Recommender System for MIR Research Community

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ABSTRACT

In this demonstration, we show a recommender system for the Music Information Retrieval (MIR) research community. We extract the key topics and tags by analyzing the ten-year cumulative ISMIR proceedings, and recommend papers and research colleagues to users in an interactive way.

Categories and Subject Descriptors

H.3.3 [**Online Information Services**]: Web-based services; J.4 [**Computer Applications**]: Social and behavioral sciences

General Terms

Performance, Experimentation

Keywords

Web 2.0 IR, Recommender Systems, social networks, ISMIR

1. INTRODUCTION

Academic discussions and information exchanges are getting more and more important. Usually people discuss their research topics face to face by attending conferences or by a discussion mailing list. Since hundreds of people, or even more, are involved in a conference or a discussion list, it becomes very important to create the intensive interest-based social relationship, divide them into small interest groups and further visualize them and indicate the expanding trend. However, the way of accessing research group and research topic is far from being satisfactory. Exploiting academic-social context for researchers and topic-based information exchanges is playing an increasingly important role in helping people understand expertise propagation related to impact-based research topics, finding information about researchers, topics and papers quickly effectively[1], especially for cumulative conference series including people, topics and papers. Recommender systems as information filtering techniques have been developed in education, academia and industry to suggest information content related to the social contexts that are likely to interest the users.

2. DEMONSTRATIONS

People who are interested in music information retrieval (MIR) are getting more and more. MIR mailing list currently consists of about 1300 researchers. We develop a recommender system for

the MIR research community, suggesting researchers how to find their related research group, topics and papers by analyzing the proceedings of ISMIR conferences. Our demonstration of the recommender system shows interactive scenarios where papers and colleagues are recommended to researchers based on their interests. It includes some main functions:

Digital library for MIR: All of the bibliographic data and papers come from the ISMIR conferences. All URLs of ISMIR proceedings are recorded in our system. The main MIR topics are categorized according to the sections in ISMIR conferences in past ten years. Users are able to post any comments on any papers in terms of the intensive research topics. Thus, it helps keep track of temporal intensities of topics over a sharing place.

Social search: Our system supports search and retrieval over the social context. Various system entities (location, interests, etc) are searchable. Users can easily find any papers by typing author name, keywords etc.

Expertise recommendation: Users search papers by typing topics or terminology in the search bar. It is easy to find related papers and people. System matches research topics to experts who have published some papers related to them and allow users to interactively learn about other users' expertise and their papers. Some academic-social-related contents are recommended as valuable interesting references according to their relevance. Figure 1 shows an interactive interface, recommending users to take track of papers similar to the specific topic and colleagues working on it. Users are able to view all the papers and all colleague profiles according to their interests. And also, System allows users to directly connect the recommended colleagues and to make research communications.
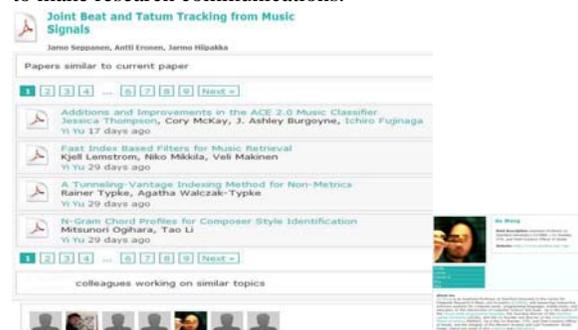

Figure 1 Interactive recommendation for MIR people

3. REFERENCE

[1] Dewei Chen, et al, "Query-Focused Summarization by Combining Topic Model and Affinity Propagation", APWeb/WAIM LNCS 5446, pp174--185, 2009.