

# Alex Hanna

Curriculum Vitae (September 15, 2020)

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## EMPLOYMENT

- 2018- Google  
Feb 2020 - Present, Research Scientist, Ethical AI  
July 2019 - Feb 2020, Program Manager, ML Fairness  
July 2018 - July 2019, Technical Curriculum Developer, ML, Google Cloud
- 2016-18 Assistant Professor, University of Toronto Mississauga  
Institute of Communication, Culture, Information and Technology  
Faculty of Information (Graduate appointment)

## EDUCATION

- 2016 PhD, Sociology, University of Wisconsin-Madison.
- 2013 MS, Sociology, University of Wisconsin-Madison.
- 2007 BA, Sociology, Purdue University.
- 2007 BS, Computer Science and Mathematics, Purdue University.

## PUBLICATIONS

### Peer-reviewed Conference Proceedings

- 2020 Denton, E., **Hanna, A.**, Amironesei, R., Smart, A., Nicole, H. and Scheuerman, M.K., 2020. Bringing the People Back In: Contesting Benchmark Machine Learning Datasets. arXiv preprint arXiv:2007.07399.
- 2020 Mitchell, M., Baker, D., Moorosi, N., Denton, E., Hutchinson, B., **Hanna, A.**, Gebru, T. and Morgenstern, J., 2020, February. Diversity and inclusion metrics in subset selection. In *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society* (pp. 117-123).
- 2020 **Hanna, A.**, Denton, E., Smart, A. and Smith-Loud, J., 2020, January. Towards a critical race methodology in algorithmic fairness. In *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency* (pp. 501-512).
- 2013 **Hanna, A.**, C. Wells, P. Maurer, D. V. Shah, L. Friedland, and J. Mattes. Partisan Alignments and Political Polarization Online: A Computational Approach to Understanding the French and U.S. Presidential Elections. In *Politics, Election, and Data Workshop (PLEAD)*. San Francisco, CA. November 1.

- 2011 **Hanna, A.**, B. Sayre, L. Bode, J. Yang, and D. V. Shah. Mapping the Political Twitterverse: Candidates and Their Followers in the Midterms. In *Proceedings of the Fifth International AAAI Conference on Weblogs and Social Media (ICWSM)*. Barcelona, Spain. July 17-21.

### Journal Articles

- 2016 Shah, D. V., **A. Hanna**, E. P. Bucy, D. S. Lassen, J. Van Thomme, K. Bialik, J. Yang, and J. Pevehouse. "Dual Screening During Presidential Debates: Political Nonverbals and the Volume and Valence of Online Expression." *American Behavioral Scientist* 60(14): 1816-1843.
- 2016 Wells, C., J. Van Thomme, P. Maurer, **A. Hanna**, J. Pevehouse, D. V. Shah, and E. P. Bucy. "Coproduction or Cooptation? Real-time Spin and Social Media Response During the 2012 French and US Presidential Debates." *French Politics* 14(2): 206-233.
- 2015 Bode, L., **A. Hanna**, J. Yang, and D. V. Shah. "Candidate Networks, Citizen Clusters, and Political Expression: Strategic Hashtag Use in the 2010 Midterms." *The ANNALS of the American Academy of Political and Social Science* 659(1): 149-165.
- 2015 Shah, D. V., **A. Hanna**, E. P. Bucy, C. Wells, and V. Quevedo. "The Power of Television Images in a Social Media Age: Linking Biobehavioral and Computational Approaches via the Second Screen." *The ANNALS of the American Academy of Political and Social Science* 659(1): 225-245.
- 2013 **Hanna, A.** "Computer-aided Content Analysis of Digitally-enabled Movements." *Mobilization: An International Quarterly* 18(4): 367-388.  
\*2014 Outstanding Graduate Student Paper Award, Mathematical Sociology Section, American Sociological Association.

### Book Chapters

- 2017 **Hanna, A.** "Being transgender on the academic job market." in *Reflections on Academic Lives: Identities, Struggles, and Triumphs in Graduate School and Beyond*, eds. Staci Zavattaro and Shannon Orr.
- 2015 Shah, D. V., K. Culver, **A. Hanna**, T. Macafee, and J. Yang. "Computational Approaches to Online Political Expression: Rediscovering a 'Science of the Social'." in *Handbook of Digital Politics*, eds. Stephen Coleman and Deen Freelon.

### Book Reviews

- 2012 The Second Palestinian Intifada: Civil Resistance. *Mobilization: An International Quarterly* 17(1): 103-104.

### Pre-rpints

"MPEDS: A Semi-automated Approach to Generating Protest Event Data." [[Preprint](#)]

“Black Protest in US News Wire Stories 1994-2010: Issues, Campaigns And Trends.”  
(with Pamela Oliver, Chaeyoon Lim) [[Preprint](#)]

## Blogs and Selected Media

Co-founder and contributor, [Bad Hessian](#)

Contributing editor, [Mobilizing Ideas](#)

- 2016 [“Being Transgender on the Job Market.”](#) *Inside Higher Ed*, July 15.
- 2013 [“The Signal and the Noise in Middle East Elections.”](#) (with Kevan Harris). *Foreign Policy*, December.
- 2013 [“Lipsyncing for Your Life: A Highly Detailed Survival Analysis of RuPaul’s Drag Race Jezebel,](#) March 13.
- 2013 [“Institutionalizing Computational Social Science.”](#) *orgtheory.net*, July 3.
- 2012 Featured (with Marc Smith) in [“Visualizing the War on Women Debate.”](#) *Foreign Policy*, July/August.

## SOFTWARE

Machine-learning Protest Event Data System (MPEDS)

[Website](#) / [Python package and Docker container](#) / [Annotation Interface](#)

## GRANTS

### Major grants

- 2020 “Student Protests and University Responses in the United States and Canada, 2012-2018.” (with Ellen Berrey). Insight Grant, Social Sciences and Humanities Research Council of Canada (SSHRC).
- 2018 “U.S. and Canadian Anti-Racism Student Protests, 2012-2016.” (with Ellen Berrey). Insight Development Grant, Social Sciences and Humanities Research Council of Canada (SSHRC).
- 2014 “Constructing and Validating an Automated Coding System for Electronic News Sources.” (with Pamela Oliver and Chaeyoon Lim). National Science Foundation, SES-1423784.
- 2011-15 National Science Foundation Graduate Research Fellowship Program.
- 2011 Foreign Language and Area Studies Fellowship, academic year (declined).
- 2010 Foreign Language and Area Studies Fellowship, summer.

### Minor Grants

- 2018 Connaught New Researcher Award, University of Toronto (declined).

- 2017 SSHRC Institutional Grant (SIG), University of Toronto Mississauga.
- 2016 Research and Scholarly Activity Fund, University of Toronto Mississauga.
- 2015 Vilas Travel Grant, University of Wisconsin-Madison.
- 2014 Department of Sociology Conference Travel Award, University of Wisconsin-Madison.
- 2014 Department of Sociology Small Grants Award, University of Wisconsin-Madison.
- 2013 Department of Sociology Conference Travel Award, University of Wisconsin-Madison.
- 2013 Social Science History Association Tilly Travel Award.
- 2013 International Studies Association Travel Award.
- 2013 Project on Middle East Political Science (POMEPS) Travel-Research-Engagement Grant (declined).
- 2011 Department of Sociology Small Grants Award, University of Wisconsin-Madison.
- 2011 Wisconsin Institutes for Discovery Emerging Interfaces Award.
- 2011 Graduate Student International Field Research Award, University of Wisconsin-Madison.

#### **AWARDS AND HONORS**

- 2014 Outstanding Graduate Student Paper Award, Mathematical Sociology Section, American Sociological Association.
- 2014 Young Scholars in Social Movements Conference Invitee.
- 2012 Distinction, Preliminary Examination in Comparative-Historical Sociology, University of Wisconsin-Madison.

#### **INVITED TALKS**

- 2017 "MPEDS: A Semi-Automated Approach for the Generation of Protest Event Data."
  - Peace Research Institute Oslo, December 13.
  - University of Oslo, December 11.
- 2015 "Computer-aided Content Analysis of Digitally-enabled Movements." United States Institute of Peace Blogs and Bullets Workshop, Stanford University, March 6.
- 2014 "Developing a System for the Automated Coding of Protest Event Data."
  - Northwestern Institute for Complex Systems, Northwestern University. October 1.
  - Department of Information and Library Science, Indiana University. September 25.

## CONFERENCES

### Papers Presented

- 2017 "Black Protest in US News Wire Stories 1994-2010: Voices From the Doldrums." (with Pamela Oliver).
- American Sociological Association. Montreal, QC, August 12-15.
  - Mobilization Conference. San Diego, CA, May 5-6.
- 2017 "Protest Data Futures." For Whom the Medium Matters. Toronto, ON, April 21.
- 2014-15 "Developing a System for the Automated Coding of Protest Event Data."
- New Frontiers of Automated Content Analysis in the Social Sciences. University of Zurich, July 1-3.
  - Computational Social Science Summit. Northwestern University, May 15-17.
  - Digital Crucible Conference. Dartmouth College, Oct 6-7, 2014.
  - Association for Education in Journalism and Mass Communication. Montreal, QC, Canada, August 6-9, 2014.
  - Young Scholars in Social Movements Conference. University of Notre Dame, May 2, 2014.
- 2014 "Teaching Big Data for Social Scientists." Association for Education in Journalism and Mass Communication. Montreal, QC, Canada, August 6-9.
- 2014 "Developing a System for the Automated Coding of Protest Event Data."
- 2013 "The Dynamics of the Political Media Field in Egypt." Social Science History Association. Chicago, IL, November 21-24.
- 2013 "Computer-aided Content Analysis of Digitally-enabled Movements." American Sociological Association. New York, NY, August 9-13.
- 2013 "Partisan Alignments and Political Polarization Online: A Computational Approach to Understanding the French and U.S. Presidential Elections." (with Chris Wells). Centre d'Etudes Comparées en Communication Politique and Publique. Paris, France, June 14-15.
- 2012 "Revolutionary Making and Self-understanding: The Case of #Jan25 and Social Media Activism." International Studies Association. San Diego, CA, April 2.
- 2010 "Facebook Mobilization in Egypt: The Origins of the April 6th Youth Movement." Communications Crossroads Conference. Madison, WI, April 9.

### Organizer

- 2014 Big Cities, Big Data: Big Opportunity for Computational Social Science Datathon (with Laura Nelson and Laura Norén). American Sociological Association. San Francisco, CA, August 15-16.

### Discussant

- 2015 Media and Social Movements. American Sociological Association. Chicago, IL, August 22-25.

### Panels and Workshops

- 2017 Intersectionality and Algorithmic Discrimination. Lorentz Center, Leiden University. Leiden, Netherlands, December 18-22.
- 2015 After the Dust Settles: Social Media in Political Transitions. United States Institute of Peace. Washington, DC, September 29.
- 2014 Big Data and Death Mini-Conference. University of Wisconsin-Madison. Madison, WI, November 7.

### CAMPUS PRESENTATIONS

- 2017 "Computational Methods for Analyzing Protest Emergence and Events." Woodsworth One. University of Toronto, February 1.
- 2016 "Computational Social Science." Communications Research Methods. University of Toronto Mississauga, November 28.
- 2016 "Collecting Twitter Data." Text as Data. University of Arizona, October 10.
- 2016 "Data Pipelines and Computational Methods for the Social Sciences." Research Data Services Holz Brown Bag Series. University of Wisconsin-Madison, March 9.
- 2015 "Gender Segregation and Gender Policies in Sports." (with Jaclyn Wypler) Sociology of Gender. University of Wisconsin-Madison, November 5.
- 2015 "Natural Language Processing and Supervised Machine Learning." Computational Sociology. Duke University, October 14.
- 2015 "Teaching Data Analysis & Computational Methods to Social Scientists." Computation and Communication Workshop Series. University of Wisconsin-Madison, March 19.
- 2014 "Developing a System for the Automated Coding of Protest Event Data." Politics, Culture, and Society Training Seminar. University of Wisconsin-Madison, September 23.
- 2012 "Revolutionary Making and Self-understanding: The Case of #Jan25 and Social Media Activism." Politics, Culture, and Society Training Seminar. University of Wisconsin-Madison, March 13.

- 2011 "Mapping the Political Twitterverse: Candidates and Their Followers in the Midterms." Politics, Culture, and Society Training Seminar. University of Wisconsin-Madison. April 19.

## TEACHING

### Courses Taught

Political Change, Social Movements, and Media  
 Social Data Analytics  
 Methods of Sociological Inquiry

### Selected Workshops and Online Courses

- 2020 Algorithmically-Encoded Bodies. Conference on Fairness, Accountability, and Transparency (FAT\*), Barcelona, Spain. January 27-30.
2018. Introduction to Text as Data, University of New Mexico.
- 2018 Analyzing Social Media Data in Python. DataCamp.
- 2018 Introduction to Social Network Analysis. Zurich Summer School for Women in Political Methodology. University of Zurich.
- 2016 Data Science and Social Science. New York University.
- 2015 Software Carpentry Workshop for the Social Sciences. University of Wisconsin-Madison. June 3-4.
- 2014 Introduction to Python for Social Scientists. Indiana University, September 26.
- 2014 Programming as a Research Method: Beginner's Guide to Wrangling Social Media Data with Python. Association of Education in Journalism and Mass Communication. Montreal, QC, Canada, August 6-9.
- 2013 International Summer School on Social Network Analysis. National Research University - Higher School of Economics, St. Petersburg, Russia. August 15-22.
- 2012-13 Social Media and Democracy Tworkshops, University of Wisconsin-Madison.

## SERVICE TO PROFESSION

Sociologists for Trans Justice, 2016-Present.

Webmaster, ASA Collective Behavior and Social Movements section, 2013-2016.

Department of Sociology Website Committee, University of Wisconsin-Madison, 2009-2016.

Program Committee: FAccT (2020, 2021), AIES (2020), International Conference on Computational Social Science (2016, 2017, 2018), International Conference on Weblogs and Social Media (2016-Present), #SMSociety (2014, 2015, 2017), SocInfo (2014, 2015, 2017)

Reviewer: American Behavioral Scientist; American Journal of Political Science; American

Sociological Review; British Journal of Sociology; Computer-Supported Cooperative Work & Social Computing (2014); European Political Science Review; Information, Communication & Society; International Journal of Public Opinion Research; Journal of Broadcasting & Electronic Media; Journal of Informational Technology & Politics; Journal of the Association for Information Science and Technology; Journal of Open Source Software; Mobilization; Political Communication; PLOS ONE; Social Forces; Social Media + Society; Social Problems; Social Thought and Research; Sociological Methodology; Sociological Methods & Research

## **PROFESSIONAL AFFILIATIONS**

American Sociological Association  
Society for the Social Studies of Science (4S)

## **SOFTWARE SKILLS**

Technical skills: Python (SciPy, NumPy, pandas, scikit-learn), R (ggplot2, tidyverse), Hadoop (Java MapReduce, Hive, Pig, streaming), SQL, HTML/CSS, JavaScript, Flask, Perl, PHP, C/C++, Java, Git, Bash, L<sup>A</sup>T<sub>E</sub>X

## **LANGUAGES**

English (native)  
Arabic (heritage learner, ACTFL OPI: Intermediate High [Summer 2010])  
French (novice)



## REFERENCES

Pamela E. Oliver  
Conway-Bascom Professor of Sociology  
University of Wisconsin-Madison  
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Madison, WI 53706  
608-262-6829  
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