Amsterdam Business Research Institute

Social Network Analysis

Course Manual

Academic year 2021 - 2022

Course title	**Social Network Analysis**
Coordinator(s)	Dr. Zuzana Sasovova
Lecturer(s)	Dr. Zuzana Sasovova
Study period	September – October 2021
ECTS	5 ECTS
Tuition	€1250 20% discount on early bird registration: €1000
Target Groups	The course Social Network Analysis 2021-2022 is open to PhD candidates and research master students from the Vrije Universiteit Amsterdam and the Netherlands 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 relationships

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

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 and October 2021 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 October 4. 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 September 27. 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 1. 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   <u>_144 hours_</u> (<u>5</u> ECTS)

Assessment

Attendance and active participation in the sessions is mandatory.

Grading is based on the following partial grades:

30% class participation

20% Ucinet assignment

50% final paper and presentation

Course structure

Date	Time	Room	Topic
Sep 6, 2021	10:00 - 12:00 13:00 - 15:00	tba	Network concepts Introduction to Ucinet
Sept 13, 2021	10:00 - 12:00 13:00 - 15:00	tba	Network theories Visualization
Sept 20, 2021	10:00 - 12:00 13:00 - 15:00	tba	Research design Hypothesis testing
Sept 27, 2021	Individual Consultations (Final Paper)		
Oct 4, 2021	UCINET ASSIGNMENT DUE		
Oct 25, 2021	~11:00 – 15:00	tbc	Mini-conference
Nov 1, 2021	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/downloads (choose the 32bit version, runs under Windows)

90 days free trial afterwards a student price of $40

Literature

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