

Urban Social Networks

USP 586/686 Spring 2007 Thurs. 18:40-21:20 USP 240

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Overview

We live in a network society where people and issues in society are connected, globalization breaks traditional boundaries, and social environments are more turbulent (Castells 2000). This course introduces the concepts, applications, and methods of understanding the dynamics of networks, with a particular focus on social network analysis. My goal for this class is to work with students to co-develop the course and let it evolve much like a network would in society. I want people to feel comfortable exploring the network concepts and methods as they apply to their own interests and research.

I intend to act as a facilitator using attendance and engagement with the material as my criteria for grading rather than the content of assignments. I know people approach methods courses and software with different levels of anxiety, so we will all work together to experiment individually and as groups. In past experiences with methods courses, I've taken away one of two things: 1) a research project I can take away and show to others demonstrating methodological superpowers, and/or 2) a project contributing to discussion of concepts relevant to the method on campus.

In this spirit, there are two tracks of assignments to choose from in this course. In essence they are not much different except for where you choose to focus the bulk of your effort.

Assignments and evaluation

Class Participation (25%): Students are expected to attend class (roll will be taken) and participate in the discussion as active listeners and participants.

Track 1: Original Research

The final project for each student in this track will build from our class experiences encapsulated in the milestones described below. Students will articulate a research question, find or create a simple, real-world network dataset, run appropriate analysis, and discuss the results. I expect that this will be a short 8-page paper or some other form of creative presentation. *The focus of the paper in this track will be on data collection and analysis versus literature review or theory development.*

Track 1 Milestones

A. Data Entry and State of the Practice exercise (5%): I will give you a set of network data. You will convert the data into a UCINET file ready for analysis. This is pretty straightforward, but a key building block for everything else we do.

I would also like each person to skim articles in 4 issues from the last five years of *Connections*, *Social Networks*, or *Journal of Social Structure*. What are the questions being asked in the research? Where is the data coming from? What methods are being applied? Come to class with three bullets on each article (the idea here is to help all of us understand the state of the practice).

B. Research question and Research plans (5%): Articulate a research question and begin outlining a plan for collecting data, some questions you might ask, and how you will do the analysis. This is a working document that can change like all research plans do, but the sooner you can get this going, the easier the final paper will be.

C. Co-developed lecture (25%): Each student will work with me and another student to develop a methods lecture on a social network analysis technique. The student will be responsible for selecting a database (some sample databases come packaged with UCINET). With my support, we will present the technique in class. These lectures tend to be dynamic and open to experimenting and questions.

D. Term project (40%): The final project sums up your research in a brief presentation to the class and roughly an 8-pg paper or other creative form of presentation.

Track 2: Conceptual Development

The final project for each student in this track will build from our class experiences encapsulated in the milestones described below. Students will select a concept of interest, conduct a review of current literature, and develop the concept by using existing datasets and class experiences. The idea here is to contribute to the discussion of network concepts on campus, whether that be theory, curriculum, research support, application, etc. I expect that this will be a short 8-page paper or some other form of creative presentation. *The focus of the paper in this track will be on moving the current state of social network analysis practice on campus forward versus data collection and extensive analysis.*

Track 2 Milestones

A. Data Entry and State of the Practice exercise (5%): I will give you a set of network data. You will convert the data into a UCINET file ready for analysis. This is pretty straightforward, but a key building block for everything else we do.

I would also like each person to skim articles in 4 issues from the last five years of *Connections*, *Social Networks*, or *Journal of Social Structure*. What are the questions being asked in the research? Where is the data coming from? What methods are being

applied? Come to class with three bullets on each article (the idea here is to help all of us understand the state of the practice).

B. Literature review and Concept summary (5%): Choose a concept you want to develop and review the current literature and/or state of practice related to that concept. This is a working document that can evolve, but the sooner you can get this going, the easier the final paper will be.

C. Co-developed lecture (25%): Each student will work with me and another student to develop a methods lecture on a social network analysis technique. The student will be responsible for selecting a database (some sample databases come packaged with UCINET). With my support, we will present the technique in class. These lectures tend to be dynamic and open to experimenting and questions.

D. Term project (40%): The final project sums up your work in a brief presentation to the class and roughly an 8-pg paper or other creative form of presentation. This will be the only written graded assignment for the class.

Texts and software

Texts

Hanneman, Robert A. and Mark Riddle. 2005. Introduction to social network methods. Riverside, CA: University of California, Riverside (published in digital form at <http://faculty.ucr.edu/~hanneman/>)

(Optional, and at the PSU bookstore) John Scott (2000). *Social Network Analysis: A Handbook*. Thousand Oaks: Sage. **ISBN:** 0761963391

Software

USP has purchased a site license for UCINET, a very user friendly social network analysis software package. This will be available in URBN 240, the lab where the class is being taught, as well as in the regular computer lab. This should provide good access for students. In addition, a copy of the software can be downloaded free for 30 days from the website of Analytic Technologies. <http://www.analytictech.com/>.

Other resources

Degenne, Alain and Michel Forse (1999). *Introducing social networks*. Thousand Oaks: Sage. **ISBN:** 0761956042

Carrington, Peter J., J. Scott, S. Wasserman, and M. Granovetter (2005). *Models and Methods in Social Network Analysis*. Cambridge: Cambridge University Press. **ISBN:** 0521600979

Wasserman, Stanley, K. Faust, D. Iacobucci, and M. Granovetter. *Social Network Analysis: Methods and Applications*. Cambridge: Cambridge University Press. ISBN: 0521387078

- Linton Freeman's Social Network Analysis concept map
- International Network for Social Network Analysis <http://www.insna.org/>
- Social network wikipedia: http://en.wikipedia.org/wiki/Social_networking
- Centre for Democratic Network Governance: http://www.ruc.dk/demnetgov_en/
- Program on Networked Governance:
<http://www.ksg.harvard.edu/netgov/html/index.htm>
- Analytictech: <http://www.analytictech.com/networks/>
- Univ of Essex Summer Intensive Materials: <http://www.analytictech.com/essex/>
- Institute for Social Network Analysis of the Economy: <http://www.isnae.org>

Class Schedule

April 5: What is a Network

- Network types
- Who is using network theories and methods?
- Handling network data

Read: Wellman, Barry and Milena Gulia (1998). "Net-surfers Don't Ride Alone: Virtual Communities as Communities." Networks in the Global Village. Westview Press.

Borgatti, Stephen P. and PC Foster (2003). "The network paradigm in organizational research: a review and typology. Journal of Management."

Optional further reading:

Brass et al 2004.

<http://www.analytictech.com/networks/whatis.htm>

<http://www.analytictech.com/networks/history.htm>

April 12: Introduction to UCINET and social network analysis (there is a chance this class will be canceled since I'll be on my way back from a conference in Pendleton)

- Handling network data
- Discussion of State of the Practice

*Read: Hanneman Ch 6
(optional) Scott Ch 1, 2*

Due: Data Entry and State of the Practice exercise

April 19: The building blocks of networks and creating network data

- Concepts: Interpersonal networks I: relationships
- Research: Where to find and how to create network data

*Read: Hanneman Ch 1, 2
(optional) Scott Ch 3*

Breiger, Ronald L (2004). *The Analysis of Social Networks*.
<http://www.u.arizona.edu/~breiger/NetworkAnalysis.pdf>

D'Estree, Tamra Pearson (2003). "Achievement of Relationship Change." In O'leary and Bingham (eds.): *The Promise and Performance of Environmental Conflict Resolution*. Washington, DC: *Resources for the Future*. pp 111-128. (In my readings folder)

April 26: Interpersonal relationships in social networks

- Concepts: Interpersonal networks II: small world and weak ties
- Methods: Whole networks and ego networks- what do these strange words mean?

Read: *Hanneman Ch 9*
(optional) *Scott Ch 4*

Granovetter, Mark (1973). "The Strength of Weak Ties." American Journal of Sociology

Due: *Track 1: Research questions and plan*
Track 2: Literature review and concept summary

May 3: Power, centrality, and networks in the private sector

- Concepts: Networks in the private sector
- Methods: Centrality and Power

Read: *Hanneman Ch 10*
(optional) *Scott Ch 5*

Powell, Walter W. (1990). "Neither Market Nor Hierarchy: Network Forms of Organization." Research in Organizational Behavior, vol. 12, pp 295-336. (In my readings folder)

May 10: Elites, cliques, and subgroups

- Guest lecture: Charles Heying- Networks and civic elites
- Concepts: Networks in civil society
- Methods: Cliques and subgroups

Read: *Hanneman Ch 11*
(optional) *Scott Ch 6*

Davis, G. F., Yoo, M., & Baker, W. E. 2003. The small world of the American corporate elite, 1982–2001. Strategic Organization, 1: 301–326.

Committee on Network Science for Future Army Applications, National Research Council (2006). "Network Science."

May 17: Positions, roles, and networks in policy and public administration

- Concepts: Governance networks
- Methods: Positions and roles

Read: Hanneman Ch 12
(optional) Scott Ch 7

Marcussen, Martin and Jacob Torfing (2003). "Grasping Governance Networks." Centre for Democratic Network Governance Working Paper Series, Working Paper 2003:5. http://www.ruc.dk/demnetgov_en/working_papers/

Bogason, Peter (2004). "Networks in Policy Analysis: Towards a New Paradigm." Centre for Democratic Network Governance Working Paper Series, Working Paper 2004:8. http://www.ruc.dk/demnetgov_en/working_papers/

Optional further reading:

Koppenjan, J. and Klijn, E-H. (2004), *Managing Uncertainties in Networks – a network approach to problemsolving and decisionmaking*. London: Routledge.

Kickert, Walter J.M., E.H. Kleijn, and J.F.M. Koppenjan (1997). *Managing Complex Networks: Strategies for complex networks*. London: Sage.

May 24: Student Choice

Will fill in agenda and readings based on class discussions

May 31: Networks are more than social network analysis

Final project presentations- Part 1

- Concepts: Other methods of social network analysis

Read: Marcussen, Martin and Hans Peter Olsen. *Bridging a Structural Hole in Governance Network Analysis*. Centre for Democratic Network Governance Working Paper Series, Working Paper 2005:2. http://www.ruc.dk/demnetgov_en/working_papers/

(optional) Scott Ch 8

Optional further reading:

Maarten A. Hajer and Hendrik Wagenaar, *Deliberative Policy Analysis: Understanding Governance in the Network Society*. (pp. 33 – 59). Cambridge, MA: Cambridge University Press, Cambridge

June 7: Wrapping up and final discussions

Final project presentations- Part 2

Due: *Track 1: Final project*
Track 2: Final project