

Report on the SIGIR 2015 Workshop on Social Personalization and Search

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Abstract

The use of contexts –side information associated to information tasks– has been one of the most important dimensions for the improvement of Information Retrieval tasks, helping to clarify the information needs of the users which usually start from a few keywords in a text box. Particularly, the *social* context has been leveraged in search and personalization since the inception of the Social Web, but even today we find new scenarios of information filtering, search, recommendation and personalization where the use of social signals can produce a steep improvement. In addition, the action of searching has become a social process on the Web, making traditional assumptions of relevance obsolete and requiring new paradigms for matching the most useful resources that solve information needs. This scenario has motivated us for organizing the Social Personalization and Search (SPS) workshop, a forum aimed at sharing and discussing research that leverage social data for improving classic personalization models for information access and to revisiting search from individual phenomena to a collaborative process.

1 Introduction

The Social Personalization & Search workshop¹ targeted researchers working in the fields of Information Retrieval, Personalization, User Modeling, and Recommender Systems where the social dimension plays a fundamental role. The workshop examined several approaches that leverage the social side of the search process on two main contexts: (a) using social data for improving search and recommendations, and (b) search as a social process, collaborative

¹<http://socialcomputing.ing.puc.cl/sps2015/>

IR. For the first context, we expected to attract contributions that use the social dimension in different methods for personalization and search such as data from online social networks, social tagging systems, online forums, and community-based Q&A. This topic is important because it involves leveraging new sources of information that are specific to social systems (such as shared items and tags, user public profiles, online and offline social connections, and logs of user social activities) in order to improve people's information access in a wide variety of tasks and devices. On the second context, the social dimension was emphasized as collaboration, so we aimed to discuss works that consider information seeking as a collaborative activity. Here, researches can potentially use explicit social communication information (such as online, offline chat) to boost the personalized search experience for each user, or in a community-wise sense, support the common goal of users working on the same search tasks, such as people planning a group trip. Put together, we invited submissions that included the following topics:

- search and recommendations based on social links
- search and recommendations in collaborative tagging systems
- group-level search personalization
- search and recommendations in blogs and microblogs
- approaches for social personalization in recommender systems
- approaches on personalized social collaboration
- approaches on social linking
- methods for social search and navigation
- methods for social predictive models
- social methods for information visualization and display
- applications of the aforementioned topics to diverse domains (education, smart cities, music, etc.)
- any other methods that exploit new forms of social data for search and personalization

The invited keynote speakers and presenters contributed to achieve the goal of sharing and discussing research that goes beyond classic personalization techniques, trying to capitalize on potentially useful information available in social data for paving the way to more efficient personalized information access technologies. In addition to personalization, we also considered social search and navigation as topics that involve the importance of the social dimension on filtering and information access.

Overall, we had two great keynote talks, 5 papers and a Panel session to summarise the topics discussed in the workshop.

2 Keynotes

We invited two keynote speakers, who shared their experience and vision with respect to the use of social signals in personalisation and information access.

Ricardo Baeza-Yates, Yahoo! Labs [1]. This keynote provided an introduction to wisdom of crowds in the Web, the long tail of web content, and the bias involved in the generation of user generated content (UGC). This bias creates the wisdom of ad hoc crowds

or the wisdom of a few. Although it is well known that user activity in most settings follows a power law, that is, few people do a lot, while most do nothing, there are few studies that characterize well this activity. The presenter described a recent analysis of social network data which corroborated that a small percentage of the active users (passive users are the majority) represent at least the 50% of the UGC. As a sub-product, the study also found a lower bound for the digital desert, the content in the Web that nobody reads. These results implies that most of the wisdom comes from a few users, which is not that surprising, as the Web is a reflection of our own society, where economical or political power also is in the hands of minorities.

Paul Bennett, Microsoft Research [2]. In this talk the author focused on user and behavioral modeling, which plays a critical role in a variety of online services such as web search, advertising, e-commerce, and news recommendation. For example, the ability to accurately interpret the intent of a web search can be informed by knowledge of the web pages a searcher was viewing when initiating the search or recent actions of the searcher such as queries issued, results clicked, and pages viewed. In this talk, the presenter described a recent framework for personalized search which improves the quality of search results by enabling a representation of a broad variety of contexts including the searcher's long-term interests, recent activity, current focus, and other user characteristics. Then, he reviewed a variety of related work that extends these approaches from signals focused on the individual to social signals such as likes, cohorts, and affiliation networks. At the end of the talk, he speculated on how social signals and networks can provide directions for relatively unexplored directions in social personalized retrieval.

3 Paper Presentations

Of the nine papers submitted to the workshop, five were selected for inclusion in the proceedings and for presentation at the workshop:

- Improving Contextual Suggestions using Open Web Domain Knowledge by Thaer Samar, Alejandro Bellogn and Arjen de Vries [8].
- Finding Intermediary Topics Between People of Opposing Views: A Case Study, by Eduardo Graells-Garrido, Mounia Lalmas and Ricardo Baeza-Yates [4].
- Persona-ization: Searching on Behalf of Others, by Paul Bennett and Emre Kiciman [3]
- Retrieving Relevant Conversations for Q&A on Twitter by Jose Miguel Herrera, Denis Parra and Barbara Poblete [6].
- Analysis of Sentiment Communities in Online Networks by Davide Feltoni Gurini, Fabio Gasparetti, Alessandro Micarelli and Giuseppe Sansonetti [5].

4 Conclusions

This was the second workshop on social personalisation & search and the first one held at the ACM SIGIR conference (the first one was held at the ACM Hypertext Conference²). Summarizing the main topics of the articles and the lessons provided by the keynote speakers,

²<http://columbus.exp.sis.pitt.edu/sp2014/>

we highlight three interesting topics: (1) Social interaction can help us identify biases in online communities and we can exploit those biases to overcome the filter bubble [7], (2) Social signals as a context can be leveraged in further domains to the currently studied, such as community question and answering (Q&A) beyond specialized web sites, and (3) Searching on behalf of others could open an interesting new paradigm where the “social” must be inferred but produce important improvement on search results.

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