AJAY K. AGRAWAL

Geoffrey Taber Chair in Entrepreneurship and Innovation Rotman School of Management, University of Toronto

Education

1995 - 2000	University of British Columbia, Vancouver, BC
	Ph.D. Strategy and Economics
1998 - 2000	Massachusetts Institute of Technology, Cambridge, MA
	Visiting Scholar
1993 - 1995	University of British Columbia, Vancouver, BC
	M.Eng./MBA
1994	London Business School, London, UK
	Visiting Scholar (MBA program)
1988 - 1993	University of British Columbia, Vancouver, BC
	B.A.Sc.

Thesis Committee

Professor Iain Cockburn, co-chair (Boston University) Professor Rebecca Henderson, co-chair (Harvard University) Professor James Brander (University of British Columbia)

Research

Refereed Publications

- 1. "Artificial intelligence adoption and system-wide change", *Journal of Economics & Management Strategy*, with Joshua Gans and Avi Goldfarb, March 27, 2024
- "Examining the Relationship Between Workplace Industry and COVID-19 Infection: A Cross-sectional Study of Canada's Largest Rapid Antigen Screening Program", *National Institute of Health National Library of Medicine (PubMed)*, with Evgenia Gatov, Sonia Sennik, Avi Goldfarb, Joshua Gans, Janice Stein, and Laura Rosella, Dec 14, 2023
- 3. "Superhuman science: How artificial intelligence may impact innovation", with John McHale and Alexander Oetll, Forthcoming, *The Journal of Evolutionary Economics*.
- 4. Do we want less automation?: AI may provide a path to decrease inequality; Ajay Agrawal, Joshua Gans, and Avi Goldfarb; *Science*, July 13, 2023, Vol 381, Issue 6654
- 5. "From Prediction to Transformation", with Joshua Gans and Avi Goldfarb, *Harvard Business Review*, France, April 6, 2023
- "Large-scale implementation of rapid antigen testing system for COVID-19 in workplaces"; (with Laura Rosella, Joshua Gans, Avi Goldfarb, Sonia Sennik, and Janice Stein; *Science Advances*, Feb. 25, 2022, Volume 8, Issue 8.
- 7. "<u>False-Positive Results in Rapid Antigen Tests for SARS-CoV-2</u>" (with Joshua Gans, Avi Goldfarb, Sonia Sennik, Janice Stein, and Laura Rosella) *JAMA*, January 7, 2022, 327(5):485-486.
- 8. "Enabling Entrepreneurial Choice," (with Joshua Gans and Scott Stern), Management Science, 67(9), 2021.
- 9. "Tax Credits and Small Firm R&D Spending," (with Carlos Rosell and Timothy Simcoe), *American Economic Journal: Economic Policy*, Vol. 12, Issue 2, May 2020.
- 10. "Artificial Intelligence: The Ambiguous Labor Market Impact of Automating Prediction," (with Joshua Gans and Avi Goldfarb), *Journal of Economic Perspectives*, Volume 33, Number 2, Spring 2019, 31-50.
- 11. "Exploring the Impact of Artificial Intelligence: Prediction versus Judgement," (with Joshua Gans and Avi Goldfarb), *Information Economics and Policy*, Volume 47, June 2019, 1-6.
- 12. "Slack Time and Innovation," (with Christian Catalini, Avi Goldfarb, and Hung Luo), *Organization Science*, 29(6), 2018, 989-1236.
- 13. "Human Judgement and AI Pricing," (with Joshua Gans and Avi Goldfarb), *American Economics Association:* Papers and Proceedings, Vol. 108, 2018, 58-63.

- 14. "How Stars Matter: Recruiting and peer effects in evolutionary biology," (with John McHale and Alex Oettl), *Research Policy*, 2017.
- 15. "Does Standardized Information in Online Markets Disproportionately Benefit Job Applicants from Less Developed Countries?" (with Nicola Lacetera and Elizabeth Lyons); *Journal of International Economics*, 2016, 103, 1-12.
- 16. "Roads and Innovation," (with Alberto Galasso and Alex Oettl), *Review of Economics and Statistics*, June 2016.
- 17. "Understanding the Changing Structure of Scientific Inquiry," (with Avi Goldfarb and Florenta Teodoridis), *American Economic Journal: Applied Economics*, 2016, 8(1): 100–128.
- 18. "Are Syndicates the Killer App of Equity Crowdfunding?" (with Avi Goldfarb and Christian Catalini), *California Management Review*, 58(2), 2016, 111-124.
- 19. "Crowdfunding: Geography, Social Networks, and the Timing of Investment Decisions," (with Christian Catalini and Avi Goldfarb), *Journal of Economics and Management Strategy*, 24 (2), 2015, 253-274.
- 20. "Deals not Done: Sources of Failure in the Market for Ideas" (with Iain Cockburn and Laurina Zhang), *Strategic Management Journal*, 36(7), 2015, 976-986.
- 21. "Why Are Some Regions More Innovative than Others? The Role of Firm Size Diversity," (with Iain Cockburn, Alberto Galasso, and Alex Oettl) *Journal of Urban Economics:* 81, 2014, 149-165.
- 22. "Life Sciences Venture Capital in Emerging Markets," (with Justin Chakma and Stephen Sammut) *Nature Biotechnology*, 31(3), 2013, 195-201.
- 23. "Recruiting for Ideas: How Firms Exploit the Prior Inventions of New Hires," (with Jasjit Singh) *Management Science* 57(1), 2011, 129-150.
- 24. "Brain Drain or Brain Bank? The Impact of Skilled Emigration on Poor-Country Innovation," (with Devesh Kapur, John McHale, and Alex Oettl) *Journal of Urban Economics*, 69(1), 2011, 43-55.
- 25. "Not Invented Here? Innovation in Company Towns," (with Iain Cockburn and Carlos Rosell) *Journal of Urban Economics*, Vol. 67 (1), 2010, 78-89.
- 26. "Have University Knowledge Flows Narrowed? Evidence from Patent Data," (with Carlos Rosell) *Research Policy*, Vol. 38 (1), 2009, 1-13.
- 27. "Restructuring Research: Communication Costs and the Democratization of University Innovation," (with Avi Goldfarb) *American Economic Review*, Vol. 98(4), 2008, 1578–1590.
- 28. "How Do Spatial and Social Proximity Influence Knowledge Flows? Evidence from Patent Data," (with Devesh Kapur and John McHale) *Journal of Urban Economics*, Vol. 64, 2008, 258–269.
- 29. "International Labor Mobility and Knowledge Flow Externalities" (with Alex Oettl) *Journal of International Business Studies*, Vol. 39(8), 2008, 1242-1260.
- 30. "Public Sector Science and the Strategy of the Commons," (with Lorenzo Garlappi) *Economics of Innovation* and New Technology, Vol. 16 (7), 2007, 517–539.
- 31. "Engaging the Inventor: Exploring Licensing Strategies for University Inventions and the Role of Latent Knowledge," *Strategic Management Journal*, Vol. 27 (1), 2006, 63-79.
- 32. "Gone But Not Forgotten: Labor Flows, Knowledge Spillovers and Enduring Social Capital" (with Iain Cockburn and John McHale) *Journal of Economic Geography*, Vol. 6 (5), 2006, 571-591.
- 33. "The Anchor Tenant Hypothesis: Examining the Role of Large, Local, R&D-Intensive Firms in University Knowledge Transfer," (with Iain Cockburn) *International Journal of Industrial Organization*, Vol. 21, 2003, 1227-1253.
- 34. "Putting Patents in Context: Exploring Knowledge Transfer from MIT," (with Rebecca Henderson) *Management Science*, Vol. 48, No. 1, January 2002, 44-60.
- 35. "Research on University-to-Industry Knowledge Transfer: Framework of Existing Literature and Unanswered Questions," *International Journal of Management Reviews*, Vol. 3, No. 4, 2001, 285-302.

Working Papers

- 1. "Prediction Machines, Insurance, and Protection: An Alternative Perspective on AI's Role in Production", with Avi Goldfarb and Joshua Gans, *Journal of The Japanese and International Economies*, 2024
- 2. "The Turing Transformation: Artificial Intelligence, Intelligence Augmentation, and Skill Premiums", (with Joshua Gans and Avi Goldfarb), *NBER* (Working Paper #31767), October 2023, and *HDSR*, December 2023.
- 3. "Similarities and Differences in the Adoption of General Purpose Technologies," (with Joshua Gans and Avi Goldfarb), Working Paper, *NBER*, February 2023.

- 4. "Prediction machines, insurance, and protection: An alternative perspective on AI's role in production," (with Joshua Gans and Avi Goldfarb), Brookings/NBER Working Paper, 2022.
- 5. "Does Mentorship Drive Startup Performance?" (with Amir Sariri) Working Paper, April 2022
- 6. "From Task-Based Substitution to Decision-Making Augmentation: A New Perspective on AI's Role in Production", (Joshua Gans and Avi Goldfarb), Working Paper, Brookings, March 2022.
- "Rapid Workplace Antigen Screening during Canada's Third Wave of COVID-19", (with Avi Goldfarb, Joshua Gans, Sonia Sennik, Janice Stein, Kyle Robinson, Devon Elke, Evgenia Gatov, and Laura Rosella) Working Paper, November 2021.
- "Identifying the Causes of False Positives in Rapid Antigen Tests for SARS-CoV-2 in a Scaled Implementation", (with Joshua Gans, Avi Goldfarb, Sonia Sennik, Janice Stein, and Laura Rosella), Working Paper, November 2021.
- 9. "AI Adoption and System-Wide Change", (with Joshua Gans and Avi Goldfarb), Working Paper 28811, NBER, May 2021.
- 10. "Enabling Entrepreneurial Choice" (with Joshua Gans and Scott Stern), NBER Working Paper 27379, June 2020.
- 11. "Artificial Intelligence, Scientific Discovery, and Commercial Innovation," (with John McHale and Alexander Oettl), working paper, February 2020.
- 12. "Competing Through AI: Does the Early Entrant Always Win?" (with Joshua Gans and Avi Goldfarb), working paper, April 2020.
- 13. "Finding Needles in Haystacks: Artificial Intelligence and Recombinant Growth" (with John McHale and Alex Oettl) NBER Working Paper 24541, 2018.
- 14. "Does Scientist Immigration Harm US Science? An Examination of Spillovers," (with John McHale and Alexander Oettl), NBER Working Paper 24519, 2018.
- 15. "Introduction to 'The Economics of Artificial Intelligence: An Agenda," (with Joshua Gans and Avi Goldfarb), in <u>The Economics of Artificial Intelligence: An Agenda</u> (eds. Ajay Agrawal, Joshua Gans, Avi Goldfarb), University of Chicago Press, forthcoming, 2018.
- 16. "Human Judgement and AI Pricing," (with Joshua Gans and Avi Goldfarb), NBER Working Paper 24284, 2018.
- 17. "Prediction, Judgement, and Complexity: A Theory of Decision Making and Artificial Intelligence," (with Joshua Gans and Avi Goldfarb), NBER Working Paper 24243, 2018.
- 18. "Slack Time and Innovation" (with Christian Catalini and Avi Goldfarb) NBER Working Paper 21134, 2015.
- 19. "Are Syndicates the Killer App of Equity Crowdfunding?" Rotman School of Management Working Paper No. 2569988, 2015.
- 20. "Do Tax Credits Affect R&D Expenditures by Small Firms? Evidence from Canada" (with Carlos Rosell and Tim Simcoe) NBER Working Paper 20615, 2014.
- 21. "Roads and Innovation" (with Alberto Galasso and Alexander Oettl) CEPR Discussion Paper 10113, 2014.
- 22. "Why Stars Matter," (with John McHale and Alex Oettl) NBER Working Paper 20012, 2014.
- "Does the Accumulation of Knowledge Cause an Increase in Returns to Collaboration? Evidence from the Collapse of the Soviet Union" (with Avi Goldfarb and Florenta Teodoridis), NBER Working Paper 19694, 2013.
- 24. "Does Information from Online Markets for Contract Labor Help or Hinder Applicants from Less Developed Countries?" (with Nicola Lacetera and Elizabeth Lyons), NBER Working Paper 18720, 2013.
- 25. "Collaboration, Stars, and the Changing Organization of Science: Evidence from Evolutionary Biology," (with John McHale and Alex Oettl), NBER Working Paper 19653, 2013.
- 26. "Digitization and the Contract Labor Market: A Research Agenda," (with John Horton, Nicola Lacetera, and Liz Lyons) NBER Working Paper 19525, 2013.
- 27. "Why Are Some Regions More Innovative than Others? The Role of Firm Size Diversity," (with Iain Cockburn, Alberto Galasso, and Alex Oettl), Working Paper 17793, *National Bureau of Economic Research*, Cambridge, MA, 2012.
- 28. "Deals not Done: Sources of Failure in the Market for Ideas" (with Iain Cockburn and Laurina Zhang), NBER Working Paper 19679, 2013.
- 29. "The Geography of Crowd-Funding," (with Christian Catalini and Avi Goldfarb) Working paper 16820, *National Bureau of Economic Research*, Cambridge, MA, 2011.
- 30. "Recruiting for Ideas: How Firms Exploit the Prior Inventions of New Hires," (with Jasjit Singh) Working Paper 15869, *National Bureau of Economic Research*, Cambridge, MA, 2010.

- 31. "Not Invented Here? Innovation in Company Towns," (with Iain Cockburn and Carlos Rosell) Working Paper 15437, *National Bureau of Economic Research*, Cambridge, MA, 2009.
- 32. "Brain Drain or Brain Bank? The Impact of Skilled Emigration on Poor Country Innovation," (with Devesh Kapur and John McHale) Working Paper 14592, *National Bureau of Economic Research*, Cambridge, MA, 2008.
- "Birds of a Feather Better Together? How Co-Ethnicity and Co-Location Influence Knowledge Flows," (with Devesh Kapur and John McHale) Working Paper 12823, *National Bureau of Economic Research*, Cambridge, MA, 2007.
- 34. "Restructuring Research: Communication Costs and the Democratization of University Innovation," (with Avi Goldfarb), Working Paper 12812, *National Bureau of Economic Research*, Cambridge, MA, 2006.
- 35. "University Patenting: Estimating the Diminishing Breadth of Knowledge Diffusion and Consumption," (with Carlos Rosell) Working Paper 12640, *National Bureau of Economic Research*, Cambridge, MA, 2006.
- "Gone But Not Forgotten: Labor Flows, Knowledge Spillovers and Enduring Social Capital," (with Iain Cockburn and John McHale) Working Paper 9950, *National Bureau of Economic Research*, Cambridge, MA, 2003.
- 37. "University Research, Industrial R&D, and the Anchor Tenant Hypothesis," (with Iain Cockburn) Working Paper 9212, *National Bureau of Economic Research*, Cambridge, MA, 2002.

Other Publications

- 1. "NBER Economics of Artificial Intelligence: Health Care Challenges", *University of Chicago Press*, (co-edited with Avi Goldfarb, Joshua Gans, and Catherine Tucker) "
- "Examining the relationship between workplace industry and COVID-19 infection: a cross-sectional study of Canada's largest rapid antigen screening program", with Joshua Gans, Avi Goldfarb, Janice Stein, Sonia Sennik, and Laura Rosella, JOEM-23-10443R1 (Journal of Occupational and Environmental Medicine)
- 3. "Blast off: The space economy takes flight", *Forbes*, Sep 14, 2023, with Joshua Gans, Avi Goldfarb, Chris Hadfield, and Mara Lederman
- 4. "The Economics of Artificial Intelligence: Health Care Challenges," with Joshua Gans and Avi Goldfarb (editors), University of Chicago Press, forthcoming 2024.
- 5. 'How Large Language Models Reflect Human Judgment', *Harvard Business Review*, June 12, 2023, with Joshua Gans and Avi Goldfarb
- 6. "Power & Prediction: The Disruptive Economics of Artificial Intelligence" (with Joshua Gans and Avi Goldfarb), Monograph, *Harvard Business School Press*, 2022.
- 7. "From Prediction to Transformation," (with Joshua Gans and Avi Goldfarb), *Harvard Business Review*, Nov-Dec 2022.
- 8. "How AI will change strategy: A thought experiment," (with Joshua Gans and Avi Goldfarb), *Harvard Business Review*, Winter 2021, pp.30-31.
- 9. "How to Win with Machine Learning," with Joshua Gans and Avi Goldfarb, *Harvard Business Review*, September-October, 2020.
- 10. "The CEO's Guide to Safely Reopening the Workplace," with Joshua Gans, Avi Goldfarb, and Mara Lederman) *MIT Technology Review*, 28 May 2020.
- 11. "The Economics of Artificial Intelligence: An Agenda," with Joshua Gans and Avi Goldfarb (editors), University of Chicago Press, 2019.
- 12. "Prediction, Judgement, and Complexity: A Theory of Decision-Making and Artificial Intelligence," with Joshua Gans and Avi Goldfarb in "The Economics of Artificial Intelligence: An Agenda," with Joshua Gans and Avi Goldfarb (editors), University of Chicago Press, 2019.
- 13. "Finding Needles in Haystacks: Artificial Intelligence and Recombinant Growth," with John McHale and Alexander Oettl in "The Economics of Artificial Intelligence: An Agenda," with Joshua Gans and Avi Goldfarb (editors), University of Chicago Press, 2019.
- 14. "The Economics of Artificial Intelligence," with Joshua Gans and Avi Goldfarb, in <u>Innovation Policy and the Economy</u>, Volume 19, National Bureau of Economic Research, eds. Josh Lerner and Scott Stern, 2019.
- 15. "Exploring the Impact of Artificial Intelligence: Prediction versus Judgement," with <u>Avi Goldfarb</u> and <u>Joshua</u> <u>Gans</u>, National Bureau of Economic Research, May 2018.
- 16. "Economic Policy for Artificial Intelligence," with <u>Avi Goldfarb</u> and <u>Joshua Gans</u>, Vox CEPR Policy Portal, August 2018.

- 17. "Google's AI Assistant Is a Reminder that Privacy and Security Are Not the Same," with Joshua Gans and Avi Goldfarb, Harvard Business Review, 2018
- 18. <u>Prediction Machines: The Simple Economics of Artificial Intelligence.</u> with Joshua Gans and Avi Goldfarb, Harvard Business Review Press, 2018.
- 19. "A Simple Tool to Start Making Decisions with the Help of AI," with Joshua Gans and Avi Goldfarb, Harvard Business Review online, 2018.
- 20. "Is Your Company's Data Actually Valuable in the AI Era?" with Joshua Gans and Avi Goldfarb, Harvard Business Review online, 2018.
- 21. "How AI Will Change Strategy: A Thought Experiment," with Joshua Gans and Avi Goldfarb, Harvard Business Review online, 2017.
- 22. "How AI Will Change the Way We Make Decisions" with Joshua Gans and Avi Goldfarb, Harvard Business Review online, 2017.
- 23. "The Trade-Off Every AI Company Will Face," with Joshua Gans and Avi Goldfarb, Harvard Business Review online, 2017.
- 24. "What to Expect From Artificial Intelligence," with Joshua Gans and Avi Goldfarb, MIT Sloan Management Review, 2017.
- 25. "The Simple Economics of Machine Intelligence," with Joshua Gans and Avi Goldfarb, Harvard Business Review online, 2016.
- 26. "The Obama Administration's Roadmap for AI Policy," with <u>Joshua Gans</u> and <u>Avi Goldfarb</u>, MIT Sloan Management Review, 2016.
- 27. "Diaspora Networks, Knowledge Flows, and Brain Drain," in <u>Intellectual Property, the International Mobility</u> of Knowledge Workers, and the Brain Drain, World Intellectual Property Organization, Geneva, Switzerland, 2016.
- "Collaboration, Stars, and the Changing Organization of Science: Evidence from Evolutionary Biology," (with John McHale and Alex Oettl) in <u>The Changing Frontier: Rethinking Science and Innovation Policy</u>, eds. Adam Jaffe and Ben Jones, University of Chicago Press, 2015.
- 29. "Some Simple Economics of Crowdfunding," (with Christian Catalini and Avi Goldfarb) in <u>Innovation Policy</u> and the Economy, Volume 14, National Bureau of Economic Research, eds. Josh Lerner and Scott Stern, 2014.
- 30. "Digitization and the Contract Labor Market: A Research Agenda," (with John Horton, Nicola Lacetera, and Liz Lyons) in <u>Economics of Digitization</u>, Edward Elgar Publishing, 2013.
- 31. "Transaction Costs in Technology Transfer and Implications for Strategy," in <u>Economic Institutions of</u> <u>Strategy</u>, *Advances in Strategic Management*, Vol. 26, eds. B. Silverman and J. Nickerson, 2009, pp. 3-38.
- 32. "U.S./Canadian Licensing In 2007-08: Survey Results," (with Louis Berneman, Iain Cockburn, and Shankar Iyer) *les Nouvelles* Journal of the Licensing Executive Society International, March 2009, pp. 1-8.
- 33. "A Survey of R&D Governance in Canada and an Exploration of the Role of Social Relationships in Outsourcing R&D," in Industrial Economics & Performance in Canada, Industry Canada, 2005.
- 34. "D-Wave: Building a Quantum Computer,"(with Alan MacCormack and Rebecca Henderson) Harvard Business School Case No. N9-604-073, Harvard Business School Publishing, Cambridge, MA, 2004.
- 35. "University Knowledge Transfer and the Patent Channel," (with Rebecca Henderson) *Technological Innovation and Intellectual Property Newsletter*, 2003.
- 36. "Innovation and the Growth of Cities," (book review) *Journal of Economic Geography*, Vol. 3, Issue 4, pp. 458-461, 2003.
- 37. "Public Sector Science and the 'Strategy of the Commons' (Abridged)," (with Lorenzo Garlappi) Best Paper Proceedings, Academy of Management, 2002.
- 38. "Innovation, Growth Theory, and the Role of Knowledge Spillovers," Statistics Canada, *The Innovation Analysis Bulletin*, Vol. 4, No. 3, 2002, Ottawa, Canada.

Paper Presentations

University of Southern California, Los Angeles, CA, University of California San Diego, San Diego, CA, Duke University, Durham, NC; Stanford University, Palo Alto, CA; Harvard University, Cambridge, MA; University of Pennsylvania, Philadelphia, PA; MIT, Cambridge, MA; University of California at Berkeley, Berkeley, CA; London School of Economics, London, UK; University of Toronto, Toronto, ON; National Bureau of Economic Research, Cambridge, MA; University of North Carolina, Chapel Hill, NC; NYU, New York, NY; Georgia Tech, Atlanta, GA; London Business School, London, UK; Boston University, Boston, MA; University of Barcelona, Barcelona, Spain; University of British Columbia, Vancouver, BC; Ecole Polytechnique Fédérale de Lausanne, Switzerland; Università Ca' Foscari di Venezia, Venice, Italy; CIRANO, Montreal, PQ; Federal Reserve Bank of Boston, Boston, MA; Academy of Management Annual Meeting, Atlanta, GA; Canadian Economics Association Annual Meeting, Montreal, PQ; International Society for New Institutional Economics Annual Meeting, Tucson, Arizona; Schumpeter Society Conference, Bocconi University, Milan, Italy; CORS/INFORMS Joint International Meeting, Banff, AB; Strategic Management Society Annual Meeting, Baltimore, MD; Academy of Management Annual Meetings, Seattle, WA; European Association for Research on Industrial Economics Annual Meeting, Helsinki School of Economics, Finland; Canadian Economics Association Annual Conference, Ottawa, ON; National Science Foundation Conference, University of North Carolina Greensboro, NC; Center for Economic Policy Research (CEPR) and Universita' L.Bocconi, Alghero, Italy; European Association for Research in Industrial Economics (EARIE), Dublin, Ireland; Academy of Management, Toronto, ON; Portland International Conference on Management of Engineering and Technology, Portland, OR; European Economics Association Annual Conference, University of Stockholm, Sweden; Academy of Management, Annual Conference, Denver, CO; Carnegie Mellon University, Pittsburgh, PA

Acknowledgements

Acknowledgen	nents
2023	Special Recognition of Achievement Award, Canada Awards for Excellence
2023	President's Impact Award, University of Toronto
2022	Member of The Order of Canada
2022	Honorary Doctorate, University of Calgary
2021	Outstanding Research Impact Award, Rotman School of Management, University of Toronto
2018	Alfred P. Sloan Foundation Grant (2018-2020), with Joshua Gans, Avi Goldfarb, and Catherine
	Tucker
2017	Distinguished Scholarly Contribution Award
2017	CIFAR Grant for scholarly conference on the Economics of Artificial Intelligence (2017-18)
2013	Professor of the Year (Awarded by MBA Class of 2013)
2013	Social Sciences and Humanities Research Council Award, Principal Investigator (2013-2018)
2012	Professor of the Year (Awarded by MBA Class of 2012)
2011	Professor of the Year and Most Challenging Professor (Awarded by MBA Class of 2011)
2010	Martin-Lang Award for Excellence in Teaching
2009	Social Sciences and Humanities Research Council Award, Principal Investigator (2009-2012)
2009	Professor of the Year (Awarded by MBA Class of 2009)
2008	Professor of the Year (Awarded by MBA Class of 2008)
2007	Professor of the Year (Awarded by MBA Class of 2007)
2006	Professor of the Year (Awarded by MBA Class of 2006)
2005	National Science Foundation Research Grant (2005-2010), Senior Investigator for "Harnessing
	Patent Data for Social Science Research"
2005	Connaught Research Grant Award (2005-2007), University of Toronto
2005	Recognition for "outstanding" teaching, Rotman School of Management, Dean's Office
2004	Social Sciences and Humanities Research Council Award, Principal Investigator (2004-2007)
2004	Research Grant Award, Principal Investigator (2004-2005), Skills Research Initiative (Social
	Sciences and Humanities Research Council, Department of Human Resources and Skills
	Development, Industry Canada)
2004	Recognition for "outstanding" teaching, Rotman School of Management, Dean's Office
2003	Nominated for Polanyi Prize in Economics
2003	Nominated for 2003 Teaching Excellence Award, Queen's University Commerce Society
2002	New Researcher Award, Queen's University, School of Business
2002	SSHRC INE Research Award, Principal Investigator (2002-2005)
2002	D.I. McLeod Research Fellowship
2002	Best Paper, Academy of Management, BPS Division
2002	Top Nominee, 2002 Teaching Excellence Award, Queen's University Commerce Society
2001	Shortlisted for Young Economist Essay Prize, European Assoc. for Research in Ind. Economics
2001	Best Student Paper Award 2001, Portland Int. Conf. for Management in Engineering and Tech
2000	Best Dissertation Award Runner-up, jointly awarded by INFORMS and the Academy of
2000	Management, Technology and Innovation Management Division
2000	Nominated for the Carolyn Dexter Best International Paper Award, one of two papers
	nominated by the Academy of Management, Technology and Innovation Management Division.

1999	Entrepreneurship Research Fellowship, University of British Columbia
1997	Entrepreneurship Research Fellowship, University of British Columbia
1995	Entrepreneurship Research Fellowship, University of British Columbia
1995	International Business Scholarship, University of British Columbia

Conference Leadership

2024	1 st Annual Bayesian Entrepreneurship Conference (co-organizer)
2024	Transformative AI: What if We Succeed Workshop (co-organizer)
2023	NBER Conference on the Economics of Artificial Intelligence (co-organizer)
2023	NBER Graduate Student Tutorial on the Economics of Artificial Intelligence (organizer)
2022	NBER Conference on the Economics of Artificial Intelligence (organizer)
2021	NBER Conference on the Economics of Artificial Intelligence (organizer)
2021	NBER Graduate Student Tutorial on the Economics of Artificial Intelligence (organizer)
2020	NBER Conference on the Economics of Artificial Intelligence (organizer)
2020	NBER Graduate Student Tutorial on the Economics of Artificial Intelligence (organizer)
2019	Machine Learning and the Market for Intelligence, Toronto, ON (organizer)
2019	NBER/Sloan Conference on the Economics of Artificial Intelligence, Toronto, ON (co-organizer
	with Catherine Tucker, Joshua Gans and Avi Goldfarb)
2018	Machine Learning and the Market for Intelligence, Toronto, ON (organizer)
2018	NBER/Sloan Conference on the Economics of Artificial Intelligence, Toronto, ON (co-organizer
	with Catherine Tucker, Joshua Gans and Avi Goldfarb)
2017	NBER Conference on the Economics of Artificial Intelligence, Toronto, ON (co-organizer with
	Joshua Gans and Avi Goldfarb)
2017	Machine Learning and the Market for Intelligence, Toronto, ON (organizer)
2017	Economics of Innovation and Entrepreneurship Conf., Queen's University, ON (organizer, with
	Jean-Etienne de Bettignies and Douglas Cumming)
2016	Machine Learning and the Market for Intelligence, Toronto, ON (organizer)
2016	Economics of Innovation and Entrepreneurship Conf., Queen's University, ON (organizer, with
	Jean-Etienne de Bettignies and Douglas Cumming)
2016	Quantum Machine Learning, Toronto, ON (organizer)
2015	Machine Learning and the Market for Intelligence, Toronto, ON (organizer)
2015	Economics of Innovation and Entrepreneurship Conf., Queen's University, ON (organizer, with
	Jean-Etienne de Bettignies and Douglas Cumming)
2014	Economics of Innovation and Entrepreneurship Conf., Queen's University, ON (organizer with
• • • •	Jean-Etienne de Bettignies and Douglas Cumming)
2013	Economics of Innovation and Entrepreneurship Conf., Queen's University, ON (co-organizer with
0010	Jean-Etienne de Bettignies and Douglas Cumming)
2012	Canadian Conference on Innovation and Entrepreneurship, Queen's University, Kingston, ON (co-
	organizer with Jean-Etienne de Bettignies and Douglas Cumming)
2011	NBER/USPTO Conference on Patents, Standards, and Innovation (co-organizer with Tim Simcoe
	and Stuart Graham)
2011	Economics of Innovation and Entrepreneurship Conf., Queen's University, ON (co-organizer with
	Jean-Etienne de Bettignies and Douglas Cumming)
2010	Economics of Innovation and Entrepreneurship Conference, Queen's University, ON (co-organizer
	with Jean-Etienne de Bettignies and Douglas Cumming)
2009	NBER Productivity Meeting (Winter), Cambridge, MA (co-organizer with Ben Jones)
2009	Economics of Innovation and Entrepreneurship Conf., Queen's University, ON (co-organizer with
	Jean-Etienne de Bettignies, John McHale, and Douglas Cumming)

Service

- <u>Brookings Advisory Council</u>, Member (2022-present)
- Creator: <u>CDL Reading Group</u> Topic: In an age when the traditional lines between human and machine are increasingly blurred, we explore the question: What does it mean to be human? (2020-present)

- Chair: <u>CDL Vision Council</u> Mission: Identify the primary problems at the root of the crisis and accelerate technology-driven solutions that will have a first order impact on stimulating economic activity, restoring or creating jobs, and enhancing society such that human civilization emerges stronger and more stable than before the COVID-19 crisis began (2020)
- International Advisory Committee for the National Institute for Information and Communications Technology, 2020-present (Tokyo, Japan)
- Block Center for Technology and Society, Board Member, 2018-present (Carnegie Mellon University)
- National Academies of Science, Engineering, and Medicine Committee on Science and Innovation Leadership for the 21st Century, 2019-2020 (Washington, D.C.)
- Recruiting Committee, 2018 (Strategy Area, Rotman School of Management, University of Toronto)
- Tenure committees and tenure letters, 2015, 2016, 2017, 2018
- Recruiting Committee, 2014 (Strategy Area, Rotman School of Management, University of Toronto)
- Recruiting Committee, 2014 (Health Economics, Health Innovation, UTM, University of Toronto)
- Creative Destruction Lab, Founder and Academic Director, 2012 present (Rotman School of Management)
- External examiner Elais Collette (PhD candidate), 2012, (Carleton University, Department of Economics)
- Roundtable on Early-Stage Investment (\$400m), Organizer, 2012, (Federal Finance Minister's Office)
- Canadian Conference on Innovation and Entrepreneurship, Co-Founder, 2008-present (Scholarly community)
- Centre for Innovation and Entrepreneurship, Academic Director, 2010 present (Rotman School of Management)
- Masters Program Committee, 2011 2013 (Rotman School of Management)
- Impact Consulting Student Venture, Board Chair (volunteer), 2005 2011 (Rotman School of Management)
- Executive Committee, 2005 2008 (Rotman School of Management, University of Toronto)
- Recruiting Committee, 2004 (Strategy Area, Rotman School of Management, University of Toronto)
- Ph.D. Admissions Committee, 2003-2005 (Strategy Area, Rotman School of Management, University of Toronto)
- Research Committee, 2001-2003 (Queen's School of Business, Queen's University)
- Internal external examiner Dieter Franz Kogler (PhD candidate), 2009, (Univ. of Toronto, Dept. of Geography)
- External examiner Steven Formaneck (PhD candidate), 2009, (Waterloo University)

Graduate Students

<u>Ph.D.</u>

Kristjan Sigurdson (Strategic Management, University of Toronto, completed in 2021 - Chair) Amir Sariri (Strategic Management, University of Toronto, completed in 2021 - Chair; now at Purdue University) Rachel Harris (Economics, York University, completed in 2020) Hwanyi Zhu (Strategic Management, University of Toronto, completed in 2019) Prashant Shukla (Strategic Management, Simon Fraser University, 2015) Elizabeth Lyons (Strategic Management, University of Toronto, completed in 2014 - chair; now at UCSD) Laurina Zhang (Strategic Management, University of Toronto, completed in 2014 - chair; now at Boston University) Florenta Teodoridis (Strategic Management, University of Toronto, completed in 2014 – chair; now at USC) Christian Catalini (Strategic Management, University of Toronto, completed in 2013 - chair; now at MIT) Keyvan Vakili (Strategic Management, University of Toronto, completed in 2013; now at LBS) Helen Kim (Technology, Innovation, Entrepreneurship, Strategy, MIT, completed in 2013; now at NBER) Ahmed Doha (Technology Management, York University, completed in 2012; now at Carleton) Joel Blit (Economics, University of Toronto, completed in 2010; now at Waterloo) Alex Oettl (Strategic Management, University of Toronto, completed in 2009 - chair; now at Georgia Tech) Carlos Rosell (Economics, University of Toronto, completed in 2006; now at Department of Finance, Canada) Masters

Tin Lee (Economics, Queen's University, completed in 2002)

Editorial Board

Management Science (2008 – present) Strategic Management Journal (2007 – 2021) Journal of Urban Economics (2014-2020)

Ad Hoc Referee

American Economic Review; Academy of Management Journal; Canadian Journal of Economics; Econometrica; Economic Inquiry; Economics of Innovation and New Technology; European Science Foundation/Austrian Science Fund (grant applications); Industrial and Corporate Change; Industry Canada Working Paper Series; International Journal of Industrial Organization; Journal of Business Venturing; Journal of Industrial Economics; Journal of International Business Studies; Managerial and Decision Economics; Ontario Research and Development Challenge Fund (grant applications); Organization Science; Quarterly Journal of Economics; RAND Journal of Economics; Research Policy; Review of Economics and Statistics; Sloan Management Review; Social Sciences and Humanities Research Council (grant applications)

Academic Appointments

University of To	pronto
2014-present	Full Professor, Rotman School of Management
-	Geoffrey Taber Chair in Entrepreneurship and Innovation
	Courses: Creative Destruction Lab Course (MBA, EMBA, undergraduate)
2014-present	Professor, Rotman School of Management
	Peter Munk Professor of Entrepreneurship
	Courses: Creative Destruction Lab Course (MBA)
	Corporate Strategy (MBA)
2008-2014	Associate Professor, Rotman School of Management
	Courses: Competition and Strategy in Creative Industries (MBA)
	Corporate Strategy (MBA)
	Advanced Topics in Strategic Management (Executive MBA)
	Technology and Innovation (PhD)
2003-2008	Assistant Professor, Rotman School of Management
	Courses: Competition and Strategy in Creative Industries (MBA)
	Corporate Strategy (MBA)
	Advanced Topics in Strategic Management (Executive MBA)

Stanford University

2015-2016 Visiting Professor

Harvard University 2009-2010 Visiting Scholar

National Bureau of Economic Research2008-presentResearch Associate2006-2008Faculty Research Fellow

Creative Destruction Lab 2012-present Founder

The Next 36, Next AI, Next Founders, NEXT CANADA 2009-present Co-Founder and Academic Director

Queen's University2001-2003Assistant Professor, School of Business

<u>Courses:</u> Survey of the Economics of Innovation (Ph.D.)
Technology Strategy (MBA)
Economics of Innovation (Undergraduate)
Business Strategy (Undergraduate)

University of British Columbia

1998	Lecturer, Faculty of Commerce and Business Administration
Courses:	Economics of Vertical Integration and Alliances (MBA)
	Government, Business, and Welfare Economics (Undergraduate)
1996-1997	Teaching Assistant, Faculty of Commerce and Business Administration
	Courses: The Formation, Financing, and Management of Hi-Tech Companies (MBA)

Expert Witness

NRCC Multi-Channel Subscription Radio Services Tariff 4 (2004-2010); Valuation of music on satellite radio (XM and Sirius); Retained by Osler, Harkin, & Harcourt LLP to provide expert report and testimony before the Canadian Copyright Board on behalf of three music collectives (Neighbouring Rights Collective of Canada [NRCC], Society of Composers, Authors and Music Publishers of Canada [SOCAN], and CMRRA/SODRAC Inc. [CSI])