Séminaire ETIS : Dimitris Kotzinos

04 Novembre 2014, 11:00 – 12:00

Titre du séminaire et orateur

Cloud based solutions for Linked (Open) Data Management.

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Date et lieu

Mardi 4 novembre 2014, 11h.

Université de Cergy-Pontoise, site de St-Martin 2, amphi des colloques.

Abstract

The need to better integrate and link various isolated data sources on the web has been widely recognized and is been tackled by the Linked Open Data (LOD) initiative. Especially in the case of geospatial data, the issue of publishing and subsequently exploiting the data as Linked Open Data is a central one, because of data size.

Data size (aka Big Data) affects the performance of the corresponding queries but also refers to the complexity of the publication and management process itself. The cloud offers solutions to these problems when used as a hosting platform for Linked Open Data since we can rely on its scalability and elasticity capabilities. To deal with the issue of the publication and management complexity we propose and discuss a Linked Open Data-as-a-Service approach that offers an integrated service based API for (semi)automatic publication of relational data as LOD and subsequent querying and updating capabilities. We discuss problems that arise due to the distributed nature of the computations (e.g. concerning updates to distributed RDF triplestores) and present possible solutions.

We also address interoperability problems by proposing a conceptual model targeted to provide information integration; being at the same time INSPIRE compliant; something really important in practical terms in the geospatial domain. This allows for integration of different and disparate datasets, allowing at the same time transformations at various levels and exporting to INSPIRE compliant XML format.

Finally in this presentation we present various open research issues and we describe research activities undertaken in the MIDI team of the ETIS Lab towards tackling some of them.