

Brandon M. Stewart (August 30, 2019)

- CONTACT INFORMATION Princeton University
149 Wallace Hall *E-mail:* bms4@princeton.edu
Princeton, NJ 08544 *Web:* <http://scholar.princeton.edu/bstewart>
- RESEARCH INTERESTS Computational Social Science, Text as Data, Bayesian Statistics, Causal Inference
- ACADEMIC APPOINTMENTS **Princeton University**
Assistant Professor, Department of Sociology, July 2015-
Arthur H. Scribner Bicentennial Preceptor July 2018-June 2021
Faculty Associate, Office of Population Research 2015-
Faculty Associate, Center for Digital Humanities 2015-
Faculty Associate, Center for Statistics and Machine Learning 2015-
Faculty Associate, Center for Information Technology Policy 2016-
Faculty Affiliate, Department of Politics 2015-
Faculty Associate, Institute for Computational Science and Engineering 2016-
- EDUCATION **Harvard University**
Ph.D., Government, May 2015
Committee: Gary King, Beth Simmons, Dustin Tingley
A.M., Statistics, May 2014
College of William & Mary
B.A., Government and International Relations, May 2007
- *summa cum laude*
- Highest Honors in Government
- PEER REVIEWED ARTICLES AND CONFERENCE PROCEEDINGS
22. Roberts, Margaret E., Brandon M. Stewart, Dustin Tingley. “stm: R Package for Structural Topic Models.” *Journal of Statistical Software*. Forthcoming.
 21. Horowitz, Michael, Brandon M. Stewart, Dustin Tingley, Michael Bishop, Laura Resnick, Molly Roberts, Welton Chang, Barbara Mellers and Phil Tetlock. “What Makes Foreign Policy Teams Tick: Explaining Variation in Group Performance At Geopolitical Forecasting” *Journal of Politics*. Forthcoming.
 20. Yeomans, Mike, Alex Kindel, Kimia Mavon, Justin Reich, Brandon M. Stewart and Dustin Tingley. “Engagement Across Political Differences in Massive Open Online Courses.” *International Journal of Artificial Intelligence in Education*. 2018, 28(4), 553-589.
 19. Chaney, Allison J.B., Brandon M. Stewart and Barbara E. Engelhardt. “How Algorithmic Confounding in Recommendation Systems Increases Homogeneity and Decreases Utility.” In *Twelfth ACM Conference on Recommender Systems (RecSys '18)*, Vancouver, BC, Canada. 2018.
 18. Khodak, Mikhail, Nijunj Saunshim, Yingyu Liang, Tengyu Ma, Brandon Stewart, and Sanjeev Arora. “A La Carte Embedding: Cheap but Effective Induction of Semantic Feature Vectors.” In *Proceedings of the Association of Computational Linguistics*, Sofia, Bulgaria. 2018.
- Selected for Oral Presentation

17. Simmons, Beth A., Paulette Lloyd, Brandon M. Stewart. "The Global Diffusion of Law: Transnational Crime and the Case of Human Trafficking." *International Organization*. 2018; 72(2) 249-281.
16. Kindel Alex, Mike Yeomans, Justin Reich, Brandon M. Stewart and Dustin Tingley. "Discourse: MOOC Discussion Forum Analysis at Scale", in *Proceedings of the Fourth (2017) ACM Conference on Learning @ Scale*. New York, NY, USA: ACM; 2017 :141142.
15. Roberts, Margaret E., Brandon M. Stewart, Edoardo M. Airoldi. "A topic model for experimentation in the social sciences." *Journal of the American Statistical Association*. 2016; 111(515): 988-1003.
14. Reich, Justin, Brandon M. Stewart, Kimia Mavon, and Dustin Tingley. "The Civic Mission of MOOCs: Measuring Engagement across Political Differences in Forums." *Proceedings of the Third (2016) ACM Conference on Learning @ Scale*. 2016: 1-10.
- Best Paper Award for Conference
13. Reich, Justin, Dustin Tingley, Jetson Leder-Luis, Margaret E. Roberts, Brandon M. Stewart. "Computer Assisted Reading and Discovery for Student Generated Text in Massive Open Online Courses." *Journal of Learning Analytics*. 2015; 2(1) 156-184
12. Lucas, Christopher, Richard Nielsen, Margaret E. Roberts, Brandon M. Stewart, Dustin Tingley. "Computer assisted text analysis for comparative politics." *Political Analysis*. 2015; 23(2): 254-277.
- Included in *Political Analysis* virtual issue on Online Research Methods
- Reprinted in *Advances in Political Methodology* 2017 Edited by Robert J. Franzese
11. Chuang, Jason, Margaret Roberts, Brandon Stewart, Rebecca Weiss, Dustin Tingley, Justin Grimmer and Jeffrey Heer. "TopicCheck: Interactive Alignment for Assessing Topic Model Stability" *North American Chapter of the Association for Computational Linguistics Human Language Technologies (NAACL HLT)*. 2015.
10. Roberts, Margaret E., Brandon M. Stewart, Dustin Tingley, Christopher Lucas, Jetson Leder-Luis, Shana Gadarian, Bethany Albertson and David Rand. "Structural topic models for open-ended survey responses." *American Journal of Political Science*. 2014; 58(4): 1064-1082.
- Awarded Gosnell Prize for Excellence in Political Methodology
9. Chuang, Jason, John D. Wilkerson, Rebecca Weiss, Dustin Tingley, Brandon M. Stewart, Margaret E. Roberts, Forough Poursabzi-Sangdeh, Justin Grimmer, Leah Findlater, Jordan Boyd-Graber and Jeff Heer. "Computer-Assisted Content Analysis: Topic Models for Exploring Multiple Subjective Interpretations." *Advances in Neural Information Processing Systems Workshop on Human-Propelled Machine Learning*. 2014.
8. Roberts, Margaret E, Brandon M. Stewart, Dustin Tingley and Edoardo M. Airoldi "The Structural Topic Model and Applied Social Science." *Advances in Neural Information Processing Systems Workshop on Topic Models: Computation, Application, and Evaluation*. 2013.
- Selected for Oral Presentation.
7. Zhukov, Yuri M. and Brandon M. Stewart "Choosing Your Neighbors: Networks of Diffusion in International Relations." *International Studies Quarterly*. 2013; 57(2):271-287.
6. Grimmer, Justin and Brandon M. Stewart. "Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts." *Political Analysis*.

2013; 21(3):267-297.

- *Political Analysis* Editor's Choice Award

- Reprinted in *Advances in Political Methodology* 2017 Edited by Robert J. Franzese

5. O'Connor, Brendan, Brandon M. Stewart, and Noah A. Smith. "Learning to Extract International Relations from Political Context." In *Proceedings of the Association of Computational Linguistics*, Sofia, Bulgaria. 2013.
4. Andersen, Judith Pizarro, Roxane Silver, Brandon M. Stewart, Billie Koperwas, and Clemens Kirschbaum. "Psychological and Physiological Responses following Repeated Peer Death." *PLoS ONE*. 2013; 8(9): e75881.
3. Stewart, Brandon M. and Yuri M. Zhukov. "Use of force and civil-military relations in Russia: an automated content analysis." *Small Wars & Insurgencies*. 2009; 21(2): 319-343.
2. Shellman, Stephen M. and Brandon M. Stewart. "Early Warning Models of Haitian Flight." *Civil Wars*. 2007; 9(2): 174-99.
1. Shellman, Stephen M. and Brandon M. Stewart. "Political Persecution or Economic Deprivation? A Time-Series Analysis of Haitian Migration to the United States." *Conflict Management & Peace Science* 2007; 24(2): 121-37.

BOOK CHAPTERS/
OTHER
PUBLICATIONS

7. Stewart, Brandon M. "Computer-Assisted Text Analysis in Constitutional Law." In *Handbook on Research Methods in Constitutional Law*. Edward Elgar, 2020.
6. de Marchi, Scott and Brandon M. Stewart. "Wrestling with complexity in computational social science: theory, estimation, and representation." In *SAGE Handbook of Research Methods in Political Science and International Relations*. SAGE, 2020.
5. Roberts, Margaret E., Brandon M. Stewart, Dustin Tingley. "Navigating the Local Modes of Big Data: The Case of Topic Models" In *Computational Social Science: Discovery and Prediction*. Cambridge University Press. 2016.
4. Romney, David, Brandon M. Stewart, and Dustin Tingley. "Plain Text: Transparency in the Acquisition, Analysis, and Access Stages of the Computer-assisted Analysis of Texts." *Qualitative and Multi-Method Research*. 2015; 13(1): 32-37.
3. Coppola, Antonio and Brandon M. Stewart. "lbfgs: Efficient L-BFGS and OWL-QN Optimization in R." Software Vignette. 2014.
2. Lloyd, Paulette, Simmons Beth and Stewart Brandon M. "Combating Transnational Crime: The Role of Learning and Norm Diffusion in the Current Rule of Law Wave." In *The Dynamics of the Rule of Law*. Editors: Michael Zürn, André Nolkaemper and Randy Peerenboom. Cambridge University Press. 2012. Cambridge: 153-180.
1. Reeves, Andrew M, Stephen M. Shellman and Brandon M. Stewart. "Fair & Balanced or Fit to Print? The Effects of Media Sources on Statistical Inferences." *University of Georgia Occasional Paper Series*. 2006. 1-14.

WORKING PAPERS (See brandonstewart.org for up to date working papers.)

Ying, Luwei, Jacob Montgomery and Brandon M. Stewart. "Tools for Topic Model Validation: Towards Procedures for Validating Topics as Measures."

Stewart, Brandon M. "Latent Factor Regressions for the Social Sciences."

Egami, Naoki, Christian Fong, Justin Grimmer, Margaret E. Roberts, and Brandon M. Stewart. “How to make causal inferences using texts.”

Roberts ME, Stewart BM, Nielsen R. “Adjusting for Confounding with Text Matching.”

SOFTWARE

stm: R package for estimation of the Structural Topic Model with Margeret Roberts and Dustin Tingley. structuraltopicmodel.com
(2018 Statistical Software Award from Society for Political Methodology)

stmCorrViz: R package for generating an interactive visualization of topic correlations and hierarchy in a Structural Topic Model (STM) with Antonio Coppola, Margaret E. Roberts and Dustin Tingley.
<http://cran.r-project.org/web/packages/stmCorrViz/>

stmBrowser: R package which allows users to interactively explore the relationships between topics and the covariates estimated from the *stm* package in R. With Michael K. Freeman, Jason Chuang, Margaret E. Roberts and Dustin Tingley. structuraltopicmodel.com

stmgui: R package providing a graphical user interface for the 'stm' text analysis package. <https://CRAN.R-project.org/package=stmgui>

Consilience: Software for General Purpose Clustering with Merce Crosas, Gary King and Justin Grimmer. consilience.com

lbfgs: An R Package for Limited-memory BFGS Optimization with Antonio Coppola.
<http://cran.r-project.org/web/packages/lbfgs/index.html>

AWARDS

Outstanding Faculty Advisor Award (2019)
selected by the graduating class of undergraduate students concentrating in Sociology at Princeton University.

Society for Political Methodology Statistical Software Award (2018)
recognizes individuals for developing statistical software that makes a significant research contribution. Awarded to *stm* with Roberts and Tingley.

Arthur H. Scribner Bicentennial Preceptorship (2018-2021)
the bicentennial preceptorship is a three-year honorific appointment held by approximately ten early-career scholars at any one time across all departments at Princeton.

ACM Learning at Scale Conference Best Paper Award (2016)
awarded to “The Civic Mission of MOOCs” with Reich, Mavon and Tingley.

William and Mary Baxter-Ward Fellow (2015)
invited lecture and honor for distinguished alumni of the William & Mary Government department.

Edward M. Chase Dissertation Prize (2015)
for the best essay on a subject relating to the promotion of world peace among any student at Harvard University. Awarded to “Three Papers in Political Methodology.”

Gosnell Prize for Excellence in Political Methodology (2014)

for the best work in political methodology presented at any political science conference during the preceding year. Awarded to “Structural topic models for open-ended survey responses” with Roberts, Tingley and coauthors.

The Political Analysis Outstanding Reviewer Award (2014)
for exemplary assistance to Political Analysis

Political Analysis Editor’s Choice Award (2013)
for an article providing an especially significant contribution to political methodology. Awarded to ‘Text as Data’ with Justin Grimmer.

National Science Foundation Graduate Research Fellowship (2010-2013)

Certificate of Distinction in Teaching (2011)

Richard L. and Faith P. Morningstar Graduate Fellowship (2008-2009)

Warner Moss Prize for Best Undergraduate Thesis in Government (2007)

EXTERNAL GRANTS

2017 National Science Foundation RIDIR Award, “Collaborative Research: Analytical tools for text-based social data integration” (with Amarnath Gupta and Molly Roberts) \$1,516,099

2015 Hewlett Foundation “Computational Measures of Engagement Across Difference in Online Courses” (with Justin Reich and Dustin Tingley), \$50,000

2015 Spencer Foundation “Computational Measures of Engagement Across Difference in Online Courses” (with Justin Reich and Dustin Tingley), \$400,000

TEACHING

(See materials at scholar.princeton.edu/bstewart/teaching)

Courses

Spring 2019 (Half-Term). Princeton University. Sociology 592: Text as Data: Statistical Text Analysis for the Social Sciences (Graduate)

Fall 2018. Princeton University. Sociology 400: Applied Social Science Statistics (Undergraduate)

Fall 2018. Princeton University. Sociology 500: Applied Social Science Statistics (Graduate)

Spring 2017. Princeton University. Sociology 401/504: Advanced Social Statistics (Undergraduate/Graduate)

Fall 2016. Princeton University. Sociology 400/500: Applied Social Science Statistics (Undergraduate/Graduate)

Fall 2016. Princeton University. Sociology 320: Growing Up Poor Across America: An Introduction to Reasoning With Data co-taught with Maggie Frye (Undergraduate)

Spring 2016 (Half-Term). Princeton University. Sociology 592: Text as Data: Statistical Text Analysis for the Social Sciences (Graduate)

Spring 2016. Princeton University. Sociology 504: Advanced Social Statistics (Graduate)

Fall 2015. Princeton University. Sociology 500: Applied Social Science Statistics. (Graduate)

Short-Courses

April 2019, Yale University Department of Sociology. Text as Data.

July 2018, Bamberg Graduate School of Social Sciences. Text as Data.

June 2018, Data Science Summer School (DS³) École Polytechnique. Text as Data in the Social Sciences.

December 2017, University of Michigan Complex Systems. Text as Data.

May 2015, Florida State University. Text as Data Graduate Methods Workshop.

June 2010, University of Washington, Seattle. Tools for Text Workshop: “Automated Topic Models in Political Science: Practical Skills for Document Clustering in R”

Fall 2006, College of William & Mary. Political Theory and International Relations (co-taught with Paul Gutierrez and David Dessler, semester long, one-credit course).

EXTERNAL
INVITED
PRESENTATIONS

2019: NYU Abu Dhabi, UCLA California Center for Population Research, UC San Diego E-Sciences Institute, New York University, Columbia Data Science Seminar, TextXD: Text Analysis Across Domains Keynote at UC Berkeley

2018: Berkeley Demography, Data Science Summer School (DS³) École Polytechnique, MIT Institute for Data, Systems and Society

2017: University of Minnesota Psychology, Stanford Political Science, New York University Sociology, Association for Computational Linguistics: Workshop on Natural Language Processing and Computational Social Science, Yale University Political Science, Duke University Political Science, University of Washington CSSS, University of Michigan Complex Systems

2016: DARPA ISAT Conference on Causal Inference and Machine Learning, Political Instability Task Force Conference: Machine Learning and Automated Data Collection, Duke University Empirical Implications of Theoretical Models

2015: Microsoft Research New York, New York University: Center for Data Science, William & Mary Government Department.

2014: Penn State: New Faces in Political Methodology, University of Maryland Computer Science, UMass Amherst Computer Science, MIT Political Science Methods Workshop, Princeton Politics Methods Workshop.

2013: NC State University: Camp Resources Big Data Panel.

SELECTED
CONFERENCE
POSTERS &
PRESENTATIONS

International Studies Association: 2006, 2007, 2008, 2010, 2011, 2014
American Political Science Association: 2010, 2011, 2013, 2014, 2016
Political Methodology Meeting: 2011, 2013, 2014, 2015, 2017, 2019

American Sociological Association : 2018
 Neural Information Processing Systems: 2013

| | Year | Name | Dept. | Role | Placement |
|----------------------------|---------|------------------|------------------|--------|---|
| DISSERTATION COMMITTEES | current | Hannah Waight | Sociology | Chair | |
| | current | Ian Lundberg | Sociology | Chair | |
| | current | Alex Kindel | Sociology | Chair | |
| | current | Simone Zhang | Sociology | Member | |
| | current | Herrissa Lamothe | Sociology | Member | |
| | current | Clark Bernier | Sociology | Member | |
| | current | Elsa Voytas | Politics | Member | |
| | current | Will Horne | Politics | Member | |
| | current | Han Zhang | Sociology | Member | Hong Kong University of Science and Technology |
| | current | Rebecca Johnson | Sociology | Member | Dartmouth University |
| | current | Naoki Egami | Politics | Member | Columbia University |
| | 2018 | Kendall Park | Sociology | Member | Post-doc Vanderbilt Management School |
| | 2017 | Yuki Shiraito | Politics | Member | University of Michigan |
| | 2016 | Allison Chaney | Computer Science | Member | Post-doc Princeton |

OTHER PH.D.
ADVISING

Dissertation External Reader: Patrick Ishizuka (2016), Leah Gillion (2019)
 Comprehensive Exams Administered: Taylor Winfield (2017), Ian Lundberg (2017),
 Herrissa Lamothe (2018), Alex Kindel (2019), Chris Felton (2019)
 Current Pre-Committee Graduate Students: Chris Felton, Hannah Postel, Cambria
 Naslund, Zheng Shi

| | Year | Name | Field | Placement |
|---------------------------|-----------|----------------|------------------|---|
| POST-DOCTORAL SCHOLARS | 2018- | Michael Zhang | Statistics | |
| | 2016-2019 | Allison Chaney | Computer Science | Asst. Prof Duke's Fuqua School of Business |

DEPARTMENTAL
AND UNIVERSITY
SERVICE

Director of the Statistics Core, Office of Population Research (2018-)
 Center for Digital Humanities Executive Committee (2018-2021)
 Founder/Organizer, Sociology Statistics Reading Group (2016-)
 Organizer, Quantitative Social Science Colloquium, Departments of Sociology, Politics,
 Psychology (2018-)
 Co-Organizer, Quantitative Social Science Colloquium, Department of Sociology and
 Politics (2016-2018)
 Founder/Organizer, Graduate Methods Camp, Department of Sociology (2016-)
 Member, Graduate Committee, Department of Sociology (2015-16, 2016-17, 2018-2019)
 Member, Diversity Committee, Department of Sociology (2015-16, 2016-17)
 Organizer, Theorodology Workshop (2015-16)

PROFESSIONAL
SERVICE

Committees Outside the University:
New Directions in Text Analysis Program Committee, Stanford University (2019)
 Mathematical Sociology Award for American Sociological Association Committee (2018)
 Political Methodology Society Gosnell Prize Committee (2016-17)

Conferences Organized:
 Co-organizer *New Directions in Text Analysis* Conference, Princeton University (2017)

Reviewing (by field):

Interdisciplinary: *Science Advances*, *Proceedings of the National Academy of Sciences*

Political Science: *American Journal of Political Science*, *Conflict Management & Peace Science*, *International Studies Quarterly*, *Political Analysis*, *Political Behavior*, *Research & Politics*, *Public Opinion Quarterly*, *Journal of Peace Research*, *Journal of Politics*, *Political Science Research and Methods*, *Journal of Conflict Resolution*, *British Journal of Political Science*, *International Organization*, *American Political Science Review*, *Political Communication*, *Political Research Quarterly*

Sociology and Social Science: *Econometrica*, *Sociological Methodology*, *Communication Methods and Measures*, *Sociological Methods and Research*, *International Journal of Drug Policy*, *Journal of Policy Analysis and Management*, *Mobilization*, *Journal of Law and Courts*, Princeton University Press, *European Sociological Review*, Nuttfield Foundation, *Journal of Research on Educational Effectiveness*, *Sociological Science*

Statistics/Computer Science: *Journal of the American Statistical Association*, *SAGE Publications*, *Annals of Applied Statistics*, *Chapman & Hall CRC*, *Journal of Machine Learning Research*, *Statistics and Medicine*, *Journal of Artificial Intelligence Research*, National Science Foundation Methodology, Measurement, and Statistics (MMS) section *ad hoc* review, *Journal of the Royal Statistical Society*, *Journal of Business & Economic Statistics*, Panel review for the National Science Foundation

Computer Science Reviewing: *Neural Information Processing Systems* (NIPS) “Topic Models: Computation, Application and Evaluation” Workshop, 2013, *North American Association for Computational Linguistics* (NAACL-HLT) 2015, *Empirical Methods on Natural Language Processing* 2015, *Association of Computational Linguistics* 2016, *Conference on Empirical Methods in Natural Language Processing* 2016, *EMNLP 2016 Workshop on NLP+CSS*, *Ethics in Natural Language Processing* 2017, *EMNLP 2017 Workshop on NLP+CSS*, *Association of Computational Linguistics* 2017, *Empirical Methods on Natural Language Processing* 2017, *Association of Computational Linguistics* 2018, *North American Chapter of the Association for Computational Linguistics - Human Language Technologies* (NAACL-HLT) 2018, *Neural Information Processing Systems* 2018