

Session 3 (Nov 3, AM): Networks: Data collection and visualizations
Prof. Dahlander

This session provides an overview of what a network is and the history of analyzing networks. We will discuss how networks can be visualized and analyzed. In addition, we will look into data collection issues that become evident for any researchers seeking to understand networks. Please bring a computer with R (and preferably R Studio) installed to this session. This software is open source and can be download for free online.

Readings:

- Laumann, E. O., P. Marsden and D. Prensky. 1983. "The Boundary Specification Problem in Network Analysis." In Ronald S. Burt and M.J. Minor (Eds.), *Applied Network Analysis: A Methodological Introduction*. London: Sage Publications. **[optional]**
- Marsden, P. V. 1990. "Network data and measurement." *Annual Review of Sociology* 16: 435-463.
- Podolny, J. and K. Page. 1998. "Network forms of organization." *Annual Review of Sociology* 24: 57-76.
- Wasserman, S. and K. Faust. 1994. *Social Network Analysis: Methods and Applications*. Chapter 2-4 (pp. 28-166). Cambridge: Cambridge University Press. **[optional]**

Session 4 (Nov 3, PM): Tie strength, dyads, triads, and centrality
Prof. Dahlander

This session discusses some of the most basic characteristics of networks, namely dyads, triads, and tie strength. Although quite intuitive to understand, these concepts have far-reaching consequences for the analysis of networks. We will continue with a discussion about centrality measures. Please bring a computer with R (and preferably R Studio) installed to this session.

Readings:

- Freeman, Linton C. 1979. "Centrality in social networks: Conceptual clarification." *Social Networks* 1: 215-239.
- Granovetter, M. S. 1977. "The Strength of Weak Ties." *American Journal of Sociology* 78: 1360-1380.
- Krackhardt, D. 1992. "The Strength of Strong Ties: The Importance of Philos in Organizations." In chapter 8 of *Networks and Organizations: Structure, Form, and Action*. Eds. Nitin Nohria and Robert Eccles. Boston: Harvard Business School. **[optional]**
- Wasserman, S. and K. Faust. 1994. *Social Network Analysis: Methods and Applications*. Chapter 6 (pp. 220-248). Cambridge: Cambridge University Press. **[optional]**