# Margaret (Molly) E. Roberts

#### CONTACT INFORMATION

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#### PROFESSIONAL HISTORY

## University of California, San Diego

Professor, Dept of Political Science and Halıcıoğlu Data Science Institute, July 2022-.

Chancellor's Associates Endowed Chair I, 2020-.

Associate Professor, Dept of Political Science and Halicioğlu Data Science Inst, July 2020-2022.

Associate Professor, Dept of Political Science, July 2018-2020

Assistant Professor, Dept of Political Science, July 2014-2018.

#### EDUCATION

# Harvard University,

Ph.D., Government, 2014

#### Stanford University

M.S. Statistics, June 2009

## Stanford University

B.A. International Relations & Economics, June 2009

#### Books

- Grimmer, Justin, Margaret E. Roberts, and Brandon M. Stewart. *Text as Data: A New Framework for Machine Learning and the Social Sciences*. Princeton University Press. (2022)
- Roberts, Margaret E. Censored: Distraction and Diversion Inside China's Great Firewall. Princeton University Press. (2018)

#### Publications

- 35. Hill, Seth and Margaret E. Roberts. "Acquiescence Bias Inflates Estimates of Conspiratorial Beliefs and Political Misperceptions." *Political Analysis*, Accepted.
- 34. Feder, A., Keith, K.A., Manzoor, E., Pryzant, R., Sridhar, D., Wood-Doughty, Z., Eisenstein, J., Grimmer, J., Reichart, R., Roberts, M.E. and Stewart, B.M. "Causal inference in natural language processing: Estimation, prediction, interpretation and beyond." *Transactions of the Association for Computational Linguistics*, Forthcoming.
- 33. Egami, Naoki, Christian Fong, Justin Grimmer, Margaret E Roberts, and Brandon Stewart. "How to Make Causal Inferences with Text." *Science Advances*, Forthcoming.
- 32. Chang, Keng-Chi, William R. Hobbs, Margaret E. Roberts, and Zachary C. Steinert-Threlkeld. "COVID-19 increased censorship circumvention and access to sensitive topics in China." *Proceedings of the National Academy of Sciences* 119, no. 4 (2022).

- 31. Padmanabhan, Ramakrishna, Arturo Filastò, Maria Xynou, Ram Sundara Raman, Kennedy Middleton, Mingwei Zhang, Doug Madory, Molly Roberts, and Alberto Dainotti. "A multi-perspective view of Internet censorship in Myanmar." In *Proceedings of the ACM SIGCOMM 2021 Workshop on Free and Open Communications on the Internet*, pp. 27-36. 2021.
- 30. Yang, Eddie, and Margaret E. Roberts. "Censorship of online encyclopedias: Implications for NLP models." In *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*, pp. 537-548. 2021.
- 29. Grimmer, Justin, Margaret E. Roberts, and Brandon M. Stewart. "Machine Learning for Social Science: An Agnostic Approach." *Annual Review of Political Science* 24 (2021): 395-419.
- 28. Stern, Rachel E., Benjamin L. Liebman, Margaret E. Roberts, and Alice Z. Wang. "Automating Fairness? Artificial Intelligence in the Chinese Courts." *Colum. J. Transnat'l L.* 59 (2020): 515.
- 27. Roberts, Margaret E. "Resilience to online censorship." *Annual Review of Political Science* 23 (2020): 401-419.
- Roberts, Margaret E., Brandon M. Stewart, and Richard A. Nielsen. "Adjusting for confounding with text matching." American Journal of Political Science 64.4 (2020): 887-903.
- 25. Liebman, Benjamin L., Margaret E. Roberts, Rachel E. Stern, and Alice Z. Wang. "Mass digitization of Chinese court decisions: How to use text as data in the field of Chinese law." *Journal of Law and Courts* 8, no. 2 (2020): 177-201.
- 24. Pan, Jennifer, and Margaret E. Roberts. "Censorship's Effect on Incidental Exposure to Information: Evidence From Wikipedia." SAGE Open10.1 (2020).
- 23. Wu, Xiaohan, Benjamin L. Liebman, Rachel E. Stern, Margaret E. Roberts, and Amarnath Gupta. "On Constructing a Knowledge Base of Chinese Criminal Cases." In *Legal Knowledge and Information Systems: JURIX 2019: The Thirty-second Annual Conference*, vol. 322, p. 235. IOS Press, 2019.
- 22. Lutscher, Philipp M., Nils B. Weidmann, Margaret E. Roberts, Mattijs Jonker, Alistair King, and Alberto Dainotti. "At home and abroad: The use of denial-of-service attacks during elections in nondemocratic regimes." *Journal of Conflict Resolution* 64, no. 2-3 (2020): 373-401.
- 21. Iyad Rahwan, Manuel Cebrian, Nick Obradovich, Josh Bongard, Jean-Francis Bonnefon, Cynthia Breazeal, Jacob W. Crandall, Nicholas A. Christakis, Iain D. Couzin, Matthew O. Jackson, Nicholas R. Jennings, Ece Kamar, Isabel M. Kloumann, Hugo Larochelle, David Lazer, Richard McElreath, Alan Mislove, David C. Parkes, Alex 'Sandy' Pentland, Margaret E. Roberts, Azim Shariff, Joshua B. Tenenbaum & Michael Wellman. "Machine behaviour." Nature. 2019 Apr 568(7753):477
- 20. Horowitz, Michael, Brandon M. Stewart, Dustin Tingley, Michael Bishop, Laura Resnick Samotin, Margaret Roberts, Welton Chang, Barbara Mellers, and Philip Tetlock. "What makes foreign policy teams tick: Explaining variation in group performance at geopolitical forecasting." The Journal of Politics 81, no. 4 (2019): 1388-1404.
- 19. Roberts, Margaret E., Brandon M. Stewart, and Dustin Tingley. "STM: An R package for structural topic models." *Journal of Statistical Software* 91 (2019): 1-40.
- 18. Roberts, Margaret E. "What is Political Methodology?" PS: Political Science & Politics 51.3 (2018): 597-601.

- 17. Hobbs, William R., and Margaret E. Roberts. "How sudden censorship can increase access to information." *American Political Science Review* 112.3 (2018): 621-636.
- 16. Gupta, Amarnath, Alice Z. Wang, Kai Lin, Haoshen Hong, Haoran Sun, Benjamin L. Liebman, Rachel E. Stern, Subhasis Dasgupta, and Margaret E. Roberts. 2017. "Toward Building a Legal Knowledge-Base of Chinese Judicial Documents for Large-Scale Analytics." Legal Knowledge and Information Systems: 135.
- Tucker, Joshua A., Yannis Theocharis, Margaret E. Roberts and Pablo Barberá. "From liberation to turmoil: Social media and democracy." *Journal of Democracy* 28, no. 4 (2017): 46-59.
- 14. King, Gary, Jennifer Pan, and Margaret E. Roberts. "How the Chinese government fabricates social media posts for strategic distraction, not engaged argument." *American Political Science Review* 111, no. 3 (2017): 484-501.
- King, Gary, Patrick Lam, and Margaret E. Roberts. "Computer? Assisted Keyword and Document Set Discovery from Unstructured Text." American Journal of Political Science 61, no. 4 (2017): 971-988.
- 12. Roberts, Margaret E, Brandon M. Stewart, and Edo M. Airoldi. 2016. "A model of text for experimentation in the social sciences." *Journal of the American Statistical Association*, 111 (515): 988-1003.
- Roberts, Margaret E, Brandon Stewart, and Dustin Tingley. 2016. "Navigating the Local Modes of Big Data: The Case of Topic Models." In *Computational Social Science:* Discovery and Prediction. ed. R. Michael Alvarez, New York: Cambridge University Press.
- Reich, Justin, Dustin Tingley, Jetson Leder-Luis, Margaret E. Roberts, & Brandon M. Stewart. 2015. "Computer Assisted Reading and Discovery for Student Generated Text." Journal of Learning Analytics, 2(1): 156-184.
- 9. Chuang J, Roberts M, Stewart B, Weiss R, Tingley D, Grimmer J, Heer J. 2015. "TopicCheck: Interactive Alignment for Assessing Topic Model Stability." *Proceedings of the 2015 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies.*
- 8. Monroe, Burt, Jennifer Pan, Margaret E. Roberts, Maya Sen, and Betsy Sinclair. 2015. "No! Formal Theory, Causal Inference, and Big Data Are Not Contradictory Trends in Political Science." PS: Political Science and Politics, 48 (1): 71-74.
- 7. Gary King and Margaret E. Roberts. 2015. "How Robust Standard Errors Expose Methodological Problems They Do Not Fix." *Political Analysis*, 23(2):159-179.
- Lucas, Christopher, Richard Nielsen, Margaret E. Roberts, Brandon M. Stewart, Alex Storer, and Dustin Tingley. 2015. "Computer assisted text analysis for comparative politics." Political Analysis, 23(2): 254-277.
- 5. Chuang J, Wilkerson JD, Weiss R, Tingley D, Stewart BM, Roberts ME, Poursabzi-Sangdeh F, Grimmer J, Findlater L, Boyd-Graber J, et al. 2014. "Computer-Assisted Content Analysis: Topic Models for Exploring Multiple Subjective Interpretations." Advances in Neural Information Processing Systems Workshop on Human-Propelled Machine Learning.
- King, Gary, Jennifer Pan, and Margaret E. Roberts. 2014. "Reverse Engineering Chinese Censorship: Randomized Experimentation and Participant Observation." Science, 345 (6199): 1-10.

- 3. Roberts Margaret E, Stewart Brandon M, Tingley Dustin, Airoldi Edo M. 2014. "The Structural Topic Model and Applied Social Science." Advances in Neural Information Processing Systems Workshop on Topic Models: Computation, Application, and Evaluation.
- Roberts, Margaret E, Brandon M. Stewart, Dustin Tingley, Christopher Lucas, Jetson Leder-Luis, Shana Gadarian, Bethany Albertson, David Rand. 2014. "Structural Topic Models for Open? Ended Survey Responses." American Journal of Political Science, 58 (4): 1064-1082.
- 1. King, Gary, Jennifer Pan, and Margaret E. Roberts. 2013. "How Censorship in China Allows Government Criticism but Silences Collective Expression." *American Political Science Review*, 107(2), 326-343.

#### WORKING PAPERS

- Jia, Ruixue, Margaret Roberts, Ye Wang, and Eddie Yang. "The Impact of US-China Tensions on U.S. Science."
- Wu, Xiaohan, Margaret E. Roberts, Rachel E. Stern, Benjamin L. Liebman, Amarnath Gupta, and Luke Sanford. "Augmenting Serialized Bureaucratic Data: The Case of Chinese Courts."

#### OTHER WRITINGS

- Harris Doshay and Molly Roberts. 2022. "How Do Chinese Citizens View Russia's Invasion Of Ukraine?" China Data Lab Blog, copy here: https://chinadatalab.ucsd.edu/viz-blog/how-do-chinese-citizens-view-russias-invasion-of-ukraine/
- Lei Guang, Harris Doshay, Zeyu Li, Bailey Marsheck, Molly Roberts, and Young Yang. 2022. "Part IV: Does Congress Come Together On China?" *China Data Lab Blog*, copy here: https://chinadatalab.ucsd.edu/viz-blog/does-congress-come-together-on-china/
- Lei Guang, Harris Doshay, Zeyu Li, Bailey Marsheck, Molly Roberts, and Young Yang.
  2022. "Part III: How Does Congress Feel About China?" China Data Lab Blog, copy here: https://chinadatalab.ucsd.edu/viz-blog/how-does-congress-feel-about-china/
- Lei Guang, Harris Doshay, Zeyu Li, Bailey Marsheck, Molly Roberts, and Young Yang.
  2022. "Part II: What Do Members Of Congress Tweet About China?" China Data Lab
  Blog, copy here: https://chinadatalab.ucsd.edu/viz-blog/what-do-members-of-congress-tweet-about-china
- Lei Guang, Harris Doshay, Zeyu Li, Bailey Marsheck, Molly Roberts, and Young Yang. 2022. "Part I: Who In The U.S. Congress Tweets About China?" *China Data Lab Blog*, copy here: https://chinadatalab.ucsd.edu/viz-blog/who-in-the-us-congress-tweets-about-china/
- Guang, Lei, Roberts, Margaret, Xu, Yiqing, Zhao, Jiannan, and Young Yang. 2020. "Pandemic Sees Increase In Chinese Support For Regime, Decrease In Views Towards The U.S." China Data Lab Blog, copy here: https://chinadatalab.ucsd.edu/viz-blog/pandemic-sees-increase-in-chinese-support-for-regime-decrease-in-views-towards-us/
- Pan, Jennifer and Roberts, Margaret E. 2019. "These 3 factors explain why the NBA and other companies struggle to push back against Chinese censorship." Washington Post, copy here: https://www.washingtonpost.com/politics/2019/10/16/these-factors-explain-why-nba-other-companies.
- Roberts, Margaret E. 2016. "Here's How Text Analysis is Transforming Social Science Research." Washington Post, copy here: https://www.washingtonpost.com/news/monkey-cage/wp/2016/05/27/heres-how-text-analysis-is-transforming-social-science-research/

- Roberts, Margaret E. 2016. "Introduction to the Virtual Issue: Recent Innovations in Text Analysis for Social Science." *Political Analysis Virtual Issue*, copy here: http://oxfordjournals.org/our\_journals/polana/text-as-data.pdf
- Roberts, Margaret E. 2015. "What New Kinds of Data Can Reveal About Autocrats." The Political Communication Report, copy here: http://www.politicalcommunication.org/newsletter\_25\_1\_roberts.html

#### Software

- stm (with Brandon M. Stewart and Dustin Tingley) stm is an R package for implementing topic models with applications to social science.
- **stmBrowser** (with Michael Freeman, Jason Chuang, Brandon Stewart and Dustin Tingley) stmBrowser is an R package for visualizing topic models.
- **stmCorrViz** (with Antonio Coppola, Brandon Stewart and Dustin Tingley) This package generates an interactive hierarchical topic explorer.
- eiR: A(n R) Program for Ecological Inference (with Gary King) eiR is an R package for implementing statistical procedures for ecological inference

#### PATENTS AND PATENTS PENDING

- Gupta, Amarnath, Subhasis Dasgupta, and Margaret Roberts. "Data ingestion into a polystore." U.S. Patent Application No. 16/209,397.
- Gary King, Margaret Roberts, and Patrick Lam. 4/30/2019. "Systems and Methods for Keyword Determination and Document Classification from Unstructured Text." United States of America US 10,275,516 B2 (U.S Patent and Trademark Office)

#### Honors and Awards

- 2022 Max Planck-Humboldt Research Award (1.5 million Euros)
- 2021 Society for Political Methodology Emerging Scholar Award
- 2021 Friedrich Schiedel Prize for Politics and Technology (30,000 Euros)
- 2021 Sloan Foundation Grant "Information Control and Geopolitical Rivalry: How Censorship of Online Platforms and U.S.-China Tensions Impact Science and Innovation" (with Ruixue Jia) \$350,000
- 2020 Best Book Award, International Studies Association
- 2019 Best Book in the Information Technology and Politics Section, American Political Science Association
- 2019 Best Book Award in the Human Rights Section, American Political Science Association
- 2019 Goldsmith Book Prize
- 2019 International Studies Association Human Rights Section's Best Book Runner Up
- Foreign Affairs Best Books of 2018
- 2018 Society for Political Methodology Statistical Software Award for stm: An R package for Structural Topic Models

- 2017 National Science Foundation RIDIR Award, "Collaborative Research: Analytical tools for text based social data integration" (with Amarnath Gupta and Brandon Stewart) \$1,516,099
- 2016 UC San Diego, Hellman Fellowship, "Estimating the Impact of the Great Firewall on Political Opinion in China" \$46,447
- 2016 UC San Diego, Academic Senate Research Award, "The Credibility of Media Information to Citizens" (with Seth Hill) \$14,032
- 2015 UC San Diego, Integrated Digital Infrastructure Grant, "A High-Performance Storage, Management and Computation Platform for Heterogeneous, Multilingual Text Data to Enable Social Science Research" (with James Fowler and Amarnath Gupta) \$94,000
- 2015 National Science Foundation RAPID Grant, "RAPID: Measuring the Intent of Chinese Leaders through Censorship Behavior" (with Gary King and Jennifer Pan) \$200,000
- 2015 APSA Division of Political Communication's Outstanding Dissertation Award
- 2015 Richard J. Herrnstein Prize for Dissertation "Fear, Friction, and Flooding: Methods of Online Information Control."
- 2014 China and Inner-Asia Council Graduate Student Best Paper Prize at Association for Asian Studies Annual conference for "Fear or Friction? How Censorship Slows the Spread of Information in the Digital Age"
- 2014 Midwest Political Science Association Kellogg/Notre Dame Award for "Reverse Engineering Chinese Censorship through Randomized Experimentation and Participant Observation"
- 2014 Society for Political Methodology's Harold F. Gosnell Prize for "Topic Models for Open-Ended Survey Responses with Applications to Experiments"
- 2014 Edward M. Chase Prize for the best dissertation on a subject relating to the promotion of world peace

#### Teaching

- Fall 2021/Winter 2022: Political Science Senior Thesis Seminar
- Fall 2021/Winter 2022: HDSI Capstone Mentor
- Spring 2021, Spring 2022: Poli 176/DSC 161 Text as Data
- Winter 2017, Spring 2018, Spring 2019: Poli 5, Introduction to Social Data Analytics
- Fall 2016, Poli 172, Advanced Social Data Analytics
- Fall 2016, Spring 2019, Spring 2021: Poli 274, Text as Data
- Winter 2015 & Winter 2016, Poli 170A, Introductory Statistics for Political Science and Public Policy
- Winter 2015, Winter 2016, Spring 2018, Winter 2020, Spring 2022: Poli 271, Advanced Statistical Applications
- Spring 2013, Teaching Fellow, Advanced Quantitative Research Methodology
- Fall 2012, Teaching Fellow, The Government and Politics of China
- Spring 2012, Teaching Fellow, Advanced Quantitative Research Methodology
- Fall 2011, Teaching Fellow, Introduction to Quantitative Methods
- Spring 2011, Teaching Fellow, Advanced Quantitative Research Methodology

- Journal Reviewer: Annals of Applied Statistics, American Journal of Political Science, American Political Science Review, Asian Survey, British Journal of Political Science, Cambridge University Press, Comparative Political Studies, International Studies Review, International Journal of Communication, International Organization, International Studies Quarterly, Journal of Chinese Political Science, Journal of Comparative Economics, Journal of Conflict Resolution, Journal of East Asian Studies, Journal of Information Technology and Politics, Journal of Official Statistics, Journal of Peace Research, Journal of Politics, Journal of the American Statistical Association, National Science Foundation, Perspectives on Politics, Policy and Internet, Political Analysis, Political Behavior, Political Communication, Political Science Research and Methods, PNAS, Princeton University Press, Public Administration Review, Problems of Post-Communism, Science, Science Advances, Sociological Methods and Research, Sociological Methodology, The China Journal World Politics
- Conference Reviewer: Association of Computational Linguistics, International Conference on Web and Social Media, Empirical Methods in Natural Language Processing
- Editorial Board Member: Political Analysis, American Journal of Political Science, American Political Science Review, China Quarterly, Political Behavior, World Politics
- Polmeth Program Committee (2022)
- Information Technology and Politics Best Book Award Committee (2021)
- American Political Science Association Methodology Section Chair (2019)
- Text as Data Program Committee (2019)
- Text as Data Association Board (2019-)
- Society for Political Methodology Diversity Committee (2014-2021)
- Dunster House Resident Tutor, 2011-2014

## Keynotes & Invited Presentations

- 2022: Strauss Center for International Security and Law, UT Austin (Virtual); International Conference on Computational Social Science (IC2S2) at the University of Chicago (Keynote); Schwarzman College China Political Institutions Course (4 lectures, Virtual); Georgetown University Department of Government and the Mortara Center for International Studies CRITICS/GUITARS Seminar; Federal Reserve Bank of Philadelphia Frontiers in Machine Learning and Economics Conference; University of Illinois Urbana-Champaign Political Science Department (Virtual)
- 2021: University of Chicago Computational Social Sciences Workshop (Virtual); USF-USSOCOM Forum on Russian, European and US Security (Virtual); MIT China Seminar (Virtual); USC KSI Workshop (Virtual); University of Cincinnati College of Law Symposium (Virtual); Cornell University: Reppy Institute for Peace and Conflict Studies (Virtual); Brown University Watson Institute (Virtual); University of Chicago Harris Political Economy Seminar (Virtual); Hoover Institution Project on Text-Based Analysis (Virtual); Stanford University China Social Science Workshop (Virtual); "NLP for Internet Freedom: Censorship, Disinformation, and Propaganda" Workshop Keynote Speaker at NAACL-21; Wikimedia Research Showcase; Department of Government at American University (Virtual); University of Washington, Center for Statistics and the Social Sciences Seminar Series

- 2020: ISQM University of Michigan; National Academies of Sciences Workshop on Political Warfare, Washington, DC; China Program Colloquia, Stanford University; Joint Political Economy Seminar, Stanford University; 53rd Essex Summer School Keynote (Virtual); NYU Political Economy Workshop (Virtual); Finance and Business Economics, USC Marshall School of Business (Virtual); Governance of AI Webinar Series, Oxford University (Virtual); Applied Research and Education Seminar, University of Toronto (Virtual); Schwarzman College China Political Institutions Course (4 lectures, Virtual)
- 2019: EPFL IC Summer Research Institute, Lausanne, Switzerland; University of Konstanz; Apple University; Comparative Politics Workshop, University of Pennsylvania; Comparative Politics Seminar, Columbia University; Center on Contemporary China, Princeton University; Political Economy and Political Violence Seminar, Texas A&M; Data Science and Law Conference, Zurich, Switzerland; Governance of Big Data and AI Workshop, Tilburg, Netherlands; Schwarzman College China Political Institutions Course, Beijing, China.
- 2018: Sidney Lecture Verba Speaker Series, Inaugural Speaker, Harvard University; Methodology Workshop, Princeton University; Political Institutions and Methodology Colloquium, Emory University; Comparative Manifesto Corpus Conference, Berlin, Germany; Political Economy Colloquium and our Comparative Politics Colloquium, UW Madison.
- 2017: Microfoundations in Politics Lecture Series at the Cologne Center for Comparative Politics. Cologne, Germany; Carlsberg Foundation Public Lecture. Copenhagen, Denmark; Keck Center Faculty Seminar, Claremont McKenna College; Political Science & Political Economy Group, London School of Economics; University of Warwick Political Economy Seminar; Department of Political Science Washington University, St Louis; USC Finance and Business Economics Department Applied Economics Workshop; UC Berkeley, Comparative Politics Colloquium; Harvard University, Applied Statistics Workshop; CSSS Seminar Series, University of Washington; Political Science Department University of New Mexico; Methodology Workshop, Princeton University; Political Science Department, University of Iowa; Berkeley Haas School of Business
- 2016: Nuffield Seminar, Oxford University; Empirical Methods in Natural Language Processing, Computational Social Science Workshop, Austin, TX; Institute for Pure and Applied Mathematics, UCLA; New York University Text as Data Speaker Series; University of Colorado, Boulder Methods Workshop; Washington University, St Louis Methods Workshop; CIS Colloquium, ETH Zurich; Political Science Department, Arizona State University, Political Science Department, Waseda University, Tokyo
- 2015: Yale University Methods Workshop; Kansas State Statistics Department; Communication Conflict and Contention in the Digital Age, University of Konstanz, Konstanz, Germany; Political Economy Workshop, University of Chicago; CDS Symposium, Power and Counterpower, Cambridge, UK
- 2014: Methods Workshop, Stanford University; Understanding Politics Speaker Series, UC Merced; The International Society for New Institutional Economics; Human Capital, Singapore