Over the last few decades, and over the last ten years or so especially, there has been an enormous increase in the attention paid to social networks as key determinants of many elements of social life, including motivations, identities, social mobility, group organization and mobilization, resource distributions, decision-making, patterns of innovation, diffusion of disease and attitudes, and the organization of belief systems. One could also say without much exaggeration that a whole new science of networks has emerged, not only within sociology but across multiple disciplines. The basic idea of social network analysis is that we must study the social order relationally: actors/events are interdependent, and structure emerges as patterns in these interdependencies. Sometimes this core idea involves the study of social interaction patterns inductively from the ground up; sometimes it involves looking for particular structural forms that are believed to shape behavior and structure the social environment. Sometimes it involves a radical re-thinking of what an actor is and where a relation can be found.

Network analysis is increasingly a mainstream idea, even though the tools it uses are distinctly different from mainstream sociology. Indeed there are ways to incorporate network ideas into ‘mainstream’ research. But in its most radical formulations, the study of networks vies to become a kind of fundamental theory of social organization. In this respect it dovetails with the development over the last decade of a theory of networks as the constitutive material of the physical, biological, technological, and economic worlds.

Together we will have three main goals pertaining to social network analysis in this course. First, we will consider theoretical justifications for the study of networks and key concepts used in the field, using classical sociological formulations of these concepts (e.g., Simmel, Nadel) and more recent statements (e.g., Wellman, Emirbayer, Watts, JL Martin). We will also explore the differences between interactionist and structuralist approaches to networks. While the differences are not absolute, the former tends to look at concrete relations in concrete contexts as determinants of outcomes, focusing on elements and topics like dyads, influence, cohesion, centrality, reach, cliques, diffusion, and small worlds. The latter regards patterns of structural positions as key and uses concepts like structural equivalence, roles, blockmodelling, brokerage, structural holes, triad censuses, and clustering to describe how networks matter.

Second, while this course is not primarily focused on practical skill development, we will get acquainted with certain methods and computer applications, including specifically the
program PAJEK, for the visualization and quantitative analysis of social networks. Pajek is available for free download (see HYPERLINK "http://vlado.fmf.uni-lj.si/pub/networks/book/" http://vlado.fmf.uni-lj.si/pub/networks/book/). Another popular program—UCINET—is freely available for a trial period, and it is also loaded on a handful of machines in the Sociology computer lab. Other packages (less tried and true and not familiar to me personally) are beginning to appear as well. For this element of the course, I hope to provide you with data, but if you have some of your own, that would be great! You will have a small number of short assignments to complete, to get your hands a little dirty.

Third, we will sample from the large (and growing) volume of empirical work that adopts a networks perspective in one form or another, including work on small groups, friendship networks, political elites, social movements, disease diffusion, immigration, formal organizations, markets, industries, cultural repertoires, and large-scale historical transformation. I believe it is very important to see how network ideas are being applied in exciting, empirically rich research projects.

We will follow a discussion format whenever possible, but sometimes I will spend part of the class lecturing on some of the key ideas and arguments. At the end of the semester, you will submit a 15 page term paper. This will be: 1) your own original research, taking the form of an empirical paper using network data (most preferred, but also most difficult); OR 2) a coherent secondary analysis of a dataset you studied in connection with the course; OR 3) a paper applying network concepts in an exploratory but meaty way to a substantive topic of your choosing; OR 4) a detailed critical review of a body of literature in the field. We can discuss this require more as the semester goes on.

Requirements

To summarize, your grade will be based on the following factors:

- participation in class (20%)
- short assignments (40% in total)
- term paper (40%)

Required Readings

The required readings for each class session are printed in bold. Many of these readings are on sakai or can be easily found online. Some are taken from books you will need to purchase. These books are:


Also on the sakai workspace you will find a selection of chapters from the book, *Exploratory Social Network Analysis with Pajek* (Cambridge, 2005), by Wouter de Nooy, Andrej Mrvar, and
Vladimir Batagelj. These materials may help you with the hands-on work of actually doing network analysis.

Finally, I list in the syllabus many readings which are not at all required. Indeed I have no expectation that you will do those readings, and I personally haven’t read a lot of them! However, they provide you with an entryway into a broader literature concerned with particular topics, and they sometimes provide you with a sense of how inquiry on particular topics has developed over time.

Schedule of Classes

Week 1 (9/6)  Introduction to the Course

Overview of the syllabus, and an in-class exercise or two


Week 2 (9/13)  Network Analysis as a Fundamental Sociological Paradigm

3) Mustafa Emirbayer, “Manifesto for a Relational Sociology,” American Journal of Sociology 103,2:281-317
4) Wasserman and Faust, pp. 3-22

An assortment of other useful and/or foundational materials, NOT to be read for class:
Ronald S. Burt, Toward a Structural Theory of Action (Academic Press, 1982), chapters 1 and 9
Peter Blau, Exchange and Power in Social Life (Transaction, 1983 [1964])
Peter Monge and Noshir Contractor, Theories of Communication in Networks (Oxford, 2003)
Jeremy Boissevain, Friends of Friends: Networks, Manipulators, and Coalitions, especially chapter 1
Week 3 (9/20) Types of Networks and Ways of Representing Them

Read: 1) Wasserman and Faust, pp. 28-59, 69-166, 291-344
(Note: This LONG reading provides the basic vocabulary of network analysis. Certain concepts not discussed here have become objects of attention in recent years; we’ll cover those another time. Skip the sections marked with circles and railroad crossing signs)


Some Work on Ego-Centered Networks:

Peter Marsden, “Core Discussion Networks for Americans,” American Sociological Review 52:122-131

Some Classic One-Mode Network Studies, Single and Multiple Types of Ties:

David Krackhardt, “The Strength of Strong Ties: The Importance of Philos in Organizations,” in Nitin Nohria and Robert G. Eccles (eds.), Networks and Organizations: Structure, Form, and Action
S.F. Sampson, A Novitiate in a Period of Change. An Experimental and Case Study of Social Relationships (PhD thesis Cornell University, 1968) (data used all over the place)
Elizabeth Bott, “Urban Families: Conjugal Roles and Social Networks,” Human Relations 8:345-84
Elizabeth Bott, Family and Social Network (Tavistock, 1957)

Some Work on Two- (or more) Mode (Affiliation) Networks:

Katherine Faust, “Centrality in Affiliation Networks,” *Social Networks* 19:157-91
John M. Roberts, “Correspondence Analysis of Two-Mode Network Data,” *Social Networks* 22:65-72
Peter Blau and Joseph Schwartz, *Crosscutting Social Circles* (Transaction, 1997)
Neha Gondal, “The Local and Global Structure of Knowledge Production in an Emergent Research Field: An Exponential Random Graph Analysis,” *Social Networks* 33, 1: 20-30

Some Concerns about Network Data Collection and Measurement

Ove Frank, “Network Sampling and Model Fitting,” in Peter Carrington et al. (eds.), *Models and Methods in Social Network Analysis* (Cambridge, 2005), chapter 3
Ronald L. Breiger, “Introduction to Special issue: Ethical Dilemmas in Social Network Research, *Social Networks* 27, 2: 89-93

Week 4 (9/27) Personal Ego-Networks, Social Support, and Identity


Some other materials:
Claude S. Fischer, *To Dwell Among Friends* (Chicago, 1982)
Week 5 (10/4) Interactionism: Homophily, Triadic Closure, Cohesion, Subgroups

Read: 1) Wasserman and Faust, pp. 220-90 and 556-602


More on the notions of attraction and homophily:

James Coleman, The Adolescent Society (Free Press, 1961[71]), especially chapter 7
Other materials on the notion of balance:


On the notion of cliques and isolates, a good deal of it empirical:

John Cottrell, *Social Networks and Social Influences in Adolescence* (Routledge, 1996)

Technical extensions and relaxations of the notion of clique:

Kenneth A. Frank, “Identifying Cohesive Subgroups,” *Social Networks* 17:27-56
James Moody, “Peer Influence Groups: Identifying Dense Clusters in Large Networks,” *Social Networks* 23: 261-283

**Week 6 (10/11)**

Network Positions and their Consequences: Centrality, Power, Reachability

**Read:** 1) Wasserman and Faust, pp. 169-219


Some other empirical examples of how centrality matters, and stuff on the measures:

Roger Gould, “Power and Social Structure in Community Elites,” *Social Forces* 68:531-52
Linton Freeman, “A Set of Measures of Centrality Based on Betweenness,” *Sociometry* 40:35-41
Steven P. Borgatti, “Centrality and Network Flow,” *Social Networks* 27, 1: 55-71

Reach and the idea of the strength of weak ties:

Mark S. Granovetter, “The Strength of Weak Ties,” *American Journal of Sociology* 78:1360-80
M. T. Hansen, “The Search-Transfer Problem: The Role of Weak Ties in Sharing Knowledge Across Organization Subunits,” *Administrative Science Quarterly* 44:82-111
Noah Friedkin, “A Test of Structural Features of Granovetter’s Strength of Weak Ties Theory,” *Social Networks* 2:411-22
Peter Marsden and K. E. Campbell, “Measuring Tie Strength,” *Social Forces* 63:482-501

Network Position as ‘Social Capital’:

James Coleman, *Foundations of Social Theory* (Harvard, 1990), pp. 300-21

Exchange, Power and Resource Dependency Theory:

Marcel Van Assen and Arnout van de Rijt, “Dynamic Exchange Networks,” *Social Networks* 29, 2: 266-78

**Week 7 (10/18) Transitivity: Hierarchy out of Interactions?**

**Read:** 1) John Levi Martin, *Social Structures*, selections


Other work on hierarchies and hierarchy formation:

Frans de Waal, *Chimpanzee Politics*
Eugene Rosa and Allan Mazur, “Incipient Status in Groups,” *Social Forces* 58:18-37
Steve Ellyson and John Dovidio (eds.), *Power, Dominance, and Nonverbal Behavior* (Springer, 1985)


Other related materials, a good deal of which is quite technical:


Duncan J. Watts, *Small Worlds: The Dynamics of Networks Between Order and Randomness* (Princeton)


Week 9 (11/1) Classic Structuralist Approaches to Networks: Blocks, Roles

Read: 1) Wasserman and Faust, pp. 345-424 and 461-502


Other materials:

- Scott Boorman and Harrison C. White, “Social Structure from Multiple Networks. II: Role Structures,” *American Journal of Sociology* 81:1384-1446
- François Lorrain and Harrison C. White, “Structural Equivalence of Individuals in Social Networks,” *Journal of Mathematical Sociology* 1:49-80
- Peter Bearman and James Moody, “Adolescent Suicidality,” *American Journal of Public Health* 94: 89-95

Vacancy Chains as another model of interdependence:

- John F. Padgett, “Mobility as Control: Congressmen through Committees,” in Ronald L. Breiger (ed.), *Social Mobility and Social Structure* (Cambridge, 1990), pp. 27-58
- Ivan D. Chase, “Vacancy Chains,” *Annual Review of Sociology* 17:133-54
- D. Randall Smith and Andrew Abbott, "A Labor Market Perspective on the Mobility of College Football Coaches,” *Social Forces* 61:1147-67
- King-to Yeung, “Repressing Rebels, Managing Bureaucrats: State Organizational Adaptation During the Taiping Rebellion, 1851-64,” unpublished ms., Rutgers University
Anthropological and historical materials on kinship:

Claude Lévi-Strauss, *The Elementary Structures of Kinship*


Robin Fox, *Kinship and Marriage*, chapters 1, 3, 4, 6-8

Paula Rubel and A. Rosman, *Your Own Pigs You May Not Eat* (Chicago, 1978)

Andrew Strathern, *The Rope of Moka: Big Men and Ceremonial Exchange in New Guinea*


David Herlihy, “Family Solidarity in Medieval Italian History,” in David Herlihy et al. (eds.), *Economy, Society and Government in Medieval Italy* (Kent State, 1969)

John F. Padgett, “Open Elite? Social Mobility, Marriage and Family in Renaissance Florence, 1282-1494,” *Renaissance Quarterly* 63, 2: 357-411


**Week 10 (11/8) Economic Relations**

**Read:**


Various network approaches to transactions and markets


Joel Podolny, “Networks as the Pipes and Prisms of the Market,” *American Journal of Sociology* 107:33-60
Roberto M. Fernandez and Isabel Fernandez-Mateo, “Networks, Race, and Hiring,” *ASR* 71:42-71
Emilio J. Castilla, “Social Networks and Employee Performance in a Call Center,” *American Journal of Sociology* 110:1243-83

**Networks and ownership:**

Mark S. Mizruchi, *The Structure of Corporate Political Action* (Harvard, 1992)

**Brokerage and Structural Holes:**

Ronald S. Burt, *Structural Holes* (Chicago, 1992), especially Introduction and chapter 1
Henning Hillman, “Mediation in Multiple Networks: Elite Mobilization before the English Civil War,” *American Sociological Review* 73, 3 (June 2008): 426-54

Networks, strategy, innovation, and reputations:
Robert Faulkner, *Music on Demand: Composers and Careers in the Hollywood Film Industry*
Ronald S. Burt, *Structural Holes* (Chicago, 1992), especially Introduction and chapter 1

International Trade:


**Week 11 (11/15) History and Politics through a Social Network Lens**


Politics in various places:

Peter Bearman, James Moody, and Robert Faris, “Networks and History,” *Complexity* 8,1:61-71
Peter S. Bearman, *Relations into Rhetorics*, especially pp. 1-18, 24-5, 42-5, 72-93, 95-111, 131-181
Roger V. Gould, *Insurgent Identities* (Chicago, 1995), especially chapters 1, 2, 6, 7
James D. Montgomery, “The Structure of Norms and Relations in Patronage Systems,” *Social Networks* 29, 4: 565-84
Fredrik Barth, *Political Leadership Among the Swat Pathans* (Athlone, 1965), especially chapters 7 and 9
S. Schmidt, James Scott, Carl Landé, and Laura Guasti (eds.), *Friends, Followers, and Factions*
Lily Ross Taylor, *Party Politics in the Age of Caesar* (California 1968 [1949])
Martin Shetter, “The Emergence of the Political Machine: An Alternate View,” in Willis D. Hawley et al. (eds.), *Theoretical Perspectives on Urban Politics* (Prentice-Hall, 1976)
Edward O. Laumann and David Knoke, *The Organizational State* (Wisconsin, 1987)

Some social movements literature:


Migration:


Politics and Terrorism:

Scott Gartner, “Ties to the Dead: Connections to Iraq War and 9/11 Casualties and Disapproval of the President,” *American Sociological Review* 73, 4: 690-95

Week 12 (11/22) Diffusion Processes


Classic work on diffusion:

- James Coleman, Elihu Katz, and Herbert Menzel, *Medical Innovation: A Diffusion Study*
- Everett M. Rogers, *Diffusion of Innovations*, 5th edition
- Craig Rawlings and Daniel A. McFarland, “The Ties that Influence: How Social Networks Channel Faculty Grant Productivity.” *Social Science Research* (Forthcoming)

Epidemiology specifically:

- Martina Morris, “Epidemiology and Social Networks,” *Sociological Methods and Research* 22.99-126. [see other Morris work as well]

**Week 13 (11/29)**

**Networks and Culture**

**Read:**


**Discourse and Interaction:**


Mustafa Emirbayer and Jeff Goodwin, “Network Analysis, Culture, and the Problem of Agency,” *American Journal of Sociology* 99:1411-54


Ann Mische and Harrison C. White, “Between Conversation and Situation: Public Switching Dynamics Across Network Domains,” *Social Research* 65:695-724


Paul D. McLean, *The Art of the Network: Strategic Interaction and Patronage in Renaissance Florence*

Robert Faulkner, *Music on Demand: Composers and Careers in the Hollywood Film Industry* (especially the Foreword, Preface, and chs. 3, 5, 8, and 9)


Vanina Leschziner, “Recognition by Omission: Authorship and Differentiation in the Culinary Field,” University of Toronto, unpublished ASA conference paper

**Cognition, meaning, and text mapping:**


Kathleen Carley, “Knowledge Acquisition as a Social Phenomenon,” *Instructional Science* 14:381-438
Linton C. Freeman, “Cliques, Galois Lattices, and the Structure of Human Social Groups,” *Social Networks* 18:173-87

**Week 14 (12/6)**

**Read:**


Santa Fe Institute work on complexity:

Walter Fontana and Leo Buss, “The Barriers of Objects: From Dynamical Systems to Bounded Organizations, in John Casti et al. (eds.), *Boundaries and Barriers*”

Some other work on dynamics:

V. Eguíluz et al., “Cooperation and the Emergence of Role Differentiation in the Dynamics of Social Networks,” American Journal of Sociology 110:977-1008
Scott Moss and Bruce Edmonds, “Sociology and Simulation: Statistical and Qualitative Cross-Validation,” American Journal of Sociology 110:1095-1131
David Stark and Balázs Vedres, “Social Times of Network Spaces: Network Sequences and Foreign Investment in Hungary,” American Journal of Sociology 111:1367-1411

Exponential Random Graph Models:

Garry Robins, Tom Snijders, Peng Wang, Mark Handcock, and Philippa Pattison, “Recent Developments in Exponential Random Graph (p*) Models for Social Networks,” Social Networks 29, 2: 192-215

Dynamic visualization:


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Acknowledgments: I benefited from consulting the syllabi of John Levi Martin, Dan McFarland, James Moody, and John Padgett, who in turn benefited from consulting the syllabi of (at the very least) Peter Bearman, Philip Bonacich, Peter Marsden, Mark Mizruchi, James Montgomery, and Duncan Watts. Thanks also to Neha Gondal for providing numerous citations on two-mode networks and p* models.