

**MI 891 SOCIAL NETWORK ANALYSIS**  
**Michigan State University**

**Fall 2020**

**Mon 12:40-3:30pm (Zoom: 924 1293 3508)**

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Office hours: Fridays 10:00-11:00am and by appointment through Zoom: 924 1293 3508

All course correspondence, including posted grades, announcements, additional readings, etc. will be posted on the D2L website for this course: <https://d2l.msu.edu/>

**DESCRIPTION**

Social networks is the description of a diverse body of theory and empirical study based upon the premise that *relationships*, in contrast to *individual attributes*, are useful for understanding social structure and social behavior. Sometimes referred to as the “personal influence” approach in the study of communication. Network analysts’ study how the patterns of social interactions channel information, constrain behavior, allocate resources, and shape social change. In contrast to traditional communication scholarship, that often suggests powerful direct effects of the mass media, the personal influence approach focuses on how much information flows through personal connections. As communication research increasingly focuses on the study of *social media*, this interdisciplinary approach offers an alternative perspective in the study of media audiences, and the relationship between the individual and society. Topics include health, inequality, friendship, community, social support, political participation, and collective action.

This course is a non-mathematical introduction to social network analysis focused on the ego-centric approach to networks. It is an uneven survey of fundamental concepts and topics related to the theory and measurement of networks that might appeal to information, communication and media scholars. We will consider how using a network perspective can help to conceptualize and clarify many different types of important questions and offer new ways of answering those questions. Particular attention is given to the role of media and new technologies in the maintenance and formation of social networks.

**PREREQUISITS**

none

**INSTRUCTIONAL OBJECTIVES**

At the end of the course students will be able to critically review the theory, methodology, and findings of a research study that uses social network analysis; describe the history of studies on social networks; and determine and apply appropriate network theory and methodologies to a research question in their area of study.

**CLASS MEETING FORMAT**

This course is being offered in a synchronous online only format.

**ASSESSMENT**

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.

Final grades will be based on 10 blog postings that summarize the weekly course readings (20%), 10 comments on other students' blog posts that critique the week's readings (20%), class participation (10%), a final presentation (10%), and a final project (40%). Students are urged to pay close attention to due dates, late assignments will not be graded.

Final grades will be assigned according to the following scale:

4.0	93-100%
3.5	87-92%
3.0	80-86%
2.5	77-79%
2.0	70-76%
1.5	67-69%
1.0	60-66%
0.0	below 60%

### **Grading of Assignments and Presentations**

A grade equivalent to a 4.0 will be awarded to an assignment that both fills the terms of the assignment and shows evidence of out-of-the-ordinary, creative, analytical, and interesting thought. A 3.0 will be awarded if the terms of the assignment have been fulfilled thoroughly and thoughtfully, with some evidence of originality and creativity. Assignments that merely fulfill the terms of the assignment will receive a 2.0. Assignments that fail to fulfill the terms of the assignment will receive a grade equivalent to a 1.0. An assignment that does not approximate the terms of the assignment will receive a 0.0. All grades are final. Please do not ask to have your grade changed for reasons other than mathematical error. A grade of "incomplete" will not be assigned except in the most unusual, extreme (and generally emergency) circumstances.

### **Participation and Attendance**

Class meetings will be in a seminar format, there will be a limited amount of lecturing, instead students and instructor will explore key concepts through a guided dialogue. Students are expected to have read all of the week's readings in advance of the course meeting. Participation grades will be based on demonstrated familiarity and critical reflection on the readings, involvement in classroom activities and exercises, and engagement in discussions. The participation grade is assessed above and beyond your attendance, just showing up for class will not earn you any participation points. You can expect that the instructor will call on students at random to provide a summary of specific readings and to provide a basic comparison to prior course content.

Use of mobile phones and computing devices in class, for purposes unrelated to note taking and direct class participation, will adversely affect your participation grade.

Students are expected to attend all classes. Missing more than two classes may result in an automatic zero for the class participation grade. Student-athletes are excused from class when competing in official events or games. Students with a verified illness or who experience the loss of a loved one and receive an approved grief absence request are excused from class (the grief absence request form is available at <https://reg.msu.edu/StuForms/StuInfo/GriefAbsenceForm.aspx>).

Students who remotely participate in class meetings must do so through the provided course system (currently Zoom). In an effort to promote engagement, students are generally required to appear on webcam for the duration of the class meeting. To ensure that all students feel free to share their thoughts and opinions, students should make every attempt to join the class from a space that is free of other people (e.g., friends, roommates, coworkers). To minimize activities that can be distracting to others, students are expected to maintain behaviors consistent with a classroom setting. For example, students should not engage in activities such as jogging, eating, etc. Similarly, unless a student is sick, or has an approved accommodation from the Resource Center for Persons with Disabilities, they should not join the class while lying in bed. Students joining remotely are expected to participate fully and

should “raise hand” or use a similar means to indicate that they have a question or comment. Students who anticipate that their situation will make it difficult to one or more of these guidelines should communicate in advance with the instructor to reach a reasonable accommodation.

Students are responsible for getting course notes from their classmates, the instructor will not provide you with notes or slides. Students are never granted permission to make audio or video recordings of the class. Commercialization of lecture notes and university-provided course materials is not permitted in this course.

### **Blog Posts**

Each week students from the class will be assigned a subset of the weekly readings (typically 1-2 papers) that they will summarize in a blog post of 600-800 words (students are still responsible for reading all the weekly material). Blog posts are intended to be less formal than a class paper (but must follow traditional guidelines for academic integrity). For blog posts, students should take the role of “author advocates,” summarizing major points, and if appropriate, compare or contrast with prior course readings. Each commentary must be submitted as a post to the student’s blog by 12:00pm the day of the class meeting. Students are welcome to make additional posts on their blog on class related subjects.

### **Blog Comments**

Each student is responsible for contributing 10 comments on fellow students’ blogs. For comments, students will be “devil’s advocates,” serving as critics of the author(s)’ work that was summarized in the blog post. Comments should be a minimum of 350 words, there should be no summary, and should instead focus on criticism, critique, strengths, and limitations. Comments can be narrowly focused on methodological concerns, broadly focused on theoretical issues, or some combination thereof (but should avoid mention of trivial methodological issues and those that cannot be easily avoided, e.g., a sample can always be bigger). Credit will be given for a maximum of one comment per week. Students should not comment on the same blog each week. Comments must be posted by 12:00pm the day after a reading is discussed in class.

The instructor will occasionally send you feedback on your blog post/comments to let you know how you are doing, but do not expect feedback on all of your posts. Blogs are intended to be a peer driven and a peer evaluated exercise. To receive credit for blog posts/comments, before the final project deadline students must submit a log with permalinks to all posts/comments using the online form provided by the instructor.

### **Final Project (Due: Dec 14)**

The final project can take on one of a number of different forms to be negotiated individually with the instructor. The final project must deal with course themes focused on a topic of interest to the student. Most students’ final projects consist of a review of the existing social network literature in a relatively narrow topical area of interest (e.g., criminal networks, environmental networks, depression and networks, etc.), followed by identifying a single related research question of substantive academic or societal importance that needs to be address through new research, and briefly describing the research method and procedure you would follow to answer that research question (14-20 double spaced pages not including references, tables, etc.). Other possibilities for the final paper/project include a full research proposal, software or a website, or a paper of near publishable quality based on the analysis of existing data or data collected as part of an original research project.

### **Final Presentation (Due: final two weeks of class)**

In the final weeks of the course, time will be set aside near the end of the class for students to make a short (15-20min) presentation of their final project. The in-class presentation is as an opportunity for students to receive immediate feedback from the instructor and classmates on their final projects. The presentation should use PowerPoint (or something similar) and follow the format of a formal conference

presentation. A copy of your presentation must be given to the instructor at the time of your presentation.

### **Late Assignments**

The only acceptable excuses to submit a late assignment are: a) an illness that can be substantiated by a note from a medical professional, b) the death of a friend or family member accompanied by an approved grief absence request (the grief absence request form is available at <https://reg.msu.edu/StuForms/StuInfo/GriefAbsenceForm.aspx>), c) an accommodation related to a disability, d) a holiday related to your religion, e) student-athletes competing in official events or games. Makeup assignments may differ from the original format as well as content. Students should pay close attention to due dates, late assignments will not be graded.

### **Disability Inclusion**

Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at (517) 884-RCPD or at [rcpd.msu.edu](http://rcpd.msu.edu). Once your eligibility for an accommodation has been determined, you will be issued a verified individual services accommodation (“VISA”) form. Present this form to the instructor within two weeks of the start of the semester and again two weeks prior to the accommodation date (test, project, etc.). Requests received after this date will be honored whenever possible.

### **Policy on Religious Observance**

It is the policy of Michigan State University to permit students to observe holidays set aside by their chosen religious faith. If you plan on being absent from class on your religious holiday, notify the instructor within two weeks of the start of the semester and again two weeks prior to the date. Requests received after this date will be honored whenever possible.

### **Student Athletes**

If you plan on being absent from class, student-athletes must bring a team schedule to the instructor within two weeks of the start of the semester to verify the excused absences. Notify the instructor again two weeks prior to the date. Requests received after this date will be honored whenever possible.

### **Academic Integrity**

The consequences of scholastic dishonesty are very serious. Evidence of plagiarism, cheating, fabrication, facilitation, dishonesty, academic sabotage, criminal activity, or other violations of research or professional ethics will be dealt with severely – at a minimum students will receive a grade of “F” in the course. Students are expected to fulfil the spirit of the Spartan Code of Honor. “As a Spartan, I will strive to uphold values of the highest ethical standard. I will practice honesty in my work, foster honesty in my peers, and take pride in knowing that honor is worth more than grades. I will carry these values beyond my time as a student at Michigan State University, continuing the endeavor to build personal integrity in all that I do.” Student conduct that is inconsistent with the academic pledge will be addressed through existing policies, regulations, and ordinances governing academic honesty and integrity. MSU Policies regarding academic honesty and integrity can be found at <https://msu.edu/unit/ombud/academic-integrity/>.

Consistent with MSU’s efforts to enhance student learning, foster honesty, and maintain integrity in our academic processes, MSU now provides instructors with a number of tools that compare a student’s work with multiple sources. These tools compare each student’s work with an extensive database of prior publications and papers, providing links to possible matches and a “similarity score.” The tool does not determine whether plagiarism has occurred or not. Instead, the instructor must make a complete assessment and judge the originality of the student’s work. All submissions to this course may be checked using these tools.

## **COMMUNICATING WITH THE INSTRUCTOR**

The instructor is here to help, please ask questions, share your ideas, and visit often during office hours. However, keep in mind that when seeking advisement and support, email is no substitute for a synchronous meeting. Students seeking help with the content of this course should consult with the instructor at the start of class, during office hours, or by requesting a separate appointment. Plan ahead and consult in advance of any due dates. The instructor may take up to 24 hours to respond to email requests and many not respond over weekends or holidays. Do not expect a detailed response by email to requests for advice or review of materials (some things are still best done live!).

### **Limits to confidentiality**

Essays, journals, and other materials submitted for this class are generally considered confidential pursuant to the University's student record policies. However, students should be aware that University employees, including instructors, may not be able to maintain confidentiality when it conflicts with their responsibility to report certain issues to protect the health and safety of MSU community members and others. The instructor must report the following information to other University offices (including the Department of Police and Public Safety) if you share:

- Suspected child abuse/neglect, even if this maltreatment happened when you were a child;
- Allegations of sexual assault, relationship violence, stalking, or sexual harassment; and
- Credible threats of harm to oneself or to others.

These reports may trigger contact from a campus official who will want to talk with you about the incident that you have shared. In almost all cases, it will be your decision whether you wish to speak with that individual. If you would like to talk about these events in a more confidential setting, you are encouraged to make an appointment with the MSU Counseling and Psychiatric Services.

## **REQUIRED COURSE MATERIALS**

All readings, files, and grades will be available from the course website (in the form of a PDF or a link to content): <https://d2l.msu.edu/>

Students are required to have access to a computer to complete course assignments, as well as a webcam to attend the class remotely.

## **COURSE SCHEDULE**

This portion of the syllabus is subject to change as the course evolves. The instructor may add or remove material based on the interests and pace of the class. At times, the instructor will distribute new and timely material that appears in the news or has been recently published. It is your responsibility to learn of any changes by regularly attending class, visiting the course website, and reading your email.

### **Week 1 (September 2) – Introduction and Organization**

### **Week 2 (September 7) University Holiday - NO CLASS**

### **Week 3 (September 14) – What is Social Network Analysis?**

Borgatti, S. P., Mehra, A., Brass, D. J., & Labianca, G. (2009). Network Analysis in the Social Sciences. *Science*, 323(5916), 892-895

Marin, Alexandra, and Barry Wellman (2010). Social Network Analysis: An Introduction. Pp. 11-25 in *Handbook of Social Network Analysis*, edited by Peter Carrington and John Scott: Sage.

Munge, Peter and Noshir Contractor. (2003). *Theories of Communication Networks*. Oxford: Oxford University Press (pp 29-45).

Hollstein, Betina (in press). Georg Simmel's Contribution to Social Network Research. In Mario L. Small, Brea Perry, Bernice Pescosolido, and Edward B. Smith (Eds), *Personal Networks: Classic Readings and New Directions in Ego-Centric Analysis*. Cambridge, UK, Cambridge University Press.

#### **Week 4 (September 21) – Community**

- Wellman, B. (1979). The Community Question. *American Journal of Sociology*, 84(5), 1201-1231.
- Bidart, Claire (in press). Commentary on Bott's 'Family and Social Network.' In Mario L. Small, Brea Perry, Bernice Pescosolido, and Edward B. Smith (Eds), *Personal Networks: Classic Readings and New Directions in Ego-Centric Analysis*. Cambridge, UK, Cambridge University Press.
- 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.
- Hampton, Keith N. 2016. Persistent and Pervasive Community: New Communication Technologies and the Future of Community. *American Behavioral Scientist* 60(1):101-24.

#### **Week 5 (September 28) – Weak Ties and Structural Holes**

- 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.
- González-Bailón, S., & Wang, N. (2016). Networked discontent: The anatomy of protest campaigns in social media. *Social Networks*, 44, 95-104.
- Lee, J. K., & Kim, E. (2017). Incidental exposure to news: Predictors in the social media setting and effects on information gain online. *Computers in Human Behavior*, 75, 1008-1015.

#### **Week 6 (October 5) – Social Support / Social Capital**

- Wellman, Barry, and Scot Wortley. (1990). Different Strokes from Different Folks: Community Ties and Social Support. *American Journal of Sociology* 96(3):558-88.
- Lin, Nan and Yanjie Bian (in press). Social Capital: An Update. In Mario L. Small, Brea Perry, Bernice Pescosolido, and Edward B. Smith (Eds), *Personal Networks: Classic Readings and New Directions in Ego-Centric Analysis*. Cambridge, UK, Cambridge University Press.
- Lu, W., and Hampton, K. N. (2017). Beyond the power of networks: Differentiating network structure from social media affordances for perceived social support. *New Media & Society*, 19(6), 861-879.
- Burke, M., & Kraut R. (2014). Growing Closer on Facebook: Changes in Tie Strength Through Social Network Site Use. CHI 2014. Toronto, ON. [read blog summary <https://www.facebook.com/notes/facebook-data-science/growing-closer-onfacebook/10152086044728859?fref=nf>]

#### **Week 7 (October 12) – Homophily**

- McPherson, Miller, Lynn Smith-Lovin and James Cook. (2001). Birds of a Feather: Homophily in Social Networks. *Annual Review of Sociology* 27: 415-444.
- Feld, Scott L., Devin T. Knighton, and Alec McGill (in press). Reflections On 'The Focused Organization of Social Ties' and Its Implications for Bonding and Bridging. In Mario L. Small, Brea Perry, Bernice Pescosolido, and Edward B. Smith (Eds), *Personal Networks: Classic Readings and New Directions in Ego-Centric Analysis*. Cambridge, UK, Cambridge University Press.
- Kossinets, Georgi, and Duncan Watts. (2009). Origins of Homophily in an Evolving Social Network. *American Journal of Sociology* 115(2): 405-450.
- Huber, G. A., & Malhotra, N. (2016). Political Homophily in Social Relationships: Evidence from Online Dating Behavior. *The Journal of Politics*, 79(1), 269-283.

#### **Week 8 (October 19) – Opinions and Attitudes**

- 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.
- Cote, Rochelle and Bonnie Erickson (2009). Untangling the Roots of Tolerance. *American Behavioral Scientist* 52(12): 1664-1689.
- Feld, S. & Carter, W. (1998). When Desegregation Reduces

Interracial Contact: A Class Size Paradox for Weak Ties. *American Journal of Sociology* 103(5), 1165-1186

Goel, S., Mason, W., & Watts, D. J. (2010). Real and Perceived Attitude Agreement in Social Networks. *Journal of Personality and Social Psychology* 99(4), 611-621.

### **Week 9 (October 26) – Political Discussion**

Huckfeldt, Robert (in press). Individuals, Groups, and Networks: Implications for the Study and Practice of Democratic Politics. In Mario L. Small, Brea Perry, Bernice Pescosolido, and Edward B. Smith (Eds), *Personal Networks: Classic Readings and New Directions in Ego-Centric Analysis*. Cambridge, UK, Cambridge University Press.

Wyatt, R. O., Katz, E., & Kim, J. (2000). Bridging the Spheres: Political and Personal Conversation in Public and Private Spaces. *Journal of Communication*, 50(1), 71-92.

Hampton, K. N., Shin, I., & Lu, W. (2017). Social media and political discussion: when online presence silences offline conversation. *Information, Communication & Society*, 20(7), 1090-1107.

### **Week 10 (November 2) – Political Engagement**

Granovetter, M. (1978). Threshold Models of Collective Behavior. *American Journal of Sociology*, 83, 1420-1443.

Ognyanova, K. (2020). Contagious Politics: Tie Strength and the Spread of Political Knowledge. *Communication Research*

Tindall, David, Mark Stoddart, John McLevey, Lorien Jasny, Dana Fisher, Jennifer Earl, and Mario Diani (in press). The Opportunities and Challenges of Studying Social Movement Ego-Networks: Online and Offline. In Mario L. Small, Brea Perry, Bernice Pescosolido, and Edward B. Smith (Eds), *Personal Networks: Classic Readings and New Directions in Ego-Centric Analysis*. Cambridge, UK, Cambridge University Press.

### **Week 11 (November 9) – Space and Place**

Martin, John Levi and Hyunku Kwon (in press). Festinger, Schachter, and Back's Social Pressures in Informal Groups. In Mario L. Small, Brea Perry, Bernice Pescosolido, and Edward B. Smith (Eds), *Personal Networks: Classic Readings and New Directions in Ego-Centric Analysis*. Cambridge, UK, Cambridge University Press.

Small, M. L., & Adler, L. (2019). The Role of Space in the Formation of Social Ties. *Annual Review of Sociology*, 45(1), 111-132.

Hampton, K. N., Lee, C. J., & Her, E. J. (2011). How New Media Afford Network Diversity: Direct and Mediated Access to Social Capital Through Participation in Local Social Settings. *New Media & Society*, 13(7), 1031-1049.

### **Week 12 (November 16) – Health**

Block, P., Hoffman, M., Raabe, I.J. et al. Social network-based distancing strategies to flatten the COVID-19 curve in a post-lockdown world. *Nat Hum Behav* 4, 588–596 (2020).

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.

Smith, E. B., Brands, R. A., Brashears, M. E., & Kleinbaum, A. M. (2020). Social Networks and Cognition. *Annual Review of Sociology*, 46(1), 159-174.

Hampton, K. N., Lu, W., & Shin, I. (2016). Digital Media and Stress: Cost of Caring 2.0. *Information, Communication & Society*, 19(9), 1267-1286.

### **Week 13 (November 23) – Small Worlds**

- Milgram, Stanley. (1967). The Small-World Problem. *Psychology Today* 1:62-67
- Bonacich, Phillip. (2004). The Invasion of the Physicists. *Social Networks* 26(3): 285-288.
- Watts, Duncan (2016, Feb 10). How Small is the World, Really? *Medium*.  
<https://medium.com/@duncanjwatts/how-small-is-the-world-really-736fa21808ba>
- Xu, Z., & Sui, D. Z. (2009). Effect of Small-World Networks on Epidemic Propagation and Intervention. *Geographical Analysis*, 41(3), 263-282

### **Week 14 (November 30) – Diffusion and Contagion**

- Borgatti, Stephen. (2005). Centrality and Network Flow. *Social Networks* 27(1): 55-71.
- Christakis, Nicholas, and James Fowler. (2007). The Spread of Obesity in a Large Social Network over 32 Years. *The New England Journal of Medicine*, 357: 370-379.
- Kolata, G. (2011, August 8). Catching Obesity From Friends May Not Be So Easy. *New York Times*.
- Hampton, K. N. (2019). Social Media and Change in Psychological Distress Over Time: The Role of Social Causation. *Journal of Computer-Mediated Communication*.
- Bakshy, E., Rosenn, I., Marlow, C., & Adamic, L. (2012, April). The role of social networks in information diffusion. In Proceedings of the 21st international conference on World Wide Web (pp. 519-528). [read blog post summary: <https://www.facebook.com/notes/facebook-data-science/rethinking-information-diversity-in-networks/10150503499618859/>]

### **Week 15 (December 7) –The Personal Influence Model and the Future of Communication**

- Coleman, James S., Elihu Katz, and H. Menzel. (1957). The Diffusion of an Innovation Among Physicians. *Sociometry* 20: 253-270.
- Centola, Damon (in press). Influencers, Backfire Effects and the Power of the Periphery. In Mario L. Small, Brea Perry, Bernice Pescosolido, and Edward B. Smith (Eds), *Personal Networks: Classic Readings and New Directions in Ego-Centric Analysis*. Cambridge, UK, Cambridge University Press.
- Pooley, J. (2006). Fifteen Pages that Shook the Field: Personal Influence, Edward Shils, and the Remembered History of Mass Communication Research. *The ANNALS of the American Academy of Political and Social Science*, 608(1), 130–156.
- Hampton, Keith and Wenhong Chen (in press). Studying Social Media from an Ego-Centric Perspective. In Mario L. Small, Brea Perry, Bernice Pescosolido, and Edward B. Smith (Eds), *Personal Networks: Classic Readings and New Directions in Ego-Centric Analysis*. Cambridge, UK, Cambridge University Press.