An Ontology Framework for e-Learning in the Knowledge Society

Kerstin Zimmermann, physik.org Vienna
Julika Mimkes, ISN Oldenburg
Hans-Ulrich Kamke, Humboldt University of Berlin

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Table of Content

- e-Learning
- Meta data schemes / elements
- Subject classification
- Mapping
- Ontologies

e-Learning =

- knowledge generation
- terminology
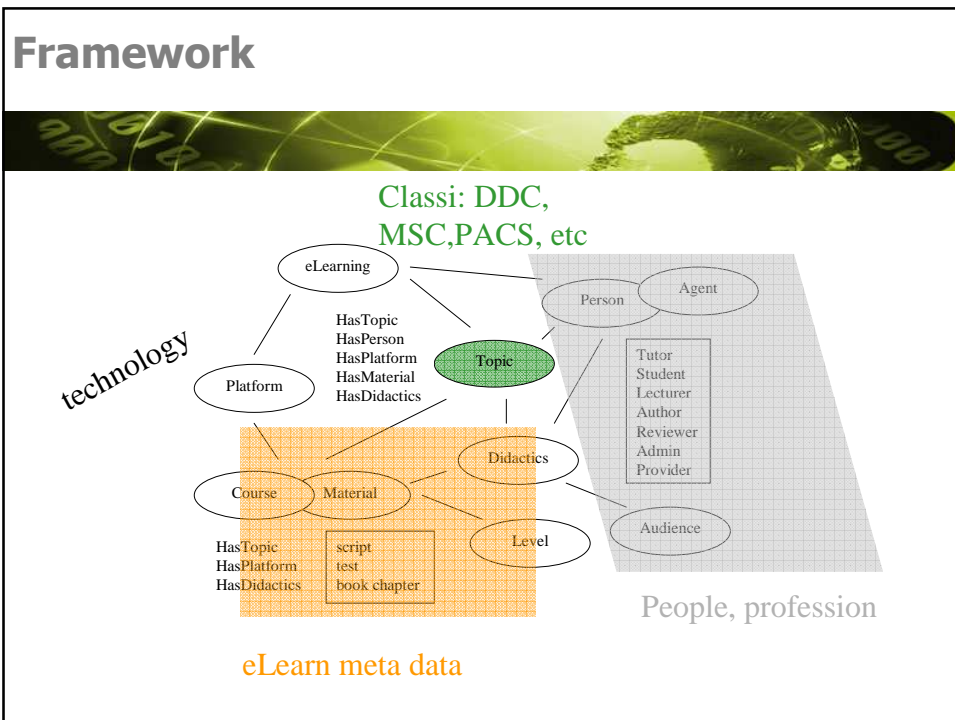- dissemination
- (re)use

Person and technology based

Meta Data Schemes

- MARC21
- BibTeX
- Dublin Core

Content based

Closing the gap

- Personal description
- Community
- Subject classification
- Library

Framework

Classi: DDC, MSC,PACS, etc

eLearning

Person   Agent

HasTopic
HasPerson
HasPlatform
HasMaterial
HasDidactics

Topic

Tutor
Student
Lecturer
Author
Reviewer
Admin
Provider

technology

Platform

Didactics

Course   Material

Level

Audience

HasTopic
HasPlatform
HasDidactics

script
test
book chapter

People, profession

eLearn meta data

Ontologies

- **FOAF** (Friend Of A Friend) for communities
  Describing homepages of people, the links between them and the things they create and do
  Coverage: Person as 1 concept with 10 properties

- **SWP** (Semantic Web Portal) Ontology for Scientific Portals
  Coverage: Person (Agent and Organisation), Publication, Conference as the 3 main concepts
  68 classes, 21 data properties, 57 object properties

- **MarcOnt** for Digital libraries
  Ongoing and still under construction, do mapping of the three formats Marc21, DC, BibTeX

Marc21

- 8 types of material: *Book*, **Continuing resource**, **Computer files, Maps**, *Music, Sound recording (non music)*, **Visual materials, Mixed materials**
- 3 types of record: **manuscript, computer file, cartographic material**

BibTex

- 12 different categories: *String, Book, InBook,* **InCollection***, InProceeding, Proceeding, Article, MasterThesis, PhDThesis, TechReport, Manual,* **Misc**

DC

- 12 subclasses are provided: **Collection***, Dataset, Event, Image, MovingImage, StillImage, Sound, Text,* **Interactive Resource***, Physical Object, Service* and **Software**

Mapping I

- MarcOnt Project
  DC <-> Marc21 <-> BibTeX

  Library level

DINI

Element	e-Learning course		e-Learning content (material)	
1	Title	m	Title	m
2	Author	m	Author	m
3	Keyword	m	Keyword	m
4	ELAN classification	m	ELAN classification	m
5	Description	m	Description	m
6	Publisher	m	Publisher	m
7	Date of publishing	m	Date of publishing	m
8	Date of change	m	Date of change	m
9	Identification	m	Identification	m
10	Language	m	Language	m
11	Terms of use	m	Terms of use	m
12	Audience	m	Audience	m
13	Version	m	Version	m
14	Duration of course	m	Duration	*o*
15	ELAN document type	m	format	m
16	Relation (e-Learning Content)	m	Relation IsPartOf (e-Learning Course)	m
17	ECTS points	m	Copyright	m
18	Title alternative	o	Title alternative	o
19	Classification	o	Memory size	o
20	Persons involved	o	Persons involved	o
21	Requirements	o	Technical requirements	*m*

LOM

- 19 elements: *Source, Structure, Aggregation Level, Status, Role (Meta) Role, Type, Name, Interactivity Type, Learning Resource Type, Interactivity Level, Semantic Density, Intended End User Role, Context, Difficulty, Cost, Copyright and Other Restrictions, Kind, Purpose*
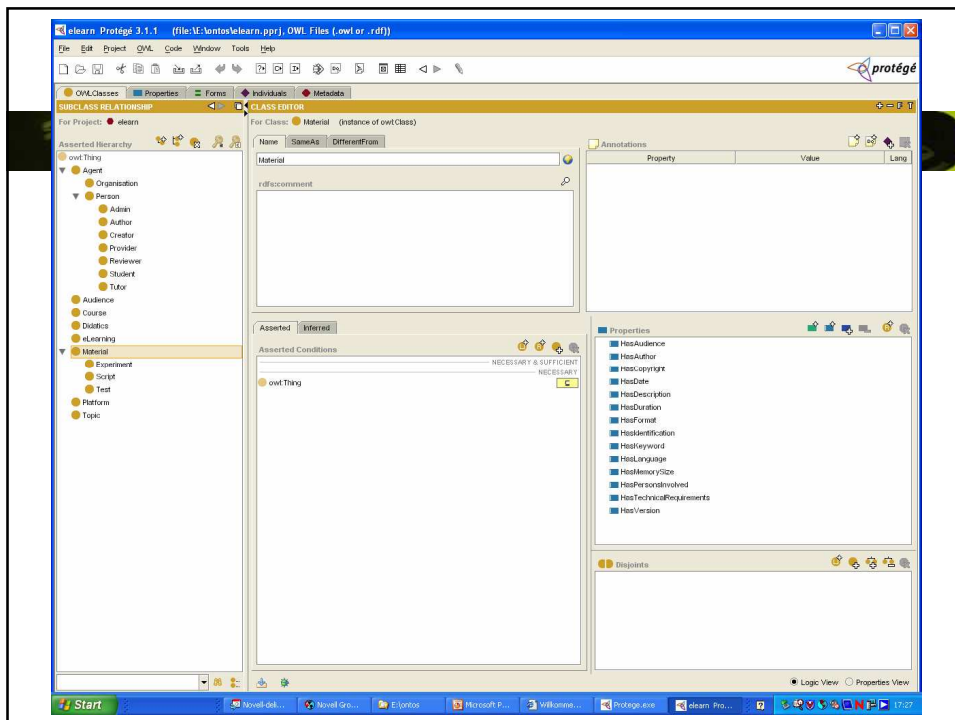
Integration

- ENGINe
  DC <-> IMS <-> Ariadne
  DINI <-> ELAN

First Version = work in progress

- 8 concepts / main classes
- 10 subclasses
- 14 object properties

Please contribute ,-)

Thanks for your attention

- Refs
    LiLi, Jerome

- Contact
    kerstin@physik.org