DC-2010 Community Meeting
Wednesday, 20 October 2010

DC-EDUCATION COMMUNITY
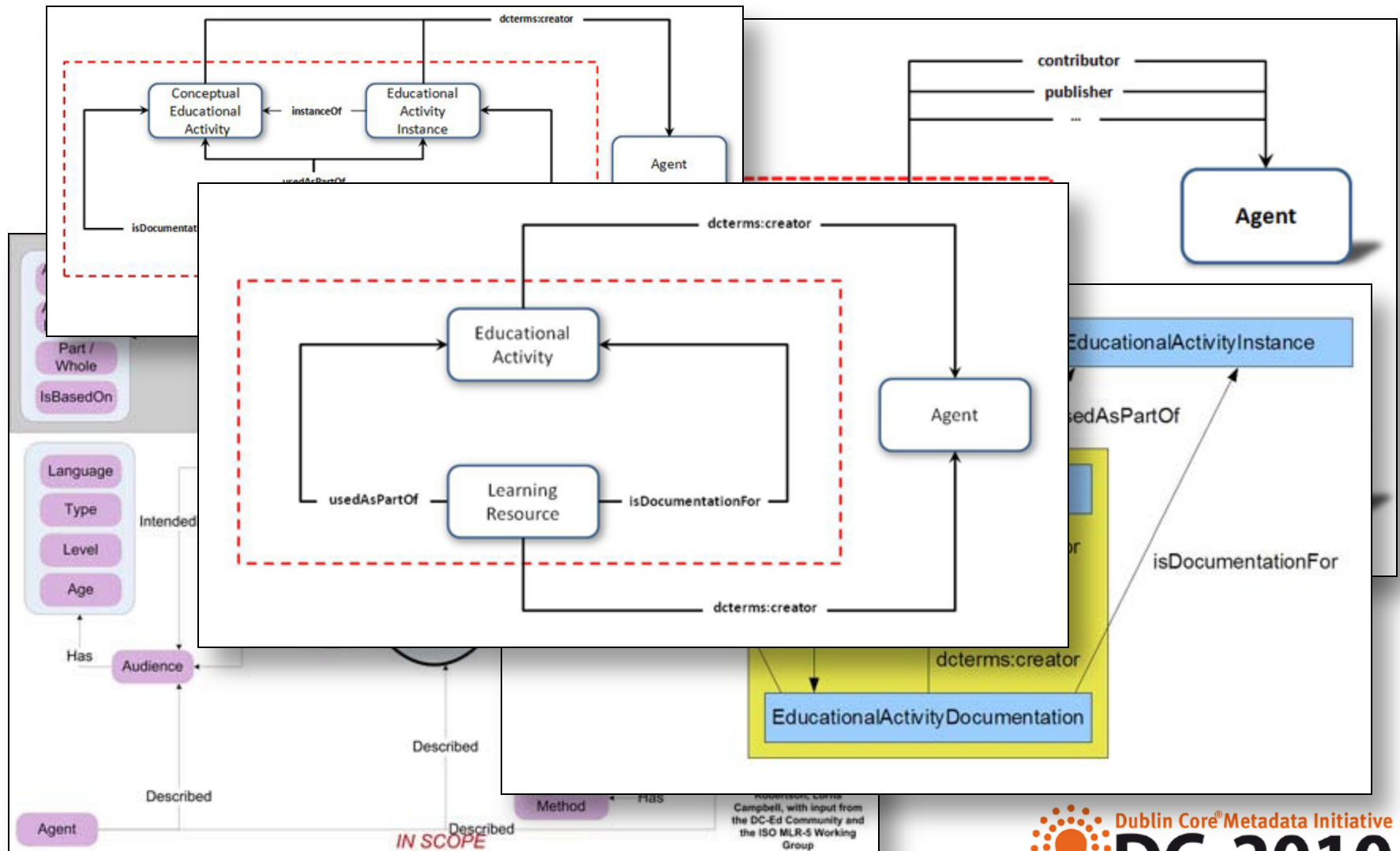
Dublin Core® Metadata Initiative
DC-2010

Agenda

1. DC:Education Application Profile
2. *Joint DCMI/IEEE LTSC Task Force*
3. ISO/IEC 19788 Metadata for Learning Resources (MLR)

DC:Education
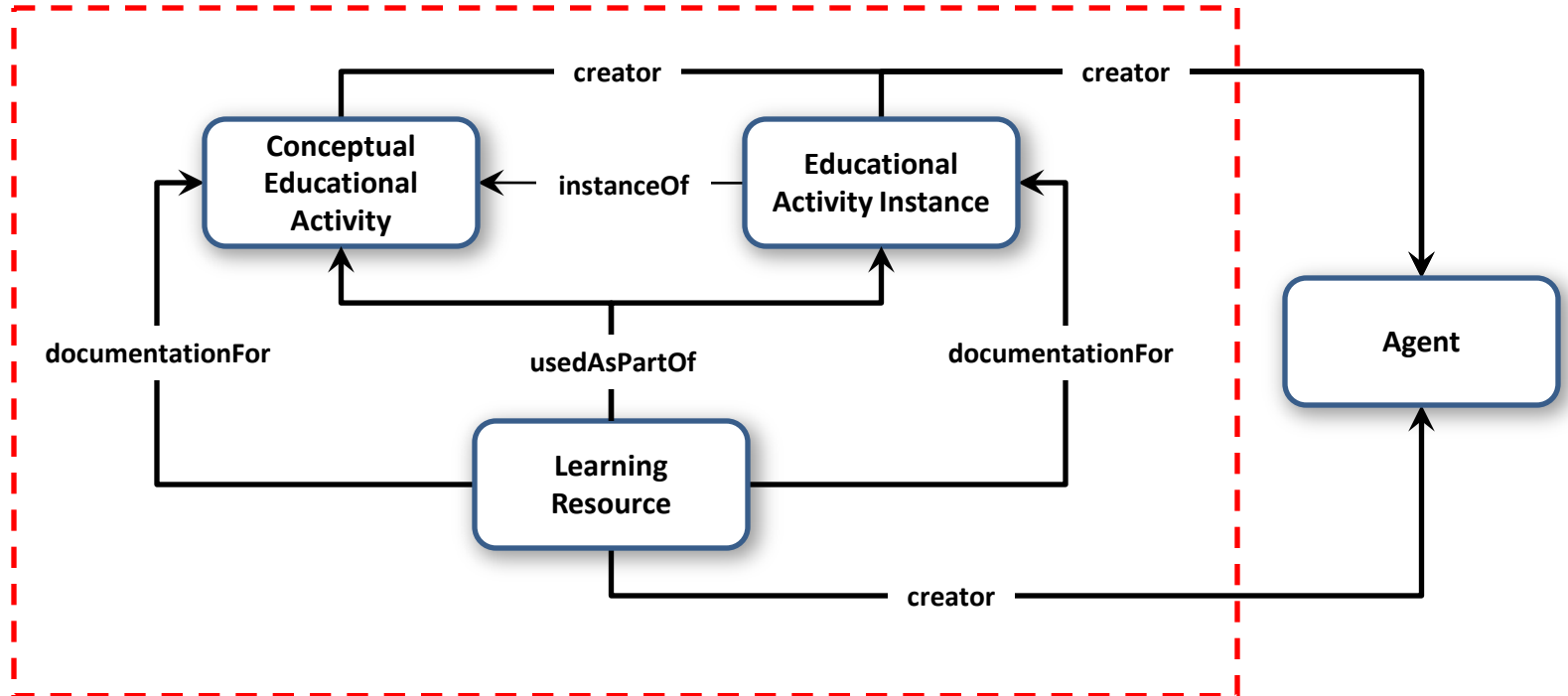
APPLICATION PROFILE STATUS
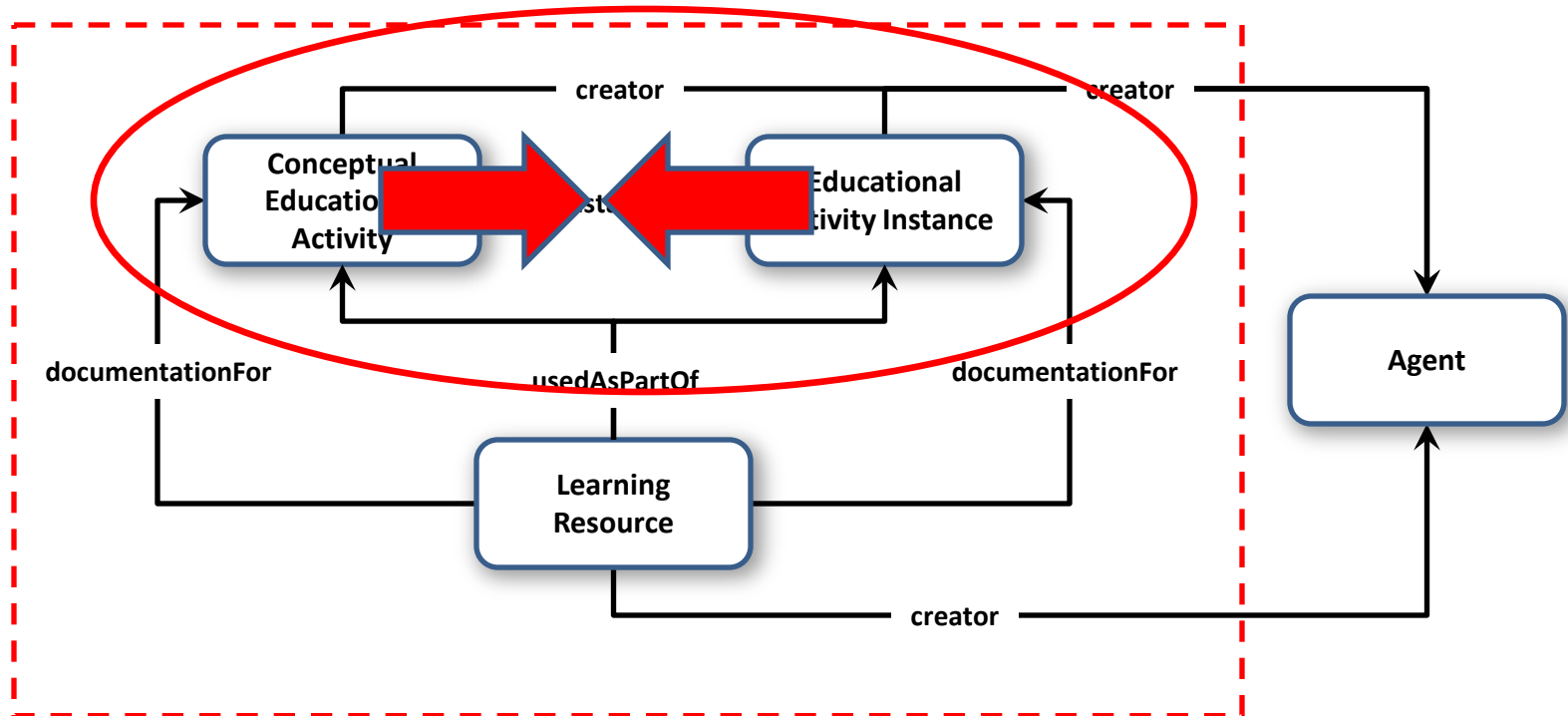
Work of the Past Year—Domain Model!

Draft Model 3b

Entity Definitions (Model 3b)

Entity	Definition
Educational Activity	The idea for an educational activity (e.g. the idea of teaching fractions by dividing a jar of sweets into a fixed number of bags).
Educational Activity Instance	The instantiation of a ConceptualEducationalActivity as an event that can be experienced by one or more participants (e.g. a lesson given by a particular teacher, in a particular school, at a particular time).
Learning Resource	Any Resource that is used as part of a ConceptualEducationalActivity or an EducationalActivityInstance (e.g. a textbook) or that describes (e.g. a lesson plan) or records (e.g. an audio- or video-recording of a lesson) the same.
Agent	A resource that acts or has the power to act.

Draft Model 3b (redux)

Too complex and FRBR-esque

http://dublincore.org/educationwiki/Model

Draft Model 3c

Entity Definitions (Model 3b)

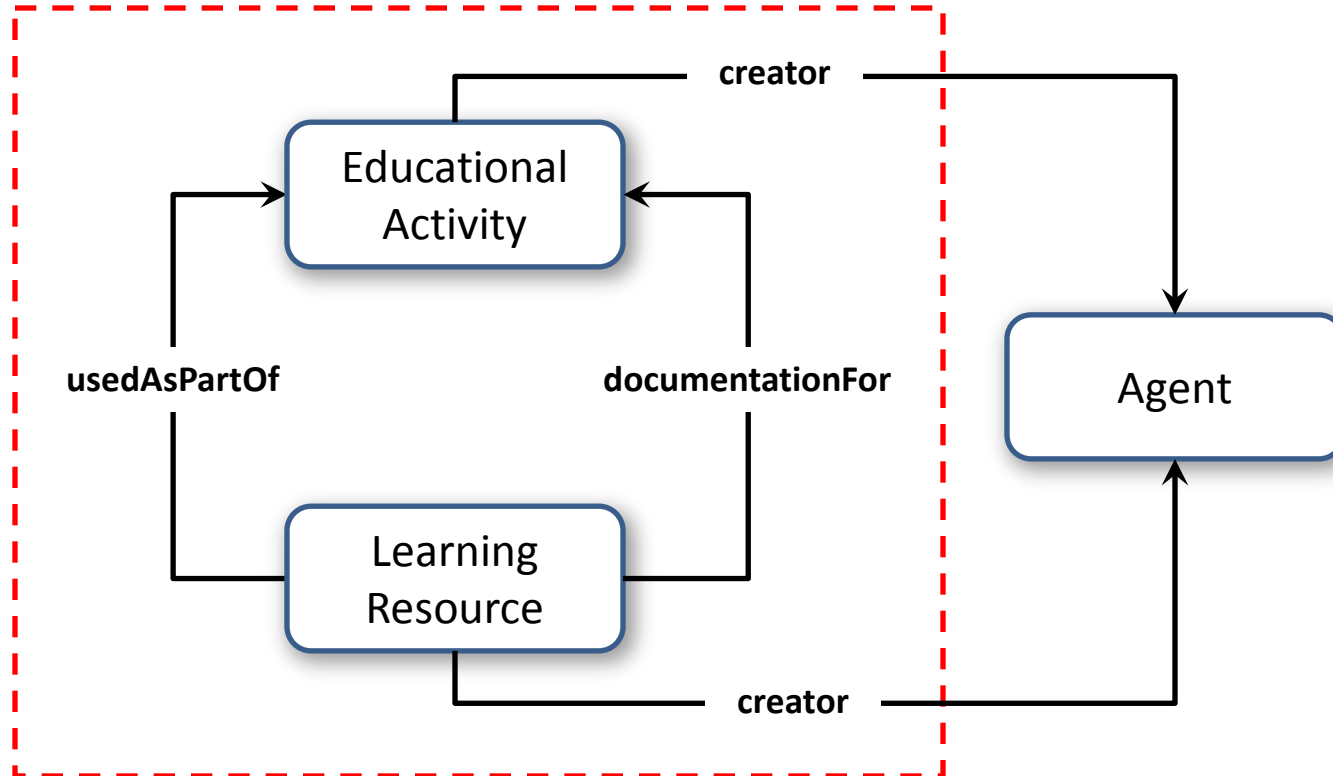| Entity	Definition
Educational Activity	***The idea for, or an instantiation of***, an educational activity (e.g. the idea of teaching fractions by dividing a jar of sweets into a fixed number of bags or the lesson given by a particular teacher, in a particular school, at a particular time).
Learning Resource	Any Resource that is used as part of an EducationalActivity (e.g. a textbook) or that describes (e.g. a lesson plan) or records (e.g. an audio- or video-recording of a lesson) the same.
Agent	A resource that acts or has the power to act.

Existing Properties & the Model

- Properties in the DCMI namespace(s)

- Properties in the IEEE LOM namespace as <u>proposed</u> by the Joint DCMI/IEEE LTSC Task Force

  – Continuing (10 year old) problem

  – Currently, there is no such thing as a LOM "property"

* http://dublincore.org/educationwiki/DCMIIEEELTSCTaskforce?action=AttachFile&do=get&target=LOM-DCAM-newdraft.pdf

Dublin Core Properties

Source	Property	Definition
DCMI	<audience>	A class of entity for whom the resource *is intended or useful*.
DCMI	<conformsTo>	An established standard to which the described resource conforms.
DCMI	<educationLevel>	A class of entity, defined in terms of progression through an educational or training context, for which the described resource *is intended*.
DCMI	<instructionalMethod>	A process, used to engender knowledge, attitudes and skills, that the described resource *is designed to support*.
DCMI	<mediator>	An entity that mediates access to the resource and for whom the resource *is intended or useful*.

IEEE LOM "Properties"

Source	Property	Definition
LOM	\<interactivityType\>†	A mode of learning supported by the learning object.
LOM	\<interactivityLevel\>†	A degree of activity characterizing a learning object.
LOM	\<semanticDensity\>†	The degree of conciseness of the learning resource.
LOM	\<context\>	An environment within which the learning and use of the learning object *is principally intended to take place*.
LOM	\<typicalAgeRange\>	Age of the *typical intended user*.
LOM	\<difficulty\>	An indicator of how hard it is for the *typical intended target audience* to work with or through the learning object.

IEEE LOM Properties

Source	Property	Definition
LOM	<typicalLearningTime>	Approximate or ***typical time*** it takes for the ***typical intended target audience*** to work with or through the learning object.
LOM	<educationalDescription>†	Comments on how the learning object ***is to be used***.
LOM	<educationalLanguage>	The human language used by the ***typical intended user*** of this learning object.

- lom:learningResourceType = dcterms:type
- lom:intendedEndUserRole = dcterms:audience
- lom:context = dcterms:educationLevel

†"CanCore does not recommend the use of this element for the purpose of interoperation in distributed environments." --CanCore Guidelines for the Implementation of Learning Object Metadata (IEEE 1484.12.1-2002). Version 2.0

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Domains & Ranges

- Discussion of domains for existing DC properties and (proposed) IEEE LOM properties has yet to happen

- Domain model can't be finalized until we work through domain/ranges
  - Conflating the "idea" of an educational activity and an "instance" of an educational activity may be problematic in term of existing properties
    - Conflates the distinction between something that happened (instance) and some probably happening (idea)

"Idea" & "Instance"

IDEA	INSTANCE
typicalAgeRange	ageRange
typicalLearningTime	learningTime

- DCMI and LOM properties framed in terms of "intention"…in terms of probabilities:
  - educationLevel
  - instructionalMethod
  - context
  - typicalAgeRange
  - difficulty
  - typicalLearningTime
  - educationalDescription
  - educationalLanguage)

DC:Education

JOINT DCMI/IEEE LTSC TASK FORCE STATUS

IEEE PARS

- PARS (IEEE authorization requests)
  - Designation: P1484.12.5
    Title: *Standard for Resource Description Framework (RDF) Vocabulary for IEEE Learning Object Metadata (LOM) Data Element*

  - Designation: P1484.12.4
    Title: *Recommended Practice for Expressing IEEE Learning Object Metadata Instances Using the Dublin Core Abstract Model*

Current Status

**IEEE P1484.12.4™/D1Draft
Recommended Practice for Expressing IEEE
Learning Object Metadata Instances Using
the Dublin Core Abstract Model**

—2008

http://dublincore.org/educationwiki/DCMIIEEELTSCTaskforce?action=AttachFile&do=get&target=LOM-DCAM-newdraft.pdf

Remaining Issues

1. **Namespace from IEEE**
   Ensuring that we get the namespace right from the beginning

2. **Agreement on what to do with the Educational category**
   - Do we allow multiple instances of the category?
   - Multiple instances of Educational corresponds to a separation of the object from the activity

3. **DCAM 2.0**
   If we make DCAM 2.0 based directly on RDF, it might have an influence on how we need to formulate the content of the Recommended Practice, even though the formal content probably stays more or less the same

Finalizing DCAM Conformant LOM

PATH FORWARD???

...PICK UP DISCUSSION THREADS IN JANUARY?

**...THE DCMI DIRECTORATE HAS THE TASKFORCE STATUS AS
"PENDING DEACTIVATION" DUE TO INACTIVITY AND STALLED PROGRESS**

ISO/IEC 19788 Metadata for Learning Resources (MLR)

Report: Liddy Nevile

Historical Process

- When IEEE LOM was standardized in 2002, it was submitted to ISO for "fast track" standardization (i.e., ratification without substantial changes)

- The ISO/IEC JTC1 SC36 committee for information technology for learning, education and training handled the submission.

- Given proposals for substantial revisions to address perceived deficiencies in the LOM, an ISO standardization was proposed for a new standard (Metadata for Learning Resources) that would:

  - Retaining a level of interoperability with IEEE LOM; and,

  - Increase interoperability with Dublin Core metadata.

DC:Education

2011 WORK AGENDA…

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2011 DC-Ed Agenda

- Determine path forward with the joint LOM work
  - Push to finalize current Joint DCMI/IEEE LTSC Task Force work <u>or deactivate the Taskforce</u>?
  - Push to finalize P1484.12.5 only so there are LOM properties to reference in Dublin Core metadata?
  - Declare DC:Ed properties for <u>useful</u> LOM concepts with the intention of identifying them as sub-properties of LOM equivalent properties when (and if) such properties ever materialize?
- Complete domain/range discussion for (1) existing DCMI properties and (proposed) IEEE LOM properties (contingent on the above caveats); and (2) any new properties resulting from the draft domain model(s)
  - January-March list discussions and consensus
- Resolve namespace issues for any new properties
  - April-May (DCMI Usage Board & Directorate)
- Finalize domain model
  - June
- Complete documentation
  - July-August

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