



## EDUCATION

**Massachusetts Institute of Technology**, Cambridge, MA September 2019 - Present  
PhD Candidate in Media Arts and Sciences at the MIT Media Lab's Human Dynamics group.

**Massachusetts Institute of Technology**, Cambridge, MA Graduated May 2019  
Masters in Media Arts and Sciences at the MIT Media Lab's Scalable Cooperation group.

- Thesis: *Untangling the Knotty Web of AI*, advised by Iyad Rahwan

**Pomona College**, Claremont, CA Graduated May 2017

Cum laude with Computer Science and Mathematics double major, Media Studies minor. GPA 3.88/4.00

- Thesis in Mathematics: *Data Representation as Low Rank Matrix Factorization*, advised by Blake Hunter
- Thesis in Media Studies: *The Mediasphere: Intermediation with Digital Planetaria*, advised by Kim-Trang Tran

**Aquincum Institute of Technology**, Budapest, Hungary Fall 2015

## EXPERIENCE

**Jigsaw (Google)** Feb 2020 - Present

Contractor at Google technology and cybersecurity incubator

- Developed design interventions & conducted randomized experiments to inform Google's response to misinformation.

**Facebook, Inc.**, New York, NY May 2019 - August 2019

Intern in Core Data Science on the Facebook and Society team

- Conducted causal inference and trained machine learning models at Facebook-scale as part of a independent research project to detect and understand the proliferation of misinformation.

**Massachusetts Institute of Technology**, Cambridge, MA June 2015 - August 2016

Researcher and software developer for Laboratory for Social Machines at MIT Media Lab

- Designed and implemented web scraper, back-end database and visualization interface as a functional component of Electome project to navigate, aggregate and understand online journalism during the 2016 Presidential Election. Affiliated with the MIT Summer Research Program, then rehired as private contract.

**Yale University**, New Haven, CT October 2012 - Present

Data Science Researcher at Human Cooperation Lab

- Design experiments and computational models, collect/analyze data and write papers to study and quantify human cooperation within an interdisciplinary environment. Funded by Pomona College Summer Internship Grant.

**Harvard University**, Cambridge, MA June 2012 - October 2012

Intern at Moral Cognition Lab

- Designed experiments, ran in-lab studies and learned literature for moral psychology as only high-school student in upper division summer internship program.

## EXTRACURRICULAR ACTIVITIES

**Co-founder of the ELIZA AI Art collective**, Cambridge, MA January 2018 - Present  
Founded and operate AI-based art collective that features artwork internationally. See more at <https://eliza-collective.github.io>

**Planetarium Operator**, Claremont, CA January 2016 - May 2017  
Created planetarium content, developed software, maintained hardware, presented shows and chaired community engagement for Pomona's digital 8K 25-foot planetarium.

**Radio DJ for KSPC 88.7**, Claremont, CA June 2014 - May 2016  
Broadcast radio show *Phantasmagoric Combinatronics* weekly to the greater LA area.

## PUBLICATIONS

Published (full list at <https://scholar.google.com/citations?user=yG7l19UAAAAAJhl=en>):

- Pennycook G\*, **Epstein ZG**\*, Mosleh M\*, Arechar, A, Eckles D, & Rand, D. Understanding and reducing the spread of misinformation online. *Nature* 592.7855 (2021): 590-595. (\*=contributed equally)
- **Epstein ZG**, Berinsky A, Cole R, Gully A, M, Pennycook G, & Rand, D. Developing an accuracy-prompt toolkit to reduce COVID-19 misinformation online. *Harvard Misinformation Review*. 2021.
- **Epstein ZG**, Groh M, Dubey A, Pentland A. Social influence leads to the formation of diverse local trends. Forthcoming in *CSCW 2021*.
- Groh, M, **Epstein ZG**, Obradovich, N, Cebrian, C & Rahwan, I. Human detection of machine manipulated media. *Communications of the ACM* doi:10.1145/3445972. October 2021, Vol. 64 No. 10, Pages 40-47 (Made cover of magazine)
- **Epstein ZG**, Levine, S, Rand, DG & Rahwan, I. Who gets credit for AI-generated Art? *iScience*, 2020.
- **Epstein ZG**, Boulais O, Gordon S, & Groh, M. Interpolating GANs to Scaffold Autotelic Creativity *ICCC'20*, (workshop paper) 2020. Available at <https://arxiv.org/abs/2007.11119>.
- **Epstein ZG**, Pennycook, G & Rand, DG. Letting the crowd steer the algorithm: Laypeople can effectively identify misinformation sources. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI'20) Available at <https://psyarxiv.com/z3s5k/download?format=pdf>
- **Epstein ZG**, Peysakhovich, A. & Rand, DG. The Good, the Bad, and the Unflinchingly Selfish: Cooperative decision-making can be predicted with high accuracy using only three behavioral types. *Proceedings of the Conference on Economics and Computation* July 2016. Available at [http://papers.ssrn.com/abstract\\_id=2737983](http://papers.ssrn.com/abstract_id=2737983)
- Devadoss, S, **Epstein ZG**, & Smirnov, D. Visualizing Scissors Congruence. *Symposium on Computational Geometry* June 16, 2016. Application available online at <http://dmsm.github.io/scissors-congruence>
- Rand DG, & **Epstein ZG**. Risking Your Life Without a Second Thought: Intuitive Decision-Making and Extreme Altruism. *PLoS ONE* October 15, 2014. Listed as one of the Top 10 Insights from the Science of a Meaningful Life in 2014 by the Greater Good Science Center at UC Berkeley.
- Padula WV, ... , **Epstein ZG**, ... et al. Using Clinical Data to Predict High-cost Performance Coding Issues Associated with Pressure Ulcers: a multilevel cohort model. *Journal of the American Medical Informatics Association (JAMIA)*, 2016. In Press.
- Padula WV, Makic MBF, **Epstein ZG**, Gemmel J & Meltzer DO. Using Machine Learning to Populate A Markov Model by Mining Big Data Directly from a Hospital EHR. Society of Medical Decision Making (SMDM) 37th Annual North American Meeting; St Louis, MO, October 2015.
- Padula WV, Allen RR, **Epstein ZG** & Nair KV. Determining the cost of obesity and common comorbidities from a commercial claims dataset. Health Economics Workshop, University of Chicago; February 27, 2014.

Pre-prints/under review :

- Sirlin, N., **Epstein, Z.**, Arechar, A. A., Rand, D. (2021). Digital literacy and susceptibility to misinformation. Under review at *Harvard Misinformation Review*.
- **Epstein ZG**, Foppiani N, Hilgard S, Sharma S, Glassman E & Rand, D. Explanations, attention and trust: Evaluating the impact of false news warnings attributed to human-AI hybrid systems. Under review at *ICWSM 2021*.
- Groh M, **Epstein ZG**, Firestone C, Picard R. Comparing Human and Machine Deepfake Detection with Affective and Holistic Processing. Revise and resubmit at *PNAS*.
- Gordon S, Mahari R, Mishra M, **Epstein ZG**. Co-creation and ownership for AI radio.
- Payne B.H, **Epstein ZG** et al. Closing the AI Knowledge Gap. Available at <https://arxiv.org/pdf/1803.07233.pdf>

## ARTWORKS FEATURED

- *Errorism* in collaboration with Agnieszka Kurant in her solo show at Muzeum Sztuki in Lodz, Poland (2021)
- *Life on Mars* featured in the Wasteland Film Festival, Utah Music Video awards and the iPhone Film Festival / Mozimotion (2021). Online at <https://vimeo.com/508951373>
- *Deep Angel Shadow Sans Substance* featured at Ars Electronica (2019)
- Field experiment conducted at Burning Man featured in *Nautilus* (2019). Read more at <http://nautil.us/issue/74/networks/six-degrees-of-separation-at-burning-man>

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### AWARDS

- Best Poster Presentation Award for *Towards a new social laboratory: An experimental study of search through community participation at Burning Man* – International Conference on Computational Social Science (2020)
- NSF Vizzies Winner - The National Science Foundation's top data visualization award (2018)
- Barry M. Goldwater Scholar– highly competitive national award for future scientists (2016)
- The Jaeger Mathematics Prize – awarded to a student for excellence in mathematics (September 2014)
- Pomona College Scholar (Fall 2013, 2014 and Spring 2014)

### SERVICE

Reviewed papers for IC2S2 2020, ICWSM 2020, PNAS, Organizer for ICWSM 2021 workshop

### Invited Talks

- Center for Constructive Communication (MIT) 3/31/2021
- Data Science / Computational Social Science Seminar Series @ UMSI (Michigan) 4/8/2021
- University of Pittsburgh Computational Social Science Seminar 4/21/2021
- Affective Brain Lab Seminar @ University College London 4/15/2021
- The Digital Image - Social Dimensions, Political Perspectives and Economic Constraints (German Research Foundation priority program) 4/29/2021

### SELECTED COURSE WORK

Experimental Design and Causal Inference (MIT), Ethics and Governance of Artificial Intelligence (MIT/Harvard), Advanced Graduate Machine Learning (MIT), Markets, Networks and Crowds (Harvard), Imagination, Computation, and Expression (MIT), Designing for Empathy (MIT IAP), Time Series Statistics (Pomona), Functional Analysis (Pomona), Algorithms (Harvey Mudd), Quantum Information Theory (Budapest University of Technology and Economics)