Belgrade Meeting

WP3 Session

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WP3 User Interaction

This WG investigates issues related to the semantic disambiguation of the queries based on the context and on the keyword annotations with respect to some reference ontologies, the development of languages for keyword searching and the use of users’ feedbacks for improving results.

Moreover, the WG studies techniques for identifying the “scope” of a keyword query, i.e. determining what are the data source elements to be returned to the user and in which form (e.g., in a graphical way).
Call for Contributions

• 15 papers have been collected
• Papers accessible at

Contributions (1/2)

• IR/NLP
  • Natural language disambiguation
  • (named) entity recognition
  • Keyword query cleaning
  • Semantic relatedness
  • Exploratory Search
Contributions (2/2)

• DB
  • Keyword search over Relational Data / Linked Data
  • Examplar query
  • Query "augmentation"

• ML / IE
  • Query disambiguation
  • Document annotation
Contributions / State of the Art

- Help. We need you!
Open Issues / Challenges

• Help needed again!
Call for Contributions

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<table>
<thead>
<tr>
<th>WG3 member</th>
<th>paper</th>
<th>reasoning</th>
<th>Contribution field</th>
<th>Open Issues</th>
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</thead>
<tbody>
<tr>
<td>Sergio Iliari</td>
<td>María del Carmen Rodríguez-Hernández, Sergio Iliari, Raquel Trillo-Lado, Francesco Guerra, “Towards Keyword-based Pull Recommendation Systems”, 18th International Conference on Enterprise Information Systems (ICEIS 2016), Rome (Italy), SCITEPRESS (Science, Technology Publications, Ltd.), ISBN 978-989-755-187-8, volume 1, pp. 207-214, April 2016. (DOI: 10.5220/000566502070214)</td>
<td>It is a joint paper and and outcome of Keystone. In this paper, we describe and evaluate two possible solutions to the problem of identification of the type of item (e.g., music, movie, book, etc.) that the user specifies in a pull-based recommendation (i.e., recommendation about certain types of items that are explicitly requested by the user), based on user keywords.</td>
<td>IR - Recommender systems</td>
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<td>Maria Golovanko</td>
<td>“TB-Structure: Collective Intelligence for Exploratory Keyword Search” prepared for the 2nd Keystone Conference in collaboration with Vagan Terziyan and Michael Cochez from University of Jyväskyla</td>
<td>In this paper we present a new collaborative filtering technique for an exploratory search which is used to predict implicit seeker’s intents at an early stage of the search process by uncovering behavioral patterns within large datasets of preserved collective search experience.</td>
<td>SemWeb - Exploratory search</td>
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<td>Manolis Wallace</td>
<td>P. Alexopoulos and M. Wallace, Creating Domain-Specific Semantic Lexicons for Aspect-Based Sentiment Analysis, Proceedings of the 10th International Workshop on Semantic and Social Media Adaptation and Personalization, pp. 7-12, November 5-6, 2015, Trento, Italy</td>
<td>It tackles the disambiguation of user sentiment. The paper is the result of a cooperation of researchers from Spain and Greece.</td>
<td>NLP - Query / Entity disambiguation</td>
<td>Recall / complex terms</td>
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<td>S. Bergamaschi, F. Guerra, M. Interlandi, R. Trillo-Lado and Y. Velenakis, “Combining User and Database Perspective for</td>
<td>The goal of this paper was to discover the semantics of the keywords used in a user keyword query by</td>
<td>DB - Keyword search over RDF</td>
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Interaction with other WPs

• Separation of concerns
  • Not usually clear
Wrap Up

• What’s next