Acknowledgments

We thank the three anonymous reviewers for their comments. Many thanks to Anette Hulth and Yang Liu for providing us with the *Inspec* and ICSI datasets; Rada Mihalcea, Paco Nathan, and Xiaojun Wan for helping us understand their algorithms/implementations; and Peng Li for providing us with the frequent word list that he and his co-authors used in their paper. This work was supported in part by NSF Grant IIS-0812261.

References

- Brin, Sergey and Lawrence Page. 1998. The anatomy of a large-scale hypertextual Web search engine. *Computer Networks*, 30(1–7):107–117.
- Frank, Eibe, Gordon W. Paynter, Ian H. Witten, Carl Gutwin, and Craig G. Nevill-Manning. 1999. Domain-specific keyphrase extraction. In *Proceedings of the 16th International Joint Conference on Artificial Intelligence*, pages 668–673.
- Hulth, Anette. 2003. Improved automatic keyword extraction given more linguistic knowledge. In Proceedings of the 2003 Conference on Empirical Methods in Natural Language Processing, pages 216–223.
- Janin, Adam, Don Baron, Jane Edwards, Dan Ellis, David Gelbart, Nelson Morgan, Barbara Peskin, Thilo Pfau, Elizabeth Shriberg, Andreas Stolcke, and Chuck Wooters. 2003. The ICSI meeting corpus. In *Proceedings of 2003 IEEE Conference on Acoustics, Speech, and Signal Processing*, pages 364–367.
- Kumar, Niraj and Kannan Srinathan. 2008. Automatic keyphrase extraction from scientific documents using n-gram filtration technique. In *Proceedings of the Eighth ACM Symposium on Document Engineering*, pages 199–208.
- Liu, Feifan, Deana Pennell, Fei Liu, and Yang Liu. 2009a. Unsupervised approaches for automatic keyword extraction using meeting transcripts. In Proceedings of Human Language Technologies: The 2009 Annual Conference of the North American Chapter of the Association for Computational Linguistics, pages 620–628.
- Liu, Zhiyuan, Peng Li, Yabin Zheng, and Maosong Sun. 2009b. Clustering to find exemplar terms for keyphrase extraction. In *Proceedings of the 2009 Conference on Empirical Methods in Natural Language Processing*, pages 257–266.
- Matsuo, Yutaka and Mitsuru Ishizuka. 2004. Keyword extraction from a single document using word co-occurrence statistical information. *International Journal on Artificial Intelligence Tools*, 13(1):157–169.

- Medelyan, Olena, Eibe Frank, and Ian H. Witten. 2009. Human-competitive tagging using automatic keyphrase extraction. In *Proceedings of the 2009 Conference on Empirical Methods in Natural Language Processing*, pages 1318–1327.
- Mihalcea, Rada and Paul Tarau. 2004. TextRank: Bringing order into texts. In *Proceedings of the 2004 Conference on Empirical Methods in Natural Language Processing*, pages 404–411.
- Nguyen, Thuy Dung and Min-Yen Kan. 2007. Keyphrase extraction in scientific publications. In *Proceedings of the International Conference on Asian Digital Libraries*, pages 317–326.
- Over, Paul. 2001. Introduction to DUC-2001: An intrinsic evaluation of generic news text summarization systems. In *Proceedings of the 2001 Document Understanding Conference*.
- Tomokiyo, Takashi and Matthew Hurst. 2003. A language model approach to keyphrase extraction. In *Proceedings of the ACL Workshop on Multiword Expressions*.
- Toutanova, Kristina and Christopher D. Manning. 2000. Enriching the knowledge sources used in a maximum entropy part-of-speech tagger. In *Proceedings of the 2000 Joint SIGDAT Conference on Empirical Methods in Natural Language processing and Very Large Corpora*, pages 63–70.
- Turney, Peter. 2000. Learning algorithms for keyphrase extraction. *Information Retrieval*, 2:303–336.
- Turney, Peter. 2003. Coherent keyphrase extraction via web mining. In *Proceedings of the 18th International Joint Conference on Artificial Intelligence*, pages 434–439.
- Wan, Xiaojun and Jianguo Xiao. 2008. Single document keyphrase extraction using neighborhood knowledge. In *Proceedings of the 23rd AAAI Conference on Artificial Intelligence*, pages 855–860.
- Wan, Xiaojun, Jianwu Yang, and Jianguo Xiao. 2007. Towards an iterative reinforcement approach for simultaneous document summarization and keyword extraction. In *Proceedings of the 45th Annual Meeting of the Association of Computational Linguistics*, pages 552–559.
- You, Wei, Dominique Fontaine, and Jean-Paul Barthès. 2009. Automatic keyphrase extraction with a refined candidate set. In *Proceedings of the 2009 IEEE/WIC/ACM International Joint Conference on Web Intelligence and Intelligent Agent Technology*, pages 576–579.
- Zha, Hongyuan. 2002. Generic summarization and keyphrase extraction using mutual reinforcement principle and sentence clustering. In *Proceedings of the 25th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, pages 113–120.