Object : Post-doctoral position offer
Title : Cooperative answering over linked data

Description :
Cooperative answering techniques aim at helping users understand and enrich the result of their queries. The framework considered is that of RDF data and SPARQL as the query language. A major goal is to provide the user with enriched answers to his/her SPARQL query. Such a set of answers includes regular (strict) answers, but must also make it possible for the user to explore semantically correlated data. In this respect, several aspects will have to be studied:

- How to explain the emptiness of a result when such a situation occurs?
- How to deal with plethoric answer sets?
- How to summarize an RDF result set?
- How to provide the user with explanation about why an answer is an answer (causality, provenance, etc.)?
- How to recommend semantically correlated triples or queries?
- How to detect suspect answers?

Some of these cooperative answering functionalities have already been studied in a relational database framework, mainly in a centralized context. Therefore, one may envisage to extend existing approaches so as to take into account the particularities of the RDF framework and the semantic richness of linked data. All of the aspects listed above involve gradual notions, and one will favor the use of fuzzy set theory as a theoretical basis to the cooperative approaches to be defined.

Required Profile PhD in data/knowledge management, autonomy and ability to work in a team, good writing skills in English, strong programming skills

Laboratory/Department/Team IRISA/Data and Knowledge Management/SHAMAN
(https://www-shaman.irisa.fr)

Supervisors Olivier Pivert and Grégory Smits
Contacts Olivier Pivert (phone : 02 96 46 90 31, mail : olivier.pivert@irisa.fr)
Grégory Smits (phone : 02 96 46 93 11, mail : gregory.smits@irisa.fr)
Start of the project/Duration : asap (12 months)
Location of the project : IRISA – Lannion

References

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