Ziv G. Epstein

 $51 \ {\rm Vassar} \ {\rm St}$ Cambridge, MA 02139

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA

September 2019 - May 2023

PhD in Media Arts and Sciences at the MIT Media Lab's Human Dynamics group.

• Thesis: The Dynamics of Attention in Digital Ecosystems, co-advised by David Rand and Sandy Pentland

Massachusetts Institute of Technology, Cambridge, MA

September 2017 - May 2019

Masters in Media Arts and Sciences at the MIT Media Lab's Scalable Cooperation group.

 \bullet Thesis: $\mathit{Untangling}\ the\ \mathit{Knotty}\ \mathit{Web}\ \mathit{of}\ \mathit{AI},$ advised by Iyad Rahwan

Graduated May 2017

Pomona College, Claremont, CA

BA 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

Massachusetts Institute of Technology, Cambridge, MA

June 2025 - Present

Social and Ethical Responsibilities of Computing (SERC) Postdoctoral Associate and Group Leader in the Schwarzman College of Computing, co-sponsored by Manish Raghavan and Caroline Jones

Stanford University, Palo Alto, CA

September 2023 - June 2025

Postdoctoral Scholar at Stanford Institute for Human-Centered Artificial Intelligence (HAI), co-advised by Michael Bernstein and Johan Ugander

Harvard University, Cambridge, MA

September 2024 - May 2025

Visiting Research Associate of the Harvard John A. Paulson School of Engineering and Applied Sciences, in the Computer Science Department

OpenAI

March 2022 - April 2022

Consultant on AI alignment

• Evaluated DALL-E 2 for problematic behavior, conducted research on societal impact of AI, and helped developed mitigations for future AI deployments.

Jigsaw (Google)

Feb 2020 - Aug 2021

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 - October 2017

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.

TEACHING

Institute of Digital Sciences Austria (IDSA)

September 2023 - January 2024

Developed curriculum, mentored students and instructed studio for IDSA's Founding Lab program, in collaboration with Ars Electronica Future Lab

• Organized project-based curriculum for Media chapter of the Founding Lab fall term. More info at https://ars.electronica.art/university/en/chapter-5/

PUBLICATIONS

Published (full list at https://scholar.google.com/citations?user=yG7119UAAAAJ&hl=en):

EJCS'25 Smith A, Schroeder H, Epstein ZG. AI Séance: recounts from designing AI for transcendence,

interpretive lenses, and chance. European Journal of Cultural Studies (2025)

PNAS Nexus'25 Wittenberg C, Epstein ZG, Péloquin-Skulski G, Berinsky A, Rand DG. Labeling AI-

generated media online. PNAS Nexus (2025): pgaf170.

CHI'25 Danry, V. Pataranutaporn, P., Groh, M., Epstein., ZG, Maes, P. Deceptive Explanations

> by Large Language Models Lead People to Change their Beliefs About Misinformation More Often than Honest Explanations CHI. 2025. Honorable Mention (awarded to papers in the

top 5% of submissions)

Harv. Data Sci. Rev. '24 Ugander J* & Epstein ZG*. The Art of Randomness: Sampling and chance in the age of

algorithmic reproduction Harvard Data Science Review. 2024. [HTML]

Science'23 Epstein ZG, Hertzmann A, et al. Art and the science of generative AI. Science. 2023.

[HTML] Twitter Thread]

Science Advances'23 Epstein ZG, Sirlin N, Arechar, A, Pennycook G, Rand DG. The social media context inter-

feres with truth discernment. Science Advances. 2023. [HTML] Twitter Thread] Arechar A.A,..., Epstein ZG... et al. Understanding and Reducing Online Misinforma-Nature Hum. Behav.'23

tion Across 16 Countries on Six Continents. Available at https://psyarxiv.com/a9frz/.

Forthcoming in Nature Human Behavior.

Epstein ZG*, Foppiani N*, Hilgard S*, Sharma S*, Glassman E & Rand, D. Do explana-ICWSM'22

> tions increase the effectiveness of AI-crowd generated fake news warnings? Proceedings of the International AAAI Conference on Web and Social Media. 2022. (*=contributed equally)

PNAS'22 Groh M, Epstein ZG, Firestone C, Picard R. Deepfake Detection by Human Crowds, Ma-

chines, and Machine-informed Crowds. PNAS.

NeurIPS Workshop'22 Lin H*, Epstein ZG*, Pennycook G, Rand DG. Quantifying attention via dwell

time and engagement in a social media browsing environment. NeurIPS workshop All Things Attention: Bridging Different Perspectives on Attention. Available at

https://arxiv.org/abs/2209.10464

ICCC'22 Epstein ZG. Schroeder H, Newman D. When happy accidents foster creativity: Bringing col-

laborative speculation to life with generative AI. International Conference for Computational

Creativity

ICCC'22 Gordon S, Mahari R, Mishra M, **Epstein ZG**. Co-creation and ownership for AI radio.

AAAI Workshop'22 Smith, A., Schroeder, H., Epstein, ZG, Cook, M., Colton, S., & Lippman, A. (2023). Trash

to Treasure: Using text-to-image models to inform the design of physical artefacts. AAAI

Creativity Across Modalities workshop

Pennycook G*, Epstein ZG,* Mosleh M*, Arechar, A, Eckles D, & Rand, D. Shifting at-Nature'21 tention to accuracy can reduce misinformation online. Nature 592.7855 (2021): 590-595.

(*=contributed equally). Honorable Mention for 2021 Behavioral Science and Policy Associ-

ation Best Paper Award.

CSCW'21 Epstein ZG, Groh M, Dubey A, Pentland A. Social influence leads to the formation of

diverse local trends. Proceedings of the ACM on Human-Computer Interaction in Computer-

Supported Cooperative Work (CSCW) 2021.

Harv. Misinfo Review'21 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.

Harv. Misinfo Review'21 Sirlin, N., Epstein, Z., Arechar, A. A., Pennycook, G. & Rand, D. (2021). Digital literacy is associated with more discerning accuracy judgments but not sharing intentions. Harvard

Misinformation Review. 2021.

CA CM'21 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)

CHI'20 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://psvarxiv.com/z3s5k/download?format=pdf

iScience'20 **Epstein ZG**, Levine, S, Rand, DG & Rahwan, I. Who gets credit for AI-generated Art?

iScience, 2020.

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ICCC Workshop '20	Epstein ZG, Boulais O, Gordon S, & Groh, M. Interpolating GANs to Scaffold Autotelic Cre-
	ativity ICCC'20, (workshop paper) 2020. Available at https://arxiv.org/abs/2007.11119.
EC'16	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.
SOCG'16	Devadoss, S, Epstein ZG, & Smirnov, D. Visualizing Scissors Congruence. Sym-
	posium on Computational Geometry June 16, 2016. Application available online at
	http://dmsm.github.io/scissors-congruence
PLOS ONE'14	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.
JAMIA'16	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.

Pre-prints/under review:

- Zhao, D, Jahanbakhsh, F, Roberston, Z, Piccardi, T, **Epstein, ZG**, Koyejo, S, and Bernstein, M. Encoding Basic Human Values in Social Media Feed Ranking Algorithm. arXiv preprint arXiv:2509.14434 (2025).
- Epstein, ZG, Jahanbakhsh, F, Piccardi T, Gallegos, I, Sapkota, S, Zhao, D, Ugander, J, and Bernstein, M.Towards interpretivism: Measuring Value Expressions in Social Media Posts. In prep.
- Epstein, ZG, Jahanbakhsh, F, Piccardi T, Peytavin, A, Gallegos, I, Sapkota, S, Zhao, D, Ugander, J, and Bernstein, M. Algorithmic amplification is value-aligned for Republicans but misaligned for Democrats on X/Twitter. In prep.
- Epstein ZG*, Fang, MC, Arechar, AA, Rand DG. What label should be applied to content produced by generative AI? Under review at CHI. Available at https://osf.io/preprints/psyarxiv/v4mfz.
- Epstein ZG*, Lin H*, Pennycook G, Rand DG. How many others have shared this? Experimentally investigating the effects of social cues on engagement, misinformation, and unpredictability on social media. In preparation.
- Epstein ZG*, Lin H*, Pennycook G, Rand DG. Yourfeed: Towards open science and interoperable systems for social media. Available at https://arxiv.org/abs/2207.07478.
- Epstein ZG, Payne B.H, et al. Closing the AI Knowledge Gap. Available at https://arxiv.org/pdf/1803.07233.pdf

ARTWORKS FEATURED

- AI Séance featured at TechnnoMirage Underground Art & Design (2025)
- Meet the Ganimals featured at Ties That Cannot Be Unbound New Art City Exhibition (2023)
- Detect a fake featured at MIT Museum (2022)
- Meet the Ganimals in CLOG x Feeds edition http://www.clog-online.com/shop/clog-feeds/ (2022)
- Ganimals featured in the AI Exhibition at Vienna Museum of Technology (2021)
- 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
- \bullet Save~the~Ganimals selected as SXSW Art Program finalist (2020)
- 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

AWARDS AND FELLOWSHIPS

- Artist-in-residence at Stochastic Labs, Berkeley, CA (Summer 2024+2025)
- IDSA x Ars Electronica FOUNDING LAB Fellow (Fall 2023)
- Best Plenary Talk Award for Quantifying attention via dwell time and engagement in a social media browsing environment International Conference on Computational Social Science (2023)
- Best Honorable Mention Talk Award for Yourfeed: measuring attention in an experimental social media environment International Conference on Computational Social Science (2022)

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• 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)

SERVICE

Reviewed papers for CHI 2025+2024+2023+2021, IEEE Computer Graphics and Applications 2023, IC2S2 2020, ICWSM 2020+2021, and PNAS 2021. Organizer for ICWSM 2021 workshop, Co-organizer for CHI 2024 workshop

EXTRACURRICULAR ACTIVITIES

C2PA Research Consortium

October 2024 - Present

Member of academic-industry consortium tasked with aligning research on information literacy and media authenticity including companies such as Google, Adobe, Truepic, etc. More at https://c2pa.org/

AI Art practice, Cambridge, MA

January 2018 - Present

Practice and operate AI-based art community that hosts happenings and features artwork internationally. See more at http://aialchemy.media.mit.edu/ and 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.

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)

INVITED TALKS

- Guest Lecture in Social Computing (Computer Science), University of Michigan [virtual] 9/24/25
- HCI Seminar, CSAIL MIT 9/16/25
- Guest Lecture in CS279: Special Topics in Human-Computer Interaction (Computer Science), Harvard University 11/18/24
- Keynote at Social Technologies Seminar, University of Leiden 1/23/24
- How Is Generative AI Transforming Art and Design? Sold-out panel at MIT Center for Arts, Science and Technology [YouTube] 10/26/2023
- Interspecies Dialogue at Harvard Divinity School 10/25/2023
- Contemporary Perspectives on the Arts in Learning at Harvard Graduate School of Education 10/25/2023
- Art in the Age of Algorithmic Reproduction (Ethics Monday) at Safra Center for Ethics at Harvard 10/23/2023
- The Dynamics of Attention in Digital Ecosystems. Department of Information Systems, Zefat Academic College, Israel [virtual] 3/23/2023
- The Societal Impact of Generative AI. The MIT Museum. 2/28/2023
- Invited talks on *Decentralized Social Media* and *Creative Community* at Beyond the Elephant in the Room in Bangkok, Thailand (live event with over 800 audience members [YouTube]).
- \bullet Invited talk for *Poetics of the Infraordinary* in the Creative Writing department at University of Pennsylvania 9/22/2022
- Real or fake? Evaluating human and AI deepfake detection. Synthetic Futures Livestream Event. [virtual] 2/17/2022
- Denver Museum of Art and Science. Institute for Science & Policy Symposium on Science in the Age of Misinformation. [virtual] 12/1/2021
- Stanford Network Information Dynamics Seminar [virtual] 5/6/2021

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• The Digital Image - Social Dimensions, Political Perspectives and Economic Constraints (German Research Foundation priority program) 4/29/2021

- University of Pittsburgh Computational Social Science Seminar [virtual] 4/21/2021
- Affective Brain Lab Seminar at University College London [virtual] 4/15/2021
- Data Science / Computational Social Science Seminar Series @ UMSI (Michigan) [virtual] 4/8/2021
- Center for Constructive Communication (MIT) [virtual] 3/31/2021

SELECTED PRESS

- NPR (WHYY Studio2). Will AI kill human creativity? (radio interview) 10/16/2025. [link]
- The Atlantic. Why Does AI Art Look Like That? 8/16/2024. [link]
- The Crimson. Stanford Fellow, Cambridge Artist Talk Art and Generative AI at Harvard Ethics Center Panel. 10/24/2023. [link]
- MIT News. If art is how we express our humanity, where does AI fit in? (interview). 7/15/2023. [link]
- The Conversation. Generative AI is a minefield for copyright. 05/15/2023 [link]
- MIT News. On social media platforms, more sharing means less caring about accuracy (interview). 3/3/2023. [link]
- Vice. Is the Panic Over AI Art Overblown? We Speak With Artists and Experts. (interview). 2/22/2023. [link]
- Grid News. An AI-powered séance is resurrecting the dead: How different art forms are reimagining the horror genre (interview). 10/28/2022. [link]
- Los Angeles Times. How AI-generated art is changing the concept of art itself (interview). 9/21/2022. [link]
- New York Times. A 'Virtual Rapper' Was Fired. Questions About Art and Tech Remain (quoted). 9/6/2022. [link]
- Axios. Dust, costumes, weirdness and science: Burning Man is back (interview). 8/26/2022. [link]
- NPR. When machine learning meets surrealist art meets Reddit, you get DALL-E mini (interview). 7/5/2022. [link]
- WBUR. The faker: Deepfakes, lies, and cheerleading 4/22/2022 [link]
- Scientific American. Are You Better Than a Machine at Spotting a Deepfake? 4/15/2022 [link]
- MIT News. A remedy for the spread of false news? 3/27/2021 [link]
- Fast Company. Google and MIT prove social media can slow the spread of fake news. 6/4/2021. [link]
- Forbes. How We Talk About AI Affects Who Gets Credited For AI Art. 10/26/2020 [link]
- ZDNet. People's notions about AI are terrible, an MIT study asks whether they can be helped. 9/18/2020 [link]
- Digg. The Creepiest Thing Online This Week Is An AI That Creates Digital Ghosts. 10/31/2018 [link]
- Fast Company. AI is making Halloween so much spookier. 10/30/2018 [link]
- The Economist. To understand digital advertising, study its algorithms. 4/18/2018 [link]
- New York Times. The Trick to Acting Heroically. 8/28/2015 [link]
- Washington Post. The secret of extreme heroes: They don't overthink. 8/24/2015 [link]
- Vox. The science of extreme altruism: why people risk their lives to save strangers. 10/15/2014 [link]