# **SOCI 3102: Social Networks and Social Capital**

Department of Sociology
The Chinese University of Hong Kong

Fall, 2020 Mondays 14:30-16:15 (fully online)

## **Contact Information**

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Office hours: Wednesdays 16:30 - 18:30 by Zoom

# **Course Description**

Social networks is one of the fastest growing sub-areas within the discipline of sociology. The science of social networks focuses on measuring, modeling, and understanding the different ways that people are connected to one another. This is one of the only sub-areas of sociology that has a body of theory accompanied by a distinct methodology. SNA (Social Network Analysis) is already a popular term in both academia and public, often giving an impression that it is all about analytic techniques. Not true. Many years of social network studies have extensively represented rich sociological theory traditions such as structuralism, interactionism, and relational perspectives. This course is designed to provide students with the opportunity to (i) master the major concepts within the field of social networks, with a particular attention to social capital theory; (ii) critically examine the causes and consequences of social networks across a variety of behavioral contexts and academic domains; and (iii) achieve minimum competency in social network analysis.

## **Assessment and Grading**

The grade for the course will be calculated as a weighted average of the following components:

Participation (Lecture & Tutorial)	15%
Tutorial memos	15%
Scrapbook	30%
Final Paper	40%

## Participation (15%)

- To attend or skip is an adult's decision—you take your responsibility for what you do. I do not
  want to punish your few times of absence/lateness with a harsh grade. However, I will highly
  compensate those diligently attending and actively participating in the lecture and tutorial (that
  is, 100% attendance). Attendance in grading is about fairness, and I do care about it.
- It starts promptly on time. Arrivals after 10 minutes of the class beginning will be counted as lateness. I will check entry logs in Zoom.
- To ensure your compliance in the lecture, there will be random in-class polls displaying easy
  questions with respect to class materials.
- Show your face during class sessions unless there are connection problems.

# **Tutorial Memos** (15%)

• Three reflection memos on the questions or materials that will be provided by the tutor (5% + 5% + 5%). The goal is to facilitate discussion in tutorial sessions. You are required to submit the memo on Blackboard prior to the sessions.

## Scrapbook (30%)

- The second largest component of the grade will be a "Scrapbook"—a collection of media clippings and commentaries. Due by the end of the day on 9 November.
- You can find the details in the guide below.

## Final Paper (40%)

- You are required to submit the final term paper. Due by the end of the day on 14 December.
   Submit via <u>VeriGuide</u>.
- You can find the details in the guide below.

# Grading

### **Grade Descriptors**

- A Excellent: Outstanding performance on all learning outcomes.
- A- Very Good: Generally outstanding performance on all (or almost all) learning outcomes.
- B Good: Substantial performance on all learning outcomes, OR high performance on some learning outcomes which compensates for less satisfactory performance on others, resulting in overall substantial performance.
- C Fair: Satisfactory performance on the majority of learning outcomes, possibly with a few weaknesses.
- D Pass: Barely satisfactory performance on a number of learning outcomes.
- Failure: Unsatisfactory performance on a number of learning outcomes, OR failure to meet specified assessment requirements.

# **Academic Honesty**

Please keep in mind the university's policy on academic honesty. Plagiarism will not be tolerated in the term paper and assignments. The ideas and language should be your own, and any outside sources must be clearly and properly cited. There are severe consequences if you commit any acts of academic dishonesty. In addition to the department's policy and guidelines for citations, please refer to the university-level disciplinary guidelines and procedures. The Faculty of Social Science has also compiled a handout to alert students of the importance of academic honesty and the consequences of violating the University's Rules. To this end, the final term paper should be submitted to VeriGuide.

# **Online Class Logistics**

- You are required to do CUHK authentication to enter Zoom meetings.
- Class recordings:
  - Lectures and tutorials will take place via Zoom meetings. Every lecture will be recorded and stored. The video recordings will be available upon individual requests and for personal use only within a limited timeframe.
  - Feel free to make a request if there was a technical problem related to your connection to a live Zoom meeting or if you need a deeper review on subject matters covered in classes. However, not attending—or missing a significant portion of—the class cannot be a reason for your request, unless otherwise noticed beforehand.
- Lecture slides will be uploaded to the course Blackboard after class.

# Schedule and Reading

1 S	September 7	Course Introduction	
2 S	September 14	Network Structure (I)	
3 S	September 21	Network Structure (II)	
4 S	September 28	Network Structure (III)	
5 O	October 5	Social Capital (I)	Tutorial: Gephi
6 O	October 12	Social Capital (II)	
7 O	October 19	Network Formation in East Asia	Tutorial: Discussion
8 O	October 26	No Class - Chong Yang Festival	
9 N	lovember 2	Small World	
10 N	lovember 9	Contagion and Peer Influence	Tutorial: Discussion, scrapbook due
11 N	lovember 16	Networks and Politics	
12 N	lovember 23	Networks, Health, and Economy	Tutorial: Presentation
13 N	lovember 30	Future Agendas / Presentation	Tutorial: Discussion

#### Tutorial times

Mondays 16:30 - 18:15 / Wednesdays 8:30 - 10:15

### Required Book

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

### Recommended Books

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

Hanneman, Robert and Mark Riddle. 2005. Introduction to Social Network Methods. Online textbook: <a href="http://faculty.ucr.edu/~hanneman/nettext/">http://faculty.ucr.edu/~hanneman/nettext/</a>

Easley, David and Jon Kleinberg. 2010. *Networks, Crowds, and Markets: Reasoning About a Highly Connected World*. Cambridge University Press. A complete pre-publication draft available here: https://www.cs.cornell.edu/home/kleinber/networks-book/

Barabasi, Albert-László. 2018. *Network Science*. Cambridge University Press. Fully available online: <a href="http://networksciencebook.com/">http://networksciencebook.com/</a>

Readings are subject to minor changes throughout the semester (recommended articles in particular). \*Denotes required reading

Week 1. 9/7. Course Introduction

Week 2. 9/14. Network Structure (I): Perspectives and Graphs

\*Kadushin Ch. 1 & 2

\*Borgatti, Stephen P., Ajay Mehra, Daniel J. Brass, and Giuseppe Labianca. 2009. "Network Analysis in the Social Sciences." *Science* 323(April):892–96.

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

Hanneman, Robert and Mark Riddle. 2005. Introduction to Social Network Methods. Chapters 1-5. <a href="http://faculty.ucr.edu/~hanneman/nettext/C5\_%20Matrices.html">http://faculty.ucr.edu/~hanneman/nettext/</a>

### Week 3. 9/21. Network Structure (II): Tie Strength

- \* Granovetter, Mark S. 1973. "The Strength of Weak Ties." American Journal of Sociology 78(6):1360.
- Granovetter, Mark S. 1983. "The Strength of Weak Ties: A Network Theory Revisited." *Sociological Theory* 1:201–33.
- Bian, Yanjie. 1997. "Bringing Strong Ties Back in: Indirect Ties, Network Bridges, and Job Searches in China." *American Sociological Review* 62(3):366–85.
- Marsden, Peter V. and Karen E. Campbell. 2012. "Reflections on Conceptualizing and Measuring Tie Strength." *Social Forces* 91(1):17–23.
- Jones, J. J., Settle, J. E., Bond, R. M., Fariss, C. J., Marlow, C., & Fowler, J. H. 2013. "Inferring Tie Strength from Online Directed Behavior." *PloS one*, 8(1), e52168. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0052168

### Week 4. 9/28. Network Structure (III): Hierarchy and Cohesion

- \* Kadushin Ch. 3, 4, & 5
- \* Moody, James and Douglas R. White. 2003. "Structural Cohesion and Embeddedness: A Hierarchical Concept of Social Groups." *American Sociological Review* 68(1):103–27.
- Hanneman, Robert and Mark Riddle. 2005. Introduction to Social Network Methods. Chapter 10. Centrality and power (online only): http://faculty.ucr.edu/~hanneman/nettext/C10\_Centrality.html
- Faris, Robert and Diane Felmlee. 2011. "Status Struggles: Network Centrality and Gender Segregation in Same- and Cross-Gender Aggression." *American Sociological Review* 76(1):48–73.
- Christakis, Nicholas A. and James H. Fowler. 2010. "Social Network Sensors for Early Detection of Contagious Outbreaks." *PLoS ONE* 5(9):e12948.
- Barabasi, Albert-László. 2018. *Network Science*. Cambridge University Press. Chapter 9. <a href="http://networksciencebook.com/chapter/9">http://networksciencebook.com/chapter/9</a>

# Week 5 & 6. 10/5,12. Social Capital (I) & Social Capital (II)

- \* Kadushin Ch. 10.
- \* Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94(s1):S95–120.
- \* Lin, Nan. 1999. "Building a network theory of social capital." Connections. 22(1), 28-51.
- \* Burt, Ronald. 2000. "The Network Structure of Social Capital" *Research in Organizational Behavior* 22:345-423.
- Fung, Archon. 2003. "Associations and Democracy: Between Theories, Hopes, and Realities." *Annual Review of Sociology* 29:515-539
- Smith, Susan S. 2005. "Don't put my name on it": Social capital activation and job-finding assistance among the black urban poor. *American journal of sociology*, 111(1): 1-57.
- Son, Joonmo. 2020. Social Capital (Key Concepts Series). Cambridge, U.K.: Polity Press.
- Burt, Ronald S. and Katarzyna Burzynska. 2017. "Chinese Entrepreneurs, Social Networks, and Guanxi." *Management and Organization Review* 13(2):221–60.

#### Week 7. 10/18. Network Formation in East Asia

- \*Bian, Yanjie and Ken'ichi Ikeda. 2017. "East Asian Social Networks." In *Encyclopedia of Social Network Analysis and Mining*. 2<sup>nd</sup> edition. Edited by R. Alhajj and J. Rokne. New York: Springer. <a href="https://link.springer.com/referenceworkentry/10.1007%2F978-1-4614-7163-9">https://link.springer.com/referenceworkentry/10.1007%2F978-1-4614-7163-9</a> 60-1
- \* McPherson, J. Miller, Lynn Smith-Lovin, and James M. Cook. 2001. "Birds of a Feather: Homophily in Social Networks." *Annual Review of Sociology* 27:415–44.
- \* Rivera, Mark T., Sara B. Soderstrom, and Brian Uzzi. 2010. "Dynamics of Dyads in Social Networks: Assortative, Relational, and Proximity Mechanisms." *Annual Review of Sociology* 36(1):91–115.
- Offer, Shira and Claude S. Fischer. 2017. "Difficult People: Who Is Perceived to Be Demanding in Personal Networks and Why Are They There?" *American Sociological Review* 83(1):111-142

### Week 8. 10/26. NO CLASS—Chong Yang Festival (重陽節)

#### Week 9, 11/2, Small World

- \* Kadushin Ch. 8.
- \* Easley and Kleinberg. 2010. Chapter 20. <a href="https://www.cs.cornell.edu/home/kleinber/networks-book/networks-book-ch20.pdf">https://www.cs.cornell.edu/home/kleinber/networks-book/networks-book-ch20.pdf</a>
- \* Watts, Duncan J. 2004. "The 'New' Science of Networks." Annual Review of Sociology 30(1):243-70.

### Week 10, 11/9, Diffusion & Peer Influence

- \* Rogers, Everett M. 2003. *Diffusion of Innovations*. 5th ed. New York: Free Press. Ch. 1 and 8. Free CUHK library access: https://julac.hosted.exlibrisgroup.com/permalink/f/liv15ah/CUHK\_IZ511015926340003407
- \* Kadushin Ch. 9.
- Guilbeault, Douglas, Joshua Becker, and Damon Centola. 2018. "Complex Contagions: A Decade in Review." Pp. 3–25 in *Complex Spreading Phenomena in Social Systems*, edited by S. Lehmann and Y.-Y. Ahn. Springer International Publishing.

#### Week 11, 11/16. Networks and Politics

- \* Vosoughi, S., Roy, D. and Aral, S., 2018. The spread of true and false news online. *Science* 359(6380): pp.1146-1151.
- \* Bail, Christopher A., Lisa Argyle, Taylor Brown, John Bumpus, Haohan Chen, M. B. Fallin Hunzaker, Jaemin Lee, Marcus Mann, Friedolin Merhout, and Alexander Volfovsky. 2018. "Exposure to Opposing Views on Social Media Can Increase Political Polarization." *Proceedings of the National Academy of Sciences (PNAS)* 155(37): 9216–9221
- \* Bond, Robert M., Christopher J. Fariss, Jason J. Jones, Adam D. I. Kramer, Cameron Marlow, Jaime E. Settle, and James H. Fowler. 2012. "A 61-Million-Person Experiment in Social Influence and Political Mobilization." *Nature* 489(7415):295–98.
- Lim, Chaeyoon. 2008. "Social Networks and Political Participation: How Do Networks Matter?" *Social Forces* 87(2):961–982.
- Grinberg, Nir, Kenneth Joseph, Lisa Friedland, Briony Swire-Thompson, and David Lazer. 2019. "Fake news on Twitter during the 2016 US presidential election." *Science* 363(6425): 374-378.
- Campbell, David E. 2013. "Social Networks and Political Participation." *Annual Review of Political Science*. 16:33-48.

# Week 12. 11/23. Networks, Health, and Economy

- \* Smith, Kirsten P. and Nicholas A. Christakis. 2008. "Social Networks and Health." *Annual Review of Sociology* 34(1):405–29.
- \* Block, P., Hoffman, M., Raabe, I.J., Dowd, J.B., Rahal, C., Kashyap, R. and Mills, M.C., 2020. Social network-based distancing strategies to flatten the COVID-19 curve in a post-lockdown world. *Nature Human Behaviour*, pp.1-9.
- \*Uzzi, Brian. 1997. "Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness." *Administrative Science Quarterly* 42(1):35–67.
- Leskovec, Jure, Lada A. Adamic, and Bernardo A. Huberman. 2007. "The Dynamics of Viral Marketing." *ACM Transactions on the Web* 1(1):5-es.

Nicholas Christakis's Ted Talk, "The Hidden Influence of Social Networks"

Week 13. 11/30. Future Agenda/Student Presentation

# **Guide to Scrapbook**

#### Goal

Instead of a mid-term exam, you are required to submit a "scrapbook." Due: Week 10, November (end of the day). Scrapbook is a collection of annotated clippings from the media. A central objective of this course is to help you to think about real-world problems in a different way. The goal of this exercise is to keep abreast of current events, as well as contemporary ideas and trends and to help you take the concepts of the course out of the classroom and use them to interpret the world around you. This can ultimately be a basis for your term paper. Minimum 5 clippings & 5 commentaries.

### **Sources**

- You may draw on whatever sources you choose, including newspapers, magazines, TV,
  Radio, and the web. News stories, science reports, business analysis, feature articles, book
  reviews, commentary, editorials, advertising, web-logs, discussion groups, and email threads
  are all eligible for inclusion.
  - Constraints: They must have appeared/occurred this semester (i.e., publication—not event—date). They can be compiled and rendered as a single paper document. For videos, transcripts.
- They should be in English or properly translated to English.

## **Topics**

While some topics in the syllabus seem a little abstract on first inspection, you may be surprised at how often they come up in newspaper articles, talking with friends, or simply walking around town. You can include anything that seems relevant to you (as long as you can explain why). However, here are some suggestions to get you started

- Networks, everywhere: Social (friendship, acquaintanceship, online, kinship, advice-seeking, affiliation, economic exchange, organizational), political (international relations), biological (disease, neural), technological (power grid, the Internet, transportation), and "information" networks (software, WWW).
- Network processes: People influencing each other's behavior, either directly (peer-to-peer influence, word-of-mouth marketing) or indirectly (via social norms, organizational culture, etc.). Some examples include voting behavior, consumer behavior, TV watching, etc.
- Surprising social or cultural change emerged from the rapid interactions and diffusion by people—unexpected, or previously unnoticed, or otherwise difficult to account for. Fads, fashions, revolutions, virality, and changing social norms or attitudes all fall into this category. Alternatively, prolonged persistence of social norms in the face of concerted efforts to effect change can also be puzzling.
- Epidemics of disease, both novel and chronic.
- Complex problem-solving activities, in which many people and even agencies must collaborate to solve an urgent problem.

## Commentary

- Each piece or set of related pieces, that you present in your scrap book should be
  accompanied by a short (or long) discussion of how and why you think the piece is
  interesting, relevant, and illuminated by what you learned in the course.
- No need to restate concepts verbatim or to apply them narrowly—feel free to use your imagination.
- Length does not matter. Commentary should not exceed 2 pages (in whatever font size & spacing).
- Minimum 7 clippings & 7 commentaries.

#### **Evaluation Criteria**

- Your clippings' relevance to network concepts
- The extent to which you engage concepts in social networks correctly, clearly, and creatively in commentary
- Diversity of topics (e.g., sticking only to 1 topic/concept in 7 clippings of yours is not good)
- Clarity of your thoughts/takeaways in commentary
- On-time submission is crucial

I want your good ideas and thoughts to spread among us. I will choose a few excellent pieces among your scrapbooks and invite to a presentation at a tutorial session.

# **Guide to Final Term Paper**

You are required to submit your term paper.

#### Due

The end of the day on 14 December. Late submissions will result in a fatal loss of scores in the assessment for your grade.

## Length

The text of the paper, excluding headings, notes, and references, should be 2,000 to 2,500 words

#### **Format**

- Should be written in English.
- Microsoft Word (.docx)
- A4 size; margins at "normal" preset (=1 inch); body text in 12 point; double-spaced.
- Font types: Times New Roman, Cambria, Arial, or Helvetica
- Include page number
- Citations: Refer to and follow the ASA Style Guide.

### **Topic**

The term paper should be based on ideas of social networks. One purpose of "Scrapbook" is to help you develop your project for the term paper. Ideally, you can focus on one of the topics you addressed in your scrapbook and extend it with extensive literature review and preliminary empirical analysis. You can also develop a prospectus for your graduation thesis.

Some essential elements to be included:

- Motivation and significance (what and why)
- Literature review of important theoretical and empirical studies
- Your own perspectives: findings and/or argument and/or assessment
- References

Although not mandatory, I highly encourage you to include your own network visualization and/or elementary empirical analysis. It will be immensely credited with a positive weight on grading.

You are encouraged to co-author the paper—up to 3 students as a team. In case that you need 4 or more students to join, you should obtain my approval.

Please consult your ideas with your TA in her tutorial sessions and office hours. A discussion board will be provided in our class Blackboard where you can give and get advice in working on the term paper.

# **Evaluation Criteria**

- The relevance of the literature reviewed
- Your engagement level with the literature
- Clarity, originality, and creativity of your thoughts added
- Ambition in analysis (& feasibility, if it's a research proposal)
- Writing conceptual thinking, professional writing, proper citations