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

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

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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[1], CAMRA[2], and the Yahoo! Music KDD Cup 2011 [4] have spurred on advances in collaborative filtering and how to utilize ratings and usage data. 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 (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.

[1] http://www.netflixprize.com/
[2] http://www.dai-labor.de/camra2010/

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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

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