Publishing Statistical Data following the Linked Open Data Principles: The Web Index Project

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EXECUTIVE SUMMARY

This chapter introduces the promotion of statistical data to the Linked Open Data initiative in the context of the Web Index project. A framework for the publication of raw statistics and a method to convert them to Linked Data are also presented following the W3C standards RDF, SKOS, and OWL. This case study is focused on the Web Index project; launched by the Web Foundation, the Index is the first multi-dimensional measure of the growth, utility, and impact of the Web on people and nations. Finally, an evaluation of the advantages of using Linked Data to publish statistics is also presented in conjunction with a discussion and future steps sections.

ORGANIZATION BACKGROUND

WESO is a multidisciplinary research group from the Department of Computer Science and the Departments of Philology at the University of Oviedo leaded 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 by applying semantic technologies to improve existing products
- Addressing the new-technology barriers and 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):

- **Semantic Architectures:** Designing and developing architectures based on domain knowledge.
- **Collaborative Semantic Services:** Improving existing solutions with a semantic collaborative approach.
- **Linked and Open Data:** Offering new solutions for combining RDF vocabularies and publishing data.
- **Methods and Algorithms:** Implementing methods to exploit the domain knowledge and the Web of data.
- **Semantic Technologies:** Being aware of the semantic Web technologies outcomes of RDF, OWL, SKOS or RIF.
- **Others:** Semantic Web Services, e-government, e-procurement, e-health, etc.