

AN ONTOLOGY-BASED COMPETENCE MANAGEMENT SYSTEM FOR IT COMPANIES

Cristina NICULESCU, Stefan TRAUSAN-MATU
Bucharest, Romania
ncristina@racai.ro, trausan@racai.ro

Abstract: The paper presents a generic framework of an intelligent information system for competence management based on ontologies for information technology companies. The advantage of using an ontology-based system is the possibility of the identification of new relations among concepts based on inferences starting from the existing knowledge. The inferences may be performed in our approach by a reasoning engine, using classifiers in the Descriptions Logics tab associated with the Protégé ontology environment. The user can choose to query instances of one type of concept, based on the relations that are displayed for him/her in a dropping menu. In addition to choosing relations modeled in the ontology, the user may also query inferred relations that are not explicitly stored in the knowledge base. The paper also presents some use-cases and further developments.

Keywords: competencies, ontology, competence management system, information technology, knowledge acquisition.

References

- *, Gruber, T.R., <http://www-ksl.stanford.edu/kst/what-is-an-ontology.html>
- *, Guide to the Software Engineering. Body of Knowledge, http://www.swebok.org/ironman/pdf/SWEBOK_Guide_2004.pdf
- *, <http://www.hrworkbench.com/eng/b-competence-management.html>
- *, <http://www.philosophy.umd.edu/deptwebsite/undergraduateprogram/resources/>
- *, Protégé environment - <http://protege.stanford.edu>
- Ehrig, M., Hefke, M. and Stojanovic, N. "Similarity for Ontologies – a Comprehensive Framework". In 5th Int. Conf. on Practical Aspects of Knowledge Management, 2004.
- Gronau, N., Uslar, M. Requirements and Recommenders for Skill Management. In: R. Dieng-Kuntz and N. Matta ECAI-04 Workshop on Knowledge Management and Organizational Memory, Valencia, Spain, 2004.
- Posea, V. Démarche de Construction d'une Ontologie des Compétences, Mémoire pour obtenir Le DEA Extraction des Connaissances à partir des Données, Institut de Recherche en Informatique de Nantes, 24/06/2004.
- Trausan-Matu, S. and Niculescu, C. (2008). "A Framework for an Ontology-based Information System for Competence Management", Informatica Economica Journal, No. 4, 2008, INFOREC Publishing House, Bucharest, ISSN 1453-1305, pp 105-108.