#### STEPHEN M. MAURER

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## **CHRONOLOGY:**

Goldman School of Public Policy (1999 - ). Adjunct Emeritus Professor (2017 - ); Adjunct Full Professor (2014-2017); Concurrent Berkeley Law Appointment (2008-2013); Adjunct Associate Professor (2005-2013); Lecturer (1999-2004).

Research. Published more than forty articles and three books on topics including design of intellectual property and innovation incentives, homeland security and weapons of mass destruction, commercial and academic self-governance, open source, pharmaceutical policy, database rights, and academic/industry transactions. Winner, American Antitrust Institute Award for "Best Section 2 Article of 2014."

Teaching. Developed and taught more than thirty courses graduate and undergraduate courses. Topics included Boalt Law School "Intro to IP" (2011); Public Policy for Engineers; Internet Policy; WMD Terrorism Policy; Science Policy; History of Computing; and Innovation Policy.

Consultant. Member, US National Academy of Sciences Committee on Geophysical Data (2003-2004). Performed extensive sponsored research for The US National Academy of Sciences (1999, 2002, and 2007); World Health Organization; (2004); Industry Canada (2001); National Institutes of Health (2000); Transportation Research Board (2000); and Incyte Pharmaceutical Company (2000). Advised academic and commercial scientists seeking to establish private, community-wide rule-making organizations.

Litigation Attorney (1982 – 1998). Senior Associate, Fliesler, Dubb, Meyer & Lovejoy, San Francisco CA. (1998); Ritchey, Fisher, Whitman & Klein, Palo Alto CA. (1994-1996); Contract Attorney San Francisco and Palo Alto CA. (1994-1996); Senior Associate, Lasky, Haas Cohler & Munter, San Francisco CA. (1988-1992); Associate, Brown & Bain, Phoenix AZ. (1982-1987).

Practiced intellectual property and high technology litigation at leading law firms from 1982 to 1998. Clients including IBM (computer hardware), Apple Computer and Symantec (software), ROLM (computerized telephone systems), Zilog (semiconductor chip design), Tegal Corporation (microchip fabrication tools), Aerojet General Corporation (rocket engines), and The Navajo Nation (boundary dispute).

### **EDUCATION:**

Harvard Law School (1979-1982). J.D.

Yale University (1975-1979). B.A. (Political Science). Summa Cum Laude and Phi Beta Kappa.

# **PUBLICATIONS:**

### **Books**

Stephen M. Maurer, These Truths: Updating the Framers' Vision of American Democracy (Cambridge Univ. Press: 2024).
, Self-Governance in Science: Community Based Strategies for Managing Dangerous Knowledge (Cambridge Univ. Press: 2017).
Stephen M. Maurer (ed.), On The Shoulders of Giants: Colleagues Remember Suzanne Scotchmer's Contributions to Economics (Cambridge Univ. Press/The Econometric Society: 2017).
, WMD Terrorism: Science and Policy Choices (MIT Press: 2009).
Articles
S. Maurer, "The Essential Facilities Doctrine: From Locomotives to Search Engines," Competition Policy International: Antitrust Chronicle (April 2023).
A. Karapetyan & S. Maurer, "Picking Up the Pieces: New Directions for Federal Anti-Gerrymandering Law After Rucho," Wake Forest Journal of Law & Policy 11(2): 237-295 (2021).
S. Maurer, "The Healing Constitution: Updating the Framers' Design for a Hyperpolarized Society," Kansas Journal of Law and Public Policy (2020: Forthcoming).
, "'Beauty is Truth and Truth Beauty': How Intuitive Insights Shape Legal Reasoning and the Rule of Law," Seattle University Law Review 42(1): 129-160 (2018).
, "Intellectual Property Incentives: Economics and Policy Implications," in Rochelle Dreyfus and Justine Pila (eds.) The Oxford Handbook of Intellectual Property Law (OUP: 2018).
, "Digital Publishing: Three Futures (And How to Get There)," Cardozo Arts And Entertainment Law Journal 36(3) (2018).
, "A Market-Based Approach to Cyber Defense: Buying Zero-Day Vulnerabilities," Bulletin of the Atomic Scientists (March 2017)

, "The New Self-Governance: A Theoretical Framework," Business and Politics 19(1): 41-67 (2017).
, "The Economics of Memory: How Copyright Decides Which Books Do (And Don't) Become Classics," John Marshall Review of Intellectual Property Law 14(4) (2015).
and S. Scotchmer "The Essential Facilities Doctrine: The Lost Message of Terminal Railroad," California Law Review: Circuit (Oct.
, "Two Cheers for Industry Self-Governance," University of Pennsylvania Law School Program on Regulation "Regblog" Series (201
, "From Bards to Search Engines: Finding What Readers Want from Ancient Times to the Worldwide Web," South Carolina Law Rev
and S. v. Engelhardt, "Industry Self-Governance: A New Way to Manage Dangerous Technologies," <i>Bulletin of the Atomic Scientists</i> (May 2013).
, "Ideas into Practice: How Well Does US Patent Law Implement Modern Innovation Theory?" John Marshall Review of Intellectual Property Law 12: 694-696 (2013).
, "Open Source Drug Collaborations: A Rational Design Approach," Future Chemistry 5(8): 895-906 (2013).
, "Stepping Stones: Extending the Open Source Idea to Synthetic Biology" in Carlos María Romeo Casabona and Iñigo de Miguel Beriain (eds.) <i>Synbio and Human Health: a Challenge to the Current IP Framework?</i> (Springer, 2014).
and S. von Engelhardt, "Industry Self-Governance and National Security: On the Private Control of Dual Use Technologies," GSPP Working Paper (2012).
, "Taking Self-Governance Seriously: Synthetic Biology's Last, Best Chance to Improve Security." GSPP Working Paper (2012).
, "The Penguin and the Cartel: Rethinking Antitrust and Innovation Policy for the Age of Commercial Open Source," <i>Utah Law Review</i> 2012(1): 269.
, Regulation Without Government: European Biotech, Private Anti-Terrorism Standards, and the Idea of Strong Self-Governance, Schriften des Münchner Centrums für Governance-Forschung (Munich Center for Governance Research Publications Series: 2012).
,"End of the Beginning or Beginning of the End? Synthetic Biology's Stalled Security Agenda and the Prospects for Restarting It," Valparaiso University Law Review 45(4): 1387-1446 (2011).
,"Beyond Treaties and Regulation: Using Market Forces to Control Dual Use Technologies," GSPP Working Paper (2010).
S. von Engelhardt, S. Freytag, and S. Maurer, Open vs. Closed Source Software: The Quest for Balance, Vox (2010).
, "Five Easy Pieces: Case Studies of Entrepreneurs Who Organized Private Communities for a Public Purpose," Conference paper, George Washington University Law School.
and S. von Engelhardt, "The New (Commercial) Open Source: Does It Really Improve Social Welfare?" GSPP Working Paper (2010).
and S. von Engelhardt, "The New (Commercial) Open Source: Does It Really Improve Social Welfare?" GSPP Working Paper (2010).  J. Henkel and S. Maurer, "Network Effects in Biology." American Economic Review: Papers and Proceedings, 100:159-64 (2010).
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J. Henkel and S. Maurer, "Network Effects in Biology." American Economic Review: Papers and Proceedings, 100:159-64 (2010).  J. Henkel and S. Maurer, "Network Effects in Biology." ITHS Working Paper (2009).  and M. Fischer, "Harmonizing Biosecurity Oversight for Gene Synthesis," Nature Biotechnology 28:20-22 (2010).  "Using University Knowledge to Defend the Country," Issues in Science and Technology Winter 2010: 27-30.
J. Henkel and S. Maurer, "Network Effects in Biology." American Economic Review: Papers and Proceedings, 100:159-64 (2010).  J. Henkel and S. Maurer, "Network Effects in Biology." ITHS Working Paper (2009).  and M. Fischer, "Harmonizing Biosecurity Oversight for Gene Synthesis," Nature Biotechnology 28:20-22 (2010).
J. Henkel and S. Maurer, "Network Effects in Biology." American Economic Review: Papers and Proceedings, 100:159-64 (2010).  J. Henkel and S. Maurer, "Network Effects in Biology." ITHS Working Paper (2009).  and M. Fischer, "Harmonizing Biosecurity Oversight for Gene Synthesis," Nature Biotechnology 28:20-22 (2010).  "Using University Knowledge to Defend the Country," Issues in Science and Technology Winter 2010: 27-30.
J. Henkel and S. Maurer, "Network Effects in Biology." American Economic Review: Papers and Proceedings, 100:159-64 (2010).  J. Henkel and S. Maurer, "Network Effects in Biology." ITHS Working Paper (2009).  and M. Fischer, "Harmonizing Biosecurity Oversight for Gene Synthesis," Nature Biotechnology 28:20-22 (2010).  ""Using University Knowledge to Defend the Country," Issues in Science and Technology Winter 2010: 27-30.  ""How to Control Dual-Use Technologies in the Age of Global Commerce," Bulletin of the Atomic Scientists (January/February 2010: 41-47.
J. Henkel and S. Maurer, "Network Effects in Biology." American Economic Review: Papers and Proceedings, 100:159-64 (2010).  J. Henkel and S. Maurer, "Network Effects in Biology." ITHS Working Paper (2009).  and M. Fischer, "Harmonizing Biosecurity Oversight for Gene Synthesis," Nature Biotechnology 28:20-22 (2010).  , "Using University Knowledge to Defend the Country," Issues in Science and Technology Winter 2010: 27-30.  "How to Control Dual-Use Technologies in the Age of Global Commerce," Bulletin of the Atomic Scientists (January/February 2010: 41-47.  J. Henkel and S. Maurer, "Parts, Property, and Sharing," Nature Biotechnology 27:1095-1098 (2009).
J. Henkel and S. Maurer, "Network Effects in Biology." American Economic Review: Papers and Proceedings, 100:159-64 (2010).  J. Henkel and S. Maurer, "Network Effects in Biology." ITHS Working Paper (2009).  and M. Fischer, "Harmonizing Biosecurity Oversight for Gene Synthesis," Nature Biotechnology 28:20-22 (2010).  "Using University Knowledge to Defend the Country," Issues in Science and Technology Winter 2010: 27-30.  "How to Control Dual-Use Technologies in the Age of Global Commerce," Bulletin of the Atomic Scientists (January/February 2010: 41-47.  J. Henkel and S. Maurer, "Parts, Property, and Sharing," Nature Biotechnology 27:1095-1098 (2009).  "Gene Synthesis Industry's Continuing Fight Over Biosecurity Standards," Bioethics Forum (2009).

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L. Ortí, R.Carbajo, U.Pieper, N.Eswar, S. Maurer, A.Rai, G.Taylor, M.Todd, A.Pineda-Lucena, A.Sali, and Marc Marti-Renom, "A Kernel for the Tropical Disease Initiative," <i>Nature Biotechnology</i> 27:320 (2009).
, "Grassroots Efforts to Impede Bioterrorism," Bulletin of the Atomic Scientists (March 5, 2009).
, "Introduction: Worrying about WMD Terrorism," Chapter 1 in S. Maurer (ed.), <u>WMD Terrorism: Science and Policy Choices</u> , MIT Press (2009).
, "Technologies of Evil: Chemical, Biological, Radiological, and Nuclear Weapons," Chapter 3 in S. Maurer (ed.), <u>WMD</u> <u>Terrorism: Science and Policy Choices</u> , MIT Press (2009).
George W. Rutherford and S. Maurer, "The New Bioweapons: Infectious and Engineered Diseases," Chapter 4 in S. Maurer (ed.), <u>WMD Terrorism: Science and Policy Choices</u> , MIT Press (2009).
, Jason C. Christopher, and Michael Thompson, "The Fire Next Time: Managing Large Urban Fires, " Chapter 10 in S. Maurer (ed.), <u>WMD Terrorism: Science and Policy Choices</u> , MIT Press (2009).
, "Squeezing Value from Homeland Security Research: Designing Better R&D Incentives," Chapter 15 in S. Maurer (ed.), <u>WMD</u> <u>Terrorism: Science and Policy Choices</u> , MIT Press (2009).
and Michael O'Hare, "Fear Itself: Predicting and Managing Public Response to a WMD Attack," Chapter 16 in S. Maurer (ed.), <u>WMD Terrorism: Science and Policy Choices</u> , MIT Press (2009).
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and L. Zoloth, "Synthesizing Biosecurity," Bulletin of the Atomic Scientists, (Nov. 2007).
J. Henkel and S. Maurer, "The Economics of Synthetic Biology," Molecular Systems Biology 3:117 (2007).
and S. Scotchmer, "Profit Neutrality in Licensing: The Boundary Between Antitrust Law and Patent Law," American Law and Economics Review 8:476 (2007).
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and S. Scotchmer, "Open Source Software: The New Intellectual Property Paradigm," in T. Hendershott (ed.), <i>Handbook on Information Systems</i> (Elsevier: 2006).
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and S. Scotchmer, "Procuring Knowledge," in G. Libecap (ed.), Advances in the Study of Entrepreneurship, Innovation and Growth: Vol. 15, at p. 1 (JAI Press 2004).
S. Scotchmer and S. Maurer, "Institutions: A Brief Excursion Through History," in S. Scotchmer, <u>Innovation and Incentives</u> (MIT Press: 2004).
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, "Promoting and Disseminating Knowledge: The Public/Private Interface," paper commissioned by the US National Academy of Sciences (2002).
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, "Across Two Worlds: US and European Models of Database Protection," paper commissioned by Industry Canada (2001).
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, "Coping With Change: Intellectual Property Rights, New Legislation, and the Human Mutations Database Initiative," 15 Human Mutations 23 (2000).
, "Protecting What's Yours: The Law and Economics of Geospatial Data," 10 GeoInfoSystems 36 (2000).
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and S. Scotchmer, "Database Protection: Is it Broken and Should We Fix It?" Science 284:1129 (1999).
, "Raw Knowledge: Protecting Technical Databases for Science & Industry," paper commissioned by the US National Academy of Sciences (1999).
Popular: S. Maurer, Selected Blogs, <u>The Berkeley Blog</u> (2009 - ).
S. Maurer, Letter: "U.S. Needs Friends, Even if They're Dictators," Wall Street Journal (Nov. 14, 2023).
, Letter: "Firms Need Big Data More Than They Need Big Tech," Wall Street Journal (July 7, 2023).
, Letter: "Copyright and the Films You Are Not Allowed to See," Wall Street Journal (May 3, 2023).
, Letter: "If Putin Uses a Nuclear Bomb in Ukraine," Wall Street Journal (Nov. 22, 2022).
, Letter: "There Are Two Senators Per State for a Reason," Wall Street Journal (Sept. 23, 2022).
, Letter: "Joe Biden is No FDR and Liz Cheney is No Uniter," Wall Street Journal (Sept. 1, 2022).
, Letter: "How Many Fingers Should Be On the Button?" Wall Street Journal (Oct. 12, 2021).
, Letter: "The Reichstag Fire Isn't the Example Gen. Milley Wants," Wall Street Journal (July 23, 2021).
, Letter: "Vaccine Patent-Taking Move Is a Big Mistake," Wall Street Journal (May 17, 2021).
, Letter: "Vanguard Politics Presents the Same Old Class Barrier," Wall Street Journal (Jan. 4 2021)
, Letter: "Free Speech, Wrong Speech, and Ivory Towers," Wall Street Journal (Sept. 8, 2020).
, Letter: "Modeling the Path of the Coronavirus Epidemic," Wall Street Journal (Apr. 8, 2020).
, Letter: "Readers Debate Bobby Jindal's Ideas on Health Care," Wall Street Journal (Jan. 8, 2020).
, Letter: "World Auto Industry is Becoming Socialized," Wall Street Journal (Sept. 17, 2019).
, Letter: "Google's Censorship Needs Careful Response," Wall Street Journal (May 14, 2019).
, Letter: "Adjunct Professors Struggle as Colleges Prosper," Wall Street Journal (May 9, 2019).
, Letter: "Wilhelmine Germany is a Better Analogy for China," Wall Street Journal (April 8, 2019).
, Letter: "Populist Anti-Policy Surge Has Deep Roots," Wall Street Journal (May 26, 2016).
, Letter: "Can Market Help Preserve Threatened Antiquities?" Wall Street Journal (Aug. 27, 2015).
, Letter: "Safe and Fruitful DNA Innovation, Wall Street Journal (Oct. 23, 2012).
, Blog: "Sharp Pencil Compassion: Fixing Government-Funded Drug and Vaccine Research, in <u>Blue Sky: New Ideas for the Obama Administration</u> (2009).
and D. Howell, "Anatomy of a Supernova," Sky & Telescope (November 2002) (cover story).
, "Taking the Pulse of Neutron Stars," Sky & Telescope (August 2001) (nuclear astrophysics).
, "Idea Man," Beam Line (Winter 2001) (astronomer Fritz Zwicky).

SPEAKER:
Toulouse School of Economics: The Economics of Intellectual Property, Software and the Internet (Jan. 2015, 2016, 2017, 2018, 2020); Wake Forest Law School: "The Health of American Democracy) (Oct. 2020); Stanford Law School BioLawPalooza (March 2018); Toulouse School

of Economics: The Future of the Book (Jan. 2016); Law & Society Association Annual Meeting (May 2015); Industry-Government Seminar on Export Control and Non-Proliferation (July 2014); Toulouse Institute for Advanced Studies (February 2013); NASA Synthetic Biology Workshop on Food Production in Space (Oct. 2012); International Society for New Institutional Economics (June 2012); World Congress of Public Choice Societies Conference (March 2012); Sybhel Conference on Synthtic Biology and Human Health (Jan. 2012); Rathenau Institute Conference on Global Health (Jan. 2012); St. Gallen University - Law and Economics Seminar (May 2011); Munich Centre on Governance, Communication, Public Policy and Law (May 2011); Valparaiso Law School - Symposium on Bioethics, Law and Synthetic Biology (March 2011); Google (Nov. 2010); George Washington Law School Entrepreneurship for Government Innovation Workshop (Nov. 2010); Research Institute of Industrial Economics - Innovation, Ownership & Competition Policy Workshop (June 2010); Friedrich Schiller University -Workshop on Open Source, Innovation, and Entrepreneurship (Jan. 2010); American Economics Association Annual Meeting (Jan. 2010); Global Economic Symposium (Sept. 2009); Hastings Law School - Bay Area IP Law Professors Meeting (January 2009); UN Biological Weapons Convention/Meeting of States Parties (December, 2008); Synthetic Biology 4.0 (October 2008); Boalt Hall Law School Innovation Scholarship Seminar (September 2008); US Government Roundtable on Development of a Synthetic Nucleic Acid Screening Framework (September, 2008); IASB Workshop on Technical Solutions for Biosecurity in Synthetic Biology (April 2008); New York University Law School (January 2008); Synthetic Biology 3.0 (June 2007); European School on New Institutional Economics (June 2007); World Affairs Council Annual Conference ("Rethinking the War on Terror") (May 2007); Wisconsin Stem Cell Institute (March 2007); UC Berkeley China/India/Russia Conference (October 2006); UC Berkeley Constitution Day (September 2006); AAAS Wye River Biosecurity Conference (Sept. 2006); Institute on Global Conflict and Cooperation Biosecurity Summer School (June 2006); Synthetic Biology 2.0 (May 2006); California's Stem Cell Initiative (March 2006); Berkeley Symposium on Real Estate and Catastrophic Risk (May 2006); Temple University Law School Conference on Evolution of Open Source (February 2006); Stanford Medical School (January 2006); Medecins sans Frontieres, Access Campaign for Essential Medicines (June 2005); Duke Workshop on Collective Computational Biology for Neglected Diseases (May 2005); International Conference on Pharmaceutical Innovation (June 2004); US National Academy of Sciences (March 2000, August 2002, and Sept. 2009); The University of Auckland (August 2002); The University of California at Berkeley (March 2006, March and October 2001); Duke Law School (November 2001 and May 2007); Industry Canada (May 2001); The Mutation Database Initiative (October 1999, April 2000, and October 2000); The American Association of Geographers (November 1999).

### PRESS COVERAGE:

Allison McCann, How to Code A Life," BuzzFeed (Nov. 19, 2012).

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- C. Lok, "Gene-Makers Put Forward Security Standards," Nature News (Nov. 4, 2009)
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- E. Check Hayden, "Experiments of Concern to Be Vetted On Line," Nature 457:643 (Feb. 5, 2009).
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- P. Aldhous, "Synthetic Biologists Reject Controversial Guidelines," New Scientist (May 23, 2006).
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- K. Cukier "An Open Source Shot in the Arm?" The Economist (June 10, 2004).
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A. Huang and C. Weber, "The Health of Nations: Open-Source Research and the Economics of Life and Death in the Developing World," Berkeley Science Review 7:45 (Fall, 2004).