Linked Data Rights v2.0: Extension of ODRL for Licensing Linked Data

http://purl.oclc.org/NET/ldr/ns#

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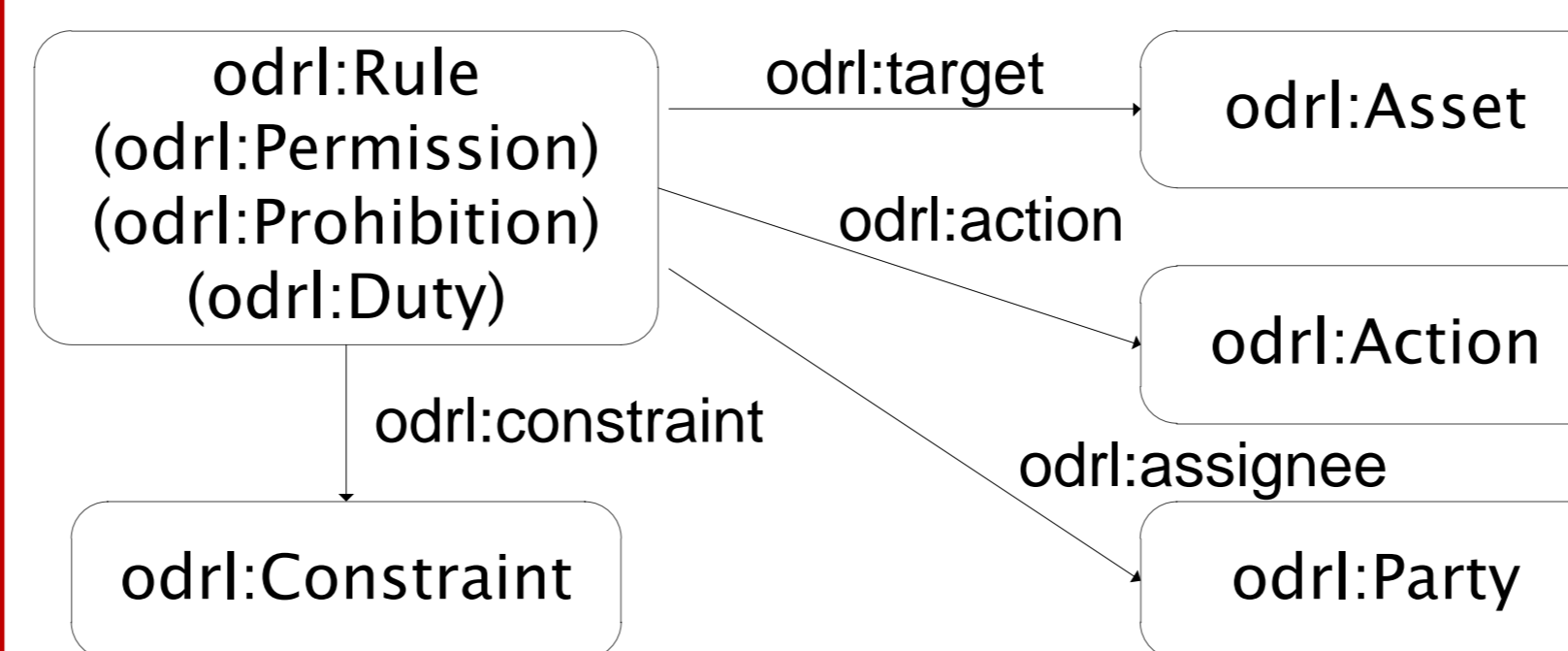Universidad Politécnica de Madrid (Spain)

Linked Data Rights

The Linked Data Rights 2.0 (LDR) ontology provides the vocabulary for creating **access policies** and **rights expressions** for Linked Data resources. Linked Data assets (RDF triples, graphs, datasets, mappings...) can be object of protection by the intellectual property law , the database law or its access or publication be restricted by other legal reasons (personal data protection, security reasons, etc.) or simpy by the publisher policies. Publishing a rights expression along with the digital asset allows the rightsholder waiving some or all of the IP and database rights (leaving the work in the public domain), permitting some operations if certain conditions are satisfied (like giving attribution to the author) or simply reminding the audience that some rights are reserved. It updates the LDR 1.0 presented at ISWC2013 in October.

Features

⭐ Extends the **ODRL2.0 Ontology** making a profile for Linked Data

⭐ Supports **W3C Linked Data Platform** resources and **S**PARQL methods

⭐ Supports **Intellectual Property Rights**, **Database Rights** and protection of **Personal Data**.

⭐ Suitable for declarative and enforceable policies alike (**licenses / access control**)

⭐ Implements the informative **Extended Relations** of ODRL2.0

ODRL2.0

«An action is (permitted /prohibited / obliged) to be acted by the party over the asset, provided that the constraint holds»

W3C Community Group - Open Digital Rights Expression

Model

«Access» applies to any resource w.personal infor-mation, confidential info, etc.

«DatabaseRight» applies to databases in Euro-pe (e.g. RDF Datasets)

«IPRights» apply to intellectual property works (e.g. an Ontology)

...(31 LD actions...)

odrl:rightOperand   hasClaim
  hasIndustrialSecret
  hasPrivacyLevel
  hasDisclaimerText
  hasAllRightsReserved
  hasCopyrightExpired
  ...

rdf:type
rdfs:subClassOf

Examples

Licensing an ontology as CC-BY

```
@prefix dct: <http://purl.org/dc/terms/> .
@prefix owl: <http://www.w3.org/2002/07/owl#> .
<http://example.com#> rdf:type owl:Ontology;
    dct:license <http://creativecommons.org/licenses/by/3.0/> .
```

Waiving rights for a RDF dataset

```
@prefix void: <http://rdfs.org/ns/void#> .
@prefix ldr: <http://purl.oclc.org/NET/ldr/ns#> .
:mydataset rdf:type void:Dataset .
:mypolicy [ rdf:type odrl:Set;
      odrl:permission [
        odrl:action ldr:extraction,ldr:reutilization;
        odrl:target :mydataset ] ] .
```

Offering a mapping for an amount of money
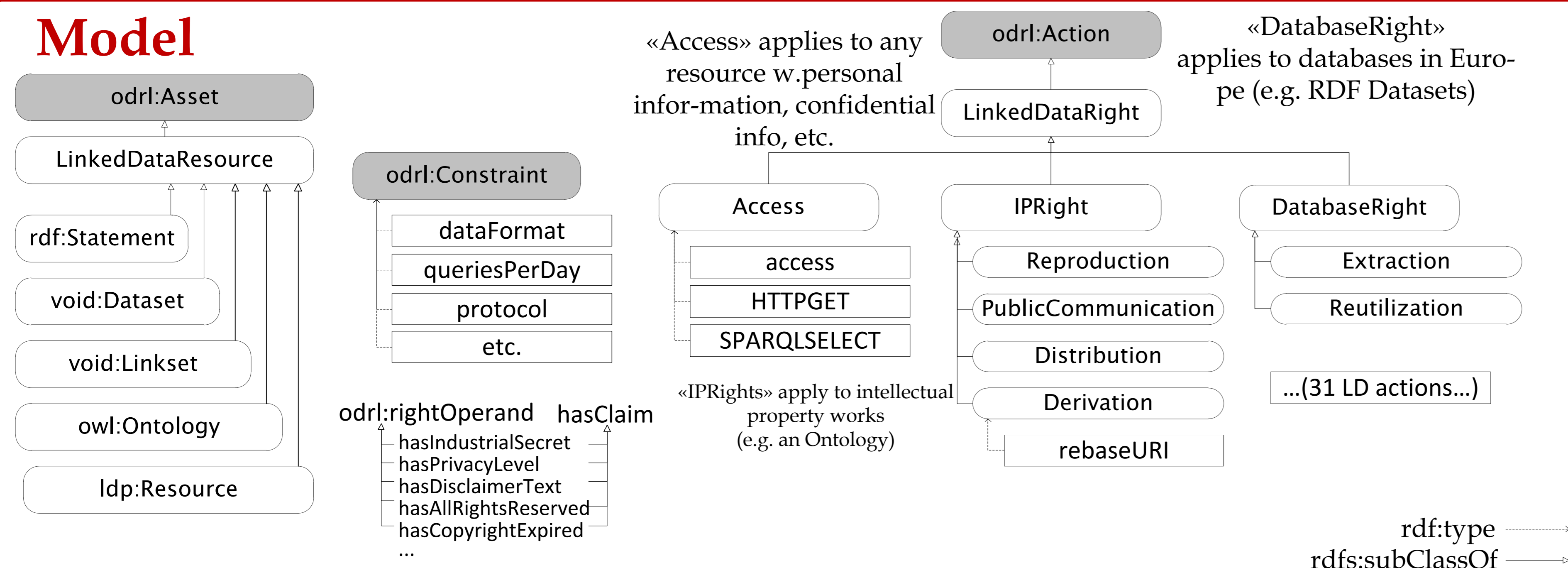
```
@prefix gr: <http://purl.org/goodrelations/v1>.
ex1:dataset1 a void:Dataset .
ex2:dataset2 a void:Dataset .
ex2:mapping a void:Linkset ;
    void:target ex1:dataset1, ex2:dataset2 ;
    dct:rights [
      odrl:permission [
        odrl:action ldr:SPARQLSELECT, ldr:HTTPGET;
        odrl:duty [
          odrl:action odrl:pay;
          odrl:target [ a gr:UnitPriceSpecificatoin ;
          gr:hasCurrencyValue "400"^^xsd:float;
          gr:hasCurrency "USD"^^xsd:string. ] ] ] ].
```

Declaring the confidentiality of a statement

```
@prefix vcard: <http://www.w3.org/2006/vcard/ns#> .
:x a rdf:Statement ;
    rdf:subject <http://example.org/bob> ;
    rdf:predicate vcard:hasTelephone ;
    rdf:object "003412345654" ;
    ldr:hasClaim ldr:hasPersonalData.
```

Other Resources

⭐ A Java API: http://vroddon.github.io/odrlapi/

⭐ Dataset with RDF licenses: http://datahub.io/dataset/rdflicense

⭐ Access control demo: http://conditional.linkeddata.es/