



September 2019

Lee Fleming

Blum Hall East 330B
Fung Institute for Engineering Leadership
University of California, Berkeley
Berkeley, CA 94720-5580
(510) 664-4586

EDUCATION

- 1998 Ph.D., Organizational Behavior, Department of Industrial Engineering, Stanford University
- Dissertation: “Explaining the Source and Tempo of Invention: Recombinant Learning and Exhaustion in Technological Evolution”
- Committee: Stephen Barley (chair), William Barnett, Michael Hannan, and James March
- 1996 M.S., Statistics, Stanford University
- 1992 M.S., Engineering Management (part-time honors cooperative sponsored by Hewlett Packard), Stanford University
- 1985 B. S., Electrical Engineering, University of California, Davis

APPOINTMENTS

- 7/1/11- Director of Coleman Fung Institute for Engineering Leadership;
Coleman Fung Chair of Engineering Leadership, Industrial Engineering
and Operations Research, UC Berkeley College of Engineering; Courtesy
appointment, Haas School of Business
- 7/1/08–6/30/11 Albert J. Weatherhead III Professor of Business Administration,
Technology and Operations Management Unit, Harvard Business School
- 7/1/05–6/30/08 Associate Professor, Technology and Operations Management Unit,
Harvard Business School
- 7/1/03–6/30/05 Lumry Family Associate Professor of Business Administration,
Technology and Operations Management Unit, Harvard Business School

7/1/98–6/30/03 Assistant Professor, Technology and Operations Management Unit,
Harvard Business School

Assignments at University of California, Berkeley

- 2019-2020 Director, Fung Institute Engr. Leadership (~500 MEng, ~35 MTM, ~100 Fellows)
Chair, Executive Steering Committee, Fung Institute
Chair, Standing Committee on Engineering Ethics and Social Responsibility
Member, Moffett Field Faculty Steering Committee
Member, Committee on Courses and Instruction
Member, MET Faculty Director Search Committee
Course Head and teacher, *R&D Management and Tech Ethics* (Eng 270)
Course Head and teacher, *Digital Platforms and Tech Strategy* (Eng 271)
Capstone Lab (Eng 296)
Faculty Director, Executive Education, UC Berkeley College of Engineering
Member, Dissertation Committee: M. Kurakina
- 2018-2019 Director, Fung Institute Engr. Leadership (~370 MEng, ~35 MTM, ~100 Fellows)
Chair, Executive Steering Committee, Fung Institute
Chair, College Continuing Education in Engineering Committee
Chair, Standing Committee on Engineering Ethics and Social Responsibility
Member, MET Faculty Director Search Committee
Member, Committee on Courses and Instruction
Course Head and teacher, *R&D Management and Tech Ethics* (Eng 270)
Course Head and teacher, *Digital Platforms and Tech Strategy* (Eng 271)
Capstone Lab (Eng 296)
UC Berkeley Innovation Seminar (Econ C222, Bus279, IEOR 298)
Faculty Director, Executive Education, UC Berkeley College of Engineering
Member, Dissertation Committee: H. Kang
- 2017-2018 Director, Fung Institute Engr. Leadership (~360 MEng, ~34 MTM, ~70 Fellows)
Chair, Executive Steering Committee, Fung Institute
Chair, College Continuing Education in Engineering Committee
Chair, Standing Committee on Engineering Ethics and Social Responsibility
Member, University Executive Education Committee
Member, Code of Student Conduct Review Committee
Member, Faculty Task Force: Graduate Certificate in Applied Data Science
Course Head and teacher, *R&D Management and Tech Ethics* (Eng 270)
Course Head and teacher, *Digital Platforms and Tech Strategy* (Eng 271)
Capstone Lab (Eng 296)
Executive Education, UC Berkeley College of Engineering
Member, Dissertation Committee: X. Wang, A. Siddiq

- 2016-2017 Director, Fung Institute Engr. Leadership (256 MEng, 34 MTM, 38 Fellows)
 Chair, Executive Steering Committee, Fung Institute
 Chair, College Continuing Education in Engineering Committee
 Chair, Standing Committee on Engineering Ethics and Social Responsibility
 Member, University Extension Data Science Advisory Board
 Member, Fung Fellowship Faculty Hiring Committee
 Co-Chair (w/ G. Manso), Berkeley/Stanford Workshop in Innovation and Finance
 Course Head and teacher, *Engineering Leadership* (Eng 271, 272)
 Capstone Lab (course re-design, Eng 296: 8 Capstone teams)
 Technology Strategy in Emerging Industries (new course, IEOR 290)
 Executive Education, UC Berkeley College of Engineering
- 2015-2016 Director, Fung Institute for Engineering Leadership (197 MEng, 28 MTM)
 Chair, Executive Steering Committee, Fung Institute
 Chair, College Continuing Education in Engineering Committee
 Chair, Standing Committee on Engineering Ethics and Social Responsibility
 Co-Chair, Crowdfunding Symposium
 Chair, IEOR Data Analytics Hiring Committee
 Chair, Innovation Metrics Workshop at Google
 Member, University Extension Data Science Advisory Board
 Member, Fung Fellows Curriculum Committee (with School of Public Health)
 Course Head and teacher, *Engineering Leadership* (Eng 271, 272)
 UC Berkeley Innovation Seminar (Econ C222, Bus279, IEOR 298)
 Doctoral Reading Seminar in Innovation (IEOR 270)
 Applications of Data Analytics (new course, IEOR 242)
 Capstone Teams: IOT, Fung Patent Lab, Prosper
 Executive Education, UC Berkeley College of Engineering
 Promotions Committee, Haas School of Business
 Member, Dissertation Committee: Y. Kim, L. Cheng, R. Whalen (Northwestern)
 Post Doctoral Mentor: S. Yu
- 2014-2015 Director, Fung Institute for Engineering Leadership (187 MEng, 30 MTM)
 Chair, Executive Steering Committee, Fung Institute
 Chair, College Continuing Education in Engineering Committee
 Co-Chair, Crowdfunding Symposium
 Chair, IEOR Data Analytics Hiring Committee
 Member, Standing Committee on Engineering Ethics and Social Responsibility
 Course Head and teacher, *Engineering Leadership* (Eng 271, 272)
 UC Berkeley Innovation Seminar (Econ C222, Bus279, IEOR 298)
 Doctoral Reading Seminar in Innovation (IEOR 270)
 Data Analytics Workshop
 Capstone Teams: Fung Patent Lab, Crowdfunding, Prosper
 Executive Education, UC Berkeley College of Engineering
 Promotions Committee, Haas School of Business
 Member, Dissertation Committee: Lucy Hu, Tony Ke, Anil Doshi (Harvard)

Post Doctoral Mentor: D. O'Reagan

- 2013-2014 Director, Fung Institute for Engineering Leadership (127 MEng, 22 MTM)
Co-Chair, Executive Steering Committee, Fung Institute
Co-Chair, CrowdFunding Symposium: Setting the Research Agenda
Member, Standing Committee on Engineering Ethics and Social Responsibility
Course Head and teacher, *Engineering Leadership* (Eng 271, 272)
UC Berkeley Innovation Seminar (Econ C222, Bus279, IEOR 298)
Doctoral Reading Seminar in Innovation
Data, Society and Inference Seminar
Data Analytics Workshop
Capstone Teams: Fung Patent Lab, CrowdFunding, NetApp
Executive Education, UC Berkeley College of Engineering
Outside member committee: Lei Cheng
- 2012-2013 Director, Fung Institute for Engineering Leadership (86 MEng, 17 MTM)
Co-Chair, Executive Steering Committee, Fung Institute
Member, Standing Committee on Engineering Ethics and Social Responsibility
Course Head and teacher, *Engineering Leadership* (Eng 271, 272)
Haas Innovation Seminar (Bus 279, Econ C222)
Data, Society and Inference Seminar
Capstone Teams: Dow Chemical, MeoGraph, Linked Data
Executive Education, UC Berkeley College of Engineering
Member, Hiring Committee, Industrial Engineering and Operations Research
Member, Dissertation Committee: Neil Thompson
Member, Orals Committee: Brian Reschke, Yujin Kim
Outside member committee: Zhen Sun
- 2011-2012 Director, Fung Institute for Engineering Leadership (designed, taught, and graduated inaugural cohort of 82 of Professional Masters Engr. students)
Co-Chair, Executive Steering Committee, Fung Institute
Member, Standing Committee on Engineering Ethics and Social Responsibility
Course Head and teacher, *Engineering Leadership* (Eng 271 and 272)
Capstone Integration
Haas Innovation Seminar (Bus 279, Econ C222)
Capstone Teams: Blue Goji, Dr. Chi, LiON Batteries, Alien Sandal
Executive Education, UC Berkeley College of Engineering
Member, Dissertation Committee: K. Younge (CU Boulder);
Member, Orals Committee: A. Doshi (Harvard); T. Ke (Berkeley)
Outside member committee: Yongdong Liu (Berkeley)

Assignments at Harvard University

- 2010-2011 *Building Green Businesses* (Business 6611)
Inventing Breakthroughs and Commercializing Science (Business 2107)
Applied Methods Seminar (Government 3009)

Economics of Science and Engineering (Government 2880)
Theory and Practice of Research (Business 4004)
Custom Program, Danish National Advanced Technology Foundation (Exec Ed)
 Member, Harvard University Science and Engineering Committee
 Member, Harvard Academic Computing Committee
 Program Chair, Doctorate of Business Administration Program
 Member, Doctoral Program and Admissions Committee
 Member, Steering Committee, Institute for Quant Research in the Social Sciences
 Member, Field Exam Committee: E. Lin, S. Chai, A. Doshi
 Member, Dissertation Committee: S. Chai, S. Arts (K.U. Leuven)
 Visiting Scholar, National Renewable Energy Laboratory, Golden, CO

- 2009-2010 *Entrepreneurship* (Required curriculum)
 Building Green Businesses (Business 6611)
 Applied Methods Seminar (Government 3009)
 Economics and Business of Science (Government 2880)
 Theory and Practice of Research (Business 4004)
 Networks and Innovation, CEEL Summer School Program in Economics, Trento
 Member, Appointments Committees (2)
 Member, Harvard University Science and Engineering Committee
 Program Chair, Doctorate of Business Administration Program
 Member, Science and Technology Management Ph.D. Committee
 Member, Doctoral Program and Admissions Committee
 Member, Steering Committee, Institute for Quant Research in the Social Sciences
 Member, Dissertation Committee: A. Oord (U. Antwerp), P. Choudhury (Wharton placement), C. Liu (Rotman placement)
 Member, Field Exam Committee: E. Bernstein
- 2008-2009 *Inventing Breakthroughs and Commercializing Science* (Business 2107)
 Building Green Businesses (Business 6611)
 Applied Methods Seminar (Government 3009)
 Economics and Business of Science (Government 2880)
 Strategies for Protecting and Monetizing IP (Executive Education)
 DBA Work in Progress Seminar (Doctoral Program)
 Member, Harvard University Science and Engineering Committee
 Member, Search Committee, Dean of School of Applied Sciences and Engr
 Program Chair, Doctorate of Business Administration Program
 Program Head, Technology and Operations Management Doctoral Program
 Member, Science and Technology Management Ph.D. Committee
 Member, Doctoral Program and Admissions Committee
 Member, Steering Committee, Institute for Quant Research in the Social Sciences
 Member, Dissertation Committee: S. Mingo (Univ. of Miami placement)
 Chair, Dissertation Committee: M. Marx (MIT Sloan placement)
- 2007-2008 *Inventing Breakthroughs and Commercializing Science* (Business 2107)
 Science-Based Business Models (Elective Curriculum)

Applied Methods Seminar (Government 3009)
Management of Technological Innovation (University Doctoral Course)
TOM Unit DBA Seminar (Doctoral Course)
Leading Product Development (Executive Education)
Leading Science-Based Businesses (Executive Education)
Leadership and Strategy in Pharmaceuticals (Executive Education)
 Member, Search Committee, Dean of School of Applied Sciences and Engr
 Program Head, Technology and Operations Management Doctoral Program
 Member, Information and Technology Management Ph.D. Committee
 Member, Doctoral Program and Admissions Committee
 Member, Dissertation Committee: F. Cavaretta (INSEAD)
 Member, Field Exam Committee: V. Kuppuswamy, C. Liu, M. Marx, R. Fung
 Faculty Advisor, MBA Field Studies: Purdue Solar Technologies, Microbial
 Energy, Stereo-Jet, Diagnostics For All, Novel Anti-depressant, International
 Technology Acquisition Analysis
 Member, Steering Committee, Institute for Quant Research in the Social Sciences

2006-2007 *Commercializing Science and High Technology* (Business 2107)
Applied Methods Seminar (Government 3009)
Leading Science-Based Businesses (Executive Education)
Leadership and Strategy in Pharmaceuticals (Executive Education)
 Program Head, Technology and Operations Management Doctoral Program
 Member, Information and Technology Management Ph.D. Committee
 Member, Doctoral Program and Admissions Committee
 Member, Field Exam Committee for A. Aifer
 Member, Dissertation Committee for X. Zhong (U. of Chicago), T. Langenberg
 (EPFL Lausanne)
 Member, Senior Thesis Committee for J. Bolian
 Faculty Advisor, MBA Field Studies: HealthEva

2005-2006 *Commercializing Science and High Technology* (Business 2107)
Applied Methods Seminar (Government 3009)
Leading Product Development (Executive Education)
Science, Technology, and Innovation Policy (KSG Executive Education)
 Program Head, Technology and Operations Management Doctoral Program
 Member, Technology and Operations Management Hiring Committee
 Member, Information and Technology Management Ph.D. Committee
 Member, Doctoral Program and Admissions Committee
 Member, Field Exam Committee for S. Mingo
 Member, Dissertation Committee for J. Kim (Columbia placement)
 Faculty Advisor, MBA Field Studies: PARC Solar Cell Commercialization
 Faculty Associate, Institute for Quantitative Research in the Social Sciences

2004-2005 *Commercializing Science and High Technology* (Business 2107)
Management of Technological Innovation (University Doctoral Course)
Applied Methods Seminar (Government 3009)

	<i>Leading Product Development</i> (Executive Education) Program Head, Technology and Operations Management Doctoral Program Member, Information and Technology Management Ph.D. Committee Member, Doctoral Program and Admissions Committee Member, Field Exam Committee for S. Kesavan
2003-2004	<i>Managing Innovation</i> (Elective Curriculum) <i>Management of Technological Innovation</i> (University Doctoral Course) <i>Applied Methods Seminar</i> (Government 3009) <i>Leading Product Development</i> (Executive Education) Member, Doctoral Policy Committee Member, Doctoral Program and Admissions Committee Member, Field Exam Committees for X. Zhong (U. of Chicago), D. Zinner Faculty Advisor, MBA Field Studies: European NanoTech
2002-2003	<i>Managing Product Development</i> (Elective Curriculum) <i>Management of Technological Innovation</i> (University Doctoral Course) <i>Applied Methods Seminar</i> (Government 3009) Member, Doctoral Policy Committee Member, Doctoral Program and Admissions Committee Member, Field Exam Committees for S. Chauduri, G. Clarkson, and J. Kim
2001-2002	<i>Technology and Operations Management</i> (Required Curriculum) <i>Management of Technological Innovation</i> (University Doctoral Course) <i>Applied Methods Seminar</i> (Government 3009) Member, Doctoral Policy Committee Member, Doctoral Program and Admissions Committee
2000-2001	<i>Technology and Operations Management</i> (Required Curriculum) <i>Management of Technological Innovation</i> (University Doctoral Course) Member, Doctoral Policy Committee Member, Doctoral Program and Admissions Committee
1999-2000	<i>Technology and Operations Management</i> (Required Curriculum) <i>Crimson Greetings</i> (Foundations Program, Required Curriculum)
1998-1999	<i>Technology and Operations Management</i> (Required Curriculum) <i>Quantitative Methods</i> (Foundations Program, Required Curriculum)

PUBLICATIONS

Refereed Literatures

Lueck, S., Balsmeier, B., Seliger, F., Fleming, L. “Early disclosure of patents and reduced duplication; an empirical test.” Forthcoming at *Management Science*.

Fleming, L., M. Marx, H. Green, G. Li, and D. Yao, “Government-funded research increasingly fuels innovation.” *Science* 21 Jun 2019: Vol. 364, Issue 6446, pp. 1139-1141. DOI: 10.1126/science.aaw2373. (Altmetrics score of 595).

Fleming, L., M. Marx, H. Green, G. Li, and D. Yao, “Supplementary materials for Government-funded research increasingly fuels innovation.”
<https://science.sciencemag.org/content/suppl/2019/06/19/364.6446.1139.DC1>.

Fitzgerald, T., B. Balsmeier, G. Manso, L. Fleming. “Innovation Search Strategy and Predictable Returns.” Forthcoming at *Management Science*.

Chai, S., A. D’aMour, L. Fleming. “Explaining and Predicting Scientific Creativity within a Community: An Assessment of the Bibliometric Literature and Application of Machine Learning.” Forthcoming at *Industrial and Corporate Change*.

Arts, S. and L. Fleming 2018. “Paradise of Novelty – or Loss of Human Capital? A Natural Experiment in Exploring New Fields and Inventive Output” *Organization Science* 29 (6), 1074-1092.

O’Reagan, D. and L. Fleming 2018. “The FinFET Breakthrough and Networks of Innovation in the Semiconductor Industry, 1980–2005: Applying Digital Tools to the History of Technology.” *Technology and Culture* Volume 59, Number 2, pp. 251-288.

Balsmeier, B., Assaf, M., Chesebro, T., Fierro, G., Johnson, K., Johnson, S., Li, G., W.S. Lueck, O’Reagan, D., Yeh, W., Zang, G., Fleming, L. (2018) “Machine learning and natural language processing applied to the patent corpus.” *Journal of Economics and Management Strategy*, 27:535–553.

Balsmeier, B. and L. Fleming, G. Manso 2017. “Independent Boards and Innovation.” *Journal of Financial Economics* 123:3:536-557 (named as “highly cited” by the Web of Science, 2017).

Yu, S., and J. Boada, C. Lai, S. Johnson 2017. “Crowdfunding and regional entrepreneurship investment: an application of the CrowdBerkeley database,” *Research Policy* 46: 1723-1737.

Sorenson, O. and V. Assenova, G. Li, J. Boada, L. Fleming. “Expanding innovation finance via crowdfunding.” *Science* 23 Dec 2016: Vol. 354, Issue 6319, pp. 1526-1528. DOI: 10.1126/science.aaf6989 (Altmetrics score of 135).

Sorenson, O. and V. Assenova, G. Li, J. Boada, L. Fleming. “Supplementary Materials for Expanding innovation finance through crowdfunding.”
<http://science.sciencemag.org/content/suppl/2016/12/21/354.6319.1526.DC1>.

Fleming, L. and O. Sorenson 2016. “Financing by and for the Masses: An Introduction to the Special Issue on Crowdfunding,” *California Management Review* Special Issue on CrowdFunding.

M. Marx and J. Singh, L. Fleming, “Regional Disadvantage? Employee Non-compete Agreements and Brain Drain.” *Research Policy* 44 (2015) 941-955. (Cited in 2016 Economic Report of the President: <https://www.whitehouse.gov/administration/eop/cea/economic-report-of-the-President/2016>, and U.S. Treasury Report, <https://www.treasury.gov/resource-center/economic-policy/Documents/UST%20Non-competes%20Report.pdf> and NYT).

Younge, K. and T. Tong, L. Fleming “How anticipated employee mobility affects acquisition likelihood: Evidence from a natural experiment.” *Strategic Management Journal* 36: 686–708 (2015). (Recipient of the 2011 Strategic Management Society Conference, Best Paper Award.)

Nanda, R. and K. Younge, L. Fleming. “Innovation and Entrepreneurship in Clean Energy,” *The Changing Frontier: Rethinking Science and Innovation Policy* (2015), Adam Jaffe and Benjamin Jones, editors (p. 199 - 232).

Li, G. and R. Lai, D. Doolin, A. D’Amour, A. Yu, Y. Sun, V. Torvik, Fleming, L. “Disambiguation and co-authorship networks of the U.S. Patent Inventor Database, 1975-2010.” *Research Policy* 43 (2014) 941–955.

Marx, M., and L. Fleming, 2012. “Noncompetes: Barriers to Exit and Entry?” National Bureau of Economic Research Innovation Policy and the Economy, eds. Stern and Lerner, 12: 39-64. University of Chicago Press.

Singh, J. and L. Fleming “Lone Inventors as Sources of Technological Breakthroughs: Myth or Reality?” *Management Science*, 56 (2010): 41-56.

Marx, M. and D. Strumsky, L. Fleming “Mobility, Skills, and the Michigan Non-compete Experiment,” *Management Science*, 55 (2009): 875-889 (lead article, winner of Best Informs Technology Management Paper of 2009).

Waguespack, D. and L. Fleming “Scanning the Commons: Evidence on the Benefits to Startups Participating in Open Standards Development,” *Management Science*, 55 (2009): 210-223.

Z. Acs, E. Glaeser, R. Litan, S. Goetz, W. Kerr, S. Klepper, S. Rosenthal, O. Sorenson, W. Strange, "Entrepreneurship and Urban Success: Toward a Policy Consensus" (January 2008). Available at SSRN: <http://ssrn.com/abstract=1092493>.

Fleming, L. and D. Chen, S. Mingo, “Collaborative Brokerage, Generative Creativity, and Creative Success.” *Administration Science Quarterly*, 52 (2007): 443-475.

Fleming, L. and C. King, A. Juda, "Small Worlds and Regional Innovation." *Organization Science*, Vol. 18, No. 2 (2007), pp. 938-954.

Fleming, L. and D. Waguespack, "Brokerage, Boundary Spanning, and Leadership in Open Innovation Communities," *Organization Science*, Vol. 18, No. 2 (2007), pp. 165-180 (lead article).

Sorenson, O. and J. Rivkin, L. Fleming "Informational Complexity and the Flow of Knowledge Across Social Boundaries." In *Applied Evolutionary Economics and Economic Geography*, ed. K. Frenken. Northhampton, Ma: Edward Elgar, (2007), pgs. 147-160.

Fleming, L. and K. Frenken, "The Evolution of Inventor Networks in the Silicon Valley and Boston Regions," *Advances in Complex Systems*, Vol. 10, No. 1 (2007) 53-71.

Fleming, L. and M. Marx, "Managing Creativity in Small Worlds," *California Management Review* 48 (Summer 2006): 6-27 (lead article; Winner 2007 Accenture Award; reprinted in *IEEE Engineering Management Review* 37(4) 90-92.)

Sorenson, O. and J. Rivkin, L. Fleming "Complexity, Networks and Knowledge Flow," *Research Policy* 35 (2006): 994-1017. (Winner of 2005 European Meeting on Applied Evolutionary Economics Best Paper Award; reprinted in *Handbook of Evolutionary Economic Geography*, Edward Elgar, 2010).

Fleming, L. and M. Szigety, "Exploring the Tail of Creativity: An Evolutionary Model of Breakthrough Invention," *Advances in Strategic Management* (2006): 335-362.

Sorenson, O. and L. Fleming "Science and the Diffusion of Knowledge," *Research Policy* 33 (2004): 1615-1634. Winner of Richard R. Nelson Prize of 2005.

Fleming, L. and O. Sorenson. "Science as a Map in Technological Search," *Strategic Management Journal* 25: 909-928 (2004). (Reprinted in *Technology Strategy and Innovation*, Edward Elgar, 2011.)

Fleming, L. and O. Sorenson. "Navigating the Technology Landscape of Innovation." *Sloan Management Review*, Winter, 2003 (lead article).

Bromiley, P. and L. Fleming. "The Resource-Based View of Strategy: A Behavioral Critique." In *The Economics of Choice, Change, and Organizations: Essays in Memory of Richard M. Cyert*, eds. Mie Augier and James G. March. Cheltenham, UK: Edward Elgar, 2002.

Fleming, L. "Finding the organizational sources of technological breakthroughs: the story of Hewlett-Packard's thermal ink-jet." *Industrial and Corporate Change*, 11 (5): 1059-1084 (2002).

Fleming, L. and O. Sorenson. "Technology as a Complex Adaptive System: Evidence from Patent Data", *Research Policy*, 30 (7), 1109-39, 2001. (Reprinted in *Recent Developments in the Economics of Science and Innovation*, Edward Elgar, 2013).

Fleming, L. "Recombinant Uncertainty in Technological Search," *Management Science*, 47 (2001): 117-132. (Winner Walter Gruyter/Technology Studies Best Student Paper Award, AOM 1999.)

Billington, C. and L. Fleming "Technological Evolution, Standard Interfaces, and New Market Opportunities," in *POMS Series in Technology and Operations Management*, Volume 1, (1998): 30-41.

Patents

With G. Li, "Visual data mining using virtual reality and augmented reality," provisional patent filed February 14, 2017.

With R. La Fetra, "VLSI chip having improved test access," U.S. Patent #5,029,133.

With S. Walther, "Local tristate-control circuit for Automatic Test Program Generation," U.S. Patent #5,136,185.

Non-refereed Literature

Fleming, L. and M. Marx, "Kill science funding and you kill the future tech economy." The Hill: <https://thehill.com/opinion/technology/463005-kill-science-funding-and-you-kill-the-future-tech-economy>

Yu, S., and L. Fleming, "Crowdfunded Ventures: Where Angels Dare to Tread." Entrepreneur & Innovation Exchange: <https://eiexchange.com/content/393-crowdfunded-ventures-where-angels-dare-to-tread>.

Contributor, *Advancing Concepts and Models for Measuring Innovation: Proceedings of a Workshop*, National Academy of Sciences. January, 2017.

Li, G. and K. Paisner, L. Fleming 2014. "A List of Clean Tech Patents." *Fung Institute Technical Report* #2014.08.21.

Li, G. and L. Fleming 2013. "Mobility Mapper: Visualizations of Inventor Mobility, 1975-2010." *Fung Institute Technical Report* #2013.06.18.

Li, G. and L. Fleming 2013. Clean Energy Patent Mapper: "Visualization of sources of clean tech inventions." *Fung Institute Technical Report* #2013.06.17.

Best, J., and S. Neiss, S. Stralser, L. Fleming (2013). “How big will the debt and equity CrowdFunding investment market be? Comparisons, assumptions, and estimates.” Coleman Fung Institute of Engineering Leadership Technical Report.

G. Giudicati, and L. Fleming. “Recombination of Knowledge.” Palgrave Encyclopedia of Strategic Management, eds. David Teece and Mie Augier.

G. Giudicati, and L. Fleming. “NK Models.” Palgrave Encyclopedia of Strategic Management, eds. David Teece and Mie Augier.

Fleming, L., and L. Colfer, A. Marin, and J. McPhie, 2012. “Why the Valley Went First: Aggregation and Knowledge Flow in Regional Collaboration Networks.” In *The Emergence of Organizations and Markets*, eds. W. Powell and J. Padgett, pp. 520-544. Princeton University Press, Princeton, N.J.

Perry, T. and M. Miller, K. Younge, J. Newcomb, L. Fleming 2011. “Clean energy innovation: Sources of technical and commercial breakthroughs.” NREL technical report NREL/TP-6A20-50624.

Yang, W. and J. Golden, L. Fleming 2010. “Science and Technology Entrepreneurship for Greater Societal Benefit: Ideas for Curricular Innovation.” *Advances in the Study of Entrepreneurship, Innovation, and Economic Growth*, Volume 21, 167-184.

Marx, M., and D. Strumsky, L. Fleming. “To Compete or not to Compete.” *Rappaport Institute Policy Brief*, April, 2009.

Fleming, L. “Breakthroughs and the “Long Tail” of Innovation,” *Sloan Management Review*, Fall 2007, Vol. 49, No. 1, pp. 69-74.

Mingo, S. and L. Fleming, “Creativity in New Product Development: An Evolutionary Integration,” 2007. In *Kluwer Handbook on Product Development*, pgs. 113-134, eds. C. Loch and K. Stelios. London: Kluwer Academic Publishers.

Brunner, D., and A. MacCormack, D. Zinner, L. Fleming, 2009. “R&D Project Selection and Portfolio Management: A Review of the Past, a Description of the Present, and a Sketch of the Future.” Pgs. 215-238, *Blackwell Handbook of Technology Management*, ed. Scott Shane. Malden, MA: Blackwell Publishing.

Marx, M., and L. Fleming “Managing Innovation in Small Worlds,” *Sloan Mngt Review* 48 (2006): 8-9.

Fleming, L. “Perfecting Cross Pollination,” *Harvard Business Review* 82 (2004): 22-24. Reprinted in Spring 2014 *Harvard Business Review OnPoint*.

Juda, A. and L. Fleming. “A Network of Invention,” *Harvard Business Review* 82 (2004): 6.

Sorenson, O. and L. Fleming. “The Dangers of Modularity,” *Harvard Business Review* 79 (2001): 20-21.

Fleming, L. “Review of Fundamental Issues in Strategy: A Research Agenda,” eds. Rumelt, Schendel, and Teece, *Administration Science Quarterly* 41 (1996): 196-198.

Cases, Notes, and Supplements

With Vanessa Leisner: “GDPR, platform business models, and the ethics of data privacy.”

With Wayne Delker: “Theranos and engineering leadership: the organizational pathologies of a dishonest culture.”

With Rick Passov: “Amazon: Platform strategies and Societal Impact.”

With Daniel Basco. “Ride Austin: Competing in the Wake and Shadow of Uber and Lyft.”

With T. Perry, “Horizon Wind Energy.” Harvard Business School 5-609701 (2008) Multi-media case.

“Inventing Breakthroughs and Commercializing Science: An Overview of the Course.” Course Overview Note for Instructors, Harvard Business School note 5-607-108 (2007) [11].

“Key Concepts in a Module on Managing the Invention of Breakthroughs.” Module Note for Instructors, Harvard Business School note 5-607-109 (2007) [24].

“Key Concepts in a Module on the Commercialization of Science.” Module Note for Instructors, Harvard Business School note 5-607-110 (2007) [22].

“Materials and Logistics for a Multidisciplinary Course.” Module Note for Instructors, Harvard Business School note 5-607-111 (2007) [12].

“Inventing Breakthroughs and Commercializing Science: Project Note for Students,” Harvard Business School note 607-087 (2007) [5].

“Commercializing an MRI Breakthrough.” Harvard Business School N9-608-064 (2007) [17].

With J. Aptekar, “Commercializing an MRI Breakthrough.” Harvard Business School teaching note 5-608-078 (2007) [7].

With T. Perry and L. Stein, “Engineering a Renaissance: The Launch of the Harvard School of Engineering and Applied Sciences.” Harvard Business School case N9-608-087 (2007) [19].

With T. Perry, “Agion Technologies, Inc.” Harvard Business School case N9-608-060 (2007) [18].

With T. Perry, “The Cutie Catheter.” Harvard Business School case N9-608-084 (2007) [13].

With T. Perry, “License or Start-up? A Junior Faculty Member’s Dilemma.” Harvard Business School case N9-608-085 (2007) [25].

With T. Perry, “Advanced Electron Beams.” Harvard Business School case N9-608-083 (2007) [20].

With T. Perry, “Advanced Electron Beams.” Harvard Business School teaching note 5-608-089 (2007) [5].

With M. Thursby, “InfoVision,” Harvard Business School teaching note 5-607-102 (2007) [9].

With M. Thursby and J. Quinn, “Supplement to InfoVision (A): Technology Transfer at Georgia Tech” 607-085 (2007) [5].

With M. Marx, “Barry Riceman at NetD,” Harvard Business School teaching note 5-607-107 (2007) [16].

With M. Thursby, “HP Nanotech: Partnership with CNSI,” Harvard Business School teaching note 5-607-105 (2007) [14].

With A. Marin, “The Process of Scientific Discovery,” Harvard Business School teaching note 5-607-126 (2007) [18].

“Epodia: Demise of the HBS Case-writing Monopoly?” Harvard Business School teaching note 5-607-104 (2007) [12].

With D. Snow, “SpudSpy,” Harvard Business School teaching note 5-607-103 (2007) [13].

“Intevis: Brokering the Boundaryless Career,” Harvard Business School teaching note 5-607-078 (2007) [12].

With Christopher Liu, “Merton's Ethos of Science: Excerpts and Summaries,” Harvard Business School note for Students, 607-047 (2006) [2].

With M. Marx, “Barry Riceman at NetD (A),” Harvard Business School case 606-090 (2006) [10] (included in the HBS “Premier Case Collection”).

With M. Marx, “Barry Riceman at NetD (B),” Harvard Business School case 606-151 (2006) [4].

“Photovoltaic Breakthrough,” Harvard Business School teaching note 5-606-085 (2006) [19].

With A. MacCormack, “Linux, Supplement to Epodia,” Harvard Business School case 606-067 (2006) [5].

With J. Quinn: “ThinkCycle, Supplement to Epodia,” Harvard Business School case 606-056 (2006) [2].

With J. Quinn, “Cambia, Supplement to Epodia,” Harvard Business School 606-057 (2006) [3].

With M. Thursby and J. Quinn, “HP Nanotech: Partnership with CNSI,” Harvard Business School case 606-045 (2005) [24].

J. West and M. Vitale, “Commercialization at the Garvan Institute for Medical Research (A),” Harvard Business School case 606-051 (2005) [21].

With J. Quinn, “Epodia: Demise of the HBS case-writing Monopoly?” Harvard Business School case 605-077 (2005) [17].

With D. Snow, “SpudSpy,” Harvard Business School case 605-059 (2005) [25].

With M. Thursby and J. Quinn, “InfoVision (A): Technology Transfer at Georgia Tech,” Harvard Business School case 605-064 (2005) [22].

With M. Thursby and J. Quinn, “InfoVision (B): TI:GER Program Assessment,” Harvard Business School case 605-065 (2005) [7].

With G. Pisano and Eli Strick, “Vertex Pharmaceuticals: R&D Portfolio Management (A),” Harvard Business School case 604-101 (2004) [24].

“Photovoltaic Breakthrough,” Harvard Business School case 604-034 (2003) [22].

“Intevis: Brokering the Boundaryless Career,” Harvard Business School 602-148 (2002) [22].

“Textbooks Online (A), (B), (C), and (D)” Harvard Business School teaching note 5-600-065 (2000) [8].

With D. Debicella, S. Berman, and C. Kasper, “Textbooks Online (A),” Harvard Business School case 601-015 (2000) [15].

“Textbooks Online (B): TBO—First Day of Orders,” Harvard Business School 601-016 (2000) [3].

“Textbooks Online (C),” Harvard Business School case 601-017 (2000) [2].

Work in Progress

With Hyo Kang, “Non-competes and Business Dynamism,” Revision submitted to *Journal of Economics and Management Strategy*.”

With Gustavo Manso and Benjamin Balsmeier, “Heterogeneous Innovation and the Antifragile Economy.” Submitted.

With S. Yu, “Where does the crowd fund – and does it matter to regional entrepreneurship?” Submitted.

With Ben Balsmeier and Maria Kurakina, “R&D Tax Credits: Mechanisms of Private and Public Value.” Working paper.

With Ben Balsmeier, Sonja Lueck, “Early disclosure and IP strategy.” Working paper.

With Ben Balsmeier, Matt Marx, “Inventor mobility: impact on the source and destination regions.” Working paper.

With S. Yu, “Crowdfunding and entrepreneurial success” Working paper.

AWARDS AND HONORS

- | | |
|------|--|
| 2015 | With J. Singh, runner-up for the 2015 INFORMS Technology Management Section, Best Paper of 2010 in <i>Management Science</i> and <i>Organization Science</i> , “Lone Inventors as Sources of Breakthroughs: Myth or Reality?” |
| 2014 | With M. Marx, D. Strumsky, recipient of the 2014 INFORMS Technology Management Section, Best Paper of 2009 in <i>Management Science</i> and <i>Organization Science</i> , “Mobility, Skills, and the Michigan Non-compete Experiment.” |
| 2012 | With C. King, A. Juda, runner-up for the 2012 INFORMS Technology Management Section, Best Paper of 2007 in <i>Management Science</i> and <i>Organization Science</i> , ““Small Worlds and Regional Innovation.” |
| 2011 | With K. Younge, T. Tong, recipient of the 2011 Strategic Management Society Conference, Best Paper Award – for “How anticipated employee mobility affects acquisition likelihood: Evidence from a natural experiment.” |
| 2009 | With J. Lassiter, F. Reinhardt, recipient of the 2009 Apgar Award for Innovation in Teaching, for “Building Green Businesses,” Harvard Business School |
| 2007 | With M. Marx, recipient of the 2007 Accenture Award for the most important contribution to improving the practice of management in the preceding volume of the <i>California Management Review</i> —for “Managing Creativity in a Small World” |

- 2005 With O. Sorenson, recipient of the Richard R. Nelson Prize of 2005—Institute of Management, Innovation, and Organization, with *Industrial and Corporate Change* and *Research Policy*: “Science and the Diffusion of Knowledge”
- 2005 With I. Baker, finalist, Third Annual Science and Engineering Visualization Challenge, sponsored by National Science Foundation and *Science*—for “The Co-evolution of Regional Innovation and Social Structure”
- 2005 With O. Sorenson, J. Rivkin, recipient of 2005 European Meeting on Applied Evolutionary Economics Best Paper Award, sponsored by the International Schumpeter Society—for “Complexity and the Diffusion of Knowledge”
- 1998 Recipient of Walter Gruyter/Technology Studies Best Student Paper Award, Academy of Management, Technology and Innovation Management Division—for “Recombinant Uncertainty in Technological Search”
- 1996 U.S. Collegiate National Cycling Championship silver medalist
- 1992 U.S. Collegiate National Cycling Championship silver medalist
- 1985 Outstanding Senior, University of California, Davis
- 1984 Founder, UC Davis Nordic Ski Team (nationally ranked Division II in 1985)
- 1983 Gauntlet Award, U.S. Army ROTC Basic Training (ranked 9th of 934 cadets)
- 1982 California State Cycling Champion (match sprint)
- 1981 California State Cycling Champion (best all around)
- 1980 Junior World Cycling Championship silver medalist
- 1980 U.S. Junior National Cycling Champion
- 1976 Young Artists Award, Fremont-Newark Philharmonic Orchestra
- 1974 Command performance, California Music Educators Association

GRANTS

- 2018 Kauffman Foundation: Uncommon Methods and Metrics (\$250K)
- 2017 NSF (1735650): Collaborative Research: The financial impact of inventor migration on individuals and regions (\$255K)

2017	NSF (1721279): A demonstration platform to enhance the diffusion of SCISIP research (\$199K)
2017	NSF (1661311): Crowdfunding and regional economic development (\$493K)
2015	NSF (1536022): Seeing the invisible hand (\$494)
2015	Kauffman Foundation: CrowdFunding Research (\$245K)
2014	NSF (1360228): Beyond Patent Citations as Measures of Innovative Search and Success (\$364K)
2014	Kauffman Foundation: CrowdFunding Database (\$200K)
2013	United States Trademark and Patent Office and American Institute of Research: Inventor disambiguation, automatic updating, and application data of the U.S. patent record (\$149K)
2012	Kauffman Foundation: CrowdFunding Conference (\$25K)
2011	NSF (1064182): From bench to biosphere: a critical analysis of effective deployment and commercialization of clean energy technologies (\$657K)
2010	With Vetle Torvik: NSF (0965259): From grant to commercialization: an integrated demonstration database which permits tracing, assessing, and measuring the impact of scientific funding. (\$750K)
2010	National Renewable Energy Laboratory: Analysis of Innovation and Inventor Networks in Clean Energy (\$10K)
2008	NSF (199704): A Social Network Database of Patent Co-authorship to Investigate Collaborative Innovation and its Economic Impact (\$375K initial grant and \$80K supplemental award)
2008	With David Waguespack and Tim Simcoe: Net Institute Summer Grant Award (\$4.5K)

DOCTORAL STUDENTS AND POST DOCS

2020	Maria Kurakina.
2019	Hyo Kang, initial placement at University of Southern California.

- 2018 Tristan Fitzgerald, “Essays on Finance and Corporate Innovation,” initial placement at Mays School of Management, Texas A&M University.
- 2018 Auyon Siddiq, initial placement at UCLA Anderson School of Management.
- 2017 Sandy Yu, postdoc, initial placement at University of Minnesota, Carlson School of Management.
- 2016 Xinxin Wang, initial placement at University of North Carolina.
- 2016 Ryan Whalen, “*Knowledge Recombination, Diffusion, and Research Team Composition: Understanding 21st Century Innovation.*” Graduated from Northwestern, initial placement at Dalhousie University.
- 2016 Andrew Godbehere, “*Fast and Effective Approximations for Summarization and Categorization of Very Large Text Corpora.*” Initial placement at SumUp Analytics.
- 2016 Yujin Kim, “*Essays on Innovation and Technology Commercialization.*” Initial placement at Shanghai Science and Technology University.
- 2016 Douglas O’Reagan postdoc. Initial placement as staff scientist, MIT.
- 2015 Tony Ke, “*Three essays in Operations and Marketing.*” Initial placement at MIT Sloan School of Management.
- 2015 Benjamin Balsmeier, postdoc. Initial placement at ETH Zurich.
- 2015 Anil Doshi, “*Essays on Strategy and Management of Platforms.*” Initial placement at University College of London.
- 2013 Neil Thompson, “*Moore’s Law and the impact of computation on firms.*” Initial placement at MIT Sloan School of Management.
- 2013 Sen Chai. “*Essays on the Emergence and Diffusion of Breakthroughs.*” Initial postdoc placement at the NBER, secondary placement at ESSEC.
- 2012 Pian Shu (MIT), “*Essays on Talent Allocation and Innovation.*” Initial placement at Harvard Business School, Harvard University.
- 2012 Ken Younge, “*Essays on How Employee Mobility Affects Firms’ Strategic Decisions and Outcomes.*” Initial placement (postdoc) at UC Berkeley, College of Engineering.
- 2010 Raj Choudhury, “*Innovation in Emerging Markets.*” Initial placement at University of Pennsylvania, Wharton School of Management.

- 2010 Samuel Arts, postdoc. Initial placement at K.U. Leuven.
- 2010 Chris Liu, “*Essays on Network Antecedents in a Knowledge Production Context.*” Initial placement at University of Toronto, Rotman School of Management.
- 2009 Marx, Matt, “*Essays on Employee Non-compete Agreements.*” Committee chair: initial placement at MIT Sloan School of Management.
- 2009 Mingo, Santiago, “*Essays on Industrial Policy, Strategy, and Entrepreneurship.*” Initial placement at School of Business Administration, University of Miami.
- 2007 Kim, Jerry, “*Network of Audiences: FDA Review Time and Innovation.*” Initial placement at Graduate School of Business, Columbia University.

MASTERS STUDENTS

- 2020 R. Luyssaert, J. Kanjirathinkal, E. Stobbe, H. Xie, W. Fang, T. Cao, J. Chow, D. Ibrahim, X. Cui, Y. Wang, C. Mao, H. Yuan
- 2019 O. Wu, M. Amour, E. Bougrine, M. Loo, P. Natarajan, J. Yang, H. Roucau, W. Wang, K. Bachlaus, A. Matsokina, M. Max, S. Somboon, J. YANG, S. Zhou, N. El Bouri, Y. Wang, S. Parikh
- 2018 Atigui, I., Atlani, E., Baidur, T., Bentaleb, S., Chen, H., Choi, Y., Dagistanli, G., De Clercq, D., Drugeout, G., Diop, F., Gupta, N., He, J., Holbrook, R., Kakkochiloff, R., Khandelwal, A., Kresch, R., Lee, M., Lim, R., Lin, Y., Ong, L., Roze, J., Singh, V., Tan, B., Wu, K., Yu, D., Zheng, K., Zhang, Y., Zhu, S., Zou, Y., Zouaki, L.
- 2017 Bhojanapally, S., Bollavaram, D., Braun, B., Chaturvedi, U., Chen, J., Chen, Y., Ding, A., Ho, W., Jehl, T., Joong, L., Li, N., Ni, T., Pawar, I., Razav, M., Seth, L., Srage, D., Vora, A., Wang, X., Wi, J., Wells, E., Winer, D., Wu, C., Xu, Y., Yan, Z., Yew, T., Yu, Z., Yuk, N., Zhou, X., Zhu, L., Pingali, A., Zhang, C., Wang, C., Guo, X.
- 2016 Narayen, N., Gouy, M., Vural, A., Patault, A., Yacine, B., Zhong, Z., Candeli, G., Sun, X., Martin, T., Liu, Z., Achard, M., Liu, Y.
- 2015 Hundal, A., Menke, B., Paulsen, D., Olivier, K., Rifai, M., Yao, R., Lee, A., Boada, J., Zhang, Y., Gu, Y., Bi, Y., Liu, Y., Chiu, K., Fu, H.
- 2014 Chou, S., FonhoueNaoussi, Y., Merx, R., Sanchez, J., Sheu, V., Pandey, A., Tong, H., Zhang, J., Feng, H., Muyle, A., Sahai, K., von Mizener, R., Yang, C.

- 2013 Caruso, A., Wang, Y., Boscha, C., Yin, X., Zhang, L., Kalinowski, D., Duong, V., Natarajan, K., Yan, Y., Wang, Q., Subbaro, A., Han, Z.
- 2012 Xu, M., Yien, K., Yang, Y., Shubhvardhan, M., Roths, J., Shen, D., Lin, Y., Galli, F., Einaudi, L., Peng, X., Fu, T., Yap, H., Yuan, S., Chang, T.

Academic assignments before tenure track appointments

Teaching Assistant, School of Engineering, Stanford University

- 1997-1998 IE 161 Technology and War (Adams)
IE 180 Undergraduate Final Projects (Barley)
IE 270 Managing Technology for Competitive Advantage (Kosnik)

- 1996-1997 IE 180 Undergraduate Final Projects (Brandeau)
IE 203 Organizational Behavior (Hargadon)
IE 268 Manufacturing Strategy (Carlson)

- 1995-1996 IE 180 Undergraduate Final Projects (Hausman)
IE 220 Management and Organization of Research and Development (Barley)

- 1994-1995 IE 203 Organizational Behavior (Sutton)
IE 268 Manufacturing Strategy (Carlson)
IE 269 Marketing Strategy (Kosnik)

Teaching Assistant, Graduate School of Business, Stanford University

- 1995-1996 T357 Manufacturing Strategy (Carlson)

Research Assistant, Graduate School of Business, Stanford University

- 1995-1996 Designed and built scanning, OCR, and event-history database for 40-year history of computer industry, with O. Sorenson (under Prof. Barnett).

Research Assistant, School of Engineering, Stanford University

- 1993-1994 Designed, built, and analyzed database for semiconductor startup dataset (under Prof. Eisenhardt).

Research Assistant, School of Engineering, University of California, Davis

- 1984-1985 Developed oxidation curves and spin-on dopant methods (under Prof. Churchill).

Teaching Assistant, School of Engineering, University of California, Davis

- 1984-1985 ECE 110 Integrated Circuit Design and Fabrication (Churchill, Current)

WORK EXPERIENCE

Professional

- 1997-1998 Strategy Consultant, Strategic Planning and Management, HP, Palo Alto, CA.
Developed a strategic innovation framework with S. Kaplan and M. Tushman.
- 1993 Member of Integrated Circuits Business Division Staff, HP, Palo Alto, CA.
Investigated and recommended supply chain solutions in IC manufacturing.
- 1992 Design Engineer, California Design Center, Hewlett Packard, Santa Clara, CA.
Responsible for hiring, design, and design for manufacturability reviews.
- 1988-1991 Research Engineer, Hewlett Packard Laboratories/ICBD, Palo Alto, CA.
Researched IC testing and design for test. Transferred group's research results, tools, and methodologies to HP divisions through teaching and app engineering to workstation, PC, printer, plotter, and networking hardware divisions.
- 1985-1988 Product Engineer, Colorado Integrated Circuit Division, HP, Ft. Collins, CO.
Took 1 micron custom ICs from design through manufacturing release. Designed test circuitry, simulated design, wrote test vectors and vector translation tool, and characterized manufacturing robustness.
- 1971-1980 Musician and Section Lead, Musician's Local 510, Fremont, CA.
Performed French Horn in classical orchestras and municipal bands. Toured twice (at ages 9 and 11) with brass quintets in Germany. Rose to section lead in all groups.

Internal Hewlett Packard Engineering Publications

With R. Aitken and P. Maxwell, "Results and Applications of a Bridging Fault Test Methodology," Hewlett Packard Design Technology Conference, San Diego, CA, May 1992.

With R. Aitken, R. LaFetra, and J. Brewer, "A Gate-Level Bridging-Fault Test Generation Methodology," Hewlett Packard Design Conference, Denver, CO, May 1991.

With R. Schleiger, "An Automatic Test Generation Methodology for In-Circuit Testing," Hewlett Packard Design Technology Conference, Denver, CO, May 1991.

With B. Frederick and B. Jung, “Applying Automatic Test Vector Generation on a Non-scan Custom Chipbuster Design,” Hewlett Packard Design Technology Conference, Portland, OR, May 1990.

With D. Earl and E. Jew, “ATG: Innovations and Applications,” Hewlett Packard Design Technology Conference, Portland, OR, May 1990.

PROFESSIONAL ACTIVITIES

- | | |
|-----------|---|
| 2015-2016 | Guest Editor with Olav Sorenson, California Management Review Special Issue on CrowdFunding |
| 2015- | Associate Editor, <i>Management Science</i> |
| 2013- | Board Member, Patient Innovation Platform |
| 2012 | Member, National Research Council, Triennial Review of the National Nanotech Initiative |
| 2008-2014 | Department Editor, Entrepreneurship and Innovation, <i>Management Science</i> |
| 2008-2009 | Editor, <i>Research Policy</i> |
| 2008-2012 | Advisory Board, Harvard Institute for Quantitative Social Science |
| 2007-2008 | Senior Editor, <i>Organization Science</i> |
| 2005-2008 | Associate Editor, <i>Management Science</i> (Meritorious Service Award) |

Reviewer

Academy of Management Journal
Academy of Management Review
Administrative Science Quarterly
American Economic Review
Austrian Science Fund
California Management Review
Computational and Mathematical Organization Theory
Communications of the ACM
Danish Council for Independent Research
European Management Review
Harvard Business School Publishing
Information Systems Research
Industrial and Corporate Change
Industry and Innovation
International Journal of Management Reviews

International Journal of Urban and Regional Research
Journal of Economic Behavior and Organization
Journal of Engineering and Technology Management
Journal of Evolutionary Economics
Journal of International Business Studies
Journal of Policy Analysis and Management
Journal of Production and Operations Management
Management Science
 National Science Foundation
 National Renewable Energy Laboratory
Organization Science
Public Library of Science
Regional Studies
Research and Development Management
Research Policy
Review of Economics and Statistics
Science
Sloan Management Review
Social Forces
Strategic Management Journal
 Swiss National Science Foundation
 United States Department of Energy
Urban Studies
 World Bank

PRESENTATIONS (Plenaries, international presentations, or notable fora in red)

“Government-funded research increasingly fuels innovation.”

University of Luxembourg, Luxembourg (June 2019)
 NBER Summer Institute: Cambridge, MA (July 2019)

“Inventor mobility: impact on the source and destination regions.”

National Bureau of Economic Research, Cambridge, MA (February 2019)

“Crowdfunding and regional entrepreneurship “

Kauffman Foundation, Kansas City, KS (January 2019)
 ESMT, Entrepreneurial Finance Conference, Berlin, Germany (June, 2018)

“R&D Tax Credits: Mechanisms of Private and Public Value.”

Northwestern University, Evanston, IL (February 2020)
 University of Minnesota, Carlson School of Management (February 2020)
 Harvard University, Graduate School of Business, Technology and Operations Management Seminar, Boston, MA (February 2019)
 Boston University, Boston, MA (February 2019)
 Stanford University, Stanford, CA (May, 2018)
 UC Merced, Merced, CA (March 2018)
 UC Berkeley, CCC Faculty presentations, Berkeley, CA (March 2018)

Invited presentation, “Data sharing: costs, benefits, and opportunities.”

NIH-NSF Workshop on the Value of Data Sharing, Washington D.C. (October 2017)

Discussant, “Advancing the Science of Science Funding Workshop.”

NBER Summer Institute: Cambridge, MA (July 2017)

Invited presentation, “Visualizing the evolution of technology through Virtual Reality.”

National Academy of Sciences, Government University Industry Research Round Table, Washington D.C. (June 2017)

“Innovation Search Strategy and Predictable Returns: A Bias for Novelty.”

UC Berkeley, Berkeley Stanford Conference on Innovation, Finance, and Entrepreneurship, Berkeley, CA (June 2017)
IEOR Department Seminar, UC Berkeley, Berkeley, CA (Feb 2017)

“Escaping competition and competency traps: identifying how innovative search strategy enables market entry”

Columbia University, Sloan School of Business, New York, NY (Feb 2017)
NYU, New York, NY (Feb 2017)
IEOR Department Seminar, UC Berkeley, Berkeley, CA (Feb 2017)
Massachusetts Institute of Technology, Sloan School of Management, Boston, MA (May 2016)

“Non-competes and Business Dynamism”

Roundtable on Engineering Entrepreneurship Research Conference, Atlanta, GA (November 2016)

“Discussant: Open innovation and collective leadership”

Academy of Management Meetings, Anaheim, CA (August, 2016)

“Discussant: Crowdfunding Symposium”

Academy of Management Meetings, Anaheim, CA (August, 2016)

Discussant, Koenig, Liu, and Zenou, “R&D Networks: Theory, Empirics, and Policy Implications”

NBER Summer Institute: Innovation, Cambridge, MA (July 2016)

“Switching Fields: Creative Paradise or Loss of Human Capital?”

Massachusetts Institute of Technology, Sloan School of Management, Boston, MA (May 2016)
Innovation in an Aging Society Workshop, San Francisco, CA (January 2016)
University of California, Berkeley, Innovation Seminar, Berkeley, CA (October 2015)
Conference on Complex Systems, Phoenix, AZ (October 2015)
University of California, Berkeley, MORS Seminar, Berkeley, CA (October 2015)
Academy of Management Conference, Vancouver, B.C. (August 2015)

“CrowdBerkeley: Databases and Tools for the Study of Crowdfunding”

Kauffman Foundation, Kansas City, KS (January 2018)
Academy of Management Meetings, Anaheim, CA (August, 2016)
University of California, Berkeley, 3rd Annual CrowdFunding Symposium, Berkeley, CA (September 2015)

“Machine learning and natural language processing applied to the patent corpus”

Academy of Management Conference, Vancouver, B.C. (August 2015)
Massachusetts Institute of Technology, Sloan School of Management, Boston, MA (July 2015)
Northwestern University, Searle Center for Law, Economics, and Innovation, Chicago, IL (April 2015)

“Independent Boards and Innovation”

Academy of Management Meetings, Vancouver, CA (August, 2015)
[Kansas City Federal Reserve, Kansas City, MO \(May 2015\)](#)
University of California, Berkeley, Dean’s Luncheon Speaker Series, Berkeley, CA (March 2015)
Massachusetts Institute of Technology, Sloan School of Management, Boston, MA (November 2014)
Harvard University, Graduate School of Business, Technology and Operations Management Seminar, Boston, MA (November 2014)
Dartmouth College, Hanover, NH (November 2014)
National Bureau of Economic Research, Cambridge, MA (November 2014)
INFORMS Conference, San Francisco, CA (November 2014)
University of California, Berkeley, Innovation Seminar, Berkeley, CA (September 2014)
University of Santa Clara, Santa Clara, CA (June 2014)

“Visualizing the Flow of Technology: The FinFet Breakthrough”

Academy of Management Conference, Vancouver, B.C. (August 2015)
Stanford University, Stanford, CA (February, 2015)

“New technologies and research opportunities with the patent record”

National Academy of Sciences, Washington, D.C. (May, 2016)
Google, Mountain View, CA (March 2016)
Rational Patent Exchange, San Francisco, CA (November 2014)
2014 Roundtable for Engineering Entrepreneurship Research Conference, Atlanta, GA (November 2014)
[AAAS Science of Science Policy Workshop, Washington, D.C. \(May, 2014\)](#)
National Bureau of Economic Research, Cambridge, MA (February 2014)
Academy of Management Meetings, Orlando, FL (August, 2013)
UC San Diego, Rady School of Management (September 2013)

Stanford Network Forum: Discussion with Woody Powell on *The Emergence of Organizations and Markets*

Stanford University, Stanford, CA (December, 2013)

“Thoughts on Innovation.”

Academy of Management Meetings, Orlando, FL (August, 2013)

“2013 Meet the Editors: Academy of Management TIMS Junior Faculty Consortium.”

Academy of Management Meetings, Orlando, FL (August, 2013)

“Networks, creativity, knowledge diffusion, and science policy.”

Committee on Assessing the Value of Research in Advancing National Goals, Washington, D.C. (July, 2013)

“Innovation and Entrepreneurship in Clean Energy.”

UC San Diego, Rady School of Management (September 2013)
SIEPR Social Science and Technology Seminar, Stanford, CA (May, 2013)
Global Venture Lab 4th Annual Summit, Berkeley, CA (November, 2012)
Rethinking Science and Innovation Policy Conference, NBER, Cambridge, MA (October, 2012)

“Bibliometrics and science policy.”

Workshop on Disambiguation, University of Illinois, Urbana Champagne (June, 2012)
NRC Triennial Review Committee of the National Nanotech Initiative, University of California, Irvine, CA (May, 2012)

“Noncompetes: Barriers to Exit and Entry?”

National Bureau of Economic Research Innovation Policy and the Economy Conference, Washington DC (April 2011)

Discussant, Roach and Cohen, “Patent Citations as Measures of Knowledge Flows from Public Research: A Comparison with Survey Data from US R&D Labs”

NBER Summer Institute: Intellectual Property Policy and Innovation, Cambridge, MA (July 2011)

“How anticipated employee mobility affects acquisition likelihood: Evidence from a natural experiment”

Northwestern University, Media, Technology and Society Program (February 2013)
University of Minnesota, Carlson School of Management (February 2013)
University of California, Irvine (May, 2012)
University of Chicago, Booth School of Business, Chicago, IL (October 2011)
Academy of Management Conference, San Antonio, TX (August 2011)
University of California, Berkeley, Haas School of Business Innovation Seminar, Berkeley, CA (March 2011)
National Bureau of Economic Research, Cambridge, MA (February 2011)
Harvard University Business and Economics of Science, Boston, MA (December 2010)

“Regional Disadvantage: Noncompetes and Brain Drain”

Northwestern University, Media, Technology and Society Program (February 2013)
University of Minnesota, Carlson School of Management (February 2013)
Science, Intellectual Property, and Innovation, UC Berkeley, CA (March 2012)
UC Berkeley Organizational Behavior Seminar, Berkeley, CA (December 2011)
OECD Conference on Knowledge Exchange Mechanisms, Washington, DC (November 2011)
UC Berkeley Industrial Engineering and Operations Research Seminar, Berkeley, CA (March 2011)
UC Berkeley Haas Innovation Seminar, Berkeley, CA (March 2011)
Georgia Institute of Technology, Atlanta, GA (February 2011)
Harvard University Business and Economics of Science, Boston, MA (December 2010)
University of Utah, Eccles School of Business, Salt Lake City, UT (April 2010)
University of Colorado Leeds School of Business Distinguished Speaker Series, Boulder, CO (March 2010)
Microsoft, Seattle, WA (November 2009)
School on social networks and innovation, University of Trento, Trento, IT (July 2009)
Plenary Presentation, 6th European Meeting on Applied Evolutionary Economics, Jena, DE (May 2009)
Harvard Business School Department of Research Presentation, Boston, MA (May 2009)
Rappaport Institute for Greater Boston, Cambridge, MA (April, 2009)
Stanford Entrepreneurs Club of New England, Boston, MA (April, 2009)
New York University, New York, NY (April 2009)
Harvard University, Berkman Center, Cambridge, MA (June 2008)
University of Washington School of Business, Seattle, WA (May 2008)
Center for Advanced Management Studies, Ludwig Maximilian University, Munich, Germany, (April 2008)
Association of American Geographers, Boston, MA (April 2008)
Harvard University, Graduate School of Business, Technology and Operations Management Seminar, Boston, MA (April 2008)
Harvard University, Institute for Quantitative Social Science, Cambridge, MA (April 2008)
Harvard University, Science, Engineering, and U.S. Economic Progress, Cambridge, MA (April 2008)

“Disambiguation and co-author networks of the U.S. Patent Inventor Database”

Northwestern University, Media, Technology and Society Program (February 2013)
University of Minnesota, Carlson School of Management (February 2013)
[Science of Science Policy Conference, National Academy of Science, Washington, DC \(September 2012\)](#)
OECD Conference on Knowledge Exchange Mechanisms, Washington, DC (November 2011)
[USPTO Conference on Disambiguation, Washington, DC \(June 2011\)](#)
Microsoft, Seattle, WA (November 2009)
[School on social networks and innovation, University of Trento, Trento, IT \(July 2009\)](#)
National Science Foundation, Washington, D.C. (March 2009)

“Lone Inventors as Sources of Technological Breakthroughs: Myth or Reality?”

INFORMS Conference, Washington D.C. (October 2008)
Stanford University, Scandinavian Consortium for Organizational Research, Stanford, CA (October 2006)
Harvard University, Graduate School of Business, Technology and Operations Management Seminar, Boston, MA (October 2006)
[University of Toronto, Rotman School of Management Seminar, Toronto, ON \(November 2006\)](#)

“Science and Technology Entrepreneurship for Greater Societal Benefit: Ideas for Curricular Innovation”

UC San Diego, Jacobs School of Engineering (September 2013)
UC Berkeley, College of Engineering, Berkeley, CA (March, 2011)
UC Santa Barbara, College of Engineering, Santa Barbara, CA (October, 2010)
INFORMS Winter Conference, Squaw Valley, CA (February 2008)
CIMIT Innovation Congress, Boston, Ma. (November 2007)
Academy of Management Conference, Philadelphia, PA (August 2007)
David Rockefeller Center for Latin American Studies at Harvard, Cambridge, MA (July 2007)
Georgia Institute of Technology, Atlanta, GA (February 2007)
Harvard Business School Core Seminar, Boston, MA (February 2006)

“How to Identify and Fund Transformative Research”

National Science Foundation Task Force on Transformative Research, Santa Fe Institute, Santa Fe, NM (December 2005)

“Mobility, Skills, and the Michigan Non-compete Experiment”

Stanford University Organizational Behavior Seminar, Stanford, CA (February 2008)
INFORMS Conference, Seattle, WA (November 2007)
Tuck School of Business, Hanover, NH (December 2007)
Inside Innovation Conference, Haas School of Business, Berkeley, CA (November 2007)
George Washington University, Washington D.C., (September 2007)
[INSEAD, Fontainebleau, France \(September 2007\)](#)
Academy of Management Conference, Philadelphia, PA (August 2007)
Association of American Geographers, San Francisco, CA (April 2007)
Wharton Technology Conference, Philadelphia, PA (April 2007)
UC Santa Barbara, School of Engineering, Santa Barbara, CA (April 2007)
Rappaport Institute for Greater Boston, Cambridge, MA (February, 2007)
National Bureau of Economic Research, Cambridge, MA (November 2006)
Harvard University, Doctoral Seminar, Boston, MA (October 2006)
Stanford University, 10th Anniversary of the Center for Work, Technology, and Organization, Stanford, CA (September 2006)
Harvard University, Entrepreneurship Work in Progress Seminar, Boston, MA (August 2006)
Carnegie Mellon University, Entrepreneurship Seminar, Pittsburg, PA (December 2005)
Roundtable on Engineering Entrepreneurship Research Conference, Atlanta, GA (December 2005)

“Collaborative Brokerage, Generative Creativity, and Creative Success”

Carnegie Mellon University, Organizational Behavior Seminar, Pittsburg, PA (December 2005)
Emory University, Organizational Behavior Seminar, Atlanta, GA (December 2005)
University of Pennsylvania, Wharton Management Seminar, Philadelphia, PA (November 2005)
INFORMS Conference, San Francisco, CA (November 2005)
Harvard University, Graduate School of Business, Technology and Operations Management Seminar, Boston, MA (November 2005)
Academy of Management Conference, Honolulu, HI (August 2005)
[4th European Meeting on Applied Evolutionary Economics, Utrecht, Netherlands \(May 2005\)](#)
[INSEAD, Fontainebleau, France \(May 2005\)](#)
[Swiss Federal Institute of Technology, Lausanne, Switzerland \(May 2005\)](#)
University of Michigan, Graduate School of Business, Ann Arbor, MI (May 2005)
Harvard University, School of Applied Sciences, Information Technology Management Seminar, Boston, MA (November 2004)

“Scanning the Commons: Evidence on the Benefits to Startups Participating in Open Standards Development”

Harvard University, Graduate School of Business, Conference on Open Source Innovation, Boston, MA (August 2008)
University of Chicago, Graduate School of Business, Chicago, IL (November 2007)
INFORMS Conference, Seattle, WA (November 2007)
Harvard University, Graduate School of Business, Conference on Industry Self-regulation, Boston, MA (March 2007)
Academy of Management Conference, Honolulu, HI (August 2005)

“Brokerage, Boundary Spanning, and Leadership in an Open Innovation Community”

University of Chicago, Graduate School of Business, Chicago, IL (June 2004)
Stanford University, Graduate School of Business, Stanford, CA (March 2004)
University of California, Berkeley, Haas School of Business Innovation Seminar, Berkeley, CA (February 2004)
Stanford University, Scandinavian Consortium for Organizational Research, Stanford, CA (February 2004)
University of Maryland, Smith School of Business, Leading through Innovation Research Conference, College Park, MD (January 2004)
Harvard University, School of Applied Sciences, Information and Technology Management Seminar (November 2003)
Harvard University, Graduate School of Business, Technology and Operations Management Seminar, Boston, MA (November 2003)
Academy of Management Conference, Seattle, WA (August 2003)

“Why the Valley Went First: Aggregation and Emergence in Regional Collaboration Networks”

Harvard University, Graduate School of Business, Entrepreneurial Management Seminar, Boston, MA (March 2004)
University of Pennsylvania, Wharton Technology Conference, Philadelphia, PA (March 2004)
Harvard University, Graduate School of Business, Technology and Operations Management Seminar, Boston, MA (March 2004)
[Santa Fe Institute Conference on Regional Economics, Monterrey, Mexico \(March 2004\)](#)

“Small Worlds and Regional Innovation”

University of Chicago, Graduate School of Business, Chicago, IL (November 2004)
INFORMS Conference, Denver, CO (October 2004)
National Bureau of Economic Research, Cambridge, MA (May 2004)
Academy of Management Conference, Seattle, WA (August 2003)
Santa Fe Institute, Workshop on Network Evolution, Santa Fe, NM (May 2003)
Harvard University, Government 3009 Applied Methods Seminar, Cambridge, (April 2002)
Stanford University, Scandinavian Consortium for Organizational Research, Stanford, CA (February 2003)
Harvard University, School of Applied Sciences, Information Technology Management Seminar, Boston, MA (December 2002)

“Cut the Fat or Swing for the Fences? Budgetary vs. Innovative Search”

Utah-Brigham Young University Winter Strategy Conference, Salt Lake City, UT (March 2003)
Hewlett Packard Laboratories, Palo Alto, CA (February 2003)
Hewlett Packard Corporate Headquarters, Palo Alto, CA (February 2003)
Agilent Laboratories, Palo Alto, (February 2003)
Academy of Management Conference, Denver, CO (August 2002)

“Complexity, Networks, and Knowledge Flow”

[4th European Meeting on Applied Evolutionary Economics, Utrecht, Netherlands \(May 2005\)](#)
University of Pennsylvania, Wharton Technology Conference, Philadelphia, PA (April 2002)
Academy of Management Conference, Denver, CO (August 2002)

“Technological Diversity and Inventive Creativity”

Academy of Management Conference, Denver, CO (August 2002)
Stanford University, Scandinavian Consortium for Organizational Research, Stanford, CA (March 2002)
Harvard University, Graduate School of Business, Organizational Behavior Seminar, Boston, MA (March 2002)

"Finding the Organizational Sources of Breakthrough Invention: The Story of Hewlett Packard's Ink Jet Invention"

Gordon Conference on Solid State Ceramics, Kimball Union Academy, NH (August 2001)
Dupont Central Research and Development Laboratories, Wilmington, DE (April 2001)
INSEAD (May 2000), Fontainebleau, France (May 2002)
Massachusetts Institute of Technology, Sloan School of Management, Management of Innovation Seminar (March 2000)
Harvard University, Graduate School of Business, Technology and Operations Management Seminar, Boston, MA (April 2000)
University of Minnesota, Carlson School of Management, Minneapolis, MN (April 2000)
University of Chicago, Graduate School of Business Strategy Workshop, Chicago, IL (June 2000)

“Science and the Diffusion of Knowledge”

Harvard University, International Conference on Science, Technology and Innovation: Emerging International Policy Issues, Cambridge, MA (September 2002)
National Bureau of Economic Research, Cambridge, MA (April 2001)
Harvard University, Center for Research in the Social Sciences, Cambridge, MA (April 2001)
Harvard University, Graduate School of Business, Technology and Operations Seminar, Boston, MA (April 2001)

“Science As a Map in Technological Search”

Association for Laboratory Automation Annual Conference, Boston, MA (June 2004)
Santa Fe Institute, Founding Workshop: Innovation in Natural, Experimental, and Applied Evolution, Santa Fe, NM (February 2004)
Stanford University, Social Science and Technology Seminar, Stanford, CA (February 2003)
Carnegie Mellon University Strategy Conference, Pittsburgh, PA (October 2002)
Gordon Conference on Solid State Ceramics, Kimball Union Academy, NH (August 2001)
Dupont Central Research and Development Laboratories, Wilmington, DE (April 2001)
Massachusetts Institute of Technology, Sloan School of Management, Operations Seminar, Boston, MA (November 2000)
Academy of Management Conference, Toronto, ON (August 2000)
Massachusetts Institute of Technology, Sloan School of Mngt, Operations Management Summer Camp, Boston, MA (July 2000)
National Bureau of Economic Research, Cambridge, MA (April 2000)

“Invention as a Complex Adaptive System: Evidence from Patent Data”

Massachusetts Institute of Technology, Sloan School of Management, Management of Innovation Seminar, Boston, MA (April 2000)
Academy of Management Conference, Chicago, IL (August 1999)

“A Prospect Theory Model of R&D Allocation”

Massachusetts Institute of Technology, Sloan School of Management, Economic Sociology Seminar, Boston, MA (May 2001)
National Bureau of Economic Research, Cambridge, MA (December 2000)
Harvard University, Center for Research in the Social Sciences, Cambridge, MA (December 2000)
Harvard University, Graduate School of Business, Technology and Operations Seminar, Boston, MA (December 2000)

“Explaining the Source and Tempo of Technological Variation: Recombinant Learning and Exhaustion in Technological Evolution”

Academy of Management Conference, San Diego, CA (August 1998)
Massachusetts Institute of Technology, Sloan School of Management, Boston, MA (March 1998)
Harvard University, Graduate School of Business, Technology and Operations Seminar, Boston, MA (March 1998)
CCC Doctoral Consortium, Harvard University, Boston MA (February 1998)
University of Minnesota, Carlson School of Management, Minneapolis, MN (February 1998)
University of Michigan, Graduate School of Business Strategy Seminar, Ann Arbor, MI (January 1998)
University of California at San Diego, Graduate School of International Relations and Pacific Studies, San Diego, CA (Dec 1997)
University of Texas at Dallas, Dallas, TX (December 1997)