

# **First Workshop on Recommendation Technologies for Lifestyle Change (LIFESTYLE 2012)**

<http://pc57724.uni-regensburg.de/lifestyleChange/index.php>

co-located with the

## **ACM Recommender Systems 2012**

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### **Preface**

The workshop on Recommendation Technologies for Lifestyle Change will be an opportunity for discussing open issues, and propose technical solutions for the designing of intelligent information systems that can support and promote lifestyle change. The objective of these systems is to provide users with up-to-date information, and help them to make choices in everyday life activities establishing a sustainable compromise between quality of life, individuality, and fun.

In today's society, particularly in the affluent society, lifestyle is influenced by technology, and the abundance of financial resources. For instance, a large variety of computer games are excessively used, and people often travels by individualized transportation means, such as car, just for fun. Moreover, the idea that technique and money can buy anything spreads also to health management: people believe that medical knowledge can be immediately applicable in case of illness, as technical knowledge can be used for repairing a broken car.

This results in lifestyles that do not care about the negative long-terms effects on the environment, but also about well-being of individual persons. The most prominent example of this is represented by various types of chronic illnesses in developed countries that result from poor lifestyle choices.

In this context, the aim of this workshop is to explore possibilities for recommender systems to support users in taking decisions related to various aspects of their lifestyle; we call them Lifestyle Change Recommender Systems (LSCRS). There are three main challenges for LSCRSs: firstly, such systems have to assess the user's context for delivering such recommendations. Secondly, in order to promote any change in user's lifestyle, they have to recommend a tailored sequence of items, mostly actions, taking into account the dependencies between the recommended items and the effects of each item recommendation. Thirdly, LSCRS have to be designed to favor the user's continuous attention, to enable the explanation of the reasons for the suggested changes in the user's future behavior, and to recall the changes already effectuated.

Hence, in order to provide an effective support to lifestyle change, recommender systems need to provide communicative capabilities, e.g, with multi-modal dialogue systems. Recommendation technologies have to initiate a feedback-change loop that could contribute to lowering the risks of severe illnesses for many individual users and improving the overall environmental situation.

In order to discuss recent developments and advances in this area, the workshop focusses on the following topics:

- Surveys of lifestyle related activities and technological approaches to monitoring them;
- Context modeling for activity recommendations;
- Formal models of sensor data for monitoring every day activities;
- User models for everyday life recommendations that provide user-tailored content;
- Motivational models for lifestyle, every day activities, and environmental responsibility;
- Recommendations of sequences of items (e.g. physical exercises for a whole week, planning meals for a month);
- Measures of the effectiveness for lifestyle change recommender systems;
- Approaches to combine sensor data and interactive user input in LSCRS;
- Strategies to cement behavioral change; Strategies for situation- and user-aware presentation of recommendations;
- Persuasive technologies for interaction with and among users on their personal situation, their habits, and their options to change their lifestyle Recommendation of activities for leisure time and lifestyle;
- Recommendation of information sources (e.g. forum entries, blogs) for LSCRS.

During the workshop, participants will present their papers and discuss contributions to the field addressing a variety of issues:

- As recommendations in this area are more dependent on the personal history of individual users rather than on the collective behavior and attitudes of many users as in more standard collaborative approaches to recommendations, the workshop participants will discuss new recommendation strategies that leverage the retrospective analysis of the user's past actions and behavioral patterns.
- How can change in behavior be achieved by employing conversational agents? In a case study on alcohol consumption behavior, the benefits of conversational agents to persuade user to control their personal consumption of alcoholic beverages will be illustrated.
- Some contributions to the workshop discuss users' classification, adequate user models for LSCRS, models for motivations and concerns of users, and aspects of context modeling for lifestyle change recommendations.
- A number of application domains for lifestyle change behavior will be presented ranging from recommending meals and meal plans to travel routes under ecological constraints.

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LIFESTYLE 2012 Workshop Chairs

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