

David Holtz

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Employment

Columbia Business School, Assistant Professor
Decision, Risk and Operations Division, July 2025 - present

Haas School of Business, University of California, Berkeley, Assistant Professor
Management of Organizations Group / Entrepreneurship and Innovation Group, July 2021 - June 2025

Education

Ph.D., Massachusetts Institute of Technology, 2021
Sloan School of Management
Concentration: Management (Information Technology)
Dissertation: *Essays on the Design of Online Marketplaces and Platforms*
Committee: Sinan Aral (Chair) (MIT), Dean Eckles (MIT), John Horton (MIT)

S.M., Massachusetts Institute of Technology, 2018
Sloan School of Management
Concentration: Management Research (Information Technology)
Thesis: *Limiting Bias from Test-Control Interference in Online Marketplace Experiments*

M.A., Johns Hopkins University, 2013
Krieger School of Arts & Sciences
Concentration: Physics & Astronomy

A.B., Princeton University, 2010
Concentration: Physics
Minor: Theater & Dance
Thesis: *A Study of the Sunyaev-Zel'dovich Galaxy Clusters from the Atacama Cosmology Telescope*

Refereed Journal Publications

- **Reducing Interference Bias in Online Marketplace Experiments using Cluster Randomization: Evidence from a Pricing Meta-Experiment on Airbnb** (with Felipe Lobel, Ruben Lobel, Inessa Liskovich, and Sinan Aral) Management Science (April, 2024)
- **Do Incentives to Review Help the Market? Evidence from a Field Experiment on Airbnb** (with Andrey Fradkin) Marketing Science (April, 2023)
- **Reciprocity and Unveiling in Two-sided Reputation Systems: Evidence from an Experiment on Airbnb** (with Andrey Fradkin and Elena Grewal) Marketing Science (October, 2021)
- **The Effects of Remote Work on Collaboration Among Information Workers** (with Longqi Yang, Sonia Jaffe, Siddharth Suri, Shilpi Sinha, Jeffrey Weston, Connor Joyce, Neha Shah, Kevin Sherman, Brent Hecht, and Jaime Teevan) Nature Human Behaviour (September, 2021)

- **Interdependent Program Evaluation: Geographic and Social Spillovers in COVID-19 Closures and Reopenings in the U.S.** (with Michael Zhao and Sinan Aral)
Science Advances (July, 2021)
- **Interdependence and the Cost of Uncoordinated Responses to COVID-19** (with Michael Zhao, Seth G. Benzell, Cathy Y. Cao, Mohammad Amin Rahimian, Jeremy Yang, Jennifer Allen, Avinash Collis, Alex Moehring, Tara Sowrirajan, Dipayan Ghosh, Yunhao Zhang, Paramveer S. Dhillon, Christos Nicolaides, Dean Eckles, and Sinan Aral)
Proceedings of the National Academy of Sciences (August, 2020)

Working Papers

- **The Uneven Impact of Generative AI on Entrepreneurial Performance** (with Nicholas G. Otis, Rowan Clarke, Solene Delecourt, and Rembrand Koning) (Revise & Resubmit at Management Science)
- **The Engagement-Diversity Connection: Evidence from a Field Experiment on Spotify** (with Ben Carterette, Praveen Chandar, Zahra Nazari, Henriette Cramer, and Sinan Aral) (Revise & Resubmit at Management Science)
- **Prompt Adaptation as a Dynamic Complement in Generative AI Systems** (with Eaman Jahani, Benjamin S. Manning, Joe Zhang, Hong-Yi TuYe, Mohammed Alsobay, Christos Nicolaides, and Siddharth Suri) (Revise & Resubmit at Information Systems Research)
- **What Comes Next in Population-Scale Digital Experimentation?** (with Martin Tingley, Michael Zhao, Apoorva Lal, Ramesh Johari, Nathan Kallus, Iavor Bojinov, Madhav Kumar, Sathya Anand, Matthew Wardrop, Dominique Perrault-Joncas, James McQueen, John Meakin, Vladimir Petrovic, Widad Machmouch, Wenjing Zheng, James Sorenson, Jialiang Mao, Amit Gandhi, Alex Deng, Maria Dimakopoulou, Brent Cohn, Kyle Carlson, Shyue-ming Loh, Konrad Miziolek, Sven Schmit, Victor Kostyuk, and Tom Cunningham) (Revise & Resubmit at Nature Human Behaviour)
- **Can Social Networks Substitute for Reputation Systems? Evidence from a Large-Scale Experiment** (with P. Alex Dow and Sinan Aral) (Accepted at ICWSM 2026)

Conference Publications and Other Writing

- **Reducing Symbiosis Bias Through Better A/B Tests of Recommendation Algorithms** (with Jennifer Brennan, Yiwei Yu, Yahu Cong, Lina Lin, Yajun Peng, Changping Meng, Ningren (Peter) Han, and Jean Pouget-Abadie)
WWW '25: Proceedings of the ACM Web Conference 2025 (April, 2025)
- **Want Your Company to Get Better at Experimentation?** (with Iavor Bojinov, Ramesh Johari, Sven Schmit, and Martin Tingley)
Harvard Business Review (January-February, 2025)
- **The Future of Information Work** (with Longqi Yang, Sonia Jaffe, and Siddharth Suri)
Communications of the ACM (July, 2022)
- **How Much Do Platform Workers Value Reviews? An Experimental Method** (with Liane Scult and Siddharth Suri)
Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, CHI 2022 (May, 2022)
- **Spillover Effects in Online Field Experiments: Opportunities and Challenges** (with Ozan Candogan, Tracy Xiao Liu, Meng Xu, and Yuan Yuan)
The 17th Conference on Web and Internet Economics (December, 2021)
- **Tit for Tat? The Difficulty of Designing Two-Sided Reputation Systems** (with Andrey Fradkin)
NIM Marketing Intelligence Review (November, 2020)

- **The Engagement-Diversity Connection: Evidence from a Field Experiment on Spotify (extended abstract)** (with Ben Carterette, Praveen Chandar, Zahra Nazari, Henriette Cramer, and Sinan Aral)
Proceedings of the Twenty-first ACM Conference on Economics and Computation (July, 2020)
- **Social Structure and Trust in Massive Digital Markets** (with Diana MacLean and Sinan Aral)
Proceedings of the Thirty-eighth Annual International Conference on Information Systems (October, 2017)
- **Bias and Reciprocity in Online Reviews: Evidence from Field Experiments on Airbnb (extended abstract)** (with Andrey Fradkin, Elena Grewal, and Matthew Pearson)
Proceedings of the Sixteenth ACM Conference on Economics and Computation (June, 2015)

U.S. Patents and Patent Applications

- **Enhancing Remote Work Productivity Data** (with Longqi Yang, Sonia Patricia Jaffe, Siddharth Suri, Shilpi Sinha, Jeffrey Michael Weston, Connor Michael Joyce, Neha Parikh Shah, Kevin Scott Sherman, Chia-Jung Lee, Brent Jaron Hecht, and Jaime Teevan)
Patent App No. 16 / 942,375 (February, 2022)
- **Demand Prediction for Time-Expiring Inventory** (with Bar Ifrach, Yangli Hector Yee, and Li Zhang)
Patent No. US 10,664,855 B2 (May, 2020)
- **Host Standards for Providing Listings** (with Lenny Rachitsky, Martin Anh Dung Nguyen, Vaughn Quoss, Daniel Nathan Hill, James Allen Ostrowski, II, and Nelson Aurel Guathier)
Patent No. US 10,614,385 B2 (April, 2020)

Pre-PhD Publications

- **A study of the trace ^{39}Ar content in argon from deep underground sources** (with Jingke Xu, Frank Calaprice, Cristiano Galbiati, and 14 others)
Astroparticle Physics (June, 2015)
- **The Atacama Cosmology Telescope: cosmological parameters from three seasons of data** (with Jonathan L. Sievers, Renée A. Hlozek, Michael R. Nolta, and 99 others)
Journal of Cosmology and Astroparticle Physics (October, 2013)
- **The Atacama Cosmology Telescope: cosmology from galaxy clusters detected via the Sunyaev-Zel'dovich effect** (with Neelima Sehgal, Hy Trac, Viviana Acquaviva, and 65 others)
The Astrophysical Journal (April, 2011)

Research Affiliations

Member, Columbia Data Science Institute
Research Affiliate, MIT Initiative on the Digital Economy

Grants, Honors, and Awards

- *UC Berkeley Haas "Club 6"*, Spring 2025
- Cited in the US White House CEA Economic Report of the President, 2025
- *Nominated for Best Conference Paper Award, Strategic Management Society Annual Conference* (for The Uneven Impact of Generative AI on Entrepreneurial Performance), 2024
- *AOM Best Paper Designation, STR Division* (for The Uneven Impact of Generative AI on Entrepreneurial Performance), 2024
- *UC Berkeley Haas "Club 6"*, Spring 2024

- *Winner of the Wharton People Analytics Competition* (for The Uneven Impact of Generative AI on Entrepreneurial Performance), 2024
- *Management Science Distinguished Service Award*, 2023
- *Microsoft Accelerate Foundation Models Research Program Research Grant*, 2023
- *Microsoft Research Award*, 2023
- *UC Berkeley Haas “Club 6”*, Spring 2023
- *Hellman Fellowship*, 2023
- *Berkeley Haas Fisher Center for Business Analytics Research Grant*, 2023
- *UC Berkeley Spark Grant*, 2023
- *Berkeley Haas Culture Initiative Research Grant*, 2022
- *Berkeley Haas Center for Equity, Gender, and Leadership Research Grant*, 2022
- *INFORMS Information Systems Society: Nunamaker-Chen Dissertation Award*, 2021
- *Management Science Meritorious Service Award*, 2021
- *Berkeley Haas Fisher Center for Business Analytics Research Grant*, 2021
- *Workshop on Information Technologies and Systems: Best Dissertation Proposal Award*, 2020
- *Boston University Center for Antiracist Research Grant* (with Sanaz Mobasseri, Zanele Munyikwa, and Janet Xu), 2020
- *Summer Institute in Computational Social Science, Russell Sage, & Alfred P. Sloan Foundation Research Grant* (with Lily Fesler, Sanaz Mobasseri, Zanele Munyikwa, and Janet Xu), 2018
- *Duwayne J. Peterson, Jr. Doctoral Fellowship*, MIT Sloan School of Management, 2015-2021

Teaching

Assistant Professor, UC Berkeley Haas School of Business

- *Spring 2025*: X MBA 257-4 / EW MBA 257-5 (Generative AI for Managers) (Rating: 6.67/7)
- *Spring 2025*: MBA295T-4 / EW MBA 295T-4 (Online Marketplace and Platform Design) (Rating: 6.20/7)
- *Spring 2024*: MBA295T-4 / EW MBA 295T-4 (Online Marketplace and Platform Design) (Rating: 6.35/7)
- *Spring 2023*: MBA295T-4 / EW MBA 295T-4 (Online Marketplace and Platform Design) (Rating: 6.35/7)

Teaching Assistant, MIT Sloan School of Management

- *Spring 2021*: 15.S17 (Designing, Using, and Competing with Online Marketplaces) (Rating: 6.5/7)
- *Fall 2020*: 15.570 (Digital Marketing and Social Media Analytics) (Rating: 6.0/7)
- *Fall 2018*: 15.570 (Digital Marketing and Social Media Analytics) (Rating: 6.1/7)

Head Curriculum Designer and Instructor, Propulsion Academy, Zurich, Switzerland 2017-2018

- Head Curriculum Designer for a three-month long data science bootcamp covering data tools, statistics, machine learning, natural language processing, experimentation, and data visualization
- Instructor for a one-week long module on the design and analysis of online field experiments

Instructor and Course Lead, Udacity, Mountain View, CA 2014

- Developed and taught Udacity’s “Intro to Data Science” course (ud359). The course covers data munging, data analysis, data visualization, and data tools. Over 40,000 students have enrolled in the course thus far.

Invited Presentations and Conferences

- 2025-2026 (includes scheduled): AAAI ICWSM 2026; POMS Annual Meeting; Temple University Global Institute for Artificial Intelligence & Business Analytics Research Workshop; Yale Foundations of Data Science Colloquium; INFORMS Annual Meeting; Advances with Field Experiments Conference 2025; 2025 Empirical Workshop in Operations Management; NYU-TAU Workshop on AI and the Future of Collaborative Innovation
- 2024-2025: Pontificia Universidad Católica de Chile Millennium Nucleus on the Evolution of Work Annual Workshop; 2025 Academy of Management Annual Meeting; 2025 Columbia Management, Analytics, and Data Conference; University of Maryland Workshop on AI & Analytics for Social Good; 2025 Allied Social Science Associations (ASSA) Annual Meeting; Columbia Business School (Decision, Risk and Operations); Duke Strategy Conference 2024; INFORMS Annual Meeting; Navigating the New Frontier: The Political and Economic Implications of AI Conference; Advances with Field Experiments Conference 2024; Oxford Reputation Symposium
- 2023-2024: Eighteenth Symposium on Statistical Challenges in Electronic Commerce Research (SCECR); NBER Digital Economics and AI Meeting (Spring 2024); CMU Tepper (Business Technologies); Berkeley Methods Workshop; Virtual Quantitative Marketing Seminar; Stanford Management Science & Engineering; UPenn Wharton AI/ML Seminar Series; INFORMS Annual Meeting; Microsoft AI, Cognition, and the Economy Fall Workshop
- 2022-2023: 44th ISMS Marketing Science Conference; Junior Faculty Organizational Theory Conference; Conference on Digital Experimentation (CODE) 2022; 2022 NABE Tech Economics Conference; 2022 Conference on Artificial Intelligence, Machine Learning, and Business Analytics; 2023 Allied Social Science Associations (ASSA) Annual Meeting; MIT Media Lab; Stanford Research on Algorithms and Incentives in Networks Seminar; UCLA Anderson (Management); 2023 Columbia/Wharton Management, Analytics, and Data Conference
- 2021-2022: ACM CHI Conference on Human Factors in Computing Systems (CHI) 2022; Dropbox Tech Talk; 2022 North American Winter Meeting of the Econometric Society; LinkedIn Tech Talk; Workshop on Information Systems and Economics (WISE) 2021; Hong Kong University Marketing Seminar; ACM Human Computation (HCOMP) 2021; Conference on Digital Experimentation (CODE) 2021; Berkeley Haas Culture Initiative Partner Roundtable
- 2019-2020 & Before: NYU Stern (Technology, Operations, and Statistics), Workshop on Experimental and Behavioral Economics in Information Systems (WEBEIS) 2019; Winter Conference on Business Analytics (WCBA) 2019; HBS Digital Initiative Fall Doctoral Workshop (2019); Etsy; HBS Digital Initiative Spring Doctoral Workshop (2019); Workshop on Information Systems and Economics (WISE) 2017; Conference on Digital Experimentation (CODE) 2017; International Conference on Information Systems (ICIS) 2017; Workshop on Information Systems and Economics (WISE) 2016; Conference on Digital Experimentation (CODE) 2016; Open Data Science Conference East (2016); AAAS Careers in Data Science Webinar (2015); Text By the Bay 2015; Strata + Hadoop World 2015; Import.io Data Summit 2014

Professional Service

Reviewer: *Management Science, Information Systems Research, MIS Quarterly, Marketing Science, Organization Science, Strategy Science, INFORMS Journal on Computing, The Review of Economics and Statistics, American Economic Journal: Applied Economics, American Economic Review: Insights, Journal of Political Economy Microeconomics, Journal of Development Economics, Quantitative Economics, Journal of the European Economics Association, Nature, Nature Human Behaviour, Proceedings of the National Academy of Sciences, PNAS Nexus, Socius, Big Data & Society, California Management Review, Humanities and*

Social Sciences Communications, The Information Society, Journal of Empirical Legal Studies, International Conference on Information Systems (ICIS), Conference on Information Systems and Technology (CIST), The International Conference for Computational Social Science (IC2S2), ACM CHI Conference on Human Factors in Computing Systems, International AAAI Conference on Web and Social Media (ICWSM), Sloan Sports Analytics Conference, National Science Foundation (ad hoc), Knowledge Foundation (Sweden, Synergy Program)

Co-organizer: *Conference on Digital Experimentation (CODE)* (2022 - present)

Technical Program Committee Chair: *Conference on Digital Experimentation (CODE)* (2021)

Program Committee: *ACM Conference on Economics and Computation (EC)* (2024 - present), *Conference on Complex Systems* (2024), *Workshop on Platform Analytics* (2024 - present), *ACM Conference on Web Science (WebSci)* (2020-2021), *Conference on Digital Experimentation (CODE)* (2018-2020)

Other Experience

- OpenAI
Visiting Researcher, 2025 - present
- BCG x TUM AI Strategy Research Cluster, Technical University of Munich
Advisory Board Member, 2025-present
- The Elysabeth Kleinhans Theatrical Foundation
Director, Board of Directors, 2022-present
- Microsoft
Visiting Researcher, 2024
- Tandem
Advisor, 2023-2024
- Groundwork Bridgeport, Bridgeport, CT
Director, Board of Directors, 2017-2024
- Microsoft, Virtual
PhD Research Intern, Microsoft Research, 2020
- Spotify USA, New York, NY
PhD Research Intern, Tech Research, 2019
- City of Cambridge, Cambridge, MA
Envision Cambridge Working Group Member, 2017
- Facebook, Menlo Park, CA
PhD Research Intern, Core Data Science, 2017
PhD Research Intern, Core Data Science, 2016
- Airbnb, San Francisco, CA
Data Scientist, 2014-2015
- Yub, Mountain View, CA
Data Science Engineer, 2013
- TrialPay, Palo Alto, CA
Data Scientist, 2013
Product Manager, 2012-2013

Additional

Technical skills: R, Python, SQL, Hive, Matlab, PHP, Javascript

Languages: English (Native), Japanese (Conversational), Spanish (Beginner)

Other interests: Music composition, vinyl records, standup & improv comedy, distance running

Nationality: United States Citizen, United Kingdom Citizen

Outside Activities

- D.H. is currently a paid part-time visiting researcher at OpenAI. D.H. was previously a consultant to the U.S. Department of Housing and Urban Development and the Federal Deposit Insurance Corporation.

D.H. was previously a consultant to and has a significant financial interest in Interviewing.io. D.H. was previously a visiting researcher at Microsoft. D.H. was previously a paid summer intern at Microsoft, Spotify, and Meta. D.H. was previously an full-time employee of Airbnb, Yub, and TrialPay.

- D.H. was previously an advisor to Tandem, and is currently an advisor to Trapeze Health. He has made angel investments in Trapeze, Delyt, Approval AI, Tandem, Crowdvolt, Rewind AI (now Limitless), Hyphen, Alan, Workstream, Mosey, Present, HomeRoom, Coinshift, Radical, Bobbie, and SecurityPal.
- D.H. serves on the board of directors for the Elysabeth Kleinhans Theatrical Foundation, and previously served on the board of directors for Groundwork Bridgeport. D.H. is on the board of advisors for the BCG x TUM AI Strategy Research Cluster at Technical University of Munich.
- D.H. is an inventor on patents and patent applications assigned to Airbnb and Microsoft.
- Some of D.H.'s research is or has been funded by Microsoft, the Boston University Center for Antiracist Research, the Russell Sage Foundation, the Alfred P. Sloan Foundation, and the Summer Institute in Computational Social Science.
- D.H. is a research affiliate at the MIT Initiative on the Digital Economy. In that role, he has been an organizer of the Conference on Digital Experimentation (CODE@MIT) since 2022, during which period it has been sponsored by Netflix, Meta, Booking.com, Amazon, Itaú, Eppo, DataDog, and Statsig.
- D.H. sometimes conducts research through data use agreements with named and unnamed firms, and by advising collaborators—including students—who are employees or consultants at other firms.