

## **Second Workshop on New Trends in Content-based Recommender Systems (CBRecSys 2015)**

Bogers, Toine; Koolen, Marijn

*Published in:*  
RecSys '15: Proceedings of the 2015 ACM Conference on Recommender Systems

*DOI (link to publication from Publisher):*  
[10.1145/2792838.2798718](https://doi.org/10.1145/2792838.2798718)

*Publication date:*  
2015

*Document Version*  
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*  
Bogers, T., & Koolen, M. (2015). Second Workshop on New Trends in Content-based Recommender Systems (CBRecSys 2015). In RecSys '15: Proceedings of the 2015 ACM Conference on Recommender Systems (pp. 339-340). Association for Computing Machinery (ACM). <https://doi.org/10.1145/2792838.2798718>

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

### **Take down policy**

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.



# Second Workshop on New Trends in Content-based Recommender Systems (CBRecSys 2015)

Toine Bogers  
Department of Communication and Psychology  
Aalborg University Copenhagen  
2450 Copenhagen, Denmark  
toine@hum.aau.dk

Marijn Koolen  
Institute for Logic, Language and Computation  
University of Amsterdam  
Amsterdam, The Netherlands  
marijn.koolen@uva.nl

## ABSTRACT

While content-based recommendation has been applied successfully in many different domains, it has not seen the same level of attention as collaborative filtering techniques have. However, there are many recommendation domains and applications where content and metadata play a key role, either *in addition to* or *instead of* ratings and implicit usage data. For some domains, such as movies, the relationship between content and usage data has seen thorough investigation already, but for many other domains, such as books, news, scientific articles, and Web pages we still do not know *if* and *how* these data sources should be combined to provided the best recommendation performance. The *CBRecSys 2015* workshop aims to address this by providing a dedicated venue for papers dedicated to all aspects of content-based recommendation.

## Categories and Subject Descriptors

H.3.3 [Information Storage and Retrieval]: Information Search and Retrieval—*information Filtering*

## General Terms

Algorithms, Experimentation, Human Factors, Theory

## Keywords

recommender systems; content-based recommendation; semantics; user-generated content; text reviews; implicit feedback; context

## 1. INTRODUCTION

Content-based recommendation has been applied successfully in many different domains [5], yet it has not seen the same level of attention as collaborative filtering techniques have. In recent years, competitions like the Netflix Prize<sup>1</sup>, CAMRA<sup>2</sup>, and the Yahoo! Music KDD Cup 2011 [4] have spurred on advances in collaborative filtering and how to utilize ratings and usage data. However,

<sup>1</sup><http://www.netflixprize.com/>

<sup>2</sup><http://www.dai-labor.de/camra2010/>

there are many recommendation domains and applications where content and metadata play a key role, either *in addition to* or *instead of* ratings and implicit usage data. For some domains, such as movies, the relationship between content and usage data has seen thorough investigation already (e.g. [6]), but for many other domains, such as books, news, scientific articles, and Web pages we still do not know *if* and *how* these data sources should be combined to provided the best recommendation performance.

## 2. FORMAT, AUDIENCE AND TOPICS

The *CBRecSys 2015* workshop is the follow-up to the successful first edition of the workshop in Silicon Valley in 2014 [1, 2], which featured a varied high-quality program and was attended by over 60 participants.

CBRecSys 2015 will be organized as a full-day workshop. The workshop starts with a keynote by Frank Hopfgartner (University of Glasgow) on the challenges of news recommendation and the NEWSREEL living lab at CLEF 2015. The accepted papers are presented in 30-minute talks. The workshop will close with an interactive break-out session, with attendees split into smaller groups to discuss current and future challenges in content-based recommendation, and reporting back in a final plenary session.

The CBRecSys 2015 workshop aims to address this by providing a venue for papers dedicated to all aspects and new trends of content-based recommendation. This would include both recommendation in domains where textual content is abundant (e.g. books, news, scientific articles, jobs, educational resources, and Web pages) as well as dedicated comparisons and combinations of content-based techniques with collaborative filtering approaches.

### 2.1 Topics of Interest

Relevant topics of the workshop include:

- Developing novel recommendation approaches
  - Hybrid strategies combining content-based and collaborative filtering recommendations
  - Content-based approaches to cross-system and cross-domain recommendation
  - Latent factor models for content-based recommendation
- Exploiting user-generated content for recommendation
  - Mining microblogging data in recommender systems
  - Social tag-based recommender systems
  - Exploiting Semantic Web and Linked Open Data in content-based recommender systems

- Processing text reviews
  - Estimating (implicit) ratings associated with text reviews
  - Opinion mining and sentiment analysis of text reviews to support content-based recommendation
  - Extracting user personality traits and factors from text reviews for recommendation
- Mining contextual data from content
  - Extraction of contextual signals from textual content for recommendation
  - Incorporating the temporal dimension in content-based recommendation
  - Mood-based recommender systems
- Addressing limitations of recommender systems
  - Addressing the cold-start problem with content-based recommendation approaches
  - Increasing diversity of content-based recommendations
  - Providing novelty in content-based recommendations

### 3. SUBMISSIONS

A total of 12 full papers were submitted, focused on the following topics. Several papers present hybrid systems combining collaborative filtering and content-based recommendation, finding them complementary, with content-based recommendation components especially suitable for tackling the cold-start problem. Other papers investigate how different content features can be used for similarity measures and explore ways to identify which features are the most relevant for a given context. Some papers present approaches to mine user reviews for inferring user preferences on specific attributes of items, essentially deriving more structured feature information from unstructured text. Finally, several papers look at semantic frameworks and Linked Open Data to measure item similarity across different domains. All submitted papers were reviewed by a program committee of international experts in the field.

### 4. WEBSITE AND PROCEEDINGS

The workshop material (list of accepted papers, invited talk, and the workshop schedule) can be found on the CBRecSys 2015 workshop website at <http://humanities.uva.nl/~mkoolen1/CBRecSys15>. The proceedings are published as a CEUR Workshop Proceedings volume. Similar to last year's workshop [3], we will also look into publishing a summary of the workshop in venues like the SIGIR Forum, to increase cross-disciplinary awareness of recommender systems research.

### 5. REFERENCES

- [1] T. Bogers, M. Koolen, and I. Cantador, editors. *Proceedings of the 1st Workshop on New Trends in Content-based Recommender Systems, co-located with the 8th ACM Conference on Recommender Systems, CBRecSys@RecSys 2014, Foster City, Silicon Valley, California, USA, October 6, 2014*, volume 1245 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2014.
- [2] T. Bogers, M. Koolen, and I. Cantador. Workshop on New Trends in Content-based Recommender Systems: (CBRecSys 2014). In *Eighth ACM Conference on Recommender Systems, RecSys '14, Foster City, Silicon Valley, CA, USA - October 06 - 10, 2014*, pages 379–380, 2014.
- [3] T. Bogers, M. Koolen, and I. Cantador. Report on RecSys 2014 Workshop on New Trends in Content-Based Recommender Systems. *ACM SIGIR Forum*, 2015.
- [4] G. Dror, N. Koenigstein, Y. Koren, and M. Weimer. The Yahoo! Music Dataset and KDD-Cup '11. In *JMLR Workshop and Conference Proceedings*, volume 18 of *Proceedings of KDD Cup 2011*, pages 3–18. Springer, 2012.
- [5] P. Lops, M. de Gemmis, and G. Semeraro. Content-based Recommender Systems: State of the Art and Trends. In *Recommender Systems Handbook*, pages 73–105. Springer, 2011.
- [6] I. Pilászy and D. Tikk. Recommending New Movies: Even a Few Ratings Are More Valuable Than Metadata. In *RecSys '09: Proceedings of the Third ACM Conference on Recommender Systems*, pages 93–100. ACM, 2009.