Proceedings of the 2nd Workshop on
Semantic Personalized Information Management:
Retrieval and Recommendation

SPIM 2011

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These are the Proceedings of the 2nd Workshop on Semantic Personalized Information Management: Retrieval and Recommendation (SPIM 2011), held in conjunction with the 10th International Semantic Web Conference (ISWC 2011). The workshop aims at improving the exchange of ideas between the different communities involved in the research on semantic personalized information management and covers a wide range of interdisciplinary topics: semantic social web, machine learning hybridized with semantics for personalization, techniques for (semantic) user modeling, recommender systems, personalized information retrieval, semantic interaction, use of semantic technologies in UI/HCI, linked data consumption for PIM, semantic search and exploratory browsing.

The workshop received an enthusiastic feedback from the SPIM community with a total of 20 submitted papers. 13 papers have been accepted and this highlights an increasing interest in the workshop topics. Indeed, during the first workshop edition in 2010, 7 papers were presented. This is a clear indication that "semantic personalized information management" is a very interesting and timely topic.

The set of accepted papers substantially covers the proposed topics, with some additional specific subjects: folksonomies, interaction and knowledge patterns for automatic explanation, CMS, business intelligence, etc. We can coarsely group the 13 accepted papers as follows:

Recommendation and classification:
- Improving Tag-based Resource Recommendation with Association Rules on Folksonomies
- Finding similar research papers using language models
- Towards Ranking in Folksonomies for Personalized Recommender Systems in E-Learning
- User's food preference extraction for cooking recipe recommendation
- Performance Measures for Multi-Graded Relevance
- A Dimensionality Reduction Approach for Semantic Document Classification
- Personalized Filtering of Twitter Stream

User modelling
- Classifying Users and Identifying their Interests in Folksonomies
- User Modeling for the Social Semantic Web

Various PIM support
- Personalization in Skipforward, an Ontology-Based Distributed Annotation System
- A Model for Assisting Business Users along Analytical Processes
- A Privacy Preference Manager for the Social Semantic Web
- User-sensitive Explanations under a Knowledge Pattern Lens

In the following, we summarize the background motivation for the scientific and practical relevance of the workshop.

Motivation
Finding and managing information is a crucial task in our everyday life, and especially on the Web, the user is confronted with a huge amount of information. Therefore, search engines have become an essential tool for the majority of users for finding information on the Web.

While search engines implementing the canonical search paradigm are adequate for most ad-hoc keyword-based retrieval tasks, they reach limits when user needs have to be satisfied in a personalized way. Today’s search engines have a very limited consideration of individual user’s preferences or context given by previous searches for distinguishing the relevance of a document with respect to the meaning of a user query (experiences so far seem restricted to massive log analyses and experimental things like Google Squared, which however does not address
personalization). With the advent of the Semantic Web, new opportunities emerge for semantic information retrieval systems to better match user needs. Next-generation search engines should implement a novel search paradigm, where the user perspective is completely reversed: from finding to being found. Recommender Systems may help to support this new perspective, because they have the effect of pushing relevant objects to potentially interested users. An emerging approach is to use Web 2.0 and Semantic Web technologies to model information about users, their needs and preferences, their context and relations, and to incorporate data from other resources like Linked Open Data (http://linkeddata.org). This data might be useful to interlink diverse information about users, items, and their relations and implement reasoning mechanisms that can support and improve the search and recommendation process, better satisfying the users’ information need.

A new generation of systems is emerging, which fully understand the items they deal with, and new methods for modelling user information, combining user content and Semantic Web resources, as well as new algorithms for processing that data, are thus needed.

**Why the topic is of particular interest at this time**

More and more real-world applications in different areas are going to integrate recommender systems to personalize retrieval issues, results, and in general the user interaction.

Successful workshops and international conferences in the last few years (ACM Recommender Systems, User Modelling, AAAI, ECAI, IJCAI, SIGIR) show the growing interest and research potential of these systems. Recent developments of the Semantic Web community offer novel strategies to represent data about users, items and their relations that might improve the current state of the art of search and recommendation systems.

The challenge is to investigate whether and how this large amount of wide-coverage and linked semantic knowledge can significantly improve the search/recommendation process in those tasks that cannot be solved merely through a straightforward matching of queries and documents.

We wish to thank all authors who submitted papers and all workshop participants for fruitful discussions. We would like to thank the program committee members and external referees for their timely expertise in carefully reviewing the submissions.

October 2011

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