

# STSM Scientific Report: Keyword-based Search Foundations

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Applicant: Prof. Jorge Cardoso ([jcardoso@dei.uc.pt](mailto:jcardoso@dei.uc.pt)), University of Coimbra, Portugal.

## STSM Objective

The major goal of this STSM was to elaborate a set of documents delineating the agenda for the next meetings and to consider the strategy for the full length of the KEYSTONE Cost Action. The discussions identified how recent research findings can contribute to the development of new keyword-based search mechanisms and which fields/approaches should be explored. Joint research activities have also complemented the management activities.

The STSM involved the Chair and the Vice-Chair of the KEYSTONE Action and took place at the Università' di Modena e Reggio Emilia (Italy).

## Activities Conducted

The workweek yielded five main activities:

- *Scientific Presentation.* I presented my recent work on Open Services using Linked USDL, a language to describe and reason about services. We discussed the use and application of keyword-based techniques to the field.
- *Join Research.* We started to look into how co-author, paper, affiliation, and keyword networks could be used to develop new recommendation systems for research, and how keyword-based search can be used to extract information for these networks.
- *Scientific Conference Organization.* We discussed the creation of a new conference series, which could bring together the fields of Semantic Web, information retrieval, machine learning and natural language processing to catalyze the development of new approaches for keyword-based search over structured data sources. The conference series will cover each year a distinct aspect of keyword-based search, e.g., theoretical foundations, advanced methods and techniques, tools and systems, application domains, etc.
- *ESB/MC Meeting Organization.* We discussed how the next meeting to be held in Paris and Riva del Garda should be configured and which strategies could be used to actively involve MC members for the next years by hosting challenging activities.

## Concrete Outputs

Two detailed agendas for the next two KEYSTONE meetings have been prepared and sent to MC members for comments. A first outline of the research activities to be carried out during the next 6 months has been identified.



Jorge Cardoso ([jcardoso@dei.uc.pt](mailto:jcardoso@dei.uc.pt))  
Associate Professor, University of Coimbra, Portugal  
Vice-Chair Cost Action IC1302 (KEYSTONE)