



Soc 295
Social Networks: Theories & Applications
Spring 2017

Instructor	Chris Smith	Email	chmsmith@ucdavis.edu
Classroom	SS&H 1291	Office	SS&H 2245
Meeting Time	Wednesdays 9:00am – 11:50am	Office Hours	Thursdays 2:00pm – 4:30pm or by appointment
Course Website	https://canvas.ucdavis.edu/courses/119922		

Description

This seminar explores the historical foundations, theoretical traditions, and contemporary applications of social networks in sociology. Social network perspectives prioritize the interdependence among social actors, view the social world as patterns or regularities in relationships, and focus on how relationships affect networked actors' behavior and outcomes. Our seminar will read widely across substantive areas in sociology on families, organizations, neighborhoods, health, crime, peers, politics, social movements, and technology to develop a broader and deeper understanding of how network processes such as social capital, embeddedness, diffusion, homophily, and power impact the social world.

This is not a social network analysis methods course, and we will not spend time on the software, calculations, and mathematics behind social networks analysis. Rather I designed this course to provide theoretical motivation as to why you might consider incorporating qualitative or quantitative social network analysis or relational theories in your future research. This quarter I am offering a proseminar, Soc 298, that focuses exclusively on social network analysis tools and programming.

Requirements

	Percent of Final Grade
Canvas Discussion	10%
Class Discussion	10%
Lead Discussion	20%
Book Review	20%
Final Paper	40%

Canvas Discussion

Students prepare for class each week by completing the readings and posting discussion questions on Canvas. Canvas discussion should focus on questions that students want to discuss in class. Questions on Canvas are due by _____ before that week's class meeting to give that week's discussion leader time to prepare.

Class Discussion

Active involvement of all students in class discussion is required for this course. Because discussion is an integral part of this course, I expect that the classroom to be a safe place for frank, open, and respectful discourse where we can interrogate material and improve our understanding of the readings, concepts, and their complexities.

Lead Discussion

Each student will lead one class discussion during the quarter. Leading class discussion involves presenting a short (2-3 minute) orientation of the required readings for the week, raising specific questions and issues from the readings (informed by the Canvas discussion), and relating the material to previous readings and class discussions. The role of discussion leader is not to lecture on the material but to facilitate a thoughtful and active discussion of the required materials that will lead to a clearer understanding of the readings or a clearer understanding of the complexity of the readings. The discussion leader needs to take a strong role to ensure that the discussion covers the material, that there is equity and continuity in the discussion, and that the discussion is well paced for our meeting time. Be creative in thinking about how to sustain discussion and involve all class members in discussion. This can include pedagogical techniques like free-writing and small group work.

Students will sign up for leading discussion during our second class meeting. Ideally, students will lead discussion on the topic most relevant to their course final paper requirement. If discussion leaders select from the potential topic list, they need to meet with me during office hours or by appointment at least two weeks in advance to finalize the required reading list for that class meeting.

I encourage all students to prepare a formal lesson plan for leading class discussion, but this is a requirement for first year student portfolios. Formal lesson plans will be submitted through Canvas before the class meeting. Please schedule a meeting with me if you need help crafting a lesson plan.

Lead Discussion Rubric	Excellent	Competent	Not Yet Competent	Poor
Structure: provides 5 major and meaningful discussion questions	4	3	2	1
Preparedness: responds constructively to class members, able to clarify readings, and integrates readings into discussion	4	3	2	1
Integration: places readings in context of previous weeks, makes connections to other readings and concepts	4	3	2	1
Organization: runs class session effectively with transitions, summaries, and good pacing	4	3	2	1
Equity: maintains an equitable and respectful discussion for all class members	4	3	2	1
Lesson Plan: required for first year cohort	✓		0	

Book Review

Students will write one formal book review on either the Small (2009) book or the Erikson (2014) book. In these 750-1,000 word papers, students will discuss and critically evaluate the book. The goal of the book review is for students to develop familiarity and competence in this form of writing that is often requested of academics. Book reviews are due either May 2/May 3 for Small (2009) or May 16/May 17 for Erikson (2014) by _____.

Book reviews include one or two paragraphs summarizing the author's main argument, one or two paragraphs placing this material within the larger context of the field (or in this case in the context of the course readings), and two or more paragraphs critically evaluating the arguments the author makes. You should evaluate the material in terms of the author's ability to present persuasive empirical research and sound theoretical arguments. In my evaluation of these reviews, I will consider writing style and organization, whether you convey an understanding of the material you review, and whether your argument and critique of the material are systematic and convincing.

Both books have been reviewed at length. After writing the review, then students need to read at least one published review on the same book (e.g., *American Journal of Sociology*, *Contemporary Sociology*, or another publication). Before submitting your book review, add a page at the end of your review with a paragraph reflecting on how your review differs or is similar to the published review. Include a formal ASA reference for the review that you use. The goal of this last paragraph is for students to reflect on their own evaluation of a book compared to published evaluations.

Book Review Rubric	Excellent	Competent	Not Yet Competent	Poor
Summarizes book effectively	4	3	2	1
Places book context of the field	4	3	2	1
Critiques book effectively and systematically	4	3	2	1
Strong writing and well organized	4	3	2	1
Includes comparison paragraph to published review and its citation	4	3	2	1

Final Paper

Students will write a course paper that examines or applies some aspect of social networks, relational sociology, or networked theories in the substantive area that interests you. The paper can take a variety of forms: an in-depth review of a certain theoretical or substantive tradition in social networks, a research proposal, a replication study, or a piece of original research. The goal of the final paper is for students to make progress toward their MA/PhD requirements with a (new) integration of social network perspectives or research. Students need to meet at least once with Chris before mid-quarter (May 10) to discuss appropriate page length and required sources for their particular project, but, in general, papers will draw on at least 10 sociological sources, and should be around 15-20 pages in length. The final paper is due on Canvas the Monday of finals week, June 12.

Final Paper Rubric	Excellent	Competent	Not Yet Competent	Poor
Introduction/Conclusion Identifies what you researched, and why it matters; clear statement of the major research question Summarizes major findings, and makes clear the implications of the research	5	4	2	1
Literature Effectively places research question in a larger context of literature on the topic	5	4	2	1
Methods/Evidence Explains why this method is appropriate for research question (for proposals or empirical papers); evidence is specific, rich, varied, and unambiguously supports claims	5	4	2	1
Sources Quotations or citations are used to illustrate or support your points; author's words are used in correct context; direct quotations include the page number of the original; uses at least 10 scholarly sources as context for paper's argument	5	4	2	1
Argument Central argument is clear, interesting, and demonstrable; arguments reflect a robust and nuanced understanding of key course ideas	5	4	2	1
Structure Ideas are presented in a logical and coherent manner throughout the paper with strong topic sentences to guide the reader; the reader can effortlessly follow the structure of your argument	5	4	2	1
Effective Writing Sentences are concise and well-crafted; vocabulary is precise; reader can effortlessly discern your meaning	5	4	2	1
Mechanics There are no distracting spelling, punctuation, or grammatical errors	5	4	2	1

End of First Year Portfolios

First-year students will be expected to include their lesson plan for leading discussion, book review, and final paper in their end-of-year portfolio.

Grading

As indicated in the UCD Catalogue, the following grades and their corresponding adjectives evaluate the quality of students' work: A=excellent, B=good, C=fair, D=poor, F=failure. Final letter grades will be calculated using the following distribution:

A+ 100 - 96.7%	A 96.6 - 93.4%	A- 93.3 - 90%
B+ 89.9 - 86.7%	B 86.6 - 83.4%	B- 83.3 - 80%
C+ 79.9 - 76.7%	C 76.6 - 73.4%	C- 73.3 - 70%
D+ 69.9 - 66.7%	D 66.6 - 63.4%	D- 63.3 - 60%
	F 59.9% and below	

Readings

The following books are required for this class. Electronic versions are acceptable.

Erikson, Emily. 2014. *Between Monopoly and Free Trade: The English East India Company, 1600-1757*. Princeton, NJ: Princeton University Press.

Kadushin, Charles. 2012. *Understanding Social Networks: Theories, Concepts, and Findings*. New York: Oxford University Press.

Small, Mario Luis. 2009. *Unanticipated Gains: Origins of Network Inequality in Everyday Life*. New York: Oxford University Press.

The following book is recommended for purchase. Depending on the topic and reading selection of your classmates, we might need more of this book than is reasonable to scan.

Christakis, Nicholas A., and James H. Fowler. 2009. *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives*. New York: Little, Brown and Company.

Students planning on pursuing social network methods outside of this course will need to invest eventually in the SNA methodological bible:

Wasserman, Stanley, and Katherine Faust. 1994. *Social Network Analysis: Methods and Applications*. New York: Cambridge University Press.

All other readings will either be available as pdfs on Canvas or links to articles accessible through the Shield Library VPN. A list of recommended readings accompanies certain units in the course calendar. I designed this list to help students locate additional seminal readings that might be useful for final papers.

Course Calendar

Week 1: April 5
Introduction

Recommended Reading:

Borgatti, Stephen P., Ajay Mehra, Daniel J. Brass, and Giuseppe Lubianca. 2009. "Network Analysis in the Social Sciences." *Science* 323(5916):892-5.

Christakis, Nicholas A., and James H. Fowler. 2009. *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives*. New York: Little, Brown and Company.

Wellman, Barry. 1983. "Network Analysis: Some Basic Principles." *Sociological Theory* 1:155-200.

Week 2: April 12
Theoretical Foundations of Social Networks and Relational Sociology

Required Reading:

Emirbayer, Mustafa. 1997. "Manifesto for a Relational Sociology." *American Journal of Sociology* 103(2):281-317.

Kadushin, Charles. 2012. *Understanding Social Networks: Theories, Concepts, and Findings*. New York: Oxford University Press. [Chapters 1-6.]

Simmel, Georg. 1950. *The Sociology of Georg Simmel*. Translated by K. H. Wolff. New York: The Free Press. [Part II Chapter 4: The Triad.]

Recommended Reading:

Bearman, Peter. 1997. "Generalized Exchange." *American Journal of Sociology* 102(5): 1383-415.

Davis, James A. 1963. "Structural Balance, Mechanical Solidarity, and Interpersonal Relations." *American Journal of Sociology* 68(4):444-62.

Erikson, Emily. 2013. "Formalist and Relationalist Theory in Social Network Analysis." *Sociological Theory* 31(3):219-42.

Mayhew, Bruce H. 1980. "Structuralism Versus Individualism: Part I, Shadowboxing in the Dark." *Social Forces* 59(2):335-75.

Week 3: April 19
Early Social Networks Applications

Required Reading:

Bott, Elizabeth. 1957. *Family and Social Network: Roles, Norms, and External Relationships in Ordinary Urban Families*. London: Tavistock Publications Limited. [Chapter 3: Conjugal Roles and Social Networks.]

Kadushin, Charles. 2012. *Understanding Social Networks: Theories, Concepts, and Findings*. New York: Oxford University Press. [Chapter 11: Ethical Dilemmas of Social Network Research.]

Lee, Nancy Howell. 1969. *The Search for an Abortinist*. Chicago, IL: The University of Chicago Press. [Chapter 1: The Social Structure of Abortion in America and Chapter 5: The Search for an Abortinist.]

Moreno, Jacob L. [1934] 1953. *Who Shall Survive?: Foundations of Sociometry, Group Psychotherapy and Sociodrama*. Beacon, NY: Beacon House Inc. [Select pages.]

Travers, Jeffrey, and Stanley Milgram. 1969. "An Experimental Study of the Small World Problem." *Sociometry* 32(4):425-43.

Week 4: April 26
Social Capital, Part 1

Required Reading:

Burt, Ronald S. 2005. *Brokerage and Closure: An Introduction to Social Capital*. New York: Oxford University Press. [Chapter 1: The Social Capital of Structural Holes.]

Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94:S95-S120.

Kadushin, Charles. 2012. *Understanding Social Networks: Theories, Concepts, and Findings*. New York: Oxford University Press. [Chapter 10: Networks as Social Capital.]

Lin, Nan. 2001. *Social Capital: A Theory of Social Structure & Action*. New York: Cambridge University Press. [Chapter 1: Theories of Capital: The Historical Foundation and Chapter 2: Social Capital: Capital Captured through Social Relations.]

Recommended Reading:

Burt, Ronald S. 2004. "Structural Holes and Good Ideas." *American Journal of Sociology* 110(2):349-99.

DiMaggio, Paul, and Filiz Garip. 2012. "Network Effects and Social Inequality." *Annual Review of Sociology* 38:93-118.

Lutter, Mark. 2015. "Do Women Suffer from Network Closure? The Moderating Effect of Social Capital on Gender Inequality in a Project-Based Labor Market, 1929 to 2010." *American Sociological Review* 80(2):329-58.

McDonald, Steve. 2011. "What's in the 'Old Boys' Network? Accessing Social Capital in Gendered and Racialized Networks." *Social Networks* 33(4):317-30.

Mouw, Ted. 2006. "Estimating the Causal Effect of Social Capital: A Review of Recent Research." *Annual Review of Sociology* 32:79-102.

Week 5: May 3
Social Capital, Part 2

Required Reading:

Small, Mario Luis. 2009. *Unanticipated Gains: Origins of Network Inequality in Everyday Life*. New York: Oxford University Press.

Due: Book Review (option 1)

Week 6: May 10
Economic Sociology

Required Reading:

Burt, Ronald S. 1998. "The Gender of Social Capital." *Rationality and Society* 10(1):5-46.

**Granovetter, Mark S. 1973. "The Strength of Weak Ties." *American Journal of Sociology* 78(6):1360-80.

Kadushin, Charles. 2012. *Understanding Social Networks: Theories, Concepts, and Findings*. New York: Oxford University Press. [Chapter 7: Organizations and Networks.]

Uzzi, Brian. 1999. "Embeddedness in the Making of Financial Capital: How Social Relations and Networks Benefit Firms Seeking Financing." *American Sociological Review* 64(4):481-505.

Due: Office hour meeting with Chris about final paper

Recommended Reading:

Granovetter, Mark S. 1985. "Economic Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology* 91(3):481-510.

Ibarra, Herminia. 1995. "Race, Opportunity, and Diversity of Social Circles in Managerial Networks." *Academy of Management Journal* 38(3):673-703.

Mizruchi, Mark S., and Linda Brewster Stearns. 1988. "A Longitudinal Study of the Formation of Interlocking Directorates." *Administrative Science Quarterly* 33(2):194-210.

Powell, Walter. 1990. "Neither Market nor Hierarchy: Network Forms of Organization." *Research in Organizational Behavior* 12:295-336.

Tomaskovic-Devey, Donald. 2014. "The Relational Generation of Workplace Inequalities." *Social Currents* 1(1):51-73.

Week 7: May 17
Historical Comparative

Required Reading:

Erikson, Emily. 2014. *Between Monopoly and Free Trade: The English East India Company, 1600-1757*. Princeton, NJ: Princeton University Press.

Due: Book Review (option 2)

Week 8: May 24 Discussion leader's choice from topics below
Required Reading: TBA
Week 9: May 31 Discussion leader's choice from topics below
Required Reading: TBA
Week 10: June 7 Discussion leader's choice from topics below
Required Reading: TBA
Finals Week: June 12
Due: Final papers

Potential Topics

Below is a list of some of the various topics to which social networks have been applied. I have identified some of the key readings for each topic. Students who select a topic from this list will need to meet with Chris to select the reading list for class. Students should also use this list as a resource for their final papers.

Adolescent Peer Networks

Bearman, Peter S., James Moody, and Katherine Stovel. 2004. "Chains of Affection: The Structure of Adolescent Romantic and Sexual Networks." *American Journal of Sociology* 110(1):44-91.

Faris, Robert, and Diane Felmlee. 2014. "Casualties of Social Combat: School Networks of Peer Victimization and Their Consequences." *American Sociological Review* 79(2):228-57.

Goodreau, Steven M., James A. Kitts, and Martina Morris. 2009. "Birds of a Feather, or Friend of a Friend? Using Exponential Random Graph Models to Investigate Adolescent Social Networks." *Demography* 46(1):103-25.

Haynie, Dana L. 2001. "Delinquent Peers Revisited: Does Network Structure Matter?". *American Journal of Sociology* 106(4):1013-57.

McCarthy, Bill, Diane Felmlee, and John Hagan. 2004. "Girl Friends Are Better: Gender, Friends, and Crime among School and Street Youth." *Criminology* 42(4):805-36.

McFarland, Daniel A., James Moody, David Diehl, Jeffrey A. Smith, and Reuben J. Thomas. 2014. "Network Ecology and Adolescent Social Structure." *American Sociological Review* 79(6):1088-121.

Young, Jacob T. N., Cesar J. Rebellon, J. C. Barnes, and Frank M. Weerman. 2014. "Unpacking the Black Box of Peer Similarity in Deviance: Understanding the Mechanisms Linking Personal Behavior, Peer Behavior, and Perceptions." *Criminology* 52(1):60-86.

Crime, Law, Deviance

Baker, Wayne E., and Robert R. Faulkner. 1993. "The Social Organization of Conspiracy: Illegal Networks in the Heavy Electrical Equipment Industry." *American Sociological Review* 58(6):837-860.

Green, Ben, Thibaut Horel, and Andrew V. Papachristos. Forthcoming. "Modeling Contagion through Social Networks to Explain and Predict Gunshot Violence in Chicago, 2006 to 2014." *Journal of American Medical Association Internal Medicine*.

Morselli, Carlo, ed. 2014. *Crime and Networks*. New York: Routledge.

Obert, Jonathan. 2014. "The Six-Shooter Marketplace: 19th-Century Gunfighting as Violence Expertise." *Studies in American Political Development* 28:49-79.

Papachristos, Andrew V. 2009. "Murder by Structure: Dominance Relations and the Social Structure of Gang Homicide." *American Journal of Sociology* 115(1):74-128.

Pedahzur, Ami, and Arie Perliger. 2006. "The Changing Nature of Suicide Attacks: A Social Network Perspective." *Social Forces* 84(4):1987-2008.

Schaefer, David R. 2012. "Youth Co-Offending Networks: An Investigation of Social and Spatial Effects." *Social Networks* 34(1):141-9.

Schaefer, David R., Martin Bouchard, Jacob T. N. Young, and Derek A. Kreager. Forthcoming. "Friends in Locked Places: An Investigation of Prison Inmate Network Structure." *Social Networks*.

Smith, Chris M., and Andrew V. Papachristos. 2016. "Trust Thy Crooked Neighbor: Multiplexity in Chicago Organized Crime Networks." *American Sociological Review* 81(4):644-67.

Culture

Emirbayer, Mustafa, and Jeff Goodwin. 1994. "Network Analysis, Culture, and the Problem of Agency." *American Journal of Sociology* 99(6):1411-54.

Faulkner, Robert R., and Andy B. Anderson. 1987. "Short-Term Projects and Emergent Careers: Evidence from Hollywood." *American Journal of Sociology* 92(4):879-909.

Pachucki, Mark A., and Ronald L. Breiger. 2010. "Cultural Holes: Beyond Relationality in Social Networks and Culture." *Annual Review of Sociology* 36:205-24.

Health

adams, jimi, James Moody, and Martina Morris. 2013. "Sex, Drugs, and Race: How Behaviors Differentially Contribute to the Sexually Transmitted Infection Risk Network Structure." *American Journal of Public Health* 103(2):322-9.

Christakis, Nicholas A., and James H. Fowler. 2007. "The Spread of Obesity in a Large Social Network over 32 Years." *New England Journal of Medicine* 357(4):370-79.

Christakis, Nicholas A., and James H. Fowler. 2009. *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives*. New York: Little, Brown and Company.

Coleman, James, Elihu Katz, and Herbert Menzel. 1957. "The Diffusion of an Innovation among Physicians." *Sociometry* 20(4):253-70.

Kadushin, Charles. 2012. *Understanding Social Networks: Theories, Concepts, and Findings*. New York: Oxford University Press. [Chapter 9: Networks, Influence, and Diffusion]

Historical Comparative, Part 2**

Bearman, Peter, Robert Faris, and James Moody. 1999. "Blocking the Future: New Solutions for Old Problems in Historical Social Science." *Social Science History* 23(4):501-33.

Bearman, Peter S., and Katherine Stovel. 2000. "Becoming a Nazi: A Model for Narrative Networks." *Poetics* 27:69-90.

Gould, Roger V. 1991. "Multiple Networks and Mobilization in the Paris Commune, 1871." *American Sociological Review* 56(6):716-29.

Gould, Roger V. 1996. "Patron-Client Ties, State Centralization, and the Whiskey Rebellion." *American Journal of Sociology* 102(2):400-29.

Hillmann, Henning. 2008. "Mediation in Multiple Networks: Elite Mobilization before the English Civil War." *American Sociological Review* 73(3):426-54.

**Padgett, John F., and Christopher K. Ansell. 1993. "Robust Action and the Rise of the Medici, 1400-1434." *American Journal of Sociology* 98(6):1259-319.

Global Networks

Garip, Filiz. 2008. "Social Capital and Migration: How Do Similar Resources Lead to Divergent Outcomes?" *Demography* 45(3):591-617.

Meagher, Kate. 2005. "Social Capital or Analytical Liability? Social Networks and African Informal Economies." *Global Networks* 5(3):217-38.

Neighborhoods & Communities

Desmond, Matthew. 2012. "Disposable Ties and the Urban Poor." *American Journal of Sociology* 117(5):1295-335.

Mouw, Ted, and Barbara Entwisle. 2006. "Residential Segregation and Interracial Friendship in Schools." *American Journal of Sociology* 112(2):394-441.

Sampson, Robert J. 2012. *Great American City: Chicago and the Enduring Neighborhood Effect*. Chicago, IL: Chicago University Press. [Select chapters.]

Personal Networks**

Bearman, Peter, and Paolo Parigi. 2004. "Cloning Headless Frogs and Other Important Matters: Conversation Topics and Network Structure." *Social Forces* 83(2):535-57.

Fischer, Claude S. 2009. "Comment: The 2004 GSS Finding of Shrunken Social Networks: An Artifact?" *American Sociological Review* 74(4):657-69.

Kadushin, Charles. 2012. *Understanding Social Networks: Theories, Concepts, and Findings*. New York: Oxford University Press. [Chapter 8: The Small World, Circles, and Communities.]

Marsden, Peter V. 1987. "Core Discussion Networks of Americans." *American Sociological Review* 52(1):122-31.

McPherson, Miller, Lynn Smith-Lovin, and Matthew E. Brashears. 2006. "Social Isolation in America: Changes in Core Discussion Networks over Two Decades." *American Sociological Review* 71(3):353-75.

McPherson, Miller, Lynn Smith-Lovin, and Matthew E. Brashears. 2009. "Reply: Models and Marginals: Using Survey Evidence to Study Social Networks." *American Sociological Review* 74(4): 670-81.

**McPherson, Miller, Lynn Smith-Lovin, and James M. Cook. 2001. "Birds of a Feather: Homophily in Social Networks." *Annual Review of Sociology* 27(1):415-44.

Moore, Gwen. 1990. "Structural Determinants of Men's and Women's Personal Networks." *American Sociological Review* 55(5):726-35.

Paik, Anthony, and Kenneth Sanchagrin. 2013. "Social Isolation in America: An Artifact." *American Sociological Review* 78(3):339-60.

Putnam, Robert D. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster Paperbacks.

Wellman, Barry. 1979. "The Community Question: The Intimate Networks of East Yorkers." *American Journal of Sociology* 84(5):1201-31.

Politics and Social Movements

Kitts, James A. 2000. "Mobilizing in Black Boxes: Social Networks and Participation in Social Movement Organizations." *Mobilization* 5(2):241–57.

Seabrooke, Leonard, and Kevin L. Young. Forthcoming. "The Networks and Niches of International Political Economy." *Review of International Political Economy*.

Strang, David, and Sarah A. Soule. 1998. "Diffusion in Organizations and Social Movements: From Hybrid Corn to Poison Pills." *Annual Review of Sociology* 24:265-90.

Wang, Dan J., and Sarah A. Soule. 2012. "Social Movement Organizational Collaboration: Networks of Learning and the Diffusion of Protest Tactics, 1960–1995." *American Journal of Sociology* 117(6):1674-722.

Technology

Centola, Damon. 2010. "The Spread of Behavior in an Online Social Network Experiment." *Science* 329(5996):1194-7.

Shen, Cuihua, Peter Monge, and Dmitri Williams. 2014. "Virtual Brokerage and Closure: Network Structure and Social Capital in a Massively Multiplayer Online Game." *Communication Research* 41(4):459-80.

Tremayne, M. 2014. "Anatomy of Protest in the Digital Era: A Network Analysis of Twitter and Occupy Wall Street." *Social Movement Studies* 13(1):110-126.

Wellman, Barry, Anabel Quan Haase, James Witte, and Keith Hampton. 2001. "Does the Internet Increase, Decrease, or Supplement Social Capital? Social Networks, Participation, and Community Commitment." *American Behavioral Scientist* 45(3):436-55.

Wimmer, Andreas, and Kevin Lewis. 2010. "Beyond and Below Racial Homophily: ERG Models of a Friendship Network Documented on Facebook." *American Journal of Sociology* 116(2):583-642.