Enabling the Matchmaking of Organizations and Public Procurement Notices by Means of Linked Open Data

Jose María Alvarez Rodríguez
University of Oviedo, Spain

José Emilio Labra Gayo
University of Oviedo, Spain

Patricia Ordoñez de Pablos
University of Oviedo, Spain

EXECUTIVE SUMMARY

The aim of this chapter is to present a proposal and a case study to describe the information about organizations in a standard way using the Linked Data approach. Several models and ontologies have been provided in order to formalize the data, structure and behaviour of organizations. Nevertheless, these tries have not been fully accepted due to some factors: (1) missing pieces to define the status of the organization; (2) tangled parts to specify the structure (concepts and relations) between the elements of the organization; 3) lack of text properties, and other factors. These divergences imply a set of incomplete approaches to formalize data and information about organizations. Taking into account the current trends of applying

semantic web technologies and linked data to formalize, aggregate, and share domain specific information, a new model for organizations taking advantage of these initiatives is required in order to overcome existing barriers and exploit the corporate information in a standard way. This work is especially relevant in some senses to: (1) unify existing models to provide a common specification; (2) apply semantic web technologies and the Linked Data approach; (3) provide access to the information via standard protocols, and (4) offer new services that can exploit this information to trace the evolution and behaviour of the organization over time. Finally, this work is interesting to improve the clarity and transparency of some scenarios in which organizations play a key role, like e-procurement, e-health, or financial transactions.

ORGANIZATION BACKGROUND

WESO is a multidisciplinary research group from the Department of Computer Science and the Departments of Philology at the University of Oviedo created by the Associate Professor Dr. José Emilio Labra Gayo. Since 2005 WESO is involved in semantic web research, education and technology transfer. The growth of the Internet in the last years has brought relevant changes in the way of communication. Nowadays governments, citizens, enterprises and society are more interconnected than ever and information is the key to keep the interconnection among parties. This new information society needs a step forward to exploit the new opportunities and challenges. WESO research activities try to apply semantic web technologies in order to facilitate the transition to a new web of data.

As academic research group, one of our aims is to boost the research, innovation and competitiveness of the organizations using the knowledge. WESO seeks to support research and innovation focusing on:

- Providing research services on semantics
- Applying semantic technologies to improve existing products
- Addressing the new-technology barriers
- Developing and training
- Fostering the knowledge in the scientific and industrial areas
- Teaching to a new wave of professionals

WESO brings together these activities for enabling and supporting people, organizations and systems to collaborate and interoperate in the new global context.

Our research lines focus on semantic web technologies with emphasis on (but not restricted to):