“A Dublin Core Application Profile (DCAP) is a declaration specifying which metadata terms an organization, information provider, or user community uses in its metadata. By definition, a DCAP identifies the source of metadata terms used—whether they have been defined in formally maintained standards such as Dublin Core, in less formally defined element sets and vocabularies, or by the creator of the DCAP itself for local use in an application. Optionally, a DCAP may provide additional documentation on how the terms are constrained, encoded or interpreted for application-specific purposes.” -- CEN CWA 14855:2003
Machine-readable constraints?

- XML Schema?
  - Not applicable to RDF
  - Not applicable to HTML
  - Not applicable to ....

- CEN Guidelines
  - Not based on DCAM
  - No support for Description Sets

- Needed something new
  - “Dublin Core Description Set Profile”
Envisioned usages

- as a formal representation of the constraints of a Dublin Core Application Profile
- as configuration for databases
- as configuration for metadata editing tools
- etc.
Scope of a DSP spec

• Information model: Structural constraints on a description set:
  – what descriptions may occur
  – what properties may be used
  – what ways might a value surrogate be given

• XML expression
Out of scope

- Human-readable documentation
- Definition of vocabularies
- Version control
- etc.
DC Application Profiles
- new definition (in progress)

● A DCAM-conformant Application Profile (“DC Application Profile”) is packet of documentation which consists of:
  - Functional requirements (mandatory)
  - Domain model (mandatory)
  - Description Set Profile (DSP) (mandatory)
  - Usage guidelines (optional)
  - Encoding syntax guidelines (optional)
First working draft

- http://dublincore.org/architecturewiki/DescriptionSetProfile
- Comments on DC-ARCHITECTURE
- Publication schedule not defined
Example: The book AP

- A book:
  - a literal title
  - a creator, described separately

- A creator
  - a literal name
Description Template: Book

Statement template: literal title

- Property: `dcterms:title`
  - Literal value
  - Language
  - SES

Statement template: creator

- Property: `dcterms:creator`
  - Description reference: Creator
  - Value URI
  - Vocabulary Encoding Scheme
  - Value string
  - Language
  - SES

Description Template: Creator

Statement template: literal name

- Property: `foaf:name`
  - standalone:no
  - Literal value
  - Language
  - SES
Description template: Book

DT=(min="1" max="1" standalone="yes" identifier="book")

=== Title ===

ST=(max="1" type="literal" PC= {http://purl.org/dc/terms/title})
|| Definition || A name given to the resource. ||
LC=(LangC=(occurrence="optional") SESConstraint=(occurrence="disallowed") )

=== Creator ===

ST=(max="1" type="nonliteral" PC= {http://purl.org/dc/terms/creator})
|| Definition || An entity primarily responsible for making the resource. ||
NLC=(VURIConstraint=(occurrence="disallowed") VESConstraint=(occurrence="disallowed")
    VStringConstraint=(max="1" LangC=(occurrence="disallowed")
    SESConstraint=(occurrence="disallowed")) description="creator" )

Description template: Creator

DT=(min="1" max="1" standalone="no" identifier="creator")

=== Name ===

ST=(max="1" type="literal" PC= {http://xmlns.com/foaf/0.1/name})
|| Definition || A name for some thing. ||
LC=(LangC=(occurrence="disallowed") SESConstraint=(occurrence="disallowed") )

}}
Putting DSPs to work

- The SHAME demo
- Takes DSP-XML
- Generates an RDF editor on the fly
  - RDF conforms to DSP constraints