

# Preface and keynote's talk of the Workshop on Social Interaction-based Recommendation (SIR 2018)

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## Abstract

This paper summarise all the topics discussed by the invited talk Prof. Gabriella Pasi, during the first edition of the *SIR: Workshop on Social Interaction-based Recommendation*. The hosted by the *27th International Conference on Information and Knowledge Management (CIKM 2018) - October 22 2018, Turin (Italy)*.

## 1 Workshop's Preface

Social recommender systems [2] aim at performing suggestions in social media platforms, by exploiting the information collected during the interaction of the users, both with the platform (e.g., tags, likes, and comments) and among themselves (i.e., the social network).

However, the social interactions of the users can also be employed in richer ways, both inside a social media platform and in classic recommender systems that do not operate in the social media domain (e.g., in collaborative and content-based approaches).

With the term social interaction-based recommendation we identify a novel class of systems that exploits

social interactions, in order to provide recommendations to the users (individuals or groups), either inside a social media platform or in classic recommender systems, both online and offline.

Therefore, while social recommender systems remain an important part of this workshop, the social interactions of the users can also be exploited in other domains. Indeed, a new wave of research is trying to learn ratings from textual comments (e.g., reviews) [1]. Moreover, the analysis of the interactions of two or more users in chats or private messages, leads to novel forms of knowledge on the shared preferences between these users, which can be exploited in any kind of recommender system. Social interaction information can also be used offline, e.g., to recommend social events that an individual could attend, or to perform group recommendations of activities/items that a group of users could do/consume together.

The aim of this workshop is to collect ideas on social interaction-based recommender systems, i.e., systems that in their processing and consider the social interactions of the users in novel ways. The papers in these proceedings present different results and ongoing research on the following topics:

- Chat-based recommender systems;
- Social recommender systems;
- Group recommender systems;
- Semantic technologies to exploit social media comments in recommender systems;

- Integrating information collected in social media in other types of recommender systems;
- Integrating information collected outside social media (e.g., ratings) in social recommender systems;
- Modeling users social behavior for recommendation;
- Hybrid systems that combine a social component with classic recommendation strategies.

The workshop was an event co-located with the 27th International Conference on Information and Knowledge Management (CIKM 2018). Each paper has received three reviews: two externals to the organizing committee and one internal. After the review process, the programme committee selected nine papers. We thank all the authors for their submissions and all members of the program committee. We are grateful to the CIKM workshop chairs Francesco Bonchi and Dimitrios Gunopulos for their support in the workshop organization.

## 2 Keynote: Issues and Challenges of the Social Aspects of Personalization

User models are useful in a variety of tasks and applications.

For example, in personalized search, where the search outcome produced in answer to a query takes into account the user preferences represented by a user model; usually, profiles are defined on the basis of the users query logs and her search history data.

Also recommender systems are centered on modeling the user preferences to provide personalised suggestions of items/documents to the user.

One of the key aspects in user modeling is from which sources to acquire reliable information about the user and her preferences. Acquisition of this information can be both explicit (e.g. via questionnaires, or forms completion), or implicit, through the observation of a variety of interactions with the system and actions that the user undertakes when using different applications.

Typical examples are offered by the users search and browsing histories, by the actions of downloading and printing Web pages, by their interactions in e-commerce sites, etc.

These daily interactions have the important implication that users leave several digital traces of their personal preferences and interests.

More recently the birth and spread of social networking services has offered to a new potential source of useful information to model users; when considering the social Web, in fact, the user traces are explicit,

as they are constituted by the so called user generated content: posts, tags, comments and fragments of life on social media, that users spread around them. The above content constitutes an invaluable information that can be exploited to define user models in social/personalized search and in content-based recommendation.

Some recent approaches to user modeling through users interactions in social media have considered various kind of data: social annotations or tags, users social relations, user generated content on social media.

Recent applications and technologies related to the so called Social Web make users play a more active role in Web content generation and management based on the importance of the notions of community and sharing. The behavior of a community of like-minded users can be used in social/personalized search, and also in recommender systems.

The so called “wisdom of the crowd”, applied to personalization, could lead to better results in both search and recommendation. Users tend to share ideas and contents with other users that are more similar to them, due to the homophily property that characterizes social networks (both offline and online).

## 3 Program Committee

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## References

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- [2] Ido Guy. *Social Recommender Systems*, pages 511–543. Springer US, Boston, MA, 2015.