

Eamon Duede

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Education

Ph.D. Philosophy & Ph.D. History and Philosophy of Science, *University of Chicago*, 2017 - 2021 (expected)
Department of Philosophy & Committee on Conceptual and Historical Studies of Science, (Joint Ph.D.)

M.A. Humanities (Philosophy), *University of Chicago*, 2008 - 2011

B.A. Philosophy (with honors), *Loyola University Chicago*, 2003 - 2007

Research Fields

Philosophy of Science | Science of Science | Machine Learning & Artificial Intelligence

Manuscripts in Review

Eamon Duede. "Deep Neural Networks and the Philosophy of Science" (*In Review*)

Misha Teplitskiy, Eamon Duede, Michael Menietti, and Karim R. Lakhani. "Citations Misrepresent the Quality and Impact of Research Articles: Survey and Experimental Evidence from Thousands of Citers" (*In Review*)

Media Coverage: *Times Higher Education*

Peer Reviewed Journal Articles

Feng Shi, Misha Teplitskiy, Eamon Duede, and James A. Evans. "The Wisdom of Polarized Crowds." *Nature Human Behavior*, 2019

Media Coverage: *Scientific American*, *Harvard Business Review*, *Nature*, *Nautilus*, *New Scientist*, *Daily Mail*

Eamon Duede and Victor Zhorin. "Convergence of Economic Growth and the Great Recession as Seen From a Celestial Observatory." *EPJ Data Science*, 2016

Media Coverage: *UChicago News*

Misha Teplitskiy, Grace Lu, and Eamon Duede. "Amplifying the Impact of Open Access: Wikipedia and the Diffusion of Science." *Journal of the Association for Information Science and Technology*, 2016

Winner: Best Student Paper, 2015, *Association for Information Science & Technology*, special interest group for *Measurement of Information Production & Use*

Media Coverage: *MIT Tech Review*, *LSE Impact Blog*

Peer Reviewed Conference Proceedings

Yadu Babuji, Kyle Chard, Eamon Duede, and Ian Foster. "Safe Collections and Stewardship on Cloud Kotta." *Safe Data '17 workshop at IEEE eScience '17*, 2017

Yadu Babuji, Kyle Chard, and Eamon Duede. "Enabling Interactive Analytics of Secure Data using Cloud Kotta." *Science Cloud '17 workshop at ACM International Symposium on High-Performance Parallel and Distributed Computing*, 2017

Yadu Babuji, Kyle Chard, Aaron Gerow, and Eamon Duede. "Cloud Kotta: Secure and Scalable Data Analytics in the Cloud." *IEEE BigData '16*, 2016

Yadu Babuji, Kyle Chard, Aaron Gerow, and Eamon Duede. "A Secure Data Enclave and Analytics Platform for Social Scientists." *IEEE eScience '16*, 2016

Misha Teplitskiy, Grace Lu, and Eamon Duede. "The Transmission of Scientific Knowledge to Wikipedia." *International Association for the Advancement of Artificial Intelligence Conference on Weblogs and Social Media (ICWSM'15 Oxford, UK)*, 2015

Aaron Gerow, Bowen Lou, Eamon Duede, and James A. Evans. "Classification and Link Prediction in a Text-Mined Hypergraph of Academic Relationships." *SocInfo '15*, 2015

Refereed Conference & Workshop Presentations (Selected)

"Distance Matters in Science and Scholarship", 11th Annual International Science of Team Science Conference, Duke University, Durham, NC, 2020 (Scheduled)

"Deep Neural Networks and the Philosophy of Science", *Overcoming Opacity in Machine Learning*, Society for the Study of Artificial Intelligence and the Simulation of Behaviour (AISB) annual convention, St. Mary's University, London, 2020 (Declined due to COVID-19)

"Distance Matters in Science and Scholarship", *Laboratory for Innovation Science*, Harvard University, Cambridge, MA., 2020 (Cancelled due to COVID-19)

"Deep Neural Networks and the Philosophy of Science", *Theoretical Philosophy Workshop*, University of Chicago, Chicago, IL., 2020

"Diverse Intelligences, Distance, & the Logic of Influence.", *Workshop in the History and Philosophy of Science*, University of Chicago, Chicago, IL., 2019

"Do Citations Measure Influence?", 17th International Conference on Scientometrics & Informetrics, Rome, Italy, 2019

"What do Citations Measure?" *Innovation Growth Lab*, Berlin, Germany, 2019

"Why (almost) Everything We Know About Citations is Wrong: Evidence from Authors", 23rd International Conference on Science and Technology Indicators (STI 2018), Leiden, Netherlands, 2018

"Social Syllogisms Drive the Logic of Scientific Advance", *Workshop in the History and Philosophy of Science*, University of Chicago, Chicago, IL., 2018

"How We Cite, and What It Means for Measuring the Value of Science: Survey Evidence from 12,000 Authors", *Laboratory for Innovation Science*, Harvard University, Cambridge, MA., 2018

"Why Citations Don't Mean What We Think They Mean: Evidence from Citers", 4th Annual International Conference on Computational Social Science, Northwestern University, Evanston, IL., 2018

"The Wisdom of Polarized Crowds", 4th Annual International Conference on Computational Social Science, Northwestern University, Evanston, IL., 2018

"Do Citations Measure Influence?", MIT Economic Sociology Working Group, MIT, Cambridge MA., 2017

"Wisdom of Politically Polarized Crowds", *Meeting of the Society for the Social Studies of Science (4S)*, Boston, 2017

"Wisdom of Polarized Crowds", *Collective Intelligence Conference*, NYC, 2017 (Poster)

"Convergence of Economic Growth and the Great Recession as Seen From a Celestial Observatory", *Mind Bytes 2017*, Chicago, 2017 (Poster)

"Amplifying Open Access: Wikipedia and the Diffusion of Science", *Quantifying Science* a workshop at the *Conference on Complex Systems*, Tempe, 2015

"Proposing Links in a Mined Hypergraph of Academics", 110th *Annual Meeting of the American Sociological Association*, Chicago, 2015

"The Transmission of Scientific Knowledge to 50 Wikipedias: Coverage and the Role of Accessibility", 9th *International Conference on Web and Social Media*, Oxford University, Oxford, UK., 2015

Work in Progress

Eamon Duede "Neural Networks and the Aims of Science" (*Working Paper*)

Eamon Duede "Neural Networks Model Theories" (*Working Paper*)

Eamon Duede and James A. Evans (Chicago): "Social Syllogisms Drive the Logic of Scientific Advance" (*Working Paper*)

Eamon Duede, Misha Teplitskiy (Michigan), Michael Menietti (Harvard), James A. Evans (Chicago), Karim R. Lakhani (Harvard): "Distance Matters in Science and Scholarship" (*Working Paper*)

Honours, Awards, Grants

(Co-PI) *Engineering Opportunity: Identifying optimal skill and relationship mixtures for individual, enterprise, and regional prosperity.* w/ James Evans, Lingfei Wu, Matt Gee, 2019 (\$50,000)

(Workshop Grant) *When Technology Transforms Society: Considering the Societal and Ethical Impacts of Quantum Computing and AI.* w/ Chihway Chang, Daniel Bowring, Brian Nord, 2019 (\$15,000)

LinkedIn Economic Graph Research Awardee 2017

Fishbein Fellowship 2017 - 2022

University of Chicago Social Sciences Fellowship 2017 - 2020

Winner: Best Student Paper, 2015, *Association for Information Science & Technology*, special interest group for *Measurement of Information Production & Use* for "Amplifying the Impact of Open Access: Wikipedia and the Diffusion of Science."

Amazon Research Award 2015 (\$50,000)

Departmental Honors B.A. in Philosophy, *Loyola University of Chicago*

Invited Talks & Panels

Discussant "Horizontal Persistence and the Complexity Hypothesis", by Aaron Novick, *History of Human Sciences*, University of Chicago, 2020

Discussant "Generative Entrenchment and Modularity", by William Wimsatt, *History of Human Sciences*, University of Chicago, 2020

Discussant "Affect and Inference: Genealogies of Affect Recognition in AI", by Alex Campolo, *Affect and Emotions Workshop*, University of Chicago, 2020

"Word Embedding with Python" *Data Therapy*, University of Chicago, 2019

"Model Realism and Theory Detection" *Center for Data Science and Computing Research*, University of Chicago, 2019

"Roads of Influence" *Laboratory for Innovation Science*, Harvard University, 2019

"Model Realism and Theory Detection" *Environmental Data Science Seminar Series*, University of Chicago, 2019

"The Wisdom of Politically Polarized Crowds" *Center for Data Science and Computing Research*, University of Chicago, 2018

"Big Data, Innovation, and Insights into the Complexities of the Scientific Enterprise" at *Science Works: Measuring the Innovation Output of Science*, Netherlands, 2017

"Hacking the Web of Science" at *ALA 2017*, Chicago, 2017

"The Wisdom of Politically Polarized Crowds" at *WikiCite 2017*, Vienna, Austria, 2017

Panelist "Co/Eval" at *Converge: Disciplinarity and Digital Scholarship*, Los Angeles, 2017

Panel Moderator "Computation and analytics are driving innovation across disciplines in new and interesting ways" at *Mind Bytes 2017*, Chicago, 2017

"Computational Social Science" at *Research Computing Center*, University of Chicago, 2017

"Delphi: Leveraging Research Analytics to Understand and Navigate the Research Enterprise", *The John Templeton Foundation*, Philadelphia, 2016

"Toward a Theory of Peer Review", *PLOS*, San Francisco, 2016

"Science of Peer Review", *PLOSCast*, San Francisco, 2016

"Science of Science", *PLOSCast*, Berlin, Germany, 2016

"Data and Machine Enabled Science", *Globus World*, Argonne National Lab, 2015

"A Search for Knowledge About Knowledge", *Center for Robust Decision Making on Climate and Energy Policy*, University of Chicago, 2014

"Knowledge Lab", *Computation Institute Student Engagement Lightning Talk*, University of Chicago, 2013

Other Writing

"Finding Wisdom in Politically Polarized Crowds", *Nature: Behind the Paper*, 2019

"Are Politically Diverse Teams More Effective?", w/ Feng (Bill) Shi, Misha Teplitskiy, and James A. Evans, *Harvard Business Review*, 2019

"Wikipedia is significantly amplifying the impact of Open Access publications", *The London School of Economics: Impact Blog*, 2015

Teaching & Advising

B.A. Thesis Advisor to Bobby Zhang, *University of Chicago*, (2019 - 2020)

Modern Logic and the Structure of Knowledge (TA), *University of Chicago*, (Winter 2020)

Elementary Logic (TA), *University of Chicago*, (Fall 2019)

Philosophy of Quantum Mechanics (TA), *University of Chicago* (Winter 2019)

Computer Science Graduate Practicum Advisor, *University of Chicago* (2014 - 2017)

Elementary Logic (Instructor), *Harold Washington College* (2011, 2012, 2013)

Introduction to Philosophy (Instructor), *Harold Washington College* (2011, 2012, 2013)

Introduction to Ethics (Instructor), *Harold Washington College* (2011, 2012, 2013)

Media Coverage of Research

"Finding Wisdom in Politically Polarized Crowds", *Nature: Behind the Paper*, 2019

"Are Politically Diverse Teams More Effective?", *Harvard Business Review*, 2019

"Wikipedia and the Wisdom of Polarized Crowds: A lesson in how to break out of filter bubbles", *Nautilus*

"The Wisdom of Crowds Requires the Political Left and Right to Work Together", *Scientific American*

"Wikipedia encourages healthy debate among people with different political views", *Daily Mail*, 2019

"Wikipedia's civil wars show how we can heal ideological divides online", *New Scientist*, 2019

"Academics cite work they don't know particularly well", *Times Higher Education*, 2018

"Testing Economics From the Celestial Observatory", *UChicago News*, 2016

"Science of Peer Review", *PLOSCast*, 2016

"Science of Science", *PLOSCast*, 2016

"The Impact of Open Access Scientific Knowledge", *Brookings TechTank*, 2016

"Why Wikipedia + Open Access = Revolution", *X_b MIT Technology Review*, 2015

"Wikipedia, open access and knowledge dissemination", *OpenScience.com*, 2015

"Wikipedia is significantly amplifying the impact of Open Access publications", *The London School of Economics: Impact Blog*, 2015

Professional Service

Co-Organized with Chihway Chang, Daniel Bowring, Brian Nord: "When Technology Transforms Society: Considering the Societal and Ethical Impacts of Quantum Computing and AI" *Workshop*, Chicago, 2019

Co-Director with Kyle Chard of the *Data and Computing Summer Lab*, 2019

Coordinator, "Seminar on Important Things", *Committee on the Conceptual and Historical Studies of Science*, University of Chicago, 2018 - 2019

Special Advisor, *University of Chicago Research Development Services*, 2017 - Present

Special Advisor, *ARETE*, University of Chicago, 2014 - 2017

Co-Director with Kyle Chard and Alison Brizius of the *Computation Institute Summer Internship Program*, 2014 - 2018

Co-Organized with Ian Foster and Julia Lane: "Safe data: A workshop on paradigms and platforms for safe analysis of sensitive data", a one day workshop at *eScience2017*, Auckland, New Zealand, 2017

Co-Organized with Feng Shi and Valentin Danchev: "Knowledge Networks in Science and Technology", a Satellite Symposium at *NetSci 2017*, Indianapolis, 2017

Co-Organized with Rayid Ghani and Joe Walsh: "Computational Social Science & Public Policy Colloquium", a monthly speaker series co-organized with *Knowledge Lab the Center for Data Science & Public Policy*, Chicago, 2017

Chicago Innovation Exchange Advisory Group, 2013 - 2016

Co-Organized with Katy Börner and James Pringle: "Web of Science as Research Dataset", a two-day workshop organized with *Thomson Reuters*, Bloomington, 2016

Co-Organized "B³: Big Questions, Big Data, Big Computation", a joint conference with *Microsoft Research*, Chicago, 2016

Co-Organized with James A. Evans and Dashun Wang: "International Symposium on the Science of Science", a two-day conference held at the *Library of Congress*, Washington D.C., 2016

Organized "About Discovery Engines: Under the Hood", a monthly workshop series at the *University of Chicago's Computation Institute*, 2015 - 2016

Co-Organized, "Information, Interaction, and Influence", a two-day workshop co-organized with *Knowledge Lab* and *Digital Science* at the University of Chicago, 2014

Co-Organized with *hack@uchicago*, "Fall 2014 Hackathon", a two-day, data science focused, event featuring tools and techniques workshops. Chicago, 2014

Co-Organized "In the Loop: A City Data and Digital Manufacturing STEM Learning Project", a 6 week course on computer programming, data analysis, and digital fabrication for Chicago high school students. Chicago, 2014

Peer Review(er)

Proceedings of the National Academy of Sciences

Languages

Natural: English (Native), German (Working)

Multi-paradigm: Python, R

Other Employment

Special Advisor, Knowledge Lab, *University of Chicago*, 2017 - Present

Founder, Philosophic Ai, 2015 - Present

Executive Director, Knowledge Lab, *University of Chicago*, 2013 - 2017

Co-Founder and CTO, Practice Prism, 2015 - 2017

Administrator, *The Metaknowledge Research Network*, 2013 - 2016

Sr. Director, *HR-Meter International*, 2007 - 2013

Instructor of Philosophy, *Harold Washington College*, 2012 - 2013

References

Available upon request

Last updated: recently enough...