Stuart J.H. Graham

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BRIEF BIOGRAPHY

Dr. Stuart Graham, JD, PhD, is Associate Professor in the Strategy & Innovation management group at the Scheller College of Business, Georgia Institute of Technology (Atlanta, Georgia, USA). He teaches and conducts research on business strategy and competition, the economics and policy of patent systems, intellectual property strategy, and technology entrepreneurship. His scholarship has been published in the journal <u>Science</u>, the <u>MIT Sloan Management Review</u>, the <u>Journal of Economic Perspectives</u>, the <u>Stanford Technology Law Review</u>, and <u>Management Science</u>. During 2010-2013, Dr. Graham served as the (first) Chief Economist at the United States Patent & Trademark Office (USPTO), where he created and managed a team of professional economists to study the US innovation system and helped steer economic policy.

Dr. Graham has testified on patent-system economics to the US Congress and the US Federal Trade Commission, and has served as an economic expert to the World Economic Forum, the European Commission, the Japan Fair Trade Commission, the European Patent Office, Industry Canada, and the Organization for Economic Cooperation and Development (OECD). Dr. Graham's research has attracted funding from the National Science Foundation (US), the Ewing Marion Kauffman Foundation (US), and the Tokyo Nippon Foundation (JP) among others. His honors include winning the *Intel Foundation's Robert N. Noyce Fellowship* for academic research and being named a *Gottfried Leibniz Fellow* in Industrial Economics in Germany (*Blue List*). He received his PhD from the University of California, Berkeley, and holds other advanced degrees in Law (JD), Business (MBA), and Information Systems (MA), and is an attorney licensed in New York State.

Curriculum vitae

RESEARCH INTERESTS

Business strategy, industrial organization and competition. Intellectual property (IP) strategy. Science and innovation policy. Technology standards and standard-essential patents. Technology entrepreneurship and commercialization. Managing innovation and technological change.

EXPERIENCE

[1] Georgia Institute of Technology,	Scheller College of Business	
Strategy and Innovation Group	Associate Professor (with tenure)	2015 - present
Atlanta, GA	Assistant Professor	2004 - 2015
[2] University of Bordeaux, Faculty	of Economics	
Bordeaux, France	Visiting Research Professor	Spring 2018
[3] United States Patent and Tradema	ark Office	
Department of Commerce	Chief Economist	2010 - 2013
Alexandria, VA	Senior Advisor	2013 - 2016
[4] Gakushuin University, Faculty of Tokyo, Japan	Economics Visiting Research Professor	Fall 2016
1 012/ 0, 0 04/ 011		1 0 2010
[5] UC Berkeley Law School, Berkel	ley Center for Law and Technology	
Berkeley, CA	Kauffman Foundation Research Fellow	2007 - 2009
[6] Ludwig Maximilians University		
Munich, Germany	Visiting Researcher	Spring 2008
[7] Center for European Economic S	tudy (ZEW)	
Mannheim, Germany	Gottfried Leibniz Research Fellow	Spring 2006

PROFESSIONAL LICENSE

Attorney licensed to practice law in New York State (US)

1997 - present

GOVERNMENT TESTIMONY

- [1] U.S. HOUSE OF REPRESENTATIVES, COMMITTEE ON HOMELAND SECURITY, Subcommittee on Counterterrorism and Intelligence. June 2012. "Economic Espionage: A Foreign Intelligence Threat to American Jobs and Homeland Security." Washington, DC.
- [2] U.S. DEPARTMENT OF JUSTICE, ANTI-TRUST DIVISION, and U.S. FEDERAL TRADE COMMISSION, HEARINGS ON PATENT ASSERTION ENTITIES. December, 2012. "Enhancing Patent Information Transparency through USPTO Rulemaking." Washington, DC.
- [3] U.S. FEDERAL TRADE COMMISSION, HEARINGS ON THE EVOLVING IP MARKETPLACE. April 2009. "Patents and Technology Markets: How is the Market Operating, and How Can it be Improved?" Washington, DC.

PUBLICATIONS AND SUMBISSIONS

EDITORIAL POSITIONS AT JOURNALS

[2] Journal of Economics & Management Strategy, Co-editor 2013 - 2017

[1] International Journal of Industrial Organization, Guest editor

Special issue on Industry Standards, Intellectual Property, and Innovation 2012 - 2014

PUBLICATIONS IN REFEREED JOURNALS

- [30] "Valuable Choices: Prominent Venture Capitalists' Influence on Startup CEO Replacements" with A. Conti (2018). Forthcoming in Management Science.
- [29] "Business Dynamics of Innovating Firms: Linking U.S. Patents with Administrative Data on Workers and Firms" with C. Grim, A. Marco, J. Miranda, I. Tariqul (2018). **Journal of Economics & Management Strategy**, Vol. 27(3), pp. 372-402.
- [28] "Venture Capital Investment Strategies under Financing Constraints: Evidence from the 2008 Financial Crisis" with A. Conti, N. Dass, F. Di Lorenzo (2018). Forthcoming in Research Policy.
- [27] "The USPTO Patent Examination Research Dataset: A Window on Patent Processing" with A. Marco, R. Miller (2018). **Journal of Economics & Management Strategy**, Vol. 27(3), pp. 554-578.
- [26] "Patent Transactions in the Marketplace: Lessons from the USPTO Patent Assignment Dataset" with A. Marco, A. Myers (2018). <u>Journal of Economics & Management Strategy</u>, Vol. 27(3), pp. 343-371.
- [25] "Monetizing Marks: Insights from the USPTO Trademark Assignment Dataset" with A. Marco, A. Myers (2018). <u>Journal of Economics & Management Strategy</u>, Vol. 27(3), pp. 403-432.

PUBLICATIONS IN REFEREED JOURNALS (continued)

- [24] "Final Report of the Berkeley Center for Law and Technology Patent Damages Workshop" with P. Menell, C. Shapiro, T. Simcoe (2017). <u>Texas Intellectual Property Law Journal</u>, Vol. 25(1), pp. 115-142.
- [23] "Disclosing Patents' Secrets" with D. Hegde (2015). <u>Science</u>, Vol. 347, no. 6219, pp. 236-237 (January 16).
- [22] "Industry Standards, Intellectual Property, and Innovation: Introduction to the Special Issue" with A. Agrawal, M. Rysman, and T. Simcoe (2014). <u>International Journal of Industrial</u> Organization, Vol. 36, pp. 1-3.
- [21] "Nanotechnology and the Emergence of a General Purpose Technology" with M. Iacopetta (2014). Annals of Economics & Statistics, Special Issue on Nanotechnology and Society, L. Zucker, ed. Vol. 115/116 (December).
- [20] "Comparing Patent Litigation across Europe: A First Look" with N. van Zeebroeck (2014). **Stanford Technology Law Review**, Vol. 17, pp. 655-708.
- [19] "Separating Patent Wheat from Chaff: Will the U.S. Benefit from Adopting Patent Post-Grant Review?" with D. Harhoff (2014). Research Policy, Vol. 43, pp. 1649-1659.
- [18] "The USPTO Economics Research Agenda" with G. Hancock (2014). <u>Journal of Technology Transfer</u>, Vol. 39(3), pp. 335-344.
- [17] "Of Smart Phone Wars and Software Patents" with S. Vishnubhakat (2013). **Journal of Economic Perspectives**, Vol. 27(1), pp. 67-86.
- [16] "The Impact of Intellectual Property Rights Enforcement on Open Source Software Project Success" with C. Foreman, W. Wen (2013). <u>Information Systems Research</u>, Vol. 24(4), pp. 1131-1146.
- [15] "The USPTO Trademark Case Files Dataset: Descriptions, Lessons, and Insights" with G. Hancock, A. Marco, A. Myers (2013). **Journal of Economics & Management Strategy**, Vol. 22(4), pp. 669-705.
- [14] "The Case for Standard Measures of Patent Quality" with D. Kappos (2012). <u>MIT-Sloan Management Review</u>, Vol. 53(3), pp. 19-22.
- [13] "Productivity and the Role of Complementary Assets in Firms' Demand for Technology Innovations" with M. Ceccagnoli, M. Higgins, J. Lee (2010). <u>Industrial & Corporate Change</u>, Vol. 19(3), pp. 839-869.
- [12] "Patenting by Entrepreneurs: An Empirical Study," with T. Sichelman (2010). Michigan Telecommunications & Technology Law Review, Vol. 17, pp. 111-180. Reprinted in West's Patent Law Review (an annual anthology of the most impactful patent research, as chosen by West's editorial staff), West Publishing.
- [11] "Balancing Innovation and Access: Patent Challenges Tip the Scales" with M. Higgins (2009). Science, Vol. 326 (October 16), pp. 370-371.

PUBLICATIONS IN REFEREED JOURNALS (continued)

- [10] "Pioneers, Submariners, or Thickets: Which Firms Use Continuations in Patenting and Why?" with D. Hegde, D. Mowery (2009). Management Science, Vol. 55(7), pp. 1214-1226. Also NBER working paper 13153, National Bureau of Economic Research.
- [9] "High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey" with R. Merges, P. Samuelson, T. Sichelman (2009). **Berkeley Technology Law Journal**, Vol. 24(4), pp. 255-327.
- [8] "Competing on Standards? Entrepreneurship, Intellectual Property and Platform Technologies" with T. Simcoe, M. Feldman (2009). <u>Journal of Economics & Management Strategy</u>, Vol. 18(3), pp. 775-816. *Also* NBER working paper 13632, National Bureau of Economic Research.
- [7] "Assessing the Nature of Nanotechnology: Can we uncover an emerging General Purpose Technology?" with M. Iacopetta, J. Youtie (2008). <u>Journal of Technology Transfer</u>, Vol. 33 (3), pp. 315-329.
- [6] "Why do Start-ups Patent?" with T. Sichelman (2008). **Berkeley Technology Law Journal**, 23(3), pp. 1063-1097.
- [5] "The Use of USPTO Continuation Applications in the Patenting of Software: Implications for Free and Open Source" with D. Mowery (2005). Law & Policy, Vol. 27(1), pp. 128-151.
- [4] "Prospects for Improving U.S. Patent Quality via Post-grant Opposition" with B. Hall, D. Harhoff, D. Mowery (2004). NBER Innovation Policy & the Economy, Vol. 4, pp. 115-144. Also NBER working paper 9731, National Bureau of Economic Research.
- [3] "Submarines in Software? Continuations in U.S. Software Patenting in the 1980s and 1990s" with D. Mowery (2004). **Economics of Innovation & New Technology**, Vol. 13(5), pp. 417-442.
- [2] "Geographical Information Systems and Products Liability: Current Complexions and Future Directions" (1997). **GIS Law**, Vol. 4(1), pp. 12-16.
- [1] "Abandoning New York's 'General Acceptance' Requirement: Redesigning Proposed Rule of Evidence 702(b) After *Daubert v. Merrell Dow Pharmaceuticals, Inc.*" (1995). **Buffalo Law Review**, Vol. 43(1), pp. 229-262.

REFEREED BOOK CHAPTERS

- [10] "The Economics of Software Innovation and 'Software Patents" with C. Martinez (2019), in <u>Computer Implemented Inventions: Issues, Practices and Perspectives</u>, C. Geiger, ed. Centre d'Études Internationales de la Propriété Intellectuelle (CEIPI), Univ. de Strasbourg.
- [9] "Intellectual Property and Startups: What Entrepreneurs Tell Us" with T. Sichelman (2016), in <u>Advances in the Study of Entrepreneurship</u>, <u>Innovation & Economic Growth</u>, S. Hoskinson, D. Kuratko, M. Thursby, eds. Emerald.

REFEREED BOOK CHAPTERS (continued)

- [8] "Co-evolution of Intellectual Property Protections and Innovation: The Case of 'Continuation' Patents in the United States" (2010), in Co-Evolution of Innovation Policy, S. Kuhlman and P. Shapira, eds. E. Elgar.
- [7] "Beyond Patents: The Role of Copyrights, Trademarks, and Trade Secrets in Technology Commercialization" (2008), in <u>Advances in the Study of Entrepreneurship, Innovation</u> & Economic Growth, G. Libecap and M. Thursby, *eds.* Elsevier.
- [6] "Intellectual Property Rights in the Software Industry: Implications for Open Innovation" with D. Mowery (2006), in <u>Open Innovation: Researching a New Paradigm</u>, H. Chesbrough, W. Vanhervebeke, J. West, eds., Oxford University.
- [5] "The Determinants of Patentees' Use of 'Continuation' Applications in the United States Patent and Trademark Office, 1980-99" (2006), in <u>Intellectual Property Rights:</u> <u>Innovation, Governance and the Institutional Environment</u>, B. Andersen, ed., E. Elgar.
- [4] "Software Patents: Good News or Bad News?" with D. Mowery (2005), in <u>Intellectual Property Rights in Frontier Industries: Software and Biotechnology</u>, R. Hahn, ed. AEI-Brookings Joint Center.
- [3] "The Use of Patents, Copyrights, and Trademarks in Software: Evidence from Litigation" with D. Somaya (2004), in <u>Patents, Innovation and Economic Performance</u>, D. Guellec, ed. OECD.
- [2] "Post-Issue Patent 'Quality Control:' A Comparative Study of US Patent Reexaminations and European Patent Oppositions" with B. Hall, D. Harhoff, D. Mowery (2003), in <u>Patents in the Knowledge-based Economy: Proceedings of the Science, Technology and Economic Policy Board</u>, W. Cohen, S. Merrill, *eds*, National Academies Press 2003. *Also* NBER working paper 8807, National Bureau of Economic Research.
- [1] "Intellectual Property Protection in the Software Industry" with D. Mowery (2003), in Patents in the Knowledge-based Economy: Proceedings of the Science, Technology and Economic Policy Board, W. Cohen, S. Merrill, eds., National Academies Press.

WORK UNDER REVIEW AND IN PROCESS, FOR REFEREED PUBLICATIONS

- "A Characterization of Patent Systems and their Economic Consequences" with M. Squicciarini, C. Criscuolo. *Revise and resubmit, second round at journal.*
- "Vermeers and Rembrandts in the Same Attic: Complementarity between Copyright and Trademark in Firms' Strategies" with D. Somaya. *Revise and resubmit at journal*.
- "Quantifying the Economic Effects of a Cluttered Trademark Register" with G. Graevenitz, A. Myers. *Currently in revision with intent to submit to journal.*
- "Patently Informative: Strategy and Information in Patent Litigation across Countries" with A. Marco, N. van Zeebroeck. *Currently in revision with intent to submit to journal*.

WORK UNDER REVIEW AND IN PROCESS, REFEREED PUBLICATIONS (continued)

- "Setting Patent Fees." Currently in revision with intent to submit to journal.
- "Changing Behavior: Applicant Sensitivity to Patent Fees" with A. Marco, R. Miller. *Currently in revision with intent to submit to journal*.
- "Firm Strategic Response to Paragraph-IV Patent Challenges" with M. Higgins. Currently in revision with intent to submit to journal.
- "Patents and Innovating Startups: Analysis of the 2008 Berkeley Patent Survey" with T. Sichelman. *Currently in revision with intent to submit to journal*.

BOOK CHAPTERS AND PUBLISHED PROCEEDINGS

- [3] "Patenting by High Tech Entrepreneurs" with T. Sichelman (2011), in <u>Creativity, Law and Entrepreneurship</u>, S. Ghosh, R. Malloy, *eds.*, E. Elgar Publishers.
- [2] "Why do Entrepreneurs Patent?" with T. Sichelman (2011), in <u>Handbook of Law</u>, <u>Innovation and Economic Growth</u>. R. Litan, ed., E. Elgar Publishers.
- [1] "Submarines and New Technologies: Continuation Patenting in Software and Biotechnology in the 1980s and 1990s" with D. Mowery (2004), in <u>Advances in the Study of Entrepreneurship, Innovation & Economic Growth</u>, Vol. 15, G. Libecap, ed., JAI Press.

OTHER PUBLICATIONS

- "Response to the Proposed Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board" with C. Cotropia, D. Crouch, M. Janis, J. Kesan, M. Lemley, A. Mossoff, A. Rai, T. Sichelman, S. Vishnubhakat (2018). Stanford University Public Law Working Paper 2018-42. *Also appears as* University of Illinois College of Law Legal Studies Research Paper 18-32; George Mason Legal Studies Research Paper LS18-28.
- "Prominent Investors do Startups a Favor by Booting their CEOs" with A. Conti (2016). *The CLS Blue Sky Blog: Columbia Law School's Blog on Corporations and the Capital Markets*. R.W. Holding, *ed.* Columbia University Law School.
- "Comment to the SEC in Support of the Enhanced Disclosure of Patent and Technology License Information" with C. Chien, J. Contreras, C. Corrado, D. Hegde, A. Rai, S. Vishnubhakat (2016). U.S. Securities and Exchange Commission. *Also appears as* Georgetown University McDonough School of Business Research Paper No. 2815618.
- "What's good for U.S. Business? Protect the Little Guys with Big Ideas" with D. Kappos (2015). **Fortune**, *Commentary*, January 13.
- "Foreword" (2013). <u>Journal of Industrial Economics</u>, Special Issue on Patents, Entrepreneurship and Innovation, M. Schankerman, *ed.*, Vol. 61(3), pp. 469–470.

OTHER PUBLICATIONS (continued)

- "Of Patent Feet and Metres: Getting to Standardized Measures of Patent Quality" with D. Kappos (2012). **Intellectual Asset Management**, Vol. 55, pp. 10-18.
- Intellectual Property and the U.S. Economy: Industries in Focus. U.S. Department of Commerce Report, with M. Doms (2012). U.S. Department of Commerce.
- "Patent Reform: Unleashing Innovation, Promoting Economic Growth and Producing High-paying Jobs" with A. Rai, M. Doms (2010). U.S. Department of Commerce White Paper.

CONFERENCE PRESENTATIONS, KEYNOTES AND INVITED TALKS (Selected)

- ° SPANISH NATIONAL RESEARCH COUNCIL (Consejo Superior de Investigaciones Científicas CSIC), *Investing in Science and Innovation*, October 2018. <u>Keynote address</u>: "Intellectual property, Innovation, and Technology Entrepreneurship." Madrid, Spain.
- ° EUROPEAN POLICY ON INTELLECUAL PROPERTY (EPIP) CONFERENCE 2018, September 2018. "Strategy in Standards: Firms' Responses in Dynamic Markets." Berlin, Germany.
- ONIVERSITY OF BORDEAUX, GRETHA RESEARCH GROUP, May 2018. "Venture Capital Investment Strategies under Financing Constraints: Evidence from the 2008 Financial Crisis." Bordeaux, France.
- ° HANKEN SCHOOL OF ECONOMICS, January 2018. <u>Invited talk</u>: "Economics at Patent Offices." Helsinki, Finland.
- ° NOKIA CORPORATION, January 2018. <u>Invited talk</u>: "Setting Patent Fees: An Economic Perspective." Helsinki, Finland.
- ° IPR UNIVERSITY CENTER CONSORTIUM, January 2018. <u>Keynote address</u>: "Intellectual Property and Technology Startups: What Entrepreneurs Tell Us." Helsinki, Finland.
- ° MUNICH SUMMER INSTITUTE, June 2017. "Venture Capital Investment Strategies under Financing Constraints: Evidence from the 2008 Financial Crisis." Munich, Germany.
- ° ASIA-PACIFIC INNOVATION CONFERENCE, Kyushu University, November 2016. Keynote address: "Business Dynamics of Innovating Firms: Linking U.S. Patents with Administrative Data on Workers and Firms." Fukuoka, Japan.
- BERKELEY TECHNOLOGY LAW JOURNAL SYMPOSIUM, University of California, Berkeley, April 2016. <u>Invited talk</u>: "Technology Startups and Software Patenting: Recent Evidence." Berkeley, California.
- ° INDIAN INSTITUTE OF MANAGEMENT, BANGALORE. *India Conference on Innovation, Intellectual Property, and Competition*, December 2015. <u>Invited talk</u>: "Patenting Software: A View from Across the Oceans." Bangalore, India.
- O IEEE INTERNATIONAL CONFERENCE ON STANDARIZATION AND INNOVATION IN INFORMATION TECHNOLOGY, September 2015. <u>Invited talk</u>: "US Patent Policy in 2015: Implications for SEPs and SDOs." Sunnvvale, California.

CONFERENCE PRESENTATIONS, KEYNOTES AND INVITED TALKS (continued)

- EUROPEAN POLICY AND INTELLECTUAL PROPERTY (EPIP) CONFERENCE 2015, September 2015. "The Value of Patent Disclosure." Glasgow, Scotland.
- Or ACADEMY OF MANAGEMENT 2015. Professional Development Workshop, Introducing Seven Open Datasets for Doing Innovation Research, August 2015. Workshop organizer and presenter. Co-sponsored by the BPS, TIM, and RM Divisions. Paper: "The USPTO Patent Assignment Dataset." Vancouver, Canada.
- ° 4T: TECH TRANSFER THINK TANK CONFERENCE, May 2015. <u>Invited talk</u>: "Policy Levers in Innovation: A View from Across the Pond." Bergamo, Italy.
- ° EUROPEAN COMMISSION, March 2015. <u>Invited talk</u>: "Software Patenting: A View from Across the Pond." Brussels, Belgium.
- O JAPAN FREE TRADE COMMISSION, Competition Policy Research Center Symposium, March 2015. Keynote address: "Patent Policy and the Role for Economic Analysis." Tokyo.
- ° INFORMS CONFERENCE, November 2014. "Do Inventors Value Secrecy in Patenting? Evidence from the 1999 America Inventors Protection Act." San Francisco, California.
- ° PATENT STATISTICS FOR DECISION MAKERS, JAPAN PATENT OFFICE CONFERENCE, November 2014. <u>Invited talk</u>: "The Elasticity Effects of Changes in Patent Fees." Tokyo, Japan.
- ° DRUID SUMMER CONFERENCE, June 2014. <u>The DRUID Debate</u>: "Do Patents on Software and Business Methods Slow Economic Progress?" Copenhagen, Denmark.
- ° EUROPEAN COMMISSION, IPTS ECONOMIC RESEARCH GROUP, May 2014. <u>Invited talk</u>: "Technology Standards and Firm Entry." Seville, Spain.
- ° OECD CONFERENCE ON KNOWLEDGE NETWORKS AND MARKETS, May 2014. <u>Invited talk</u>: "The Disclosure Function of patents: Evidence from firms." Paris.
- ° INDUSTRY CANADA, March 2014. "Do Inventors Value Secrecy in Patenting? Evidence from the 1999 America Inventors Protection Act." Ottawa, Ontario, Canada.
- ° GEORGE-MASON UNIVERSITY CONFERENCE: FROM LAB TO MARKET. March 2014. INVITED ADDRESS: "University Tech Transfer and the Patent System." Fairfax, VA.
- PATENT STATISTICS FOR DECISION MAKERS CONFERENCE. November 2013. "Do Inventors Value Secrecy in Patenting? Evidence from the 1999 America Inventors Protection Act." Rio de Janeiro, Brazil.
- ° MIT SLOAN SCHOOL OF MANAGEMENT, CENTER FOR BIOMEDICAL INNOVATION. October 2013. <u>Invited talk</u>: "Intellectual Property in Technology Standards." Cambridge, MA.
- ° STANFORD UNIVERSITY, Stanford Institute for Economic Policy Research (SIEPR), December 2013. "Do Inventors Value Secrecy in Patenting?" Palo Alto, California.
- EUROPEAN POLICY ON INTELLECUAL PROPERTY (EPIP) CONFERENCE, September 2013. "Do Inventors Value Secrecy in Patenting? Evidence from the 1999 America Inventors Protection Act." Paris, France.

CONFERENCE PRESENTATIONS, KEYNOTES AND INVITED TALKS (continued)

- OACADEMY OF MANAGEMENT, Business Policy & Strategy Professional Development Workshop (PDW), August 2013. "Working with Patent Data: From the Basics to the State of the Art." Orlando, FL.
- ° AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (AAAS), FORUM ON SCIENCE AND TECHNOLOGY POLICY, May 2013. "Of Smart Phone Wars and Software Patents." Washington, DC.
- ° THE NATIONAL ACADEMIES, GOVERNMENT-UNIVERSITY-INDUSTRY RESEARCH ROUNDTABLE, February 2013. <u>Keynote address</u>: "On Software and Smart Phone Wars: A Reflection on Patent Policy." Washington, DC.
- ° STANFORD UNIVERSITY, Intellectual Property Scholars Conference, August 2012. "Setting Patent Fees." Palo Alto, California.
- ° NORTHWESTERN UNIVERSITY, Conference on the Economics of Intellectual Property and Innovation, May 2012. Keynote address: "The Economic Underpinnings of Patent Reform in the Leahy-Smith America Invents Act." Chicago, Illinois.
- ° ASSOCIATION OF CORPORATE PATENT COUNSEL, September 2011. "Patenting and Economic Growth." Seattle, Washington.
- ° PATENT STATISTICS FOR DECISION MAKERS, November 2010. <u>Keynote address</u>: "The USPTO Economic Research Agenda." Vienna, Austria.
- NATIONAL BUREAU OF ECONOMIC RESEARCH (NBER) SUMMER INSTITUTE, July 2009. "High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey." Cambridge, Massachusetts.
- ° LAW & SOCIETY CONFERENCE, May 2009. "High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey." Denver, Colorado.
- UNIVERSITY OF WISCONSIN LAW SCHOOL, CONFERENCE ON CREATIVITY, LAW, AND ENTREPRENEURSHIP, April 2009. "Patenting by Entrepreneurs: An Empirical Study." Madison, Wisconsin.
- O HARVARD BUSINESS SCHOOL, SCIENCE-BASED BUSINESS INITIATIVE SEMINAR. April 2009. "High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey." Cambridge, Massachusetts.
- ° STANFORD UNIVERSITY, SOCIAL SCIENCE AND TECHNOLOGY SEMINAR. March, 2009. "High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey." Stanford, California.
- ° ZEW CONFERENCE ON THE ECONOMICS OF INNOVATION AND PATENTING. June 2008 "Competing on Standards? Entrepreneurship, Intellectual Property and the Platform Paradox." Mannheim, Germany.
- ° CONFERENCE ON ECONOMIC ANALYSIS OF TRADEMARKS AND BRANDS, European Office for Harmonization in the Internal Market (OHIM). "Complementarity between copyright and trademark in software firms' IP leveraging strategies." Alicante, Spain.

CONFERENCE PRESENTATIONS, KEYNOTES AND INVITED TALKS (continued)

- ° CONFERENCE ON THE ECONOMICS OF COMPETITION AND INNOVATION, October 2007. "The Impact of Patenting on New Product Development in the Pharmaceutical Industry." Berkeley, California.
- ° TECHNOLOGY TRANSFER SOCIETY, September 2007. "Competing on Standards? Entrepreneurship, Intellectual Property and the Platform Paradox." Atlanta, Georgia.
- ROUNDTABLE ON ENGINEERING ENTREPRENEURSHIP RESEARCH, December 2006.
 "The Impact of Patenting on New Product Development in the Pharmaceutical Industry."
 Atlanta, Georgia.
- ° THE WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA, Technology Mini-Conference, April 2006. "Vermeers and Rembrandts in the same attic: Complementarity between copyright and trademark in software firms' IP leveraging strategies." Philadelphia.
- INSEAD BUSINESS SCHOOL. INTERNAL SEMINAR SERIES. February 2005. "Hiding in the Patent's Shadow: Firm's Uses of Secrecy to Capture Value from New Discoveries." Singapore.
- OHARVARD BUSINESS SCHOOL OPEN-SOURCE SOFTWARE CONFERENCE, April 2003. "The Use of USPTO Continuation Applications in the Patenting of Software: Implications for Free and Open Source." Cambridge, Mass.

EDUCATION

UNIVERSITY OF CALIFORNIA. BERKELEY

WALTER A. HAAS SCHOOL OF BUSINESS

Berkeley, CA

- ° PhD in Business Administration, Strategic Management and Economics, May 2004
- ° MS in Business Administration, May 2002

Dissertation: *Three Essays on Continuation, Complements, and Capturing Value*Committee: David Mowery (Chair), Bronwyn Hall, Mark Lemley, Robert Merges, David Teece *Honors:* Intel Foundation's Robert N. Noyce Memorial Fellowship (won twice) 2002, 2003

STATE UNIVERSITY OF NEW YORK, SCHOOL OF LAW

Buffalo, NY

STATE UNIVERSITY OF NEW YORK. SCHOOL OF MANAGEMENT

Buffalo, NY

MBA with distinction (highest accolades), May 1996 Graduated 1st of 144

STATE UNIVERSITY OF NEW YORK, GEOGRAPHY DEPARTMENT

Buffalo, NY

° MA, Geographical Information Systems, August 1997

STATE UNIVERSITY OF NEW YORK, ALBANY

Albany, NY

° BA *summa cum laude*, Political Science and History, May 1991 *Honors:* Phi Beta Kappa Honor Society

CARNEGIE-MELLON UNIVERSITY

Pittsburgh, PA. Civil Engineering; Engineering and Public Policy.

TEACHING

- 1. Developed and taught a core-curriculum graduate (MBA) "capstone" course at the Business School, **Georgia Institute of Technology**, titled "Strategic Management," 2017 2019.
- 2. Developed and taught a core-curriculum undergraduate "capstone" course in the Business School, **Georgia Institute of Technology**, titled "Strategic Management," 2014 2019.
- 3. Lectured in the U.S. State Department's **Foreign Service Institute** on "The economics of innovation and intellectual property," 2012.
- 4. Lectured on intellectual property law and strategy at **Emory University Law School** in the "Principles of Innovation" course in the interdisciplinary TI:GER program, 2005 2010.
- 5. Created and taught graduate seminar (PhD) at **Georgia Institute of Technology**, Business School, titled "Institutions, Organizations, and Technology," 2010, 2014, 2015 and 2019.
- 6. Created and taught graduate course (Evening MBA) at the Business School, **Georgia Institute of Technology**, titled "Intellectual Property Strategy," 2010 and 2015.
- 7. Created and taught a graduate (Law) seminar at **Boalt Hall School of Law**, **University of California**, **Berkeley**, titled "Patents and Entrepreneurship," 2007.
- 8. Created and taught a core-curriculum graduate (MBA) course at the Business School, **Georgia Institute of Technology**, titled "Legal Environment of Business," 2004 2009.
- 9. Developed and taught a core-curriculum undergraduate course at the Business School, **Georgia Institute of Technology**, titled "Legal Aspects of Business," 2006 2009.
- 10. Developed and taught a core-curriculum undergraduate course at the Business School, **Georgia Institute of Technology**, titled "International Management," 2004 2005.

SCIENTIFIC EXPERT

- Organization for Economic Cooperation and Development. "Construction of New Policy Indicators Related to Patent Systems and Patent Rights." 2014 2016.
- European Commission. "Patent Databases: Researching the Knowledge Economy." 2013.
- World Intellectual Property Organization. "The Economics of Trademark Protection." 2013.
- European Commission. "Expert Group on Patent Aggregation." 2013.
- International Telecommunications Union. "Standard Essential Patents." 2012 2013.
- European Patent Office. "Measuring Patent Quality & Uncertainty in the Patent System." 2009.
- Organization for Economic Cooperation and Development. "Policies to Promote an Innovation-led, Sustainable Recovery." 2009.
- Organization for Economic Cooperation and Development. "The OECD Patent Statistics Manual." 2008.

ADVISORY BOARDS

FUNG CENTER FOR ENGINEERING LEADERSHIP, Scientific Advisory Board University of California, Berkeley, College of Engineering 2013 - present EUROPEAN POLICY ON INTELLECUAL PROPERTY, Steering Committee 2014 - 2018 WORLD ECONOMIC FORUM, Working Group on Financial Innovation 2011 - 2013 THE TOKYO FOUNDATION, Scholarship Fund Advisory Board 2003 - 2007

MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

- American Economic Association
- Academy of Management
- American Bar Association
- American Intellectual Property Law Association
- New York State Bar Association