

Proceedings of the

LocalRec 2015

Workshop on Location-Aware Recommendations (LocalRec@RecSys'15) http://www.ec.tuwien.ac.at/localrec2015/

In conjunction with the

9th ACM Conference on Recommender Systems Vienna, Austria, September 19, 2015

Preface

Driven by technological advances in hardware (positioning systems, environmental sensors), software (standards, tools, network services), and aided by various open movements (open, linked, government data) and the ever-growing trend of sharing for the greater good (crowdsourcing, crowdfunding, collaborative and volunteered geographic information), the amount of available geo-referenced data has seen dramatic explosion over the past few years. Human activities generate data and traces that are now often transparently annotated with location and contextual information. At the same time, it has become easier than ever to collect and combine rich and diverse information about locations. Exploiting this torrent of geo-referenced data provides a tremendous potential to materially improve existing and offer novel types of recommendation services, with clear benefits in many domains, including social networks, marketing, and tourism.

Fully exploiting the potential of location-aware recommendations requires addressing core challenges and combining ideas and techniques from various research communities, such as recommender systems, data management, geographic information systems, social network analytics, and text mining. Bringing together scholars and practitioners from these communities, the aim of the LocalRec'15 workshop was to provide a unique forum for discussing in depth and collecting feedback about the challenges, opportunities, novel techniques and applications of location-aware recommendations, in order to fuel better and novel recommender systems beyond the current research frontiers.

The non-exhaustive list of topics relevant to LocalRec'15 was the following:

- Location-based social networks
 - o friend/communities recommendations
 - o event, venue, and other location-aware recommendations
 - o extracting preferences, tips, ratings, patterns, habits
 - o modeling geo-social influence of users and locations
- Location-based marketing
 - o viral campaigning
 - o event planning
 - o location-based advertising
- Tourism and mobile commerce
 - o trip planning and recommendations
 - o automatic guide and tour generation
 - o exhibition arrangement
- Evaluation of location-aware recommender systems
 - o collaborative filtering vs. content-based recommendations
 - case and empirical studies
 - o evaluation methods and metrics
 - datasets and benchmarks
- Security and privacy implications
 - o spatial anonymization and cloaking
 - attack and threat scenarios

Workshop Officers

Organizing Committee

Panagiotis Bouros, Humboldt-Universität zu Berlin, Germany Neal Lathia, University of Cambridge, United Kingdom Matthias Renz, Ludwig-Maximilians Universität München, Germany Francesco Ricci, Free University of Bozen-Bolzano, Italy Dimitris Sacharidis, Technische Universität Wien, Austria

Program Committee

Jie Bao, Microsoft Research Matthias Braunhofer, Free University of Bozen-Bolzano, Italy Chi-Yin Chow, City University of Hong Kong Victor Codina, Barcelona Digital Technology Centre, Spain Huiji Gao, Arizona State University, USA Haosheng Huang, Technische Universität Wien, Austria Christian S. Jensen, Aalborg University, Denmark Marius Kaminskas, University College Cork, Ireland Wang-Chien Lee, Pennsylvania State University, USA Bernd Ludwig, Universität Regensburg, Germany Nikos Mamoulis, University of Hong Kong Mario Nascimento, University of Alberta, Canada Anastasios Noulas, University of Cambridge, UK Alexei Pozdnouhkov, UC Berkeley, USA Mohamed Sarwat, Arizona State University, USA Dimitrios Skoutas, Athena RC, Greece Wolfgang Wörndl, Technische Universiät München, Germany Sen Xu, Pennsylvania State University, USA Man Lung Yiu, Hong Kong Polytechnic University

Table of Contents

Location-Aware Recommendation Systems: Where We Are and Where We Recommend to Go	
M. del Carmen Rodríguez-Hernández, S. Ilarri, R. Trillo-Lado, and R. Hermoso	1
Automatic Recommendations of Categories for Geospatial Entities G. Giannopoulos, N. Karagiannakis, D. Skoutas, and S. Athanasiou	9
"Where Far Can Be Close" Finding Distant Neighbors in Recommender	
Systems	
V. Kumar, D. Jarratt, R. Anand, J. A. Konstan, and B. Hecht	13
Context-Aware Recommendations for Mobile Shopping	24
B. Lamche, Y. Rödl, C. Hauptmann, and W. Wörndl	21
Personalized Location Recommendation by Aggregating Multiple Recommenders in Diversity	
Z. Lu, H. Wang, N. Mamoulis, W. Tu, and D. W. Cheung	28
Location-Aware Online Learning for Top-k Hashtag Recommendation	
R. Palovics, P. Szalai, L. Kocsis, J. Pap, E. Frigo, and A. A. Benczur	36
From Sensors to Songs: A Learning-Free Novel Music Recommendation	
System using Contextual Sensor Data	
A. Sen and M. Larson	40

Copyright © 2015 for the individual papers by the papers' authors. Copying permitted for private and academic purposes. This volume is published and copyrighted by its editors.