

Special issue of Personal and Ubiquitous Computing journal on

## **“Mining Social Networks for Local Search and Location-based Recommender Systems”**

Editor-in-Chief: Peter Thomas

### **Call for Papers**

Location-based services (LBSs) denote software-level services that use location data in order to provide meaningful content to users or other services. The proliferation of smartphones and wearable devices has increased the availability of large amounts of spatio-temporal data (e.g., geolocation, motion and environmental sensors) opens new opportunities and raises challenges as regards the automatic discovery and interpretation of data in pervasive environments. For instance, context-aware recommender systems (CARS) aggregate situational and environmental information about people, places and activities to satisfy immediate needs and offer enriched, situation-aware content and experiences. Popular applications are tourist tour planning and music recommender systems.

While contextual factors quickly became the key of success of these pervasive applications, information related to user interests and preferences as well as social signals have not yet been adequately capitalized. The massive adoption of social applications, including social network services (e.g. Facebook and Twitter), collaborative tagging systems (e.g. Flickr and Delicious) and online communities (e.g. Foursquare and Yelp) gathers a wealth of social interactions between users, or between users and shared resources (e.g., points of interest, movies). Social local search and recommendation often refers to the search and recommendation paradigms affected by explicit or inferred social signals. The former are identified in the user's personal circle of friends, relatives or colleagues (egocentric network); the latter arise from groups of users that share common interests and behaviors (sociocentric network), even if no explicit ties bind them. Within this context, techniques employed for data and text mining, social network analysis and

community detection, sentiment analysis and opinion mining have the chance to generate more accurate recommendations and personalized services. For instance, they can help us understand more of users' collective behavior by clustering similar users w.r.t. their interests, preferences and activities; or by recognizing knowledge experts, namely, users that are generally more capable than others of finding out relevant content.

The aim of this special issue is to explore recent advances in Local search (LS) and location-based recommender systems (LRS) focusing on the value, impact and implications of the analysis of social signals to alleviate information and interaction overload by filtering the most attractive and relevant content. The special issue solicits original research contributions from academia and industry in the form of theoretical foundations, experimental and methodological developments, comparative analyses, descriptive surveys, experiments and case studies in the field.

Potential topics include but are not limited to:

- Social network analysis and mining for LS and LRS
- Mining and modeling groups and communities for LS and LRS
- Addressing the cold-start problem in LS and LRS by leveraging social signals
- Temporal analysis of social networks for search and recommendation
- Extraction of contextual signals from user-generated content on social networks
- Opinion mining and sentiment analysis of user-generated content in LS and LRS
- Leveraging social signals for cross-domain search and recommendation
- Group recommendation in LRS
- Novel content-based and collaborative filtering approaches for social LS and LRS
- Personality traits and factors in LS and LRS
- Trust, reputation and influence in LS and LRS
- Explanation of recommendations for LS and LRS
- Architectures for supporting large streams of social data and real-time applications
- Evaluation methods and datasets for social LS and LRS
- Beyond accuracy: novelty, diversity, and serendipity of result sets
- Linked open data and LS and LRS
- Novel user interfaces for social LS and LRS
- Emerging applications that exploit social signals in LRS
- Security and privacy issues

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## **IMPORTANT DATES**

Manuscript submission deadline: 30 April 2018

First round review notification: 16 July 2018

Revised manuscript submission deadline: 31 August 2018

Final decision notification: 30 September 2018

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## **ABOUT THIS JOURNAL**

Personal and Ubiquitous Computing (Springer) is a peer-reviewed multidisciplinary journal for researchers and educators who wish to understand the implications of ubiquitous computing technologies and services.

The Impact Factor for the journal is 2.395 according to the 2016 Journal Citation Reports released by Thomson Reuters.