Amsterdam Business Research Institute

Social Network Analysis

Course Manual

Academic year 2024 – 2025
Version Subject to change

Course title	**Social Network Analysis**
Coordinator(s)	Dr. Zuzana Sasovova
Lecturer(s)	Dr. Zuzana Sasovova
Study period	September – October 2024
ECTS	5 ECTS
Tuition	€1250 20% discount on early bird registration: €1000
Target Groups	The course Social Network Analysis 2024-2025 is open to PhD candidates and research master students from the Vrije Universiteit Amsterdam and other Dutch and international universities engaged in research projects broadly related to business administration or organization studies. This is an advanced methods course that assumes basic prior understanding of business administration topics or organization studies and basic understanding of quantitative business research methods. The course workload represents 5 ECTS. However, a smaller version of 3 ECTS may also be possible.[1]
Course goals	After the successful completion of this course participants will be able to: • Understand main social network theories and concepts • Identify and describe different levels of analysis and formulate/solve research problems in terms of network variables • Apply key concepts of social network analysis in a self-selected area of research to design own research project • Use specialized software for network analysis (UCINET) to analyze and interpret research hypotheses
Course Content	A network perspective on organizational and management questions continues to appeal to a wide range of research domains. These include organizational behavior, knowledge management, HRM, entrepreneurship, information systems, and many more. The diversity in theoretical approaches to network research has yielded diverse methodological approaches, analyzing both structural and relational dimensions of networks and networking in organizational settings. The focus of this course is on providing basic knowledge and understanding of network theories with an emphasis on social network analysis (SNA) applications in intra- and interorganizational processes. The course draws on conceptual and empirical research in these areas to investigate the antecedents and consequences of social networks – emergence and change in

[1] The 'light' version of this course excludes the final paper and presentation at the mini conference

relationships and how network configurations influence important outcomes such as career progress, innovation and performance. In addition to being able to critically review cutting-edge network research, participants develop a methodological basis that will allow them to design a network study in their own area of interest with a close attention to data collection, management and analysis issues. Finally, they will gain hands-on experience with specialized software for analyzing social networks (UCINET).

Course Design

The course is organized around four half day sessions in September 2024, one session with individual consultations and two individual assignments. Each of the first three sessions is dedicated to one aspect of network analysis, and will consist of two parts: a lecture including an interactive discussion in which the topic is introduced and an afternoon part in which participants work with Ucinet. Participants are expected to come well prepared to these sessions. For the first three sessions, they will be assigned as paper discussants (see the overview of articles per session below). The paper discussant has five to ten minutes to present the gist of the assigned paper, before launching the class discussion. Background reading (book chapters and reviews) are not necessary to study in detail, they contain additional information. The final session is organized in a form of a mini-conference in which participants present their research proposals and provide and receive comments from other participants.

There are two assignments, in the first (Ucinet) assignment participants analyze a provided dataset to explore the data, test hypotheses, interpret parameters, and report on the findings. This assignment is due on XXXX. In the second assignment, participants apply social network analysis approach to develop a research proposal in a self-selected area of interest. This proposal includes a theoretical justification and research design outlining the major data collection, management and analysis issues. The first ideas can be discussed during the individual consultation sessions on XXXX. The proposal will be presented during the mini-conference (last session of the course) and the final paper in the written format is due on November 3. In this way presenters will have an opportunity to benefit from others' constructive feedback and will have almost a week to improve the paper before it is due. All participants are expected to complete these assignments individually. More information and evaluation criteria will be provided during the classes and on Canvas.

Form of tuition The estimated time participants spend on study activities is:

Attending Lectures and Interactive Assignment Sessions	18 hours
Studying Literature	60 hours
Completing the Individual Assignments	66 hours
Total	*144 hours* (5 ECTS)

Assessment Active participation in the sessions is strongly encouraged.

Grading is based on the following partial grades:

30% class participation

20% Ucinet assignment

50% final paper and presentation

Course structure

Subject to change

Date	Time	Rooms*	Topic
± Sep 6, 2024	TBA	TBA	Network concepts Introduction to Ucinet
± Sept 13, 2024	TBA	TBA	Network theories Visualization
± Sept 20, 2024	TBA	TBA	Research design Hypothesis testing
± Sept 27, 2024	TBA	TBA	Network change and beyond
± Sept 29, 2024	Individual Consultations (Final Paper)		
± Sept 29, 2024	UCINET ASSIGNMENT DUE		
± Oct 27, 2024	TBA	TBA	Mini-conference
± Nov 3, 2024	FINAL PAPER DUE		

UCINET software

Borgatti, S.P., Everett, M.G. and Freeman, L.C. 2002. UCINET for Windows: Software for Social Network Analysis. Harvard, MA: Analytic Technologies.

Website: https://sites.google.com/site/ucinetsoftware/home

Download: https://sites.google.com/site/ucinetsoftware/download (recommended to run the 32bit version under Windows)

90 days free trial afterwards a student price of $40

Literature (subject to change)

Books

Borgatti, S. P., Everett, M. G., & Johnson, J. C. (2018). *Analyzing Social Network*s. 2nd Edition. London: Sage.

Kilduff, M. & Tsai, W. (2003). *Social Networks and Organizations*. London: Sage.

Session 1 Network concepts

Background reading

Kilduff & Tsai (2003) Chapters 1 and 2 – introduction and network concepts

Reviews

Borgatti, S.P., Mehra, A., Brass, D.J., & Labianca, G. (2009). Network analysis in the social sciences. *Science*, 323(5916), 892-895. LINK

Brass, D.J., Galaskiewicz, J., Greve, H.R., & Tsai, W. (2004). Taking stock of networks and organizations: A multilevel perspective. *Academy of Management Journal*, 47(6), 795-817. LINK

Articles

Mehra, A., Kilduff, M., & Brass, D. J. (2001). The social networks of high and low self-monitors: Implications for workplace performance. *Administrative Science Quarterly*, 46(1), 121-146. LINK

Oh, H., Chung, M.-H., & Labianca, G. (2004). Group social capital and group effectiveness: The role of informal socializing ties. *Academy of Management Journal*, 47: 860-875. LINK

Uzzi, B. (1997). Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, 42(1), 35-67. LINK

Introduction to Ucinet
Background reading Borgatti, Everett & Johnson (2018) Chapter 5 – data management

Session 2 Network theories
Background reading
Kilduff & Tsai (2003) Chapters 3 and 4 – network theories

Articles
Hansen, M. (1999). The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. *Administrative Science Quarterly*, 44(1), 82-111. LINK

Burt, R. (2004). Structural holes and good ideas. *American Journal of Sociology*, 110: 349-399. LINK

Obstfeld, D. (2005). Social networks, the Tertius Iungens orientation, and involvement in innovation. *Administrative Science Quarterly*, 50(1), 100-130. LINK

Visualization in Ucinet
Background reading
Borgatti, Everett & Johnson (2018) Chapter 7 – visualization

Session 3 Research design
Background reading
Borgatti, Everett & Johnson (2018) Chapters 3 and 4 – research design and data collection

Articles
Kleinbaum, A. M. (2012). Organizational misfits and the origins of brokerage in intrafirm networks. *Administrative Science Quarterly*, 57: 407-452. LINK

Davis, J. P. & Eisenhardt, K. M. (2011). Rotating leadership and collaborative innovation: Recombination processes in symbiotic relationships. *Administrative Science Quarterly* 56: 159-201. LINK

Perry-Smith, J.E. (2014). Social network ties beyond nonredundancy: An experimental investigation of the effect of knowledge content and tie strength on creativity. *Journal of Applied Psychology*, 99: 831-846. LINK

Hypothesis testing in Ucinet

Background reading Borgatti, Everett & Johnson (2018) Chapter 8 – testing hypotheses

Session 4 Network change

Background reading

Kilduff & Tsai (2003) Chapter 5 – network trajectories and beyond

Articles

(selection from the following articles possibly including other work depending on participants' research interests)

Brennecke, J. (2020). Dissonant ties in intraorganizational networks: why individuals seek problem-solving assistance from difficult colleagues. *Academy of Management Journal*, *63*(3), 743–778. LINK

Carnabuci, G., Emery, C., & Brinberg, D. (2018). Emergent leadership structures in informal groups: A dynamic, cognitively informed network model. *Organization Science*, 29(1),118-133. LINK

Majchrzak, A., Malhotra, A., & Zaggl, M. A. (2021). How open crowds self-organize. *Academy of Management Discoveries*, *7*(1), 104–129. LINK

Sasovova, Z., Mehra, A., Borgatti, S., & Schippers, M. (2010). Network churn: The effects of self-monitoring personality on brokerage dynamics. *Administrative Science Quarterly*, 55(4), 639-670. LINK

Quintane, E., & Carnabuci, G. (2016). How do brokers broker? tertius gaudens, tertius iungens, and the temporality of structural holes. *Organization Science*, *27*(6), 1343–1360. LINK

Schulte, M., Cohen, N. A., & Klein, K. J. (2012). The coevolution of network ties and perceptions of team psychological safety. *Organization Science*, 23(2), 564– 581. LINK

Soda, G., Mannucci, P. V., & Burt, R. S. (2021). Networks, creativity, and time: staying creative through brokerage and network rejuvenation. *Academy of Management Journal*, *64*(4), 1164–1190. LINK

Modeling network change in Ucinet and beyond

Background reading

Block, P., Stadtfeld, C., Snijders, T. A. B. (2019). Forms of Dependence: Comparing SAOMs and ERGMs from Basic Principles. *Sociological Methods & Research*, 48(1), 202-239. 

Borgatti, Everett & Johnson (2018) Chapter 8 – testing hypotheses (ERGM & SAOMs)