



The TRACe Project: Towards Transparent Competencies in Europe Competency Relationships

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Summary

- Purpose
- Competency Standards
- Ontology
- Competency Profiles / Mappings
- Comparison
- ePortfolio integration



Purpose

- What should be achieved?
 - TRANSPARENT Competences in Europe
 - Transparent (dictionary.com):
 - easily seen through, recognized, or detected
 - open, frank, candid
 - operating so that it is not perceived by users
 - Automated competency processes
 - Matching
 - Searching
 - Analysis tools



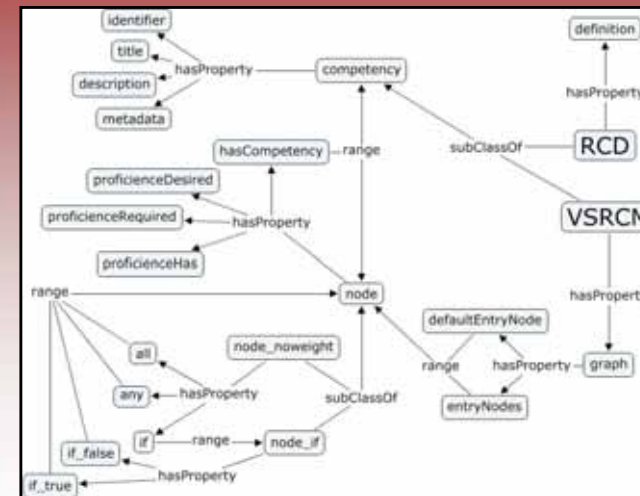
Purpose

- What is needed to “automate transparency”?
 - Allowing applications to receive it
 - Internet
 - Enable applications to read it
 - Using standards
 - Enable applications to understand it
 - Semantic relationships
 - Ontology
 - Common understanding => Folksonomy or other web2.0 technologies

Competency Standards

- Standards for transportation well supported
 - xml, rdf, http
- Syntax Standards (schemas) are emerging
 - Reusable Competency Definition (RCD)
 - IEEE 1484.20.1
 - Competency Mapping
 - Simple Reusable Competency Mappings
 - IEEE proposal by Claude Ostyn
- Semantic standards are non-existing
 - Except for general standards on how to present it
 - OWL, DAML, KIF, microformats

Competency Standards



This is the modified "Very Simple" Reusable Competency Mapping

A prototype specification based on Claude Ostyn's SRCM standard proposal.

It facilitates the creation of Competency Profiles build using other competency descriptions.

Competency Profiles

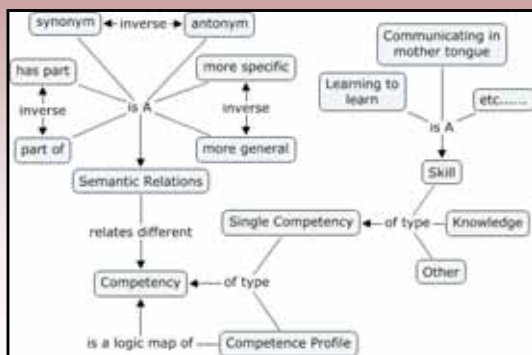
- Person
- Job
- Competency Framework level

Competency Profiles

- Logic relationships are specified
- But what about semantic relationships
 - Ontological specifications needed

Ontology

- In computer science an Ontology is a data model used to describe semantics within a domain
- Definitions of
 - Classes
 - Attributes
 - Individuals
 - Relations

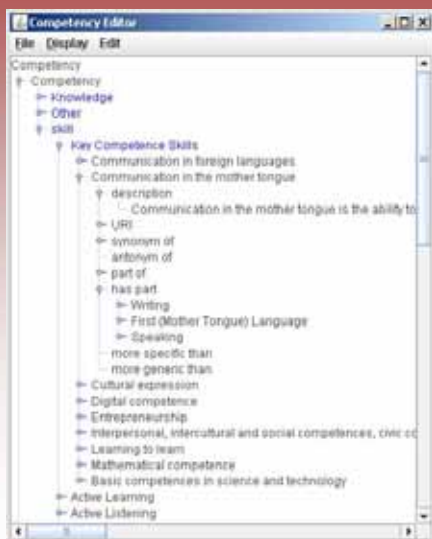


TRACe Prototype Ontology

- Competency Framework survey showed classes
 - Knowledge, Skill and “Other”
- O*NET basis preliminarily for the individual competencies in TRACe
- EQF
 - Level of qualification used as measure of proficiency in a competency.
 - But any literal proficiency score system can be used
- Basic Logic relationships
 - All, Any and If
- Linguistic relationships are used between KSO's for ontological reasoning
 - Synonym, Antonym, has part, part of, more specific and more generic

Using the Ontology

- Adding competencies
 - Title
 - Description
 - Semantic relationships to existing competencies



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Competency Profiles

University of Reading

Comparison

University of Reading

Improve Usability

- An Application Programming Interface has been developed wrapping the TRACe ontology → Tools can be made
 - Search
 - ePortfolio integration
 - HR-services
 - eLearning tools, e.g. VLE integration to provide users learning suggestions

ePortfolio and Competency

- Competencies are part of IMS ePortfolio specification and JISC CETIS LEAP 2.0
 - <http://www.imsglobal.org/ep/index.html>
 - http://wiki.cetis.ac.uk/LEAP_2.0
- But currently ill-supported by ePortfolio systems
 - As many other parts of standards are...
- Benefits are many:
 - eAssessment
 - Planning Learning
 - Evaluate teaching

- But pure integration of competencies into ePortfolios isn't enough!
 - Semantic relationships and transparency between competencies are important for supporting
 - life-long learning
 - "ePortfolios for life"
 - Information generally understood across domains
 - School
 - University
 - Employers
 - Governments
 - Any transitions in life where competencies can be enhancers
 - Any cross-domain references
 - "Moving" competencies between application, i.e. export to company HR-application or academic recording system

Thank You!