term below the parent and increase the level
- Synonym ("use-instead"): new term (or URI) in column 5

Technically, our hyponymy is realised as rdfs:subPropertyOf triples, whereas for synonymy, we’re currently using owl:equivalentProperty together with owl:DeprecatedProperty. I have little instinct for whether this is a clever thing to do.

6. VOResource Vocabularies

Right now, find them off http://docs.g-vo.org/vocab-test

7. Questions

- Will this tooling work for you?
- What policy should we have for uploading vocabularies (WD? PR? REC?)
- Should we have a policy for keeping source documents?
- What policy should we have for updating vocabularies once they’re on ivoa.net?

Join the fray as we discuss these vocabularies on the Registry list!