

J 395: Social Media Research Methods

Fall 2017 Wednesday 12:00 to 3:00, CMA 6.146

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Course Description:

The term ‘social media’ has become ubiquitous in our daily lives. Social media is now a crucial aspect of how we form and maintain friendship networks, but it is also increasingly central to commercial exchanges (to branding, PR, advertising), and to news production and consumption (by both professional and citizen journalists). In this course, graduate students consider the historical formation of social media and the lines that can be drawn to contemporary consequences, particularly the blurring of public and private lives, shifts in power relations and the spread of rumors and urban myths that we see today. This course will be based around a selection of empirical case studies from the social media literature. In each case we will be asking how we can critically assess the methods employed by the researcher(s). Basic social network analysis will be taught and relevant statistical methods introduced. After completing the course, students will be able to analyze a wide array of social media data (e.g. Twitter, Facebook, and YouTube) using the software packages Netlytic and Gephi. Students will also learn how to create network graphs, tables and figures ready to be published in academic journals or used in conference presentations.

Course Objectives

- To introduce qualitative, quantitative and mixed social media research methods
- To provide opportunity for critical reflections around social media research
- To carry out original research using empirical social media data

Books (all are on reserve at the Library so purchasing is fully optional)

Ackland, Robert. 2013. *Web social science: Concepts, data and tools for social scientists in the digital age*: Sage.

Cherven, Ken. 2015. *Mastering Gephi Network Visualization*: Packt publishing.

Kadushin, Charles. 2012. *Understanding social networks : theories, concepts, and findings*. New York: Oxford University Press.

Murthy, Dhiraj. 2013. *Twitter: Social communication in the Twitter age*: John Wiley & Sons.

Sloan, Luke, and Anabel Quan-Haase. 2016. *Sage handbook of social media research methods*. Los Angeles: Sage Publications.

Weller, Katrin, Axel Bruns, Jean Burgess, Merja Mahrt, and Cornelius Puschmann. 2014. *Twitter and society, Digital formations*.

Required Readings (See Canvas for a week-by-week listing)

Grading

How you perform in the class will be primarily determined on completion of an original research project suitable for conference presentation and/or publication. Completing this task will be dependent on keeping up with the reading, forwarding meaningful research questions and hypotheses, understanding the research methods introduced and selecting appropriate methods, and writing up the results. regular attendance is assumed. The following components make up your grade in the course:

Discussion leading (10%): prepare handout for class based on class readings for a given day as assigned that helps identify key issues in theory and method and help lead discussion on those readings. Tweet at least 20 times (see Social Media Participation section below).

Concept explication (15%): Identify a key concept (e.g. algorithmic influence, API limitations, mixed methods, or social media data privacy) that is approved in advance by instructor and provide a two-page explication, as discussed in McLeod & Pan (2005, p. 27)ⁱ: identify concept, search literature, examine empirical properties, develop conceptual definition, define it operationally. This will be good preparation for the research critique and final paper.

Research proposal (25%): Prepare a 5-7-page double-spaced paper that identifies an applied social media research issue, reviews relevant literature, suggests appropriate data and ways to access them, and suggest research methods (can be qualitative, quantitative or mixed). Include a clearly defined research question and a bibliography.

Final paper (50%): Refine literature review, questions, analysis, and discussion for final empirical research article based on a project. Paper needs to be 15-20 pages (double-spaced, 1-inch margins, including references), have the usual sections and follow the norms of a research presentation in the field, suitable for submission to ICA or related conference. *This may be collaborative with approval by the instructor (and perhaps needed for some mixed methods, big data, or complex analytics)*. Written assignments may not be turned in late unless a student has a legitimate reason for an incomplete or a late assignment and this must be discussed BEFORE the due date.

Writing tips: See Prof. Steve Reese's *Research paper organization guide*
https://www.academia.edu/1746961/Research_paper_organization_guide

Participation:

In Class Participation: Readings and attending class are essential. The learning potential for all students is maximized when every student is prepared. We can, as a group, discuss and engage collectively about the issues, themes, and problems raised in the readings and that emerge in classroom discussion. Being engaged is critical to the academic experience. This course is an active one.

Social Media Participation: We will have a class hashtag #utj395 and you will be required to tweet out during discussion leading. Each week a student will be responsible for discussion leading both in-class and via Twitter. When it is your week, you need to tweet 20 times or more over that week about the readings (such as relevant quotes, important ideas, useful links, or videos of examples that speak to the readings) and tag #utj395 in all tweets. Tweets can include thoughts or insights you have about research methods; tweetable moments from our class discussions are welcome as well.

Course outlook and preparation:

Work ethic: Designing and researching empirical work in the domain of social media is not always easy. Having a clear short and long-term research strategy is critical in the world of social media studies. Some methods are also not intuitive and require motivation, passion, and perseverance. Being conscientious in your work and highly responsible pays huge dividends in all types of social media research. In addition, creativity plays a role in this type of work. For example, data may be poorly formatted or structured that is harvested from an Application Programming Interface (API) and will need creative ideas to make it usable. Other areas where creativity is important can include strategies to sample respondents or modes of social media dissemination. Given how complex some social media research projects can be, it is important to be able to focus on discrete tasks. These strategies of successful social media research will be emphasized throughout the course. I highly recommend you read “Traits of the ‘Get It Done’ Personality: Laser Focus, Resilience, and True Grit”, *Chronicle of higher education*.ⁱⁱ

Teaching approach and preparation: Social media research methods, like all social research methods, generally fit into the categories of quantitative, qualitative, and mixed methods. In this course, we will be covering all three approaches. Therefore, if you have an interest in one particular type or method or another, you will get exposed to it. In addition, it is extremely useful to have knowledge of all these types of methods so that you have literacy about them, even if you do not implement them. In this course, we will be using several software packages on the quantitative side of things. Sooner rather than later, you should create an account at Netlytic (<https://netlytic.org/>) and integrate your social media accounts into that platform so that when we begin collecting data, you are already set. You will also want to download Gephi, version 0.9.0, from the bottom of this page: <https://github.com/gephi/gephi/releases/tag/v0.9.0> . **Do not download a newer version or import will not work!** It is extremely critical that you download this particular version of Gephi and get it running on your system so that when we get to the relevant weeks of importing data and visualizing it, your personal system will already be running. Downloading this version is critical as Netlytic is only compatible up to this version. If you are keen to go beyond the class in terms of data manipulation for your final research project,

you are welcome to independently study material around social media data and R (see <http://www.rdatamining.com/docs/twitter-analysis-with-r>) or social media data and Python (<http://www.kdnuggets.com/2016/06/mining-twitter-data-python-part-1.html>). Both of these approaches will not be taught in this course, but you are free to independently use them in terms of data collection, data transformation, and analyzing social media data. Another excellent tool for data visualization, that will be mentioned, but will not be taught in this course is Tableau. Tableau software can be downloaded for free at: <http://www.tableau.com/academic/students> .

The final paper is a great venue for you to work with your data after we have learned data collection, set research questions, and critically thought about methodological benefits and limitations for particular approaches. Those of you who invest time into this course should not only have data sets suitable for rigorous academic research, but likely will have a publication ready for conference or journal publication. Therefore, this course has tremendous utility to those of you who want to publish an empirical piece of work based on some form of social media-based data, whether that is quantitative, qualitative or mixed.

Schedule (Read and be prepared to discuss each week's readings)

August 30 Introduction, student biographies and interests, social media as an object of study

***email before class a single-document combination of 1-page bio, professional and research interests, followed by CV—you can include recent seminar papers in your CV, which helps me see what you've been interested in up to now)*

Sloan, L., & Quan-Haase, A. (2016). *Sage handbook of social media research methods*. Los Angeles: Sage Publications, Chs 1-2

Karpf, D. (2012). Social science research methods in Internet time. *Information, Communication & Society*, 15(5), 639-661.

Williams, S. A., Terras, M. M., & Warwick, C. (2013). What do people study when they study Twitter? Classifying Twitter related academic papers. *Journal of Documentation*, 69(3), 384-410.

September 6 Critically thinking about social media research – potential, limitation, and ethics

boyd, d., & Crawford, K. (2012). Critical questions for big data: Provocations for a cultural, technological, and scholarly phenomenon. *Information, Communication & Society*, 15(5), 662-679.

Brooker, P., Barnett, J., Cribbin, T., & Sharma, S. (2016). Have we even solved the first 'big data challenge'? Practical issues concerning data collection and visual representation for social media analytics *Digital Methods for Social Science* (pp. 34-50): Springer.

Giglietto, F., Rossi, L., & Bennato, D. (2012). The open laboratory: Limits and possibilities of using Facebook, Twitter, and YouTube as a research data source. *Journal of Technology in Human Services*, 30(3-4), 145-159.

For those new to the field, also briefly read about technical terms such as API (and API parameters), algorithm, rate limiting, and API feeds (including Twitter's firehose). Wikipedia articles are sufficient.

September 13 Qualitative methods: Digital Ethnography, Interviews, and Survey Research Part 1

Murthy, Dhiraj (2011) 'Emergent Digital Ethnographic Methods for Social Research' in Hesse Biber, S.N. (ed.) *Handbook of Emergent Technologies in Social Research*. Oxford: Oxford University Press, pp. 158-179.

Pink, S., Horst, H., Postill, J., Hjorth, L., Lewis, T., & Tacchi, J. (2015). *Digital ethnography: principles and practice*: Sage., Chs. 1,5

September 20 Qualitative methods: Digital Ethnography, Interviews, and Survey Research Part 2

Ackland, Robert. 2013. *Web social science: Concepts, data and tools for social scientists in the digital age*: Sage., Ch 2 'Online research methods' [Chapter covers some content analysis as well]

September 27 Mixed Methods Social Media Research

Sloan, L., & Quan-Haase, A. (2016). *Sage handbook of social media research methods*. Los Angeles: Sage Publications, Ch. 33: 'The ontology of tweets: Mixed methods approaches to the study of Twitter', Murthy, D.

Bayer, J. B., Ellison, N. B., Schoenebeck, S. Y., & Falk, E. A. (2016). Sharing the small moments: ephemeral social interaction on Snapchat. *Information, Communication & Society*, 19(7),956-977.

October 4 Content analysis, Sentiment Analysis, and Big Data

Stellefson, M., Chaney, B., Ochipa, K., Chaney, D., Haider, Z., Hanik, B., . . . Bernhardt, J. M. (2014). YouTube as a source of chronic obstructive pulmonary disease patient education: a social media content analysis. *Chronic respiratory disease*, 1479972314525058.

Dodds, P. S., & Danforth, C. M. (2010). Measuring the Happiness of Large-Scale Written Expression: Songs, Blogs, and Presidents. *Journal of Happiness Studies*, 11(4), 441-456. doi: 10.1007/s10902-009-9150-9

October 11 Social Media Analytics

Sloan, L., Morgan, J., Burnap, P., & Williams, M. (2015). Who tweets? Deriving the demographic characteristics of age, occupation and social class from Twitter user meta-data. *PloS one*, *10*(3), e0115545.

Glowacki, E. M., Lazard, A. J., Wilcox, G. B., Mackert, M., & Bernhardt, J. M. (2016). Identifying the public's concerns and the Centers for Disease Control and Prevention's reactions during a health crisis: An analysis of a Zika live Twitter chat. *American Journal of Infection Control*, *44*(12), 1709-1711.

Lazard, A., Saffer, A., Wilcox, G., DongWoo, A., Chung, MS., Mackert, M.S., Bernhardt, J.M. (forthcoming). E-cigarette Social Media Messages: Marketing and Consumer Conversations on Twitter. *JMIR Public Health and Surveillance*.

October 18 Big Data Scale Research

Murthy, Dhiraj, and Alexander J Gross. 2016. "Social media processes in disasters: Implications of emergent technology use." *Social Science Research*.

Reed, P. J., Spiro, E. S., & Butts, C. T. (2016). Thumbs up for privacy?: Differences in online self-disclosure behavior across national cultures. *Social Science Research*, *59*, 155-170. doi: <http://dx.doi.org/10.1016/j.ssresearch.2016.04.022>

McCormick, T. H., Lee, H., Cesare, N., Shojaie, A., & Spiro, E. S. (2015). Using Twitter for Demographic and Social Science Research Tools for Data Collection and Processing. *Sociological Methods & Research*.

Netlytic will be introduced next week so please insure you have created your account and registered your Twitter, YouTube, Facebook, etc

October 25 Social Media Data Collection

Sloan, L., & Quan-Haase, A. (2016). *Sage handbook of social media research methods*. Los Angeles: Sage Publications, Ch 08 'Think before you collect: Setting up a data collection approach for social media studies'

November 1 Social Network Analysis

Ackland, Robert. 2013. *Web social science: Concepts, data and tools for social scientists in the digital age*: Sage. Ch 3, 'Social Media Networks'

Gruzd, Anatoliy, Drew Paulin, and Caroline Haythornthwaite. "Analyzing Social Media and Learning Through Content and Social Network Analysis: A Faceted Methodological Approach." *Journal of Learning Analytics* 3.3 (2016): 46-71.

**Concept explication due • McLeod & Pan, “Concept explication and theory construction”

Gephi will be introduced next week so please insure you have downloaded the correct version per the information above

November 8 Gephi-based analysis

Cherven, Ken. 2015. *Mastering Gephi Network Visualization*: Packt publishing., page 22 – as far as you want to read!

November 15 Gephi-based research

Bruns, Axel. 2012. "How long is a tweet? Mapping dynamic conversation networks on Twitter using Gawk and Gephi." *Information, Communication & Society* 15 (9):1323-1351.

Larsson, Anders Olof, and Hallvard Moe. 2012. "Studying political microblogging: Twitter users in the 2010 Swedish election campaign." *New Media & Society* 14 (5):729-747.

**preliminary research paper proposal due

November 22 – Thanksgiving Holiday ** NO CLASS

November 29 – Final paper workshop/Q&A

December 6 Conclusions and Future Directions AND Quality Issues in Social Media Scholarship

Bruns, A. (2013). Faster than the speed of print: Reconciling ‘big data’ social media analysis and academic scholarship. *First Monday*, 18(10).

**Final papers due Thursday December 7th at 12 PM via electronic submissions in Canvas – print copy in my box is appreciated if possible

This syllabus is subject to change given the nature of our subject material. Any changes will come with sufficient notice to students.

ⁱ McLeod, JM, and Z Pan. 2005. "Concept explication and theory construction." *The evolution of key mass communication concepts: Honoring Jack M. McLeod*:13-76.
<https://www.journalism.wisc.edu/~dshah/j658/McLeodPan.pdf>

ⁱⁱ <http://www.chronicle.com/article/Traits-of-the-Get-it-Done/133291/>