


# Embedding ODRL statements in Dublin Core

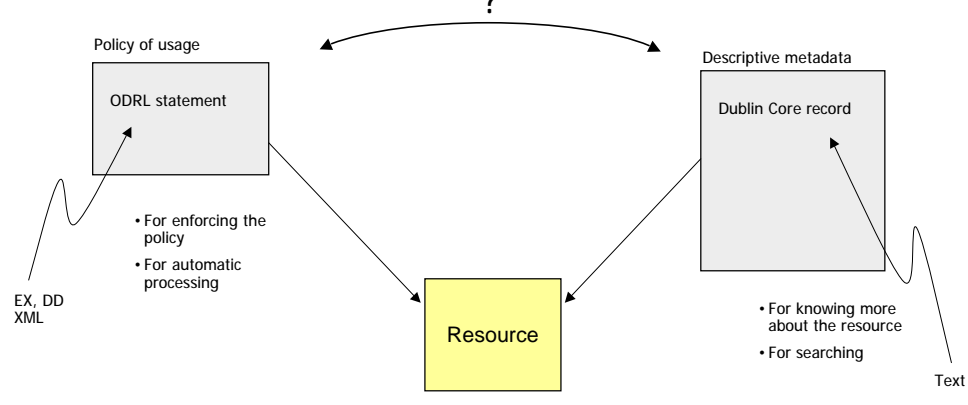
Enric Peig, Jaime Delgado  
DMAG, UPF

2nd International ODRL Workshop  
Lisboa, 7-8 July 2005

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?




```

graph TD
    A[Policy of usage  
ODRL statement] --> C[Resource]
    B[Descriptive metadata  
Dublin Core record] --> C
    A <--> |?| B
  
```

Can ODRL and Dublin Core be combined?

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- XML binding of an ODRL statement

```
<permission>  
  <display/>  
  <print>  
    <constraint>  
      <count>5</count>  
    </constraint>  
  </print>  
</permission>
```

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- XML binding of an ODRL statement

```
<permission>  
  <sell/>  
  <play>  
    <condition>  
      <constraint>  
        <software>X</software>  
      </constraint>  
    </condition>  
  </play>  
</permission>  
<condition>  
  <constraint>  
    <spatial>  
      <context>  
        <uid>iso3166:AU</uid>  
      </context>  
    </spatial>  
  </constraint>  
</condition>
```

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• Dublin Core record

Contributor	Dublin Core Metadata Initiative
Coverage	
Creator	
Date	2005-06-13
Description	The Dublin Core Metadata Initiative is an open forum engaged in...
Format	text/html
Identifier	
Language	en
Publisher	
Relation	
Rights	
Source	
Subject	
Title	Dublin Core Metadata Initiative (DCMI) Home Page
Type	

§ 15 core elements  
§ 3 new elements  
§ 33 qualifiers

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• Dublin Core record

Contributor	Berggren, Marten
Coverage	
Creator	Koch, Traugott
Date	1997-12-01
Description	This service is provided by the Nordic Metadata Project in order to...
Format	text/html
Identifier	
Language	en
Publisher	Nordic Metadata Project
Relation	
Rights	Copyright
Source	
Subject	Metadata creation
Title	Dublin Core Metadata Template (Nordic Metadata Project)
Type	Text.Form

§ 15 core elements  
§ 3 new elements  
§ 33 qualifiers

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- Dublin Core elements for rights expressions
  - ü Core element *Rights*

“Typically, rights will contain a rights management statement for the resource, or reference a service providing such information. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights. If the rights element is absent, no assumptions may be made about any rights held in or over the resource”
  - ü Qualifier *License* (refinement of *Rights*)
 

“a legal document giving official permission to do something with the resource and recommended best practice is to identify the license using a URI”
  - ü Others: element *rightsHolder*, refinement *accessRights*

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- § We can use *License* to point to the XML binding of the ODRL statements
- § But we want to make rights information clear...
- § XML is not well read...
- § Let's put in *Rights* an understandable version of the statements!

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- Automatic translation from the XML binding to plain text

```

<permission>
  <display/>
  <print>
    <constraint>
      <count>5</count>
    </constraint>
  </print>
</permission>

```

➔

permission to display; permission to print with constraint 5 times

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- Dublin Core record

Contributor	Berggren, Marten
Coverage	
Creator	Koch, Traugott
Date	1997-12-01
Description	This service is provided by the Nordic Metadata Project in order to...
Format	text/html
Identifier	
Language	en
Publisher	Nordic Metadata Project
Relation	
<b>Rights</b>	<b>permission to display; permission to print with constraint 5 times</b>
Source	
Subject	Metadata creation
Title	Dublin Core Metadata Template (Nordic Metadata Project)
Type	Text.Form

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- ODRL Foundation Model

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- We need a syntax:

*sentence ; sentence ; ...*

where *sentence* contains only terms from the Data Dictionary

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- ODRL Permission Model

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- Another example:

```

<permission>
  <play>
    <requirement>
      <peruse>
        <payment>
          <amount currency="AUD">
            20.00
          </amount>
          <taxpercent code="GST">
            10.0
          </taxpercent>
        </payment>
      </peruse>
    </requirement>
  </play>
</permission>

```

permission to play paying AUD \$20 plus 10% tax

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- And yet another one:

```

<permission>
  <sell/>
  <play>
    <condition>
      <constraint>
        <software>X</software>
      </constraint>
    </condition>
  </play>
</permission>
<condition>
  <spatial>
    <context>
      <uid>iso3166:AU</uid>
    </context>
  </spatial>
</condition>

```


permission to sell valid until exercised in Australia;  
 permission to play valid until software X is used or until exercised in Australia

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- Considerations
  - § We don't need to be exhaustive ⇒ tailor the translator
  - § Other REL (MPEG-21 REL, ...) are possible
  - § Other metadata sets (IEEE LOM, MPEG-7, ...) are possible

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- Conclusions
  - § We propose a mechanism to automatically translate a REL statement into readable sentences and to include them into descriptive metadata records
  - § We are working on the translator

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