ODRL Initiative Response to OASIS Rights TC Requirements

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1 Introduction

This document provides some requirements from the Open Digital Rights Language (ODRL) Initiative to the OASIS Rights Language Technical Committee.

The ODRL Initiative has a very broad user base including the full spectrum of digital rights management lifecycle (from creators to end users). ODRL has keen stakeholders in many sectors including ebooks, mobile, multimedia, financial, open-source, publishing and all levels of education.

The response covers both technical and non-technical requirements. These requirements have been used as the basis of the ODRL language.

The ODRL Initiative would be happy to provide any further information to the OASIS Rights Language TC. Additional information and the ODRL specification can be obtained from:

- http://odrl.net/

2 Technical Requirements

2.1 Modelling Rights

It is important that a clear and extensible model for the overall Rights Language be adopted. There has been existing work in this area in the modelling of content from [IFLA] and is important work to be supported in rights. The model should also support the clear separation and identification of three core entities: Parties, Content, and Rights assertions.

The roles that Parties (eg rights holders) undertake and the evolution of content stages should also be supported. Another key issue in the model is that the entities are clearly identified with standard identification/naming mechanisms.

The requirements from this section are summarised in Table 1.

Table 1. Rights Modelling Requirements

Requirement	Note
Provide an extensible model that clearly separates the three core entities: • Parties • Content • Rights Expression	Parties are any individual or organisation that has played a role in the development, management, or any other arrangement of the content. Content can be any digital asset.
Support the articulation of roles undertaken by parties.	Roles maybe sector specific. A mapping between them may also be useful.
Support open standard identification mechanisms for entities in the model.	Both content and the metadata records about the content (ie the Rights expression records) must be identifiable. Parties must be identifiable as well.
Support the evolution of content stages	Identifying content at the various intellectual stages will enable clearer (and more explicit/ appropriate) attribution of rights information. For example, the IFLA model.
Support modelling of Offers and Agreements	

2.2 Rights Terms

The Rights Terms defines all the semantics of the Rights expressions. The procedure of these definitions should follow standard data element specification methods, eg ISO11179.

There are core entities in the Rights expression that need to be supported. These core entities can then be further redefined in an object-oriented fashion. That is, an entity maybe represent a Class of objects, that can be sub-classed with additional state and behaviour.

The Rights terms must support the specification of the allowable (and sometimes the non-allowable) Usages on the content. These usages should be specified via high-level entities that represent common classes of usage (eg Use, Transfer, and Reuse). The rights terms will then enable the more explicit definition of usages under these classes.

The Rights terms will also support the definitions of Constraints and Conditions on the defined usages.

For each Usage, the rights terms should also allow the specification of the Parties (rights holders), their role, and the amount (if any) of rewards (eg money) that they are entitled to in the pre-agreed usage situation.

The requirements from this section are summarised in Table 2.

Table 2. Rights Terms Requirements

Requirement	Note
The semantics of the Rights Terms terms should be specified via a standard definition system.	It is important to separate the specification of the semantics from any syntactical encodings.

Table 2. Rights Terms Requirements

Requirement	Note
The Rights Terms should be specified to allow for common and abstract entities to be defined. These can then be further defined and refined into specific entities.	Adopting a clear object-oriented model will help in the modelling and understanding of the entities in the Terms
The Rights Terms must allow the specification of Usages which can then be sub-classed into a number of more specific entities.	The Usages are the core allowed actions for content. Specifying non-allowed Usages is also required.
The Rights Terms must allow the specification of Constraints applicable to the Usages.	Constraints should be modelled in the same way as the Usages.
The Rights Terms must allow the specification of Conditions applicable to the Usages.	
The Rights Terms must allow the specification of Requirements applicable to the Usages.	This covers the obligations of the users entering the agreements for the rights (eg payments).
The Rights Dictionary should support Accessibility issues.	The Rights terms should allow for alternative usages for content to meet the needs of communities with special needs.
The Rights Dictionary should allow for the Parties to be specified (for each Usage) and the role they played, including any rewards (eg monetary) that they are entitled.	There are various mechanisms for Rewards to rights holders (parties) that will need to be supported.
Information about the Rights expressions should also be supported in the form of Administrative properties.	

2.3 Rights Expressions

The Rights Expression Language must be able to encode all the defined Rights Terms in an industry standard syntax. For encoding instances of Rights expressions, this must (at least) be XML and directly support XML Namespaces. The Rights terms must also be specified in a machine-readable schema language. This must (at least) be via XML Schema Structure. Strong data typing should be supported. This must (at least) be via XML Schema Datatypes.

The Rights Expression Language must also support identification of specific rights expressions and enable them to be linked together. This is used to express the relationship between the entities.

The requirements from this section are summarised in Table 3.

Table 3. Rights Expression Language Requirements

Requirement	Note
The Rights Expression Language must use an industry acceptable encoding syntax that supports Internationalisation.	The syntax should allow for international character sets and languages.

Table 3. Rights Expression Language Requirements

Requirement	Note
A mechanism must be used to identify the specific entities from the Terms.	Each entity (an XML element) needs to be reference-able. This will also support other entities (elements) to be used from other dictionaries.
The Rights Expression Language must be able to specify the entities in a machine-readable schema.	
The Rights Expression Language must be able to specify the datatypes of the entities in a schema.	Strong data typing is recommended.
The Rights Expression Language must be able to identify specific fragments of expressions and provide linking between them.	This will support reuse of common Rights expressions and define the links between the entities.
The Rights Expression Language should support groupings of Terms entities and their relationships.	Collections of entities may need to be grouped to ensure that their relationship is expressed correctly.

3 Non-Technical Requirements

The critical non-technical requirement is that the Rights Language be specified and implementable without any encumbrances from patent claims. That is, the Rights Language be available to all under "Royalty Free" terms without any other conditions.

The ODRL Initiative notes that Charter of the OASIS Rights Language TC includes:

> "...a rights language that supports a *wide variety of business models*... flexibility to address the *needs of the diverse communities* that have recognized the need for a rights language..."

This implies a requirement for the Rights Language to be made widely available without any impediments to such groups (eg the open -source community, cultural institutions, individuals, etc.) in the true interests of interoperability.

The requirements from this section are summarised in Table 4.

Table 4. Non-Technical Requirements

Requirement	Note
The Rights Language must be available under royalty free terms.	

4 References

[IFLA] Functional Requirements for Bibliographic Records
<http://www.ifla.org/VII/s13/frbr/frbr.htm>