
COMPETENCY RELATIONSHIPS AND IMPLICATIONS FOR TRANSPARENCY BETWEEN COMPETENCY FRAMEWORKS

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Abstract

Competency management is an important part of a well-functioning organisation especially when considering individual long-term development planning and organisational learning. Regrettably competency descriptions are not consistently specified nor defined across borders: National, sectorial or organisational, leading to an opaque competency description market with a multitude of competency frameworks and competency benchmarks. The aim of the Leonardo sponsored project TRACE (TRANSPARENT Competence in Europe) is to enable transparency between European competency frameworks that will include the use of an individualised common description language. This will facilitate automated processes that will search, match and compare competencies across a wide range of applications.

To enable the automation there is a need for three components:

1. Information exchange
2. Reading of information
3. Understanding of information

The first is provided by internet protocols (such as http), the second is emerging as standards (for example the Reusable Competency Definition IEEE 1484.20.1), and the third is a new concept that will be outlined here.

For the purpose of this paper a competency is a skill, knowledge or the like, for example the ability to "communicate in one's mother tongue" is a competency, as is "writing". A competency can have semantic relationships with other competencies, for example "writing" is "part of" the competency "communicate in one's mother tongue".

Competency profiles are a selection of competencies with logical relationships between them. For example a role may require one of two competencies.

A tool set called Competency Suite has been developed that, allows users to:

- Create competencies, including:
 - Title
 - Description
 - A specification of the semantic relationships between this and other existing competencies
- Create competency profiles, including:
 - Title
 - Description
 - Competencies from the existing pool
 - A description of the logical relationships between competencies within the profile
- Compare competency profiles, for exact matches and close matches, using the semantic and logical relationships provided.

The Competency Suite is based on an ontological competency specification which will add semantic value to any description which has references to or bindings with it. The ontology

describes: classes, including: competencies and profiles; individuals of classes; relationships, both semantic and logical; individual relationships between specific competencies.

The use of the Competency Suite will be demonstrated using examples based on the European key competency framework:

- A set competencies will be defined
- Competency profiles will be created
- Comparison will be performed across frameworks.

The examples showcased will demonstrate the power of the automated tool set, and the underlying inferencing.