

MS&E 337 Information Networks
Response Paper
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The idea of response paper is for you to familiarize yourselves more in depth with some of the material covered in class, and do some reading beyond what was covered. At the same time, you should be thinking beyond what you just read, and not just take other people's work for granted.

Consequently, your reaction paper should cover a few research papers. Your writeup should be about 2-3 pages. The organization should be roughly as follows.

About one page should be used to summarize the main content and results of the papers you are discussing. How do they fit in the field, and what you have learned in class so far? What is the connection between the papers you are discussing? About one page should be a judgment of what is in the papers. What struck you as particularly interesting? What were the authors missing? Was anything particularly unrealistic? This section should go into a bit of depth. A statement like "This was a nice paper", or "I didn't like this paper" by itself is not enough. About one page should be a discussion of what you feel may be an interesting step to take beyond what the papers are doing. Perhaps you have an idea of a better model for something? A better algorithm? Or their papers suggest techniques that you would like to apply elsewhere? Obviously, your ideas here may not be completely worked out. Here is a list of potential papers/topics:

- D. Donoho. High-Dimensional Data Analysis: The Curses and Blessings of Dimensionality. Notes to accompany lecture at AMS Conference on Mathematical Challenges of the 21st Century, August 2000.
- H. Zhang, A. Goel, R. Govindan, K. Mason, B. Van Roy. Making eigenvector-based reputation systems robust to collusion. Workshop on Algorithms and Models for the Web Graph (WAW) 2004.
- Gary Flake, Steve Lawrence, C. Lee Giles, Frans Coetzee. Self- Organization and Identification of Web Communities. IEEE Computer, 35:3, March 2002.
- Rank Aggregation and Meta-Search: C. Dwork, R. Kumar, M. Naor, D. Sivakumar. Rank Aggregation Methods for the Web. 10th International World Wide Web Conference, May 2001. and R. Fagin, R. Kumar, D. Sivakumar. Comparing top k lists. SIAM Journal on Discrete Mathematics 17/1, 2003, pp. 134-160.
- Micromotives and Macrobehavior. Norton, 1978. M. Granovetter. Threshold models of collective behavior. American Journal of Sociology 83(6):1420-1443, 1978. S. Morris. Contagion. Review of Economic Studies 67 (2000), 57-78.
- C. Asavathiratham. The Influence Model: A Tractable Representation for the Dynamics of Networked Markov Chains. Ph.D. Thesis, MIT 2000.
- M. Richardson, P. Domingos. Mining the Network Value of Customers. Proc. KDD 2001. and P. Domingos, M. Richardson. Mining Knowledge- Sharing Sites for Viral Marketing. Eighth International Conference on Knowledge Discovery and Data Mining, KDD-2002.
- D. Cohn, H. Chang Probabilistically Identifying Authoritative Documents. 17th International Conference on Machine Learning, 2000.
- J. Carlson, J. Doyle. Highly Optimized Tolerance: A Mechanism for Power Laws in Designed Systems. Physical Review E 60:2(1999).
- I. Stoica, R. Morris, D. Karger, F. Kaashoek, H. Balakrishnan. Chord: A Scalable Peer-to-peer Lookup Service for Internet Applications. ACM SIGCOMM, 2001.