

SWPM 2009

**Workshop on Semantic Web
and Provenance Management**

The First International
Workshop on the role of
Semantic **W**eb in **P**rovenance
Management

(at the 8th International Semantic Web Conference ISWC-2009)

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Introduction

The growing eScience infrastructure is enabling scientists to generate scientific data on an industrial scale. Similarly, the Web 2.0 paradigm is enabling Web users to create applications that combine data from multiple sources, popularly referred to as “mashups”, on a large scale. The importance of managing various forms of apparently ancillary metadata, in addition to the primary data products of eScience, Web, and business applications is increasingly being recognized as critical for the correct interpretation of the data. In this workshop we focus specifically on metadata that describes the origins of the data. The term *provenance* from the French word “provenir”, meaning “to come from”, describes the *lineage* or origins of a data entity. Provenance metadata is essential to correctly interpret the results of a process execution, to validate data processing tools, to verify the quality of data, and to associate measures of trust to the data. The *proof layer* in the Semantic Web layer cake, corresponding to provenance information, has been identified as an important component for the implementation of “trust mechanisms” and effective information extraction from the Web.

The primary objective of this workshop is to explore the role of Semantic Web in addressing some of the critical challenges facing provenance management, namely:

1. Efficiently capturing and propagating provenance information as data is processed, fragmented and recombined across multiple applications on a Web scale.
2. A common representation model for provenance for processing and analysis by both agents and humans.
3. Interoperability of provenance information generated in distributed environments such as myGrid.
4. Tools leveraging the Semantic Web for visualization of provenance information.

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We look forward to a successful workshop!

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