COMS 930 Computational Methods in Social Sciences

Syllabus

Spring 2026

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Office Hours: Tuesdays & Thursdays 1:00 pm – 2:00 pm

Rationale and Scope:

This course aims to present students with advanced computational methods in two core areas: network science and computational content analysis. The rationale for this focus is that understanding both the structure of informational flow and the content it carries is essential for analyzing and explaining human behavior. The course will integrate theoretical discussions with practical examples and software code to perform analyses.

- The first half of the semester will be focused on *network analysis*. Just like any other area of statistics, network analytic procedures can be divided into two categories – descriptive and inferential. Network analysis will not only cover social network analysis, which is widely studied among social sciences, but also other types of networks, such as text networks. We will spend the first few weeks covering descriptive network analysis (e.g., measures of centrality, methods of visualization, community detection, etc) and then dive into inferential network analysis (e.g., exponential random graph model, latent space network model), which is essential for research questions that demand precise hypothesis testing with network data.
- The second half of the semester will be focused on *computational content analysis*. Traditional content analysis focuses on text-based content analysis. With the advancement of large language models and computer vision, we can also analyze visuals (e.g., pictures, short videos). Yet, as with any emerging field, the quantitative analysis of large-scale text and visual data presents significant technical and theoretical challenges. This course seeks to equip you with the theoretical background, practical experience, and technical capacity to pursue cutting-edge social science research using text and visual data. We will cover various techniques in the lab sessions, such as sentiment analysis, supervised learning (e.g., classification of text and visuals), and topic modeling, to name a few.

Prerequisites

There are no formal prerequisites for this course. However, a working knowledge of non-network-based statistics (e.g., multiple regression) and small-scale content analysis will help with students' understanding of the course materials.

Course Format

Because of the dual goals of the course (i.e., theoretical understanding of both network analysis and computational content analysis), our time will be split between substantive and theoretical explanations and methodological tools. Most weeks, we will examine readings related to one area of network analysis/computational content analysis on both Tuesdays and Thursdays. On several Thursdays, we will have lab sessions to execute the methodological and statistical applications related to the substantive readings. The schedule for the first few weeks and students' presentation weeks might look different than typical weeks.

A Note on AI

We are working in an era in which AI tools can be powerful assistants for tasks such as coding, debugging, and improving workflow efficiency. In this course, you are welcome to use AI in these ways. However, **you must remain the pilot**: you are responsible for understanding what the code does, evaluating the correctness of AI-generated suggestions, and identifying errors or hallucinations. Any code or output you submit should reflect your own comprehension and judgment.

That said, there are important boundaries. **You may not use AI to generate your research ideas or propose your research questions.** Your research proposal and final project topic must be original and driven by your own intellectual contribution. If you use AI tools for coding support or troubleshooting, you should be prepared to explain your approach, decisions, and implementation.

Course Materials

- I will upload all required course materials in the weekly modules on Canvas.
- Recommended textbooks:
    - Skyler Cranmer, Bruce Desmarais, and Jason Morgan (2020). *Inferential Network Analysis*. Cambridge University Press.
    - Kolaczyk and Csárdi (2020). *Statistical Analysis of Network Data with R*. Springer Press.
    - James et al. (2017). *An Introduction to Statistical Learning*. Springer Press.
    - Jacob Eisenstein. (2018). Natural Language Processing.
- Additional supplementary readings and PDFs are distributed by Canvas.
- R Studio for Windows or Mac. I will show you how to install R and R studio and related packages in class.

    - We will use R for data wrangling and network analysis.
- Google Colab for executing Python code.
    - We will primarily use Python for computational content analysis. We might occasionally switch to R for some specific analysis.

Evaluation and Grading (Contract Grading)

It is important to me that students put effort into this course, develop a comprehensive understanding of the materials we cover in class, and demonstrate that they can thoughtfully and carefully apply the techniques we cover in their own work. As such, this course uses alternative (contract) grading rather than traditional point-based grading.

Under contract grading, students earn their final course grade by meeting clearly defined expectations related to engagement, completion, and quality of work, rather than by competing for points or numerical scores. The emphasis is on sustained effort, intellectual risk-taking, and meaningful application of computational methods, rather than on perfection or prior technical background.

At the beginning of the semester, students will select a grade contract (e.g., A, A-, B+, or B, given that this is a graduate seminar, no grades lower than B will be offered.) that specifies a set of required components, such as:

- Consistent attendance and active participation in seminar discussions,
- Effectively leading one class discussion,
- Submission of assignments that demonstrate good-faith effort and methodological understanding,
- Completion of a final project that applies the methods we cover in class to a substantive research question.

To earn the contracted grade, students must fully meet the expectations outlined in the chosen contract. Work that is submitted on time, engages seriously with the material, and reflects careful applications of methods will be considered satisfactory, even if results are imperfect or exploratory. Partial completion or repeated failure to meet the contract requirements will result in a lower final grade.

Students will have the opportunity to review their progress and adjust their contract with me before spring break. Adjustments to contracts may not be considered after the spring break.

Requirements

Science is a *social* activity, so there will be an emphasis on working with, soliciting feedback from, and providing feedback to your peers (including me ☺). That is, you are expected to come to class having completed the assigned readings and prepared to discuss them, to ask questions, as well as to answer questions from your peers or myself.

The main requirement for the course is a research proposal that uses the methods or ideas of network analysis and/or computational content analysis. At the end of the course, we will reserve time for each student to present their research idea to the class and get feedback. Aside from the research paper, you are required to complete a set of homework assignments intended to ensure that you are becoming familiar with the software and analysis introduced in the course.

Participation

I expect students to complete the assigned readings each week, stay engaged during class, and contribute thoughtfully to our discussions. Participation will therefore be evaluated based on both in-class discussion and evidence of pre-class reading engagement. You will need to submit your comments or questions in the discussion board on Canvas by 5 pm the day before the class meeting. If you are the leading discussant, you do not need to submit your comments or questions that week. I understand that talking in class is not always ideally suited to all students, so if you find talking in class challenging or unpleasant, shoot me an email and we can work out other ways for you to participate in class.

Leading discussion two times

Each student will sign up to lead two class discussions: one for network analysis, and the other for computational content analysis. Given the number of students enrolled in this course, students may work in teams. The seminar leaders will circulate approximately five discussion questions per reading by 5 pm the day before the class meeting by email. Please see the guidelines for leading discussions on Canvas. I will be available to discuss your discussion questions – please schedule an appointment and/or send me a draft of them prior to our meeting.

Homework assignments

There will be six homework assignments to be completed, usually following the lab sessions. These assignments are designed to help you to become familiar with methods and tools used in network analysis and computational content analysis. The assignments will be composed of both "paper and pencil" problems as well as exercises using computational tools.

Final paper

The final paper should be a research proposal for a project that uses network analysis and/or computational content analysis. The paper should be at least 15 pages, double-spaced. The paper should briefly introduce your topic (1-2 pages), explain the theoretical background you base your research on (4-5 pages), and describe the data collection methods you propose, the analytical methods and tools you would use, as well as what hypotheses you would test. It is important to note that you do not have to actually complete the research you propose. However, I highly recommend that you propose research that is actually feasible to one day complete.

Before spring break, each student will be asked to submit an initial topic proposal for the final paper. The proposed topic should align with the student's research interests and incorporate one

or more of the methods covered in the course. This initial submission is meant to be exploratory rather than binding; students are welcome to revise or change their topic as the course progresses and as we engage with additional methods and applications.

Each student will present their research proposal for about 10 to 12 minutes. These presentations should be designed to give a brief overview of the theoretical background of your proposed research and the data collection methods and analysis you would do. Students are expected to provide feedback on each other's presentations.

Course Policies and University Resources

Incomplete grades

I will only give incompletes for compelling, unanticipated, and nonacademic reasons. Repeated late assignments may be marked down the equivalent of a full letter grade for each 24 hour period in which they are late (one hour late = -1 letter, 25 hours late = -2 letters, and so on). I will only make an exception to this policy if 1) you contact me in writing a week in advance to discuss a conflict, or 2) you provide documentation of a severe illness or family emergency that prevented you from completing the assignment on time.

Attendance

> 2.2.1 The responsibility for class attendance rests with individual students. Students are expected to attend classes regularly and meet all requirements set by the instructor. Students are responsible for planning their schedules to avoid excessive conflicts with course requirements. Attendance policies may vary for individual instructors and shall be included in the course syllabus. The provisions of Section 2 shall not apply where an accrediting body requires a school to adopt policies requiring regular class attendance.
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> 2.2.2 A university excused absence is an absence for which a student cannot be penalized and shall receive an accommodation for completing the missed work. University excused absences apply to all course requirements, including any final examinations, quizzes, in class work, and tests other than final examinations. In cases where part of a class grade is based on attendance, a student shall not be penalized for missing class due to a university excused absence.
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> 2.2.3 Legitimate reasons for a university excused absence include:
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> - religious observance
> - required military service
> - illness or injury
> - personal verifiable mental health or medical crisis or that of a relative or friend,
> - unforeseen life event or compelling circumstances beyond the student's control (e.g., divorce, birth or adoption of a child, death, loss of employment, sexual assault, domestic violence).
> - academic field trips
> - participation in university activities at the request of university authorities (e.g. an approved concert or athletic event)
> - jury duty or officially mandated court appearances.
> - professional association or conference participation

Academic misconduct

For the assignments in this course, students will be required to produce original work and support their arguments using other researchers' work as a foundation. These assignments must be original, must not use online AI programs (see more below), and must acknowledge all sources (including those covered in class). Using any material that was written by someone else and submitting as though it was your own is unacceptable, even if it is accidental. Students also are not permitted to submit the same work to multiple courses. Work submitted should represent students' original work created specifically for this class. Students who violate University rules on academic integrity are subject to disciplinary penalties, including the possibility of failure in this course and/or dismissal from the University. For more information, please see KU's Writing Center for details about crediting sources, and KU's academic misconduct policy and procedures.

Accommodations

The Student Access Center (SAC) coordinates academic accommodations and services for all eligible KU students with disabilities. If you have a disability for which you wish to request accommodations and have not contacted SAC, please do so as soon as possible. They are located in 22 Strong Hall and can be reached at 785-864-4064 (V/TTY). Information about their services can be found at www.access.ku.edu. Please contact me privately about your needs in this course.

Recording and intellectual property

Course materials prepared by the instructor, together with the content of all lectures, activities, and review sessions presented by the instructor are the property of the instructor. Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited. On request, the instructor may grant permission for students to audio record lectures, on the condition that these audio recordings are only used as a study aid by the individual making the recording and must not be shared, sold, or published publicly. Unless explicit permission is obtained from the instructor, recordings of lectures and review sessions may not be modified and must not be transferred or transmitted to any other person, audience, or entity in any form.

Tentative Schedule

Overview of Actions in a Typical Week

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	• Lead discussant: discussion questions sent to me by 5 pm. • Everyone: weekly reflection submitted on Canvas by 5 pm.	Seminar day	• Lead discussant: discussion questions sent to me by 5 pm. • Everyone: weekly reflection submitted on Canvas by 5 pm.	• Seminar day • Lab day in some weeks (homework assignments due 1 week after lab)		

Week 1 (01/20/2026-01/25/2026): **Why Networks Matter: Introduction and Basics of Networks**

Tuesday, January 20

- Course introduction, syllabus, and meet and greet each other

Thursday, January 22

- Lazer et al. (2020) "Computational Social Science: Obstacles and Opportunities," Science
    - Related optional article: Lazer et al. (2009) "Computational Social Science," Science
- Borgatti et al. (2009) "Network Analysis in the Social Sciences," Science
- Butts (2009) "Revisiting the Foundations of Network Analysis," Science
- Granovetter (1973) "The Strength of Weak Ties," American Journal of Sociology

Week 2 (01/26/2026-02/01/2026): **Network Measurement and Description**

Tuesday, January 27

- Kolaczyk & Csárdi (2020) Chapter 4 – "Descriptive Analysis of Network Characteristics"
- Bonacich (1987) "Power and Centrality: A Family of Measures," American Journal of Sociology
- Brady et al. (2017) "Validity Issues in the Use of Social Network Analysis with Digital Trace Data," Journal of the Association for Information Systems

Thursday, January 29

- Song & Eveland (2015) "The Structure of Communication Networks Matters: How Network Diversity, Centrality, and Context Influence Political Ambivalence, Participation, and Knowledge," Political Communication

- González-Bailon & De Domenico (2021) “Bots Are Less Central Than Verified Accounts During Contentious Political Events,” Proceedings of the National Academy of Sciences
- Melamed & Simpson (2016) “Strong Ties Promote the Evolution of Cooperation in Dynamic Networks,” Social Networks
- **Lab** – Calculating Descriptive Network Measures

Week 3 (02/02/2026-02/08/2026): **Partitioning and Visualization**

Tuesday, February 3

- (skim through) Kolaczyk & Csárdi (2020) Chapter 7 – “Network Topology Inference”
- Leicht & Newman (2008) “Community Structure in Directed Networks,” Physical Review Letters
- McPherson, Smith-Lovin, & Cook (2001) “Birds of a Feather: Homophily in Social Networks,” Annual Review of Sociology
- Watts & Strogatz (1998) “Collective Dynamics of ‘Small-World’ Networks,” Nature

Thursday, February 5

- Kolaczyk & Csárdi (2020) Chapter 3 – “Visualizing Network Data”
- Freeman (2000) “Visualizing Social Networks,” Journal of Social Structure
- Skim through this documentation and the examples by Katherine Ognyanova “Static and Dynamic Network Visualization with R” https://kateto.net/network-visualization
- **Lab** – Visualizing Networks

Week 4 (02/09/2026-02/15/2026): **Statistical Models for Network Data**

Tuesday, February 10

- (skim through) Kolaczyk & Csárdi (2020) Chapter 6 – “Statistical Models for Network Graphs"
- Snijders et al. (2010) “Introduction to Stochastic Actor-based Models for Network Dynamics,” Social Networks
- Fritz et al. (2025) “Exponential Random Graph Models for Dynamic Signed Networks: An Application to International Relations,” Political Analysis
- Li & Bond (2023) “Examining Semantic (Dis)similarity in News through News Organizations’ Ideological Similarity, Similarity in Truthfulness, and Public Engagement on Social media: A Network Approach,” Human Communication Research
- (optional) Leifeld & Cranmer (2019) “A Theoretical and Empirical Comparison of the Temporal Exponential Random Graph Model and the Stochastic Actor-Oriented Model,” Network Science

Thursday, February 12

- Srivastava and Banaji (2011) “Culture, Cognition, and Collaborative Networks in Organizations,” American Sociological Review
- Lee and Monge (2011) “The Coevolution of Multiplex Communication Networks in Organizational Communities,” Journal of Communication
- Twyman et al. (2022) “Teammate Invitation Networks: The Roles of Recommender Systems and Prior Collaboration in Team Assembly,” Social Networks

Week 5 (02/16/2026-02/22/2026): **Causal Inference and Experiments in Networks**

Tuesday, February 17

- (skim through) Kolaczyk & Csárdi (2020) Chapter 10 – “Networked Experiments”
- Aral and Walker (2012) “Creating Social Contagion through Viral Product Design: A Randomized Trial of Peer Influence in Networks,” Management Science
- Bond et al. (2012) “A 61-Million-Person Experiment in Social Influence and Political Mobilization,” Nature
- Bail et al. (2018) “Exposure to Opposing Views on Social Media Can Increase Political Polarization,” Proceedings of the National Academy of Sciences

Thursday, February 19

- (skim through) Kolaczyk & Csárdi (2020) Chapter 11 – “Dynamic Networks”
- Aral, Muchnik & Sundararajan (2009) “Distinguishing Influence-based Contagion from Homophile-driven Diffusion in Dynamic Networks,” Proceedings of the National Academy of Sciences
- Centola (2010) “The Spread of Behavior in an Online Social Network Experiment," Science
- Fowler et al (2011) “Causality in Political Networks,” American Politics Research
- **Lab** – Network Structures and Experiments

Week 6 (02/23/2026-03/01/2026): **Online Social Networks**

Tuesday, February 24

- Lazer et al. (2021) “Meaningful Measures of Human Society in the Twenty-first Century,” Nature
- Zhang et al. (2021) “Assembling the Networks and Audiences of Disinformation: How Successful Russian IRA Twitter Accounts Built Their Followings, 2015-2017,” Journal of Communication
- Kramer, Guillory and Hancock (2014) “Experimental Evidence of Massive-scale Emotional Contagion through Social Networks,” Proceedings of the National Academy of Sciences

Thursday, February 26

- Mosleh et al. (2021) “Shared Partisanship Dramatically Increases Social Tie Formation in a Twitter Field Experiment,” Proceedings of the National Academy of Sciences
- Cinelli et al (2020) “The COVID-19 Social Media Infodemic,” Scientific Reports
- Green et al (2020) “Elusive Consensus: Polarization in Elite Communication on the COVID-19 Pandemic,” Science Advances

Week 7 (03/02/2026-03/08/2026): **Affiliation Networks** & **Information Flow**

Tuesday, March 3

- Song, Eberl & Eisele (2020) “Less Fragmented Than We Thought? Toward Clarification of a Subdisciplinary Linkage in Communication Science, 2010-2019,” Journal of Communication
- Fowler & Jeon (2008) “The Authority of Supreme Court Precedent,” Social Networks
- Mukerjee et al. (2018) “Networks of Audience Overlap in the Consumption of Digital News,” Journal of Communication
    - *Critique*: Webster & Taneja (2018) “Building and Interpreting Audience Networks: A Response to Mukerjee et al.,” Journal of Communication
    - *Rebuttal*: Mukerjee et al. (2018) “Response to Webster and Taneja’s Response to ‘Networks of Audience Overlap in the Consumption of Digital News’,” Journal of Communication

Thursday, March 5

- Ognyanova (2020) “Contagious Politics: Tie Strength and the Spread of Political Knowledge," Communication Research
- Carlson (2019) “Through the Grapevine: Informational Consequences of Interpersonal Political Communication,” American Political Science Review
- Meng et al. (2018) “Diffusion Size and Structural Virality: The Effects of Message and Network Features on Spreading Health Information on Twitter,” Computers in Human Behavior

Week 8 (03/09/2026-03/15/2026): **Why Content Matters: An Overview of Computational Content Analysis**

Tuesday, March 10

- (skim through) Grimmer et al. (2022) Chapter 2, 8, 10, 12, 13 – “Text as Data: A New Framework for Machine Learning and the Social Sciences”
- Grimmer & Stewart (2013) “Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts,” Political Analysis
- Wilkerson & Casas (2017) “Large-scale Computerized Text Analysis in Political Science: Opportunities and Challenges,” Annual Review of Political Science

Thursday, March 12

- (skim through) Webb Williams, Casas, and Wilkerson (2020) "Images as Data for Social Science Research," Cambridge University Press
    - Read Section 1 and Section 5
    - Open source code: https://codeocean.com/capsule/8598879/tree/v1
- Torres (2024) "A Framework for the Unsupervised and Semi-supervised Analysis of Visual Frames," Political Analysis
- Legewie & Nassauer (2023) "Current and Future Debates in Video Data Analysis," Sociological Methods & Research
- **Final Project Assignment** – Topic Selection

Week 9 (03/16/2026-03/22/2026): **Spring Break No Classes**

Week 10 (03/23/2026-03/29/2026): **Text Data as Social Data**

Tuesday, March 24

- Young & Soroka (2012) "Affective News: The Automated Coding of Sentiment in Political Texts," Political Communication
- Guo et al. (2016) "Big Social Data Analytics in Journalism and Mass Communication: Comparing Dictionary-Based Text Analysis and Unsupervised Topic Modeling," Journalism & Mass Communication Quarterly
- Garg et al. (2018) "Word Embeddings Quantify 100 Years of Gender and Ethnic Stereotypes," Proceedings of the National Academy of Sciences

Thursday, March 26

- Wilkerson, Smith, & Stramp (2015) "Tracing the Flow of Policy Ideas in Legislatures: A Text Reuse Approach," American Journal of Political Science
- Brady et al. (2017) "Emotion Shapes the Diffusion of Moralized Content in Social Networks," Proceedings of the National Academy of Sciences
- Hopkins et al. (2025) "The Rise of and Demand for Identity-Oriented Media Coverage," American Journal of Political Science

Week 11 (03/30/2026-04/05/2026): **Machine Learning for Text Analysis (Classification + Topic Modeling)**

Tuesday, March 31

- (skim through the end of part 4.3) James et al. (2017) An Introduction to Statistical Learning, Chapter 4 – "Classification"

- (skim through) Jacob (2018) Natural Language Processing, Chapter 4 – "Linguistic Applications of Classification"
- Ashokkumar & Pennebaker (2021) "Social Media Conversations Reveal Large Psychological Shifts Caused by COVID-19's Onset Across US Cities," Science Advances
- Brady et al. (2017) "Emotion Shapes the Diffusion of Moralized Content in Social Networks," Proceedings of the National Academy of Sciences
- Li et al. (2023) "Examining Homophily, Language Coordination, and Analytical Thinking in Online Conversations about Vaccines on Reddit: A Study Using Deep Neural Network Language Models and Computer-assisted Conversational Analyses," Journal of Medical Internet Research

Thursday, April 2

- (skim through) Vayansky & Kumar (2020) "A Review of Topic Modeling Methods," Information Systems
- Roberts et al. (2014) "Structural Topic Models for Open-ended Survey Responses," American Journal of Political Science
- Maier et al. (2018) "Applying LDA Topic Modeling in Communication Research: Toward a Valid and Reliable Methodology," Communication Methods and Measures
- Ying et al. (2021) "Topics, Concepts, and Measurement: A Crowdsourced Procedure for Validating Topics as Measures", Political Analysis
- (optional) Egger & Yu (2022) "A Topic Modeling Comparison between LDA, NMF, Top2Vec, and BERTopic to Demystify Twitter Posts," Frontiers in Sociology
- **Lab** – Supervised Learning with Text

Week 12 (04/06/2026-04/12/2026): **From Text to Inference**

Tuesday, April 7

- Egami et al. (2022) "How to Make Causal Inferences Using Texts," Science Advances
- Eichstaedt et al. (2015) "Psychological Language on Twitter Predicts County-Level Heart Disease Morality," Psychological Science.
    - *Critique*: Brown & Coyne (2018) "Does Twitter Language Reliably Predict Heart Disease? A Commentary on Eichstaedt et al. (2015)"
    - *Rebuttal*: Eichstaedt et al. (2018) "More Evidence that Twitter Language Predicts Heart Disease: A Response and Replication"
- Li et al. (2023) "Presidential Communication During the Pandemic: A Longitudinal Examination of its Relationship with Partisan Perceptions and Behaviors in the United States," Human Communication Research

Thursday, April 9

- Grimmer (2015) “We Are All Social Scientists Now: How Big Data, Machine Learning, and Causal Inference Work Together,” Political Science & Politics
- Xue et al. (2024) “The Majority of Fact-checking Labels in the United States Are Intense and This Decreases Engagement Intention,” Human Communication Research
- Hornik et al. (2022) “The Effects of Tobacco Coverage in the Public Communication Environment on Young People’s Decisions to Smoke Combustible Cigarettes,” Journal of Communication
- **Lab** – Topic Models:
    - (skim through) Roberts et al. (2014) “stm: R Package for Structural Topic Models (package vignette)”

Week 13 (04/13/2026-04/19/2026): **Visual Data as Social Data**

Tuesday, April 14

- Peng & Lu (2023) “Computational Visual Analysis in Political Communication,” In *Research Handbook on Visual Politics*, Edwin Elgar
- Joo & Steinert-Threlkeld (2022) “Image as Data: Automated Content Analysis for Visual Presentations of Political Actors and Events,” Computational Communication Research
- Zhang & Peng (2021) “Image Clustering: An Unsupervised Approach to Categorize Visual Data in Social Science Research,” Sociological Methods & Research

Thursday, April 16

- Kim et al. (2024) “Going Beyond Affective Polarization: How Emotions and Identities Are Used in Anti-vaccination TikTok Videos,” Political Communication
- Lu & Shen (2023) “Unpacking Multimodal Fact-checking: Features and Engagement of Fact-checking Videos on Chinese TikTok (Douyin),” Social Media + Society
- Jürgens et al. (2022) “Age and Gender Representation on German TV: A Longitudinal Computational Analysis,” Computational Communication Research
- **Lab** – Applying Deep Face and FER to Images and Videos

Week 14 (04/20/2026-04/26/2026): **From Images to Inference and Beyond**

Tuesdays, April 21

- Monroe et al. (2015) “No! Formal Theory, Causal Inference, and Big Data Are Not Contradictory Trends in Political Science,” Political Science & Politics
- Casas & Webb Williams (2019) “Images that Matter: Online Protests and the Mobilizing Role of Pictures,” Political Research Quarterly
- Buschoff et al. (2025) “Visual Cognition in Multimodal Large Language Models,” Nature Machine Intelligence

Thursday, April 23

- Bail (2024) “Can Generative AI Improve Social Science?” Proceedings of the National Academy of Science
- Ziems et al. (2024) “Can Large Language Models Transform Computational Social Science?” Computational Linguistics
- Abdurahman et al. (2024) “Perils and Opportunities in Using Large Language Models in Psychological Research”
- Egami, Hinck, Stewart, and Wei (2024) “Using Imperfect Surrogates for Downstream Inference: Design-based Supervised Learning for Social Science Applications of Large Language Models,” Advances in Neural Information Processing Systems

Week 15 (04/27/2026-05/03/2026): **Student Presentations**

Week 16 (05/04/2026-05/10/2026): **Student Presentations**