anSWERS - a novel Semantic Web-enabled Recommender System

Knowledge-based Recommender Systems suggest to users items of their interest, on the basis of some understanding of both items' characteristics and users' profiles. In order to properly work, this kind of recommender systems need a thorough modeling of items and users; the usual barrier to their development is, therefore, the availability of the necessary knowledge and its maintenance over time.

With this respect, Semantic Web technologies can be of great help: not only knowledge technologies and languages can be employed to build the knowledge base, but the large availability of open and linked data about a growing variety of fields and topics, published on the Web of Data, further simplifies the modeling step for recommender systems.

anSWERS is our concept and running prototype of Semantic Web-enabled Recommender System, based on the retrieval from the linked data Web of the necessary pieces of knowledge about items and users. anSWERS architecture can be considered the general structure of a new family of Knowledge-based Recommender Systems. anSWERS foundations are explained in the following paper:

Daniele Dell'Aglio, Irene Celino and Dario Cerizza: "Anatomy of a Semantic Web-enabled Recommender System", presented at the fourth International Workshop SMR2 2010 on Service Matchmaking and Resource Retrieval in the Semantic Web, November 2010 (proceedings to appear).

We concretely developed a recommend system for Web services in the context of the SOA4All and Service-Finder projects.

anSWERS in SOA4All

In the SOA4All project, anSWERS is one of the parts of the RS component integrated in the SOA4All Consumption Platform to provide service recommendations to SOA4All users. The demonstrator can be accessed here. Further details can be found on the SOA4All website (anSWERS is a part of RS4All) and on the SOA4All wiki.

anSWERS on top of Service-Finder data

We also built a demonstrative recommender system based on anSWERS on top of the service data provided by the **Service-Finder search engine** for Web services.