

COMM 555 – Social Networks
Annenberg School for Communication
University of Pennsylvania

Spring, 2008

Thu 10:00-12:0 (Room ASC 318)

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DESCRIPTION

Social networks is the description of a diverse body of research and theory based upon the premise that *relationships*, in contrast to *individual attributes*, are useful for understanding social structure and social behavior. Network analysts study the structure of these relations, how the patterns of social interactions allocate resources, constrain behavior, and channel information and social change. Their methods are both quantitative and qualitative.

This course is a non-mathematical introduction to social network analysis. It is an introduction to the fundamental concepts related to the theory and measurement of social structure, including: network size, diversity, centrality, multiplexity, frequency of contact, tie duration, and tie strength. We will consider how using a network perspective can help to conceptualize and clarify many different types of important sociological questions and offer new ways of answering those questions. The course will show how attending to the organization of social relationships can increase our understanding of various aspects of individual, community, and organizational life, such as health, social support, job attainment, and the spread of information. Particular attention is given to the role of communications media and the role of new technologies in the maintenance and formation of social networks. The topic of “social capital” – resources people may access through their social contacts – will also be a central focus of the course. What are the costs and benefits of different kinds of network structure for people and for groups? We will constantly ask how and why various forms of personal social capital are unequally distributed, and how this contributes to social mobility and the reproduction of inequality.

PROCEDURES AND EVALUATION

Seminar sessions will involve intensive discussions of assigned readings. Final grades will be based on an evaluation of 10 blog postings on the subject of the weekly course readings (20%), 20 comments on other students’ blog postings (10%), a presentation outlining the final project (10%), a final project (50%), and class participation (10%). Students are urged to pay close attention to due dates, late assignments will not be accepted.

A major component of the course will involve the development and use of a personal blog. Students will receive access to the necessary blogging software and will be provided with basic instruction on how to maintain a blog. Students are not expected to have prior experience with blogs.

Course readings and participation: Students are expected to have read the week’s readings in advance of the course meeting. Class meetings will be in a seminar format and students should be prepared to participate in a discussion based on the topic and readings of the week.

Blog Postings: Students are responsible for submitting short commentaries on 10 of the weeks’ readings (500-700 words). Commentaries should focus on a minimum of 3-4 of the readings from each week and should consist of limited summary; focusing on an evaluation of the readings and identifying 2-3

questions for discussion during the class meeting (focus on the papers' key issues, strengths and limitations, and a comparison to previous weeks' readings). Each commentary should be submitted as a post to the student's blog by 8:00am on the Tuesday before the class meeting. To be clear, students should post commentaries to their blog on the Tuesday before the topic is discussed in class.

Blog Comments: Each student is responsible for contributing comments to fellow students' blogs. Comments should be a minimum of 200 words and offer a critique of that week's posting, seek clarification, compare or contrast postings, or provide additional evidence or new information (such as a link to a related article, website, etc.). Each student must contribute a minimum of 20 comments, credit will be given for a maximum of two comments each week, students cannot comment on the same blog more than three times over the duration of the course. Comments must be posted by 8:00am on the day of class for posts related to that week's readings.

Participation: To encourage active participation all seminar members will take turns introducing the day's readings and facilitating the discussion at different times during the semester. At the beginning of each week's session discussion leaders will briefly evaluate the readings and suggest possible questions for discussion.

Presentation (March 20): The in-class presentation is as an opportunity for students to explore individual interests and to make a preliminary presentation of their final project. Student's presentations should be 10 minutes long, use PowerPoint, and follow the format of a formal conference presentation.

The presentation should include at least the following elements:

- Identification of the key problem.
- Research question(s).
- A minimum of three citations of key research in the area.
- Research methods and procedure.
- Main strengths and weaknesses of your methods.

Final project (due May 29): The final project can take on one of a number of different forms to be negotiated individually with the instructor. Projects should deal with course themes focusing on a topic of interest to the student. Possibilities include a full research proposal (25-30 double spaced pages), or a paper of near publishable quality based on the analysis of existing data or data collected as part of an original research project (25-30 double spaced pages).

COURSE MATERIALS

Readings, audio files, and grades will be available from the course Blackboard website:

<https://courseweb.library.upenn.edu/>

Handouts, information on assignments, and other announcements will be available from the course blog:

<http://www.mysocialnetwork.net/blog08/555/>

UCINET: Social Network Analysis Software.

Contact Lizz Cooper (support@asc.upenn.edu) to have installed on your ASC office PC.

It is recommended that students subscribe to *Socnet*, the e-mail list of the International Network for Social Network Analysis (INSNA). On occasion current topics from this list will be discussed in class.

To subscribe to *Socnet* send email to listserv@lists.ufl.edu with the following information in the *body* of the message (leave the Subject line blank):

subscribe SOCNET <yourfirstname> <yourlastname>

COURSE OUTLINE

Week 1 (January 17) - Introduction and Organization

Week 2 (January 24) – What is Social Network Analysis? (NOTE: NO CLASS!)

- Wellman, Barry. (1999). The Network Community: an Introduction. Pp. 1-48 in *Networks in the Global Village*, edited by Barry Wellman. Boulder: Westview Press.
- Wasserman, Stanley & Katherine Faust. (1994). *Social Network Analysis: Methods and Applications*. New York: Cambridge University Press [pp 1-59].
- Freeman, L. C. (2000). See you in the funny papers: Cartoons and social networks. *Connections*, 23(1), 32-42.
- Munge, Peter and Noshir Contractor. 2003. *Theories of Communication Networks*. Oxford: Oxford University Press (pp 29-45).

Week 3 (January 31) – Small World and Scale Free Networks

- Milgram, Stanley. (1967). The Small-World Problem. *Psychology Today* 1:62-67
- Gladwell, M. (1999). Six Degrees of Lois Weisberg. *The New Yorker* 74(41): 52-64.
- Korte, C., & Milgram, S. (1970). Acquaintance Networks Between Racial Groups. *Journal of Personality and Social Psychology*, 15(2), 101-108.
- Kilworth, Peter, Christopher McCarthy, Russell Bernard and Mark House. (2006). The Accuracy of Small World Chains in Social Networks. *Social Networks* 28(1): 85-96.
- Watts, Duncan. (2004). The 'New' Science of Networks. *Annual Review of Sociology* 30: 243-270.
- Barabasi, Albert-Laszlo and Eric Bonabeau. (2003). Scale-Free Networks. *Scientific American* 288(5).
- Bonacich, Phillip. (2004). The Invasion of the Physicists. *Social Networks* 26(3): 285-288.

Week 4 (February 7) – Tie Strength / Social Capital.

- Granovetter, Mark. (1973). The Strength of Weak Ties. *American Journal of Sociology* 78(6): 1360-1380.
- Burt, Ronald. (1993). The Social Structure of Competition. Pp. 65-103 in *Explorations in Economic Sociology*, edited by Richard Swedberg. New York: Sage.
- McPherson, M., Smith-Lovin, L., & Brashears, M. E. (2006). Social Isolation in America: Changes in Core Discussion Networks over Two decades. *American Sociological Review*, 71, 353-375.
- Lin, Nan. 2001. Building a Network Theory of Social Capital. Pp. 3-29 in *Social Capital: Theory and Research*, edited by Nan Lin, Karen Cook, and Ronald Burt. New York: Aldine De Gruyter.
- Burt, Ronald. 2001. Structural Holes versus Network Closure as Social Capital. Pp. 31-56 in *Social Capital: Theory and Research*, edited by Nan Lin, Karen Cook, and Ronald Burt. New York: Aldine De Gruyter.
- Erickson, Bonnie. (2001). Good Networks and Good Jobs: The Value of Social Capital to Employers and Employees. Pp. 127-158 in *Social Capital: Theory and Research*, edited by Nan Lin, Karen Cook, and Ronald Burt. New York: Aldine De Gruyter.
- Fernandez, Roberto, Emilio Castilla and Paul Moore. (2000). Social Capital at Work: Networks and Employment at a Phone Center. *American Journal of Sociology* 105(5): 1288-356.

Week 5 (February 14) – Community and Context

- Bott, Elizabeth. (1955). Urban Families: Conjugal Roles and Social Networks. *Human Relations* 8:345-83.
- Kalmijn, M. (2003). Shared friendship networks and the life course. *Social Networks*, 25, 231-249.
- Fischer, Claude. (1982). *To Dwell Among Friends*. Berkeley: University of California Press. [Ch. 1, 7-10]
- Wellman, Barry, and Scot Wortley. (1990). Different Strokes From Different Folks: Community Ties and Social Support. *American Journal of Sociology* 96(3):558-88.
- Wellman, Barry, and Kenneth Frank. (2001). Network Capital in a Multi-Level World: Getting Support from Personal Communities. Pp. 233-274 in *Social Capital: Theory and Research*, edited by Nan Lin, Karen Cook, and Ronald Burt. New York: Aldine De Gruyter.

- Espinoza, Vicente. (1999). Social Networks Among the Urban Poor: Inequalities and Integration in a Latin American City. Pp. 147-184 in *Networks in the Global Village*, edited by Barry Wellman. Boulder, CO: Westview Press.
- Sampson, Robert. (2006). Collective Efficacy Theory: Lessons Learned and Directions for Future Inquiry. Pp 149-168 in *Taking Stock: The Status of Criminological Theory*, edited by Francis T. Cullen, John Paul Wright, and Kristie R. Blevins.
- Entwisle, Barbara, Katherine Faust, Ronald R. Rindfuss, and Toshiko Kaneda (2007). Network and Contexts: Variation in the Structure of Social Ties. *American Journal of Sociology* 112(5): 1495-1533.

Week 6 (February 21) – Network Size and Homophily.

- Rogers, Everett, & Bhowmik Dilip (1970). Homophily-Heterophily: Relational Concepts for Communication Research. *Public Opinion Quarterly* 34(4): 523-38.
- McPherson, Miller, Lynn Smith-Lovin and James Cook. (2001). Birds of a Feather: Homophily in Social Networks. *Annual Review of Sociology* 27: 415-444.
- Erickson, Bonnie. (1997). The Relational Basis of Attitudes. Pp. 99-122 in *Social Structures: A Network Approach* edited by Barry Wellman and S. D. Berkowitz. Greenwich, CT: JAI Press.
- Suitor, Jill, Karl Pillemer, and Shirley Keeton. (1995). When Experience Counts: The Effects of Experiential and Structural Similarity on Patterns of Support and Interpersonal Stress. *Social Forces* 73(4): 1573-1588.
- Moody, James (2001). Race, School Integration, and Friendship Segregation in America. *American Journal of Sociology* 107(3): 679-716.
- Pearson, M., Steglich, C., & Snijders, T. (2006). Homophily and assimilation among sport-active adolescent substance users. *Connections*, 27(1), 47-63.
- Hill, R. A., & Dunbar, R. I. M. (2003). Social Network Size in Humans. *Human Nature*, 14(1), 53-72.
- Killworth, Peter, Eugene Johnsen, H Russell Bernard, Gene Ann Shelley, and Christopher McCarthy. 1990. Estimating the Size of Personal Networks. *Social Networks* 12: 289-312.
- McCarty, Christopher, Killworth, Peter, Bernard, Russell, Johnson, Eugene, and Shelley Gene (2001). Comparing Two Methods for Estimating Network Size. *Human Organization*.

Week 7 (February 28) – Popularity, Centrality and Prestige

- Wasserman, S., & Faust, K. (1994). Chapter 6: Centrality and prestige. In *Social Network Analysis: Methods and Applications*. Cambridge University Press.
- Freeman, Linton. (1979). Centrality in Social Networks: Conceptual Clarification. *Social Networks* 1: 215-39.
- Borgatti, Stephen. (2005). Centrality and Network Flow. *Social Networks* 27(1): 55-71.
- Krebs, V. (2002). Uncloaking Terrorist Networks. *First Monday*, 7(4).
- Valente, T., Unger, J., & Johnson, A. (2005). Do popular students smoke? The association between popularity and smoking among middle school students. *Journal of Adolescent Health*, 37, 323-329.

Week 8 (March 6) – Measurement

- Zwijze-Koning, K., & Jong, M. D. T. D. (2005). Auditing Information Structures in Organizations. *Organizational Research methods*, 8(4), 429-453.
- Marin, Alexandra & Keith Hampton (2007). Simplifying the Personal Network Name Generator: Alternatives to Traditional Multiple and Single Name Generators. *Field Methods* 19(2), 163-193.
- Lin, Nan, Yang-chih Fu, & Ray-May Hsung. (2001). The Position Generator: Measurement Techniques for Investigations of Social Capital. Pp. 57-84 in *Social Capital: Theory and Research*, edited by Nan Lin, Karen Cook, and Ronald Burt. New York: Aldine De Gruyter.
- van der Gaag, Martin & Tom .A.B. Snijders. (2005). The Resource Generator: Social Capital Quantification with Concrete Items. *Social Networks* 27(1): 1-29.

- Fu, Yang-chih (2007). Contact Diaries: Building Archives of Actual and Comprehensive Personal Networks. *Field Methods* 19(2), 194-217.
- McCarty, Christopher, Molina, Jose Luis, Aguilar, Claudia, & Rota, Laura (2007). A Comparison of Social Network Mapping and personal Network Visualization. *Field Methods* 19(2): 145-162.
- Berman, Peter & Parigi, Paolo (2004). Cloning Headless Frogs and Other Important Matters. *Social Forces* 83(2): 535-557.
- Huisman, Mark and Marijtje A.J. van Duijn. 2005. Software for Social Network Analysis. Pp. 270-316 in Peter Carrington, John Scott, and Stanley Wasserman (eds) *Models and Methods in Social Network Analysis*. New York: Cambridge University Press.

Week 9 (March 13) – Spring Break (NO CLASS!)

Week 10 (March 20) – Presentations.

Week 11 (March 27) – Computer Networks as Social Networks I.

- Kronholz, June (2003, February 13). After the Science Fair: Dear World, Please Stop Writing Me: A Girl's E-Mail Experiment Clogs In-Box for Weeks. *The Wall Street Journal*: A1.
- Wellman, Barry and Milena Gulia. 1999. Net-Surfers Don't Ride Alone: Virtual Communities as Communities. Pp. 331-366 in *Networks in the Global Village*, edited by Barry Wellman. Boulder, CO: Westview Press.
- Baym, N., Zhang, Y. B., & Lin, M.-C. (2004). Social Interactions Across Media: Interpersonal Communication on the Internet, Telephone and Face-to-Face. *New Media & Society*, 6(3), 299-318.
- Hampton, Keith & Barry Wellman (2003). Neighboring in Netville: How the Internet Supports Community and Social Capital in a Wired Suburb. *City and Community* 2(4), 277-311.
- Hampton, Keith (2007). Neighborhoods in the Network Society: The e-Neighbors Study. *Information, Communication & Society* 10(5). 714-748.
- Hampton, Keith (forthcoming). The Internet as a Local Media for Social and Political Engagement: i-neighbors.org. *Urban Studies*.
- Mesch, Gustavo, & Talmud, Ilan. (2007). Similarity and the Quality of Online and Offline Social Relationships Among Adolescents in Israel. *Journal of Research on Adolescence*, 17(2), 455-466.

Week 12 (April 3) – Computer Networks as Social Networks II.

- Marks, Paul (2006, June 9). Pentagon sets its sights on social networking websites. *New Scientist*. <http://www.newscientist.com/article/mg19025556.200>
- Ellison, N., Steinfield, C., & Lampe, C. (2007). The Benefits of Facebook 'Friends': Social Capital and College Students' Use of Online Social Network Sites. *Journal of Computer-Mediated Communication*, 12(4). <http://jcmc.indiana.edu/vol12/issue4/ellison.html>
- Miyata, Kakuko, Boase, Jeffrey., & Wellman, Barry (2008). The Social Effects of Keitai and Personal Computer E-mail in Japan. In *Handbook of Mobile Communication Studies*, edited by James Katz. Cambridge, MA: MIT Press.
- Hampton, Keith & Neeti Gupta (forthcoming). Community and Social Interaction in the Wireless City: Wi-Fi use in Public and Semi-Public Spaces, *New Media & Society* 10(4).
- Hampton, Keith, et al (forthcoming). WiFi and Public Space, a Poor Interface? An Empirical Study of Wireless Internet Use and Sociability.
- Wellman, Barry (2001). Physical Place and Cyber Place: The Rise of Personalized Networking. *International Journal of Urban and Regional Research* 25(2), 227-252.
- Vascellaro, Jessica (2007, January 16). Social Networking by Cellphone – More Companies Roll Out GPS services That Locate Your Friends – Or Your Kids. *The Wall Street Journal*, B1.

Week 13 (April 10) – Search, Diffusion, Contagion, Influence, Opinion and Adoption

- Rogers, Everett. (2003). Diffusion Networks. Pp. 300-364 in *Diffusion of Innovations*. New York: The Free Press.
- Coleman, James S., Elihu Katz, and H. Menzel. 1957. "The Diffusion of an Innovation Among Physicians." *Sociometry* 20: 253-270.
- Weimann, Gabriel. 1982. On the Importance of Marginality: One More Step into the Two-Step Flow of Communication. *American Sociological Review* 47(6): 764-773.
- Burt, Ronald. (1999). The Social Capital of Opinion Leaders. *Annals of the American Academy of Political and Social Science*, 566: 37-54.
- Krassa, M. A. (1988). Social Groups, Selective Perception, and Behavioral Contagion in Public Opinion. *Social Networks*, 10: 109-136.
- Markus, Lynne (1987). Toward a 'Critical Mass' Theory of Interactive Media: Universal Access, Interdependences and Diffusion. *Communication Research* 14(5): 491-511.
- DiMaggio, Paul & Cohen, Joseph (2005). Information Inequality and Network Externalities: A Comparative Study of the Diffusion of Television and the Internet. Pp 227-288 in *The Economic Sociology of Capitalism*, edited by Victor Nee and Richard Swedberg.
- Ivkovic, Zoran & Weisbenner, Scott (2007). Information Diffusion Effects in Individual Investors' Common Stock Purchases: Covet Thy Neighbors' Investment Choices. *The Review of Financial Studies* 20(4): 1327-1357.
- Metcalfe, Bob (2006, August 18). Guest Blogger Bob Metcalfe's Law Recurses Down the Long Tail of Social Networks. VCMike's Blog. Retrieved on January 1, 2007: <http://vc mike.wordpress.com/2006/08/18/metcalfe-social-networks/>

Week 14 (April 17) – Health

- Cohen, S., Brissette, I., Doyle, W. J., & Skoner, D. P. (2000). Social Integration and Health: The Case of the Common Cold. *Journal of Social Structure* 1(3).
- Dickens, C.M., L. McGowen, C. Percival, J. Douglas, B. Tomensen, L. Cotter, A Heagerty, and F.H. Creed. (2004). Lack of Close Confidant, but not Depression, Predicts Further Cardiac Events After Myocardial Infraction. *Heart* 90(5): 518-522.
- Bearman, P. S., Moody, J., & Stovel, K. (2004). Chains of Affection: The Structure of Adolescent Romantic and Sexual Networks. *American Journal of Sociology*, 110(1), 44-91.
- O'Brien MA, Oxman AD, Haynes RB, Davis DA, Freemantle N, Harvey EL. (1999). Local Opinion Leaders: Effects on Professional Practice and Health Care Outcomes. *Cochrane Database of Systematic Reviews*.
- Christakis, N.A. & Fowler, J.H. (2007). The Spread of Obesity in a Large Social Network over 32 Years. *The New England Journal of Medicine*, 357: 370-379.
- West, E., Barron., D.N., Dowsett, J., & Newton J.N. (1999). Hierarchies and Cliques in the Social Networks of Health Care Professionals: Implications for the Design of Dissemination Strategies. *Social Science and Medicine* 48: 633-646.

Week 15 (April 24) – Social Inequality

- Fernandez, Roberto and David Harris. (1992). Social Isolation and the Underclass. Pp. 257-293 in *Drugs, Crime, and Social Isolation*, edited by Adele Harrell and George Peterson: The Urban Institute.
- Marsden, Peter, and Jeanne Hurlbert. (1988). Social Resources and Mobility Outcomes. *Social Forces* 66:1038-1059.