

KRR: Ontologies for information systems – *Ontology-based Data Access (OBDA)*

Artificial Intelligence Challenge / Introduction to Artificial Intelligence

ICM 2A + M1 CPS²

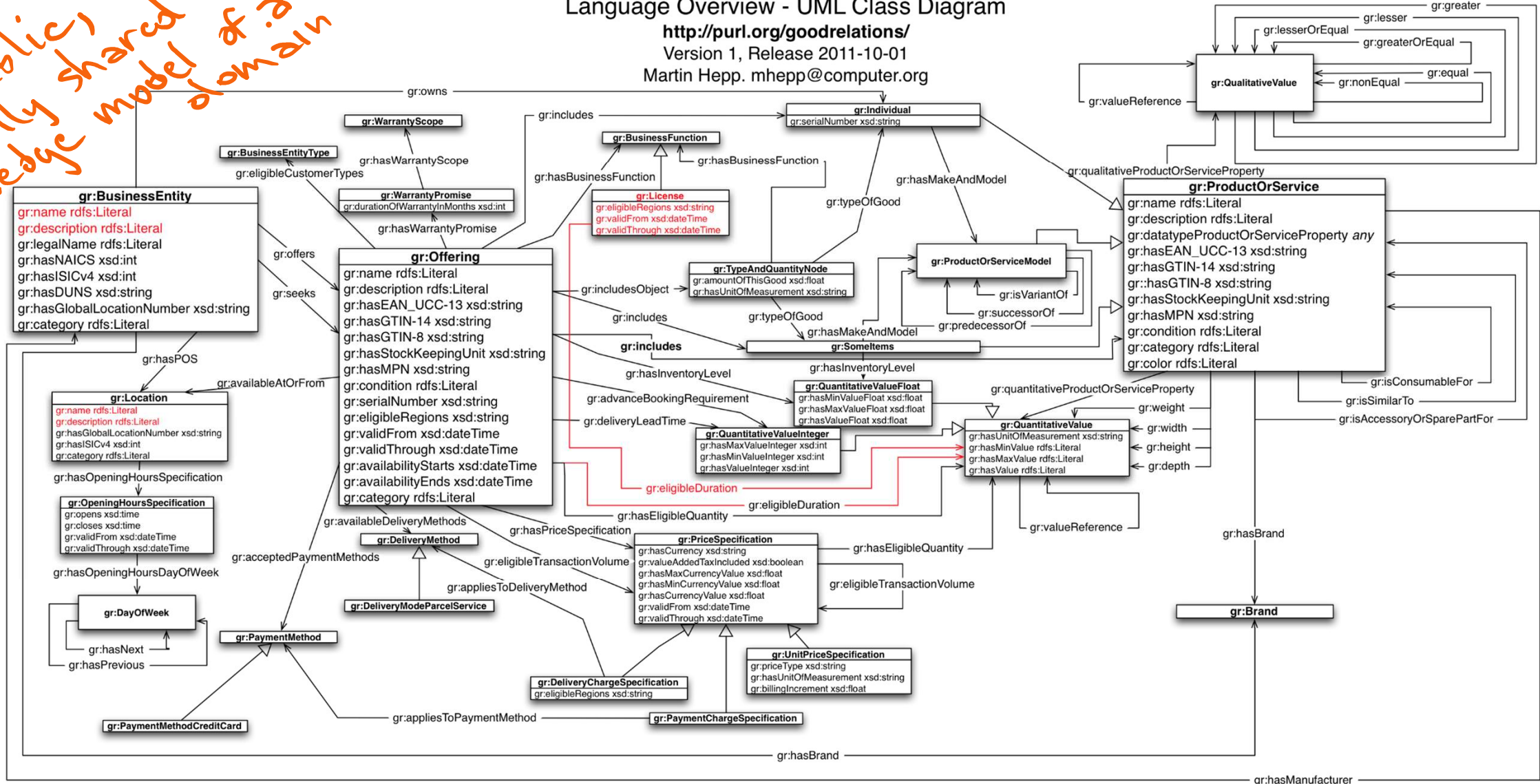
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The GoodRelations Ontology for E-Commerce Language Overview - UML Class Diagram

<http://purl.org/goodrelations/>
Version 1, Release 2011-10-01
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A globally public, knowledge shared domain of a schema



Notes:

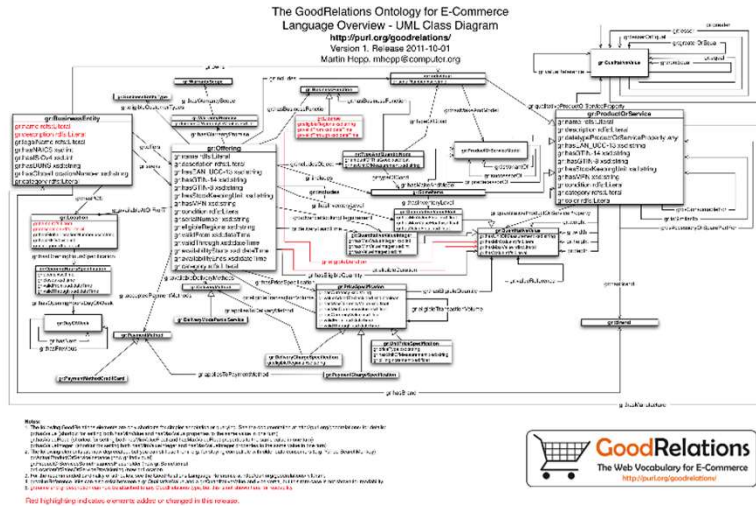
- The following GoodRelations elements are only shortcuts for simpler annotation or querying. See the documentation at <http://purl.org/goodrelations/> for details:
 - gr:hasValue (shortcut for setting both hasMinValue and hasMaxValue properties to the same value in one turn)
 - gr:hasValueFloat (shortcut for setting both hasMinValueFloat and hasMaxValueFloat properties to the same value in one turn)
 - gr:hasValueInteger (shortcut for setting both hasMinValueInteger and hasMaxValueInteger properties to the same value in one turn)
- The following elements are now deprecated, but you can still use them, e.g. for staying compatible with older data consumers (e.g. Yahoo SearchMonkey):
 - gr:ActualProductOrServiceInstance (now gr:Individual)
 - gr:ProductOrServicesSomeInstancesPlaceholder (now gr:SomeItems)
 - gr:LocationOfSalesOrServiceProvisioning (now gr:Location)
- For the recommended cardinality of attributes, see the GoodRelations Language Reference at <http://purl.org/goodrelations/v1.html>.
- gr:valueReference links can also exist between a gr:QualitativeValue and a gr:QuantitativeValue and vice versa, but this rare case is not shown for readability.
- gr:name and gr:description can now be attached to any GoodRelations type, but this is not shown here for readability.

Red highlighting indicates elements added or changed in this release.



Ontology-based Data Access (OBDA)

- The principle of OBDA is to make accessible any data in a certain domain accessible using an ontology
- Use local mappings from relational data to KG data
- Mappings can transform RDB into KG...
- ...or transform graph queries into local SQL



According to

Graph query \mathcal{Q}

Ontology \mathcal{G}

