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SONIC SPEAKER SERIES

SONIC Research Group, Northwestern University | Correspondence: wpieterson@northwestern.edu

Jana Diesner, PhD.

From Words to Networks: Relevance of methodological choices for real-world applications

Thursday, March 7th, 12:00pm-01:15pm

Room 1.483, Frances Searle Building, Northwestern University, Evanston Campus

Biography

Jana Diesner is an Assistant Professor at the iSchool at the University of Illinois at Urbana-Champaign. She earned her PhD from Carnegie Mellon University. Jana conducts research at the nexus of network science, natural language processing and machine learning. She aims to advance the understanding and computational analysis of the interplay and co-evolution of information and socio-technical networks. Jana develops, analyzes and applies methods and technologies for extracting information about networks from text data and considering the substance of information for network analysis. In her empirical work, she studies networks from the business, science and geopolitical domain. She is particularly interested in covert information and covert networks. For more information see http://people.lis.illinois.edu/~jdiesner/.

Content

Coding texts as socio-technical networks can be used to collect network data on hard-to-access groups and organizations. This requires people to choose appropriate methods and parameter settings. The impact of these choices on the resulting data and findings can be strong, but is hardly understood. We applied four common relation extraction methods to large-scale, open-source corpora from different domains, and compared networks. I show how these methods can be combined to gain a more robust and comprehensive understanding of a network. I will also present findings from experiments conducted to answer the following questions: How much variation in network structure and properties is due to the error rates of the involved sub-routines? Does increasing the accuracy of these techniques actually matter for network analysis results?

Additional info

http://sonic.northwestern.edu