Eaman Jahani

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MIT Sloan School of Management
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Research Interests

I am interested in how network processes and social incentives affect a wide array of outcomes such as economic inequality, information diffusion, fundraising success, sharing misinformation and hate speech. To this end, I use computational techniques and causal inference in networks, develop new network structure models and design online lab experiments to study how networks affect inequality and economic outcomes.

Areas of Specialisation

Statistics, Network Science, Social Networks, Experiment Design, Causal Inference, Social Sciences

Professional Experience

2022-Present — UC Berkeley, Department of Statistics, Berkeley — Jan 2022 - Present
RTG Postdoctoral Associate

2022-Present — World Bank, Washington DC — Mar 2022 - Present
Research Consultant

2021-2022 — MIT Sloan School of Management, Cambridge — Sep 2021 - Jan 2022
Postdoctoral Associate

2019-2021 — Facebook, Boston — Dec 2019 - Dec 2021
Consulting Researcher, Core Data Science

2011-2015 — Google, New York — July 2011 - Nov 2014
Software Engineer, AdWords

Education

Massachusetts Institute of Technology, Cambridge — Sep 2015 - Sep 2021
Institute for Data, Systems and Society, *PhD in Social and Engineering Systems*
Statistics and Data Science Center, *Interdisciplinary PhD in Statistics*
Thesis title: *Network Effects on Outcomes and Unequal Distribution of Resources*
Advisors: Alex 'Sandy' Pentland, Dean Eckles

University Of Michigan, Ann Arbor Sep 2005 - July 2011

BSc and MSc in Computer Science

Research

Working Papers

- *Tie Strength and Length in Social Capital: Evidence from Charitable Fundraising*
  Eaman Jahani, Michael C. Bailey, Dean Eckles
- *Rivalrous Resource Sharing in Networks can Exacerbate Existing Inequalities*
  Eaman Jahani, Dean Eckles

Under Review

- *Economic Impact and Determinants of Long Ties*
  Eaman Jahani, Samuel Fraiberger, Michael Bailey, Dean Eckles
  Revise and Resubmit at Proceedings of the National Academy of Sciences
- *Exposure to Common Enemies can Increase Political Polarization: Evidence from an Experiment with Automated Partisans*
  Eaman Jahani, Natalie Gallagher, Friedolin Merhout, Nicolo Cavalli, Douglas Guilbeault, Yan Leng, Christopher A. Bail
  Revise and Resubmit at Scientific Reports, 2022

Publication

- *The Network Structure of Unequal Diffusion*
  Eaman Jahani, Dean Eckles, Alex "Sandy" Pentland
  arxiv, 2022
- *Social Debunking of Misinformation on WhatsApp: The Case for Strong and In-group Ties*
  Irene Pasquetto, **Eaman Jahani**, Shubham Atreja, Matthew Baum
  Proceedings of the ACM on Human-Computer Interaction-CSCW, 2022
- *Mobility Network Reveals the Impact of Geographic Vaccination Heterogeneity on COVID-19*
  Yuan Yuan, **Eaman Jahani**, Shengjia Zhao, Yong-Yeol Ahn, Alex "Sandy" Pentland
  medRxiv, 2021
- *Segregated Interactions in Urban and Online Spaces*
  Xiaowen Dong*, Alfredo J. Morales*, **Eaman Jahani***, Esteban Moro, Bruno Lepri, Burcin Bozkaya, Carlos Sarraute, Yaneer Bar-Yam, Alex "Sandy" Pentland
  EPJ Data Science, 2020
- *Measuring the Predictability of Life Outcomes with a Scientific Mass Collaboration*
  Matthew J. Salganik in Mass Collaboration with 111 Authors
  Proceedings of the National Academy of Sciences, 2020

- *Winning Models for Grade Point Average, Grit, and Layoff in the Fragile Families Challenge*
  Daniel E Rigobon, **Eaman Jahani**, Yoshihiko Suhara, Khaled AlGhoneim, Abdulaziz Alghunaim, Abdullah Almaatouq
  Socius: Sociological Research for a Dynamic World, 2019
- *ScamCoins, S*** Posters, and the Search for the Next Bitcoin^{TM}: Collective Sensemaking in Cryptocurrency Discussions*
  Eaman Jahani, Peter M. Krafft, Yoshihiko Suhara, Esteban Moro, Alex "Sandy" Pentland
  Proceedings of the ACM on Human-Computer Interaction-CSCW, 2018
- *Improving official statistics in emerging markets using machine learning and mobile phone data*
  Eaman Jahani, Pål Sundsøy, Johannes Bjelland, Linus Bengtsson, Alex "Sandy" Pentland, Yves-Alexandre de Montjoye
  EPJ Data Science, 2017
- *Automatic Optimization for MapReduce Programs*
  Eaman Jahani, Michael J. Cafarella, Christopher Ré.
  VLDB, 2011

Publication (lightly refereed)

- *Differential Network Effects on Economic Outcomes: A Structural Perspective*
  Eaman Jahani, Guillaume Saint-Jacques, Pål Sundsøy, Johannes Bjelland, Esteban Moro, Alex "Sandy" Pentland
  International Conference on Social Informatics, 2017
- *Deep learning applied to mobile phone data for individual income classification*
  Pål Sundsøy, Johannes Bjelland, Bjørn-Atle Reme, Asif M Iqbal, **Eaman Jahani**
  International Conference on Artificial Intelligence: Technologies and Applications, 2016
- *Purchase patterns, socioeconomic status, and political inclination*
  Eaman Jahani*, Xiaowen Dong*, Alfredo Morales-Guzman, Burçin Bozkaya, Alex Pentland
  World Bank Economic Review, 2016

Teaching

- *Concepts in Statistics*, Undergraduate level, UC Berkeley
  Fall 2022
- *Introduction to Statistics*, Undergraduate level, UC Berkeley
  Spring 2022

Honors and Awards

NSF Graduate Research Fellowship 2015-2018
Software Engineering Promotion, Google 2013
Dean's List and James B. Angell Scholar, University of Michigan 2009

Recent Talks

- *Exposure to Common Enemies can Increase Political Polarization: Evidence from an Experiment with Automated Partisans*, Conference on Digital Experimentation (CODE), Boston, 2020
- *Network Structure of Unequal Diffusion*, International Conference of Computational Social Science, Boston, 2020
- *The Role of Social Ties in Debunking False Claims*, International Conference of Computational Social Science, Boston, 2020
- *Collective Sensemaking in Online Groups: The case of Cryptocurrency Discussions*, Sunbelt Conference, Montreal, 2019
- *ScamCoins, S*** Posters, and the Search for the Next Bitcoin^{TM}: Collective Sensemaking in Cryptocurrency Discussions*, CSCW Conference, New York, 2018
- *Differential Network Effects on Economic Outcomes: A Structural Perspective*, Network Science Conference, Paris, 2018
- *Differential Network Effects on Economic Outcomes: A Structural Perspective*, International Conference of Computational Social Science, Cologne, 2017
- *Bubbles and Network Structure: a study in cryptocurrencies*, International Conference of Computational Social Science, Helsinki, 2015

Service

Organizing

- *Summer Institute for Computational Social Science, Partner Site*, Boston, 2019

Reviewing

- *Statistical Methods & Applications*, 2022
- *Social Forces*, 2021
- *Social Forces, IC2S2*, 2020
- *ICIS*, 2018

Technical Skills

R, Python, C++, C, Java, UNIX shell scripting, SQL, Presto, Spark, PHP

Last updated: October 1, 2022