Brett M. Frischmann

Villanova University brett.frischmann@law.villanova.edu

PROFESSIONAL:

Villanova University, Charles Widger Endowed University Professor in Law, Business and Economics, Charles Widger School of Law, 8/2017 – **present**.

Center for Internet and Society, Stanford Law School, Affiliate Scholar, 9/2011 - present.

The Vincent and Elinor Ostrom Workshop in Political Theory and Policy Analysis, Indiana University in Bloomington, *Affiliated Faculty Member*, 11/2012–6/2015; 6/2018 - present.

Princeton University, Affiliate of the Princeton Dialogues on AI and Ethics, 5/2019 - 2021.

Princeton University, *Microsoft Visiting Professor of Information and Technology Policy*, Center for Information and Technology Policy, 7/2016-7/2017.

Cardozo Law School, *Professor of Law*, 7/2010 – 7/2017. *Director of IP and Information Law Program*, 8/2011 – 7/2016. *Courses*: Antitrust and IP, Advanced Copyright, Copyright, Cyberlaw, Intellectual Property Colloquium, and Technology Policy Seminar.

Columbia Law School, Visiting (Adjunct) Professor, Fall 2016. Course: Copyright Law.

Duke Law School, Visiting Professor, Fall 2013. Course: Internet Law.

Loyola University Chicago, School of Law, *Associate Professor of Law*, 6/2007 – 7/2010, *Assistant Professor*, 6/2002-6/2007. *Courses*: Advanced Copyright, Antitrust & Intellectual Property, Cyberlaw, Intellectual Property, Torts, and Chicago Intellectual Property Colloquium.

Cornell University, School of Law, *Visiting Professor*, 2008 - 2009. *Courses*: Advanced Intellectual Property Seminar, Copyright, and Cyberlaw.

Fordham University, School of Law, *Visiting Professor*, Fall 2007. *Course*: Advanced Copyright Law.

Syracuse University, College of Law, *Visiting Professor*, Spring 2006. *Courses*: International Intellectual Property, Internet Law.

United States Court of Appeals, Second Circuit, Clerk for Judge Fred I. Parker, 8/2001 – 8/2002.

Wilmer, Cutler & Pickering, Washington, DC, *Associate*, 9/2000 – 7/2001. *Practice Areas*: Communications, E-commerce, Intellectual Property, International Environmental Law.

EDUCATION:

Georgetown University Law Center, Washington, DC Juris Doctor, *magna cum laude*, 2000.

Columbia University, School of Engineering and Applied Science, New York, NY Masters of Science in Earth Resources Engineering, May 1997.

Columbia University, Columbia College, New York, NY Bachelors of Arts in Astrophysics with Mathematics minor, May 1995.

GRANTS:

National Science Foundation, \$350,000 to support Governing Knowledge Commons Research Coordination Network, 2020-2023.

Knight Foundation, \$45,000 to Support Smart Cities Conference and Open Access Book Publication, 2019-2021

Comcast, \$30,000 grant to support Privacy Commons Conference at Villanova, 2018-2019

SCHOLARSHIP:

Academic Books

GOVERNING SMART CITIES AS KNOWLEDGE COMMONS, Cambridge University Press, 2023 (co-edited and written with Madelyn Sanfilippo and Michael Madison).

GOVERNING PRIVACY IN KNOWLEDGE COMMONS, Cambridge University Press, 2021 (co-edited and written with Madelyn Sanfilippo and Katherine Strandburg).

RE-ENGINEERING HUMANITY, Cambridge University Press, April 2018 (with Evan Selinger).

- Selected by the Guardian as one of the Best Books of 2018.
- For links to various reviews, interviews, and related writing, see https://www.reengineeringhumanity.com/

GOVERNING MEDICAL KNOWLEDGE COMMONS (co-edited and written with Michael Madison & Katherine Strandburg, Cambridge University Press, Fall 2017).

• First book in our new series, Cambridge Studies on Governing Knowledge Commons.

GOVERNING KNOWLEDGE COMMONS (co-edited and written with Michael Madison and Katherine Strandburg, Oxford University Press, 2014).

INFRASTRUCTURE: THE SOCIAL VALUE OF SHARED RESOURCES (Oxford University Press, 2012).

- Received the 2012 PROSE Book Award for the best book in law / legal studies.
- For links to various reviews, see http://www.brettfrischmann.com/Media.

CYBERLAW: PROBLEMS OF POLICY AND JURISPRUDENCE IN THE INFORMATION AGE (4th ed., 2010; 5th edition, 2017) (with Patricia Bellia, Paul Berman, and David Post).

Novel

SHEPHARD'S DRONE (Feb. 3, 2019), https://www.shephardsdrone.com.

Articles in Peer Reviewed Journals

Slow-governance in smart cities: An empirical study of smart intersection implementation in four US college towns. **Internet Policy Review**, 12(1). (2023) https://doi.org/10.14763/2023.1.1703 (with Madelyn Rose Sanfilippo).

Externalities, scarcity, and abundance, Frontiers in Research Metrics and Analytics: Research Policy and Strategic Management, Volume 7, 11 January 2023, https://doi.org/10.3389/frma.2022.1111446 (with Giovanni B. Ramello).

Nudging Humans, 36 Social Epistemology 129-52 (Oct. 2021).

Manipulating Facebook's Notification System to Provide Evidence of Techno-Social Engineering, Social Science Computer Review, 1-18 (2021) (with Katherine Haenschen, Northeastern University, Data Science and Paul Ellenbogen, Princeton, Computer Science) https://doi.org/10.1177/08944393211008855.

Infrastructure and general purpose technologies: A technology flow framework, European Journal of Law and Economics (Feb. 2020) (with Christiaan Hogendorn, Wesleyan University, Economics).

Retrospectives: Tragedy of the Commons after 50 Years, 33 **Journal of Economic Perspectives** 211-18 (2019) (with Alain Marciano, Université de Montpellier, Economics, and Giovanni Ramello, University of Eastern Piedmont, Economics).

Common Knowledge, 362 **Science** 1239-40 (Dec 14, 2018) (with Michael J. Madison, Katherine J. Strandburg) (50th anniversary tribute revisiting Hardin's Tragedy of the Commons).

Privacy as Commons: Case Evaluation through the Governing Knowledge Commons Framework, 8 **Journal of Information Policy** 116-66 (2018) (with Madelyn Sanfilippo and Katherine Strandburg).

Capabilities, Spillovers, and Intellectual Progress: Toward a Human Flourishing Theory for Intellectual Property, Review of Economic Research on Copyright Issues (2018).

Thoughts on Techno-Social Engineering of Humans and the Freedom to be Off, 17 **Theoretical Inquiries** in Law 535 (2016).

Revisiting the Marginal Cost Controversy, 29 **Journal of Economic Perspectives** 193 (Spring 2015) (with Christiaan Hogendorn, Wesleyan University, Economics).

Understanding the Problem of Social Cost, 11(2) **Journal of Institutional Economics** (with Alain Marciano, Université de Montpellier, Economics) (Winter 2014).

Two Enduring Lessons from Elinor Ostrom, 9 Journal of Institutional Economics (2013).

Compliance Institutions in Treaties, 7 **Review of Law and Economics** (2011) (with Jim Hartigan, University of Oklahoma, Economics).

Revitalizing Essential Facilities, 75 **Antitrust Law Journal** 1 (2008) (with Spencer Weber Waller, Loyola University Chicago).

Network Neutrality and The Economics of an Information Superhighway, 47 **Jurimetrics** 383 (2007) (with Barbara van Schewick, Stanford).

Evaluating the Demsetzian Trend in Copyright Law, 3 Review of Law and Economics (2007).

- Harold Demsetz, Frischmann's View of "Toward a Theory of Property Rights," 4 Review of Law and Economics (2008) (responding to my article);
- Spillovers Theory and Its Conceptual Boundaries, 51 William & Mary Law Review 801 (2009) (responding in part to Demsetz's essay).

Articles in Law Reviews

Better Digital Contracts, under submission (with Moshe Vardi).

Designing Effective Privacy-Preserving Age Verification Systems, Yale Journal of Law and Technology (forthcoming 2025) (with Noah Apthorpe and Yan Shvartzshnaider).

Governance Seams, 37 Harvard Journal of Law and Technology (2024) (with Paul Ohm).

Friction-In-Design Regulation as 21st Century Time, Place, and Manner Restriction, 25 Yale Journal of Law and Technology 376 (2023) (with Susan Benesch).

Comparative Analysis of Innovation Failures and Institutions in Context, **Houston Law Review** (2019) (with Mark McKenna).

Utopia?: A Technologically Determined World of Frictionless Transactions, Optimized Production, and Maximal Happiness, 64 **UCLA Law Review Disc.** 372 (2016) (with Evan Selinger).

Constructing Commons in the Cultural Environment, Cornell Law Review (2010) (with Michael Madison, University of Pittsburgh, and Katherine Strandburg, NYU).

 Special issue of Cornell Law Review dedicated to our article with commentary from Professors Thrainn Eggertsson, Wendy Gordon, Gregg Macey, Robert Merges, Elinor Ostrom, and Larry Solum.

Environmental Infrastructure, 35 Ecology Law Quarterly 151 (2008).

• Special issue focused on applications of my infrastructure commons theory. Featured articles written by Professors David Driesen, Gregory Mandel, Marc Poirier, and myself.

Cultural Environmentalism and The Wealth of Networks, 74 **University of Chicago Law Review** 1083 (2007) (reviewing Yochai Benkler, The Wealth of Networks: How Social Production Transforms Markets and Freedom (2006)).

Spillovers, 107 Columbia Law Review 257 (2007) (with Mark A. Lemley, Stanford).

• According to Shapiro and Pearce, *The Most-Cited Articles of All Time*, 110 Mich. L. Rev. 1483, 1497 (2012), *Spillovers* is the most cited article published in 2007.

An Economic Theory of Infrastructure and Commons Management, 89 Minnesota Law Review 917 (2005).

• Lawrence Lessig, *Reply: Re-Marking the Progress in Frischmann*, 89 **Minnesota Law Review** 1031 (2005) (responding to my article).

A Dynamic Institutional Theory of International Law, 51 **Buffalo Law Review** 679 (2003).

Privatization and Commercialization of the Internet Infrastructure: Rethinking Market Intervention into Government and Government Intervention into the Market, 2 Columbia Science and Technology Law Review 1 (2001).

Using the Multi-Layered Nature of International Emissions Trading and of International-Domestic Legal Systems to Escape a Multi-State Compliance Dilemma, 13 Georgetown International Environmental Law Review 463 (2001).

The Evolving Common Law Doctrine of Copyright Misuse: A Unified Theory and its Application to Software, 15 **Berkeley Technology Law Journal** 865 (2000) (with Daniel Moylan) (cited in In re Napster Litigation, 191 F.Supp.2d 1087 (N.D. Cal., Feb 22, 2002)).

Innovation and Institutions: Rethinking the Economics of U.S. Science and Technology Policy, 24 **Vermont Law Review** 347 (2000).

Shorter Articles and Symposium Essays

Network Neutrality as Governance Seam, **TechReg Chronicle**, May 2024, pp1-14 (with Blake Ellis Reid, University of Colorado Law School).

Intergenerational Progress, **Wisconsin Law Review** (2011) (with Mark McKenna, Notre Dame Law School).

Spillovers Theory and Its Conceptual Boundaries, 51 William & Mary Law Review 801 (2009).

The University as Constructed Cultural Commons, Washington University Journal of Law & Policy (2009) (with Michael Madison, University of Pittsburgh, and Katherine Strandburg, NYU).

The Pull of Patents, 77 Fordham Law Review 2143 (2009).

Speech, Spillovers, and the First Amendment, 2008 University of Chicago Legal Forum (2008).

Some Thoughts on Shortsightedness and Intergenerational Equity, 36 Loyola University Chicago Law Journal 457 (2005) (essay for Faculty issue on the topic of Justice).

Infrastructure Commons, 2005 Michigan State Law Review 1 (2004).

The Prospect of Reconciling Internet and Cyberspace, 35 Loyola University Chicago Law Journal 205 (2003).

Case Studies, Book Chapters, Essays, and Op-Eds

Common Nonsense about Password Security and the Expert-Layperson Knowledge Gap, in Governing Misinformation in Everyday Knowledge Commons (Eds. Melissa Ocepek and Madelyn Rose Sanfilippo, Cambridge University Press, 2024).

Smart tech deployment and governance in Philadelphia, in Governing smart cities as knowledge commons (2023): 112-156. (with Marsha Tonkovich) (case study).

On the Infrastructural Nature of NPUs, Yale Journal of Regulation, Notice and Comment blog (Jan. 18, 2023), at https://www.yalejreg.com/nc/symposium-networks-platforms-utilities-02/.

Common Sense Commons: The Case of Commonsensical Social Norms, in Governing Markets as Knowledge Commons (Eds. Pavel Kuchar & Erwin Decker, Cambridge University Press, 2021).

Parents, don't let your babies grow up to be sleep texters, **Philadelphia Inquirer**, Feb. 13, 2020, https://www.inquirer.com/health/expert-opinions/sleep-texting-babies-cell-phones-sleep-hygiene-20200213.html (w/ Elizabeth Dowdell)

Infrastructure and its governance: The British Broadcasting Corporation case study, **Routledge Handbook of the Study of the Commons**, 256-280 (2019).

Tech Doom, Letter to the Editor, Scientific American 320 (1), 5-5 (Jan. 2019).

Stretched Too Thin by Social Media, Scientific American
https://blogs.scientificamerican.com/observations/stretched-too-thin-by-social-media/

The Big Idea: Brett Frischmann, **John Scalzi's Whatever: This Machine Mocks Fascists**, https://whatever.scalzi.com/2019/02/26/the-big-idea-brett-frischmann/

Electronic Contracts and the Illusion of Consent, **Scientific American** https://blogs.scientificamerican.com/observations/electronic-contracts-and-the-illusion-of-consent/

Is Smart Tech Making Us Dumb?, **Scientific American** https://blogs.scientificamerican.com/observations/is-smart-technology-making-us-dumb/

The Promise and Peril of Personalization, Stanford Center for Internet and Society, https://cyberlaw.stanford.edu/blog/2018/11/promise-and-peril-personalization

How Personalization Leads to Homogeneity, **Scientific American**, https://blogs.scientificamerican.com/observations/how-personalization-leads-to-homogeneity/

The Tragedy of the Commons, Revisited, Scientific American, https://blogs.scientificamerican.com/observations/the-tragedy-of-the-commons-revisited/

Is Technology Re-Engineering Humanity?, **The Economist (Interview)**, https://www.economist.com/open-future/2018/10/24/is-technology-re-engineering-humanity

There's Nothing Wrong with Being a Luddite, **Scientific American**https://blogs.scientificamerican.com/observations/theres-nothing-wrong-with-being-a-luddite/

The Misleading Power of Internet Metaphors, Scientific American https://blogs.scientificamerican.com/observations/the-misleading-power-of-internet-metaphors/

Algorithm and Blues: The Tyranny of the Coming Smart-Tech Utopia: Why optimizing the world for efficiency, productivity and happiness is bad for humanity, **Scientific American**, July 30, 2018 - https://blogs.scientificamerican.com/observations/algorithm-and-blues-the-tyranny-of-the-coming-smart-tech-utopia/

How Facebook Programmed our Relatives, **Scientific American**, June 21, 2018 - (with Katherine Haenschen), https://blogs.scientificamerican.com/observations/how-facebook-programmed-our-relatives/

Deprogramming Students and Teachers, **Stanford Center for Internet and Society Blog** - (with Evan Selinger).

Here's why tech companies abuse our data: because we let them, THE GUARDIAN, April 10, 2018

Fixing the Facebook Problem Requires a Massive Culture Shift, New York Daily News, March 26, 2018

How Self-Driving Car Policy Will Determine Life, Death, and Everything In-Between, Motherboard, March 23, 2018 (with Evan Selinger).

Italian Version: "Tra vita e morte: come le auto driverless sceglieranno le vittime degli incidenti"

Your NCAA Bracket Is a Reverse Turing Test, Salon, March 12, 2018

Algorithmic Bloodhounds, **The American Journal of Bioethics** vol. 18 no. 2 (2018): 24-26 (with Evan Selinger).

Why the FCC Should Prevent ISPs From Micromanaging our Lives, Stanford Center for Internet and Society Blog - (with Evan Selinger).

Robots have already taken over our work, but they're made of flesh and bone, THE GUARDIAN, Sept. 25, 2017 (with Evan Selinger).

Why you should care about net neutrality, WIRED UK, June 26, 2017 (with Evan Selinger).

We need our platforms to put people and democratic society ahead of cheap profits, **RECODE**, June 16, 2017 (with Mark Verstraete).

Why it's dangerous to outsource our critical thinking to computers, **THE GUARDIAN**, Dec. 10, 2016 (with Evan Selinger).

Will the internet of things result in predictable people?, **THE GUARDIAN**, Aug. 10, 2015 (with Evan Selinger).

Reply, *Systems of Human and Intellectual Capital*, 93 **TEXAS LAW REVIEW** (2015) (with Mark McKenna, Notre Dame Law School) (reply to Orly Lobel's *The New Cognitive Property: Human Capital Law and the Reach of Intellectual Property*).

Online Essay, *Doctrinal Precedence Among the Hatch-Waxman Act, the Patent Act, and the Sherman Act*, Patently-O, Mar. 13, 2013, at http://www.patentlyo.com/patent/2013/03/brett-frischmann-ftc-watson.html.

Chapter, *Access to Infrastructure in Economic Perspective*, in **Cyber Policy and Economics in an Internet Age**, 2d. ed. (Lorenzo Pupillo & William Lehr eds., 2009) (college/university textbook).

Book Review, **Alabama Law Review** (2009), reviewing Michael A. Carrier, Innovation for the 21st Century: Harnessing the Power of Intellectual Property and Antitrust Law.

Book Review, *Avoiding a Cliff Dive*, reviewing Jonathan Zittrain's *The Future of the Internet and How to Stop It*, 321 **Science** 491 (July, 25 2008) (peer reviewed).

Online Essay, *Infrastructure Commons in Economic Perspective*, **First Monday**, vol. 12, num. 6 (June 2007) (peer reviewed), at http://firstmonday.org/issues/issue12_6/frischmann/index.html

Chapter, *The Evolving Doctrine of Copyright Misuse*, **Intellectual Property and Information Wealth** (Ed. Peter Yu, Praeger, 2007) (with Daniel Moylan).

Peer-to-Peer Technology as Infrastructure: An Economic Argument For Retaining Sony's Safe Harbor For Technologies Capable of Substantial Noninfringing Uses, 52 **Journal of the Copyright Society** 329 (2005) (peer reviewed).

Commissioned chapter, Commercializing University Research Systems in Economic Perspective: A View from the Demand Side, in University Entrepreneurship and Technology Transfer: Process, Design, and Intellectual Property, volume 16, Elsevier Science/JAI Press Series: Advances in the Study of Entrepreneurship, Innovation, and Economic Growth series (2005).

Chapter, A Comparative Analysis of Compliance Institutions in International Trade Law and International Environmental Law, in Handbook of International Trade: Economic and Legal Analysis of Laws and Institutions (Jim Hartigan ed., 2004).

Book Note, 11 **Georgetown International Environmental Law Review** 235 (1998) (reviewing Law and Economics of the Environment (Erling Eide & Roger van den Bergh eds., 1996)).

Chapter, *The role of universities in the generation of ESTs, in* **ATAS XII-The Role of Publicly Funded Research and Publicly Owned Technologies in the Transfer and Diffusion of Environmentally Sound Technologies** 371 (United Nations 2000) (with Daehyun Kim and Kunsoo Kim), available at https://unctad.org/system/files/official-document/psiteiipd9.en.pdf.

PODCAST INTERVIEWS:

The grftf Podcast, Misha da Vinci, The grftf Podcast online, "ReEngHum". (April 28, 2024).

Homeless Romantic, Chris Jeffries, #205 Podcast, Re-Engineering Humanity (Jan. 27, 2024).

Create The Future - Programming People Record, online / UK, "friction-in-design". (July 5, 2023).

CBC, IDEAS, Radio for the Mind, Two-part series, Re-Engineering Humanity, April 22, 2020, https://www.cbc.ca/player/play/1728187459599 and

April 29, 2020, https://www.cbc.ca/player/play/1731330627804

Talking Politics, interviewed by David Runciman, Sept. 21, 2019 (Re-Engineering Humanity).

Artificial General Intelligence (AGI) Podcast, Singularity.Net (link: https://singularitynet.io/podcast/) singularitynet.io/podcast/ "Re-engineering humans and rethinking digital networked tools"

Digital Mindfulness, interviewed by Lawrence Ampofo, July 19, 2019 (Re-Engineering Humanity).

Privacy Piracy radio show (88.9FM and www.kuci.org), interviewed by Mari Frank; aired Apr. 1, 2019.

Science magazine, interviewed by Meagan Cantwell, Dec. 7, 2018 (Common Knowledge).

SELECT PROFESSIONAL ACTIVITIES:

[Cut. Too many pages.]

Selected Professional Affiliations, Memberships and Service:

Serve on the annual Elinor Ostrom Prize Committee, Journal of Institutional Economics Consultant Editor, European Journal of Law and Economics

Admitted to the Maryland Bar.

Member of the American Bar Association, the American Intellectual Property Law Association, the Association of American Law Schools, the Law and Society Association, American Law and Economics Association.

Advisory Board for the Institute for Consumer Antitrust Studies, Loyola University Chicago.

Member of the Board of Trustees of the Nexa Center for Internet & Society, Torino, Italy.

Member of the Advisory Board for the Indie Film Clinic, Cardozo Law School.

Editorial Board of I/S: A Journal of Law and Policy for the Information Society.

Program Committee for the Telecommunications Policy Research Conference, 2006-2008.

Served as Expert Reviewer for 2015 OECD Report on Data-driven Innovation.

Served as Expert Reviewer for 2016 European Commission *Impact Assessment for the Review of the Framework for Electronic Communications*.

Served as PhD Committee member, International Ph.D. *Programme in Institutions, Economics and Law*, Torino, Italy.

Occasional Peer Reviewer for various law journals and interdisciplinary journals.