Research topics

Semantic search and information retrieval

1. Tran, Thanh, and Peter Mika. ***Semantic search-systems, concepts, methods and the communities behind it.*** Technical report. http://sites.google.com/site/kimducthanh/publication/semsearch-survey.pdf
2. Fernández, M., Cantador, I., López, V., Vallet, D., Castells, P., & Motta, E. (2011). **Semantically enhanced Information Retrieval: an ontology-based approach**. *Web Semantics: Science, Services and Agents on the World Wide Web*, *9*(4), 434-452. http://m.ww.w.websemanticsjournal.org/index.php/ps/article/viewFile/242/240
3. Ranwez, S., Duthil, B., Sy, M. F., Montmain, J., Augereau, P., & Ranwez, V. (2013). **How ontology based information retrieval systems may benefit from lexical text analysis**. In *New Trends of Research in Ontologies and Lexical Resources* (pp. 209-231). Springer Berlin Heidelberg. http://hal.archives-ouvertes.fr/docs/00/79/71/43/PDF/Ontolex_RanwezEtAl_chapter.pdf
4. Fernandez, M., Lopez, V., Sabou, M., Uren, V., Vallet, D., Motta, E., & Castells, P. (2008, August). **Semantic search meets the web**. In *Semantic Computing, 2008 IEEE International Conference on* (pp. 253-260). IEEE. http://kmi.open.ac.uk/technologies/poweraqua/fernandez-SemanticSearch-camararready.pdf (cited 61)
5. Gruber, T. (2008). **Collective knowledge systems: Where the social web meets the semantic web**. *Web semantics: science, services and agents on the World Wide Web*, *6*(1), 4-13. http://w.websemanticsjournal.org/index.php/ps/article/download/129/127 (cited 498)

   Gerhard Weikum, **Semantic Search: from Names and Phrases to Entities and Relations** Keynote at VLDS Workshop 2012, Istanbul, August 31, 2012 http://www.mpi-sb.mpg.de/~weikum/weikum-vlds-workshop-31aug2012.pptx

Information extraction and Big Data

6. Suchanek, F., & Weikum, G. (2013, June). **Knowledge harvesting in the big-data era**. In *Proceedings of the 2013 international conference on Management of data* (pp. 933-938). ACM. http://dl.acm.org/citation.cfm?id=2463724 (cited 8) http://resources.mpi-inf.mpg.de/yago-naga/sigmod2013-tutorial/sigmod2013-slides.pdf
7. Suchanek, F. M., & Weikum, G. (2014). **Knowledge Bases in the Age of Big Data Analytics**. *Proceedings of the VLDB Endowment*, *7*(13). http://resources.mpi-inf.mpg.de/yago-naga/vldb2014-tutorial/vldb2014-slides.pdf

Entity linking

8. Wei Shen, Jianyong Wang, Jiawei Han (2014). **Entity Linking with a Knowledge Base: Issues, Techniques, and Solutions**. IEEE Transactions on Data and Knowledge Engineering, DOI: 10.1109/TKDE.2014.2327028 http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6823700

9. Feng, W., & Wang, J. (2014, March). **We can learn your# hashtags: Connecting tweets to explicit topics.** In *Data Engineering (ICDE), 2014 IEEE 30th International Conference on* (pp. 856-867). IEEE.
10. Cornolti, M., Ferragina, P., & Ciaramita, M. (2013, May). **A framework for benchmarking entity-annotation systems.** In *Proceedings of the 22nd international conference on World Wide Web* (pp. 249-260). International World Wide Web Conferences Steering Committee. http://static.googleusercontent.com/media/research.google.com/en//pubs/archive/40749.pdf
11. Hakimov, S., Oto, S. A., & Dogdu, E. (2012, May). **Named entity recognition and disambiguation using linked data and graph-based centrality scoring.** In *Proceedings of the 4th International Workshop on Semantic Web Information Management* (p. 4). ACM. http://edogdu.etu.edu.tr/wp-content/uploads/2005/01/2012-nerso-swim.pdf (cited 12)

    NIST TAC Knowledge Base Population (KBP2014) **Entity Linking Track**
    http://nlp.cs.rpi.edu/kbp/2014/
    Reading list: http://nlp.cs.rpi.edu/kbp/2014/elreading.html
    Tools: http://nlp.cs.rpi.edu/kbp/2014/tools.html

Question answering

12. Lopez, V., Uren, V., Sabou, M., & Motta, E. (2011). **Is question answering fit for the semantic web?: a survey**. *Semantic Web*, *2*(2), 125-155. http://oro.open.ac.uk/29573/1/swj124_3.pdf (cite 58)
13. Lopez, V., Unger, C., Cimiano, P., & Motta, E. (2013). **Evaluating question answering over linked data**. *Web Semantics: Science, Services and Agents on the World Wide Web*, *21*, 3-13. http://mx1.websemanticsjournal.org/index.php/ps/article/download/339/351 (cited 14)
14. Pound, J. (2013). ***Interpreting and Answering Keyword Queries using Web Knowledge Bases*** (Doctoral dissertation, University of Waterloo). https://uwspace.uwaterloo.ca/bitstream/handle/10012/7728/Pound_Jeffrey.pdf?sequence=1 (cited
15. Unger, C., Freitas, A., & Cimiano, P. **An introduction to Question Answering over Linked Data.** http://andrefreitas.org/papers/preprint_introduction_qa_linked_data.pdf http://www.slideshare.net/andrenfreitas/question-answering-over-linked-data
16. Hakimov, S., Tunc, H., Akimaliev, M., & Dogdu, E. (2013, March). Semantic question answering system over linked data using relational patterns. In*Proceedings of the Joint EDBT/ICDT 2013 Workshops* (pp. 83-88). ACM. http://www.edbt.org/Proceedings/2013-Genova/papers/workshops/a12-hakimov.pdf (cited 10)
17. Freitas, A., Oliveira, J. G., O'riain, S., Da Silva, J. C., & Curry, E. (2013). **Querying linked data graphs using semantic relatedness: A vocabulary independent approach**. *Data & Knowledge Engineering*, *88*, 126-141. https://www.deri.ie/sites/default/files/publications/freitas_dke_2013_0.pdf

    Question Answering over Linked Data (QALD-4)
    http://greententacle.techfak.uni-bielefeld.de/~cunger/qald/

Document and Text Classification

18. Fripp, D. (2010, November). **Using linked data to classify web documents**. In *Aslib Proceedings* (Vol. 62, No. 6, pp. 585-595). Emerald Group Publishing Limited. http://research-information.bristol.ac.uk/files/3020598/FRIPP_post%20print.pdf
19. Varga, Andrea, Amparo Elizabeth Cano Basave, Matthew Rowe, Fabio Ciravegna, and Yulan He. "**Linked Knowledge Sources for Topic Classification of Microposts: A Semantic graph-based approach**." *Web Semantics: Science, Services and Agents on the World Wide Web* (2014). http://pop.websemanticsjournal.org/index.php/ps/article/viewFile/360/381
20. Cano, Amparo E., Andrea Varga, Matthew Rowe, Fabio Ciravegna, and Yulan He. "**Harnessing linked knowledge sources for topic classification in social media**." In *Proceedings of the 24th ACM Conference on Hypertext and Social Media*, pp. 41-50. ACM, 2013.
21. Wang, Yu, Tom Clark, Eugene Agichtein, and Jeffrey Staton. "**Towards Tracking Political Sentiment through Microblog Data**." *ACL 2014* (2014): 88. http://anthology.aclweb.org/W/W14/W14-27.pdf#page=100

Reasoning

22. Axel Polleres, Aidan Hogan, Renaud Delbru, Jürgen Umbrich. "**RDFS & OWL Reasoning for Linked Data**". Chapter in Lecture Notes for the Reasoning Web Summer School, Mannheim, (Springer), July 2013. http://aidanhogan.com/docs/rw_2013.pdf
23. Aidan Hogan, Jeff Z. Pan, Axel Polleres and Yuan Ren. "**Scalable OWL 2 Reasoning for Linked Data**". Chapter in the Lecture Notes for the Reasoning Web Summer School, Galway, Ireland, (Springer), August 2011. http://aidanhogan.com/docs/rw_2011.pdf

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