

# Artificial Intelligence and Law

Casebook

Version 1.0

December 2023

(as taught Fall 2023)

Professor Paul Ohm  
Georgetown University Law Center

*forthcoming 2024/2025*

*(with Margot Kaminski*

*and Andrew Selbst)*

<https://aila.ws> for more info

## TABLE OF CONTENTS (TOPICS ONLY)

<b>I. PRELIMINARIES .....</b>	<b>1</b>
OVERVIEW, THEMES, AND VOCABULARY .....	1
MACHINE LEARNING 101: GOOD OLD FASHIONED AI .....	19
<b>II. HOW AI DISRUPTS TRADITIONAL LEGAL CONCEPTS .....</b>	<b>22</b>
TORT, FAULT, LIABILITY, AND PRODUCT SAFETY: WHO IS LIABLE WHEN SELF-DRIVING CARS COLLIDE? .....	22
<i>Self-Driving Cars</i> .....	22
<i>Tort Liability for Users and Owners</i> .....	26
<i>Products Liability for Manufacturers</i> .....	28
COMPETING DEFINITIONS OF ALGORITHMIC BIAS AND FAIRNESS .....	44
BIAS AND DISCRIMINATION: ALGORITHMS IN EMPLOYMENT UNDER TITLE VII .....	75
TECHNOLOGICAL DUE PROCESS: GOVERNMENT USE OF ALGORITHMS IN BENEFITS ADMINISTRATION .....	101
ALGORITHMIC CRIME PREDICTION AND DETECTION .....	126
<i>The Constitutional Requirement of Individualized Suspicion</i> .....	126
<i>The Analogy to Trained Narcotics Dog Sniffs Under the Fourth Amendment</i> .....	139
FACIAL RECOGNITION AND THE FIRST AMENDMENT .....	149
PRIVACY AND BIG DATA .....	171
<i>The Power of Inference</i> .....	171
<i>The problem of inferring identity and definitions of “Personal Information”</i> .....	174
<i>The problem of inferring sensitive information from non-sensitive information</i> .....	187
<i>The problem of using data about some people to build models used to control other people</i> .....	195
<b>III. ARTIFICIAL INTELLIGENCE IN CONTEXT .....</b>	<b>200</b>
GENERATIVE AI .....	200
<i>Neural Networks: Technical Primer</i> .....	200
<i>Generative AI: Technical Primer: Large Language Models</i> .....	202
<i>OPTIONAL Video Explainers</i> .....	229
LIABILITY OF LLM CREATORS FOR SPEECH HARMS .....	230
<i>Liability of LLM Creators for Defamation</i> .....	230
<i>Liability for Other Speech-Related Harms</i> .....	240
GENERATIVE AI AND COPYRIGHT LAW .....	253
<i>AI and Authorship</i> .....	253
<i>Copyright Fair Use and Model Training</i> .....	263
<i>Algorithms and Financial Regulation</i> .....	297
MEDICAL MALPRACTICE .....	318
<i>Medical Malpractice Standards of Care</i> .....	318
<i>Medical Malpractice and Informed Consent</i> .....	324
<i>Prompt Engineering</i> .....	332
<b>III. REGULATING ARTIFICIAL INTELLIGENCE .....</b>	<b>333</b>
GOVERNANCE STRATEGIES .....	333

<i>Pauses and Bans</i> .....	333
<i>Agenda Setting and Trustworthy AI</i> .....	342
<i>New/Binary Governance, Managerialism, and Neoliberalism</i> .....	354
CONSUMER PROTECTION AND DATA PROTECTION APPROACHES .....	362
<i>Consumer Protection and the FTC</i> .....	362
<i>Data Protection and the GDPR</i> .....	365
<i>Enforcing Consumer Protection, Bias, and Data Protection Laws</i> .....	380
RISK-BASED REGULATION AND IMPACT ASSESSMENTS.....	391
<i>Risk Regulation Generally</i> .....	391
<i>The Proposed AI Act</i> .....	393
<i>AI Risk Assessment Frameworks and Approaches</i> .....	406
<i>Algorithmic Audits</i> .....	421
THE RIGHT TO A HUMAN-IN-THE-LOOP.....	427
<i>Laws Requiring a Human-in-the-Loop</i> .....	427
<i>Justifications and Efficacy for a Human-in-the-Loop requirement</i> .....	430
THE RIGHT TO EXPLANATION.....	440
<i>Licensure and Justification</i> .....	447
AI IN CHINA.....	455
<i>Chinese AI Regulation</i> .....	455
<i>The Social Credit Scoring System in China</i> .....	459
<i>US Restrictions on Flow of AI Technology to China</i> .....	467
AI & THE INTERNATIONAL LAW OF HUMAN RIGHTS.....	471
AGI, ALIGNMENT, AND SAFETY .....	491
<i>Analogies to Other Existential Threats</i> .....	505
<b>CODA</b> .....	<b>513</b>

## TABLE OF CONTENTS WITH READINGS

<b>I. PRELIMINARIES</b> .....	<b>1</b>
OVERVIEW, THEMES, AND VOCABULARY .....	1
Marc Andreessen, Why AI Will Save the World, <a href="https://a16z.com/2023/06/06/ai-will-save-the-world/">https://a16z.com/2023/06/06/ai-will-save-the-world/</a> .....	1
Brian Christian, The Alignment Problem, Introduction.....	4
Ruha Benjamin, Race After Technology, pp. 90-96 .....	6
Ryan Calo, Artificial Intelligence Policy: A Primer and Roadmap, 51 U.C. DAVIS L. REV. 399, 404–10 (2017) .....	8
MACHINE LEARNING 101: GOOD OLD FASHIONED AI .....	19
R2D3 (Stephanie Yee and Tony Chu), A Visual Introduction to Machine Learning .....	19
Andrew Glassner, Deep Learning: A Visual Approach, Excerpts from Chapters 1, 7, and 11 .....	20
<b>II. HOW AI DISRUPTS TRADITIONAL LEGAL CONCEPTS</b> .....	<b>22</b>
TORT, FAULT, LIABILITY, AND PRODUCT SAFETY: WHO IS LIABLE WHEN SELF-DRIVING CARS COLLIDE? .....	22
<i>Self-Driving Cars</i> .....	22
Faiz Siddiqui and Jeremy B. Merrill, 17 fatalities, 736 crashes: The shocking toll of Tesla’s Autopilot, Washington Post, June 10, 2023, <a href="https://www.washingtonpost.com/technology/2023/06/10/tesla-autopilot-crashes-elon-musk/">https://www.washingtonpost.com/technology/2023/06/10/tesla-autopilot-             crashes-elon-musk/</a> .....	22
NHTSA’s Five Levels of Automation .....	25
<i>Tort Liability for Users and Owners</i> .....	26
Grant v. Knepper, 245 N.Y. 158 (1927).....	26
State v. Packin, 107 N.J.Super. 93 (1969) .....	27
<i>Products Liability for Manufacturers</i> .....	28
MacPherson v. Buick Motor Co., 217 N.Y. 382 (1916) .....	28
Restatement (Second) of Torts (1965) .....	31
Restatement (Third) of Torts: Prod. Liab. (1998).....	32
F. Patrick Hubbard, "Sophisticated Robots": Balancing Liability, Regulation, and Innovation, 66 Fla. L. Rev. 1803, 1856 (2014) .....	34
Mark A. Geistfeld, A Roadmap for Autonomous Vehicles: State Tort Liability, Automobile Insurance, and Federal Safety Regulation, 105 Cal. L. Rev. 1611, 1634–35 (2017).....	40
Gary E. Marchant & Rachel A. Lindor, The Coming Collision Between Autonomous Vehicles and the Liability System, 52 Santa Clara L. Rev. 1321, 1333 (2012).....	41
David C. Vladeck, Machines Without Principals: Liability Rules and Artificial Intelligence, 89 Wash. L. Rev. 117, 146–49 (2014).....	42
COMPETING DEFINITIONS OF ALGORITHMIC BIAS AND FAIRNESS .....	44
Julia Angwin, Jeff Larson, Surya Mattu and Lauren Kirchner, ProPublica, Machine Bias:There’s software used across the country to predict future criminals. And it’s biased against blacks, May 23, 2016, <a href="https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing">https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-         sentencing</a> . .....	44
Jeff Larson, Surya Mattu, Lauren Kirchner and Julia Angwin, How We Analyzed the COMPAS Recidivism Algorithm, May 23, 2016, <a href="https://www.propublica.org/article/how-we-analyzed-the-compas-recidivism-algorithm">https://www.propublica.org/article/how-we-analyzed-the-compas-recidivism-         algorithm</a> . .....	49
Deborah Hellman, Measuring Algorithmic Fairness, 106 Va. L. Rev. 811, 820 (2020) .....	55
Sandra G. Mayson, Bias in, Bias Out, 128 Yale L.J. 2218, 2233–34 (2019) .....	66
Solon Barocas & Andrew D. Selbst, Big Data’s Disparate Impact, 104 Cal. L. Rev. 671, 677 (2016).....	70

OPTIONAL Assignment: Arvind Narayanan, 21 fairness definitions and their politics, FAT* Conference Translation Tutorial 2018. ....	74
BIAS AND DISCRIMINATION: ALGORITHMS IN EMPLOYMENT UNDER TITLE VII .....	75
Jeffrey Dastin, Amazon scraps secret AI recruiting tool that showed bias against women, Reuters, October 10, 2018 .....	75
Civil Rights Act of 1984 § 701, 42 U.S. Code § 2000e – Definitions .....	76
Civil Rights Act of 1984 § 703, 42 U.S.C. § 2000e-2(a) (2012).....	78
42 U.S. Code § 2000e-3 - Other unlawful employment practices .....	80
Albemarle Paper Co. v. Moody, 422 U.S. 405, 408 (1975) .....	81
Ricci v. DeStefano, 557 U.S. 557, 578–85, 129 S. Ct. 2658, 2673–77, 174 L. Ed. 2d 490 (2009).....	84
Solon Barocas & Andrew D. Selbst, Big Data's Disparate Impact, 104 Cal. L. Rev. 671, 677 (2016).....	89
Pauline T. Kim, Data-Driven Discrimination at Work, 58 Wm. & Mary L. Rev. 857, 905 (2017).....	94
Deborah Hellman, Measuring Algorithmic Fairness, 106 Va. L. Rev. 811, 846 (2020) .....	97
TECHNOLOGICAL DUE PROCESS: GOVERNMENT USE OF ALGORITHMS IN BENEFITS	
ADMINISTRATION .....	101
Virginia Eubanks, Automating Inequality, Excerpt from Chapter 4: The Allegheny Algorithm.....	101
Houston Federation of Teachers v. Houston Independent School District, 251 F.Supp.3d 1168 (S.D. Tex. 2017).....	109
T v. Bowling, 2016 WL 4870284 (S.D.W.V. 2016) .....	114
Michael T. v. Crouch, 2018 WL 1513295 (S.D.W.V. 2018) .....	118
Danielle Keats Citron, Technological Due Process, 85 Wash. U.L. Rev. 1249, 1305 (2008) .....	123
Hannah Bloch-Wehba, Access to Algorithms, 88 Fordham L. Rev. 1265, 1293–95 (2020) .....	124
Margot E. Kaminski, Binary Governance: Lessons from the Gdpr's Approach to Algorithmic Accountability, 92 S. Cal. L. Rev. 1529, 1553–54 (2019) .....	125
ALGORITHMIC CRIME PREDICTION AND DETECTION .....	126
<i>The Constitutional Requirement of Individualized Suspicion</i> .....	126
Ybarra v. Illinois, 444 U.S. 85, 87–89, 100 S. Ct. 338, 340–41, 62 L. Ed. 2d 238 (1979) .....	126
Maryland v. Pringle, 540 U.S. 366, 368–69, 124 S. Ct. 795, 798, 157 L. Ed. 2d 769 (2003) .....	129
Laurence H. Tribe, Trial by Mathematics: Precision and Ritual in the Legal Process, 84 Harv. L. Rev. 1329, 1340–41 (1971).....	131
Jane Bambauer, Hassle, 113 Mich. L. Rev. 461, 462 (2015) .....	131
Emily Berman, Individualized Suspicion in the Age of Big Data, 105 Iowa L. Rev. 463, 478–82 (2020).....	135
Elizabeth E. Joh, Policing by Numbers: Big Data and the Fourth Amendment, 89 Wash. L. Rev. 35, 56–58 (2014) .....	138
<i>The Analogy to Trained Narcotics Dog Sniffs Under the Fourth Amendment</i> .....	139
United States v. Place, 462 U.S. 696, 697–99, 103 S. Ct. 2637, 2639–40, 77 L. Ed. 2d 110 (1983).....	139
Illinois v. Caballes, 543 U.S. 405, 410–13, 125 S. Ct. 834, 838–40, 160 L. Ed. 2d 842 (2005).....	141
Fla. v. Harris, 568 U.S. 237, 237–43, 133 S. Ct. 1050, 1053–55, 185 L. Ed. 2d 61 (2013) .....	142
Michael L. Rich, Machine Learning, Automated Suspicion Algorithms, and the Fourth Amendment, 164 U. Pa. L. Rev. 871, 911–23 (2016) .....	146
FACIAL RECOGNITION AND THE FIRST AMENDMENT.....	149
Nlets – the International Justice and Public Safety Network, Privacy Impact Assessment Report for the Utilization of Facial Recognition Technologies to Identify Subjects in the Field, June 30, 2011 .....	149

Illinois Biometric Information Privacy Act (BIPA) of 2008, 740 ILCS 14.....	154
Am. Knights of Ku Klux Klan v. City of Goshen, Ind., 50 F. Supp. 2d 835, 836 (N.D. Ind. 1999).....	158
Church of Am. Knights of the Ku Klux Klan v. Kerik, 356 F.3d 197, 199 (2d Cir. 2004).....	167
PRIVACY AND BIG DATA.....	171
<i>The Power of Inference</i> .....	171
Charles Duhigg, How Companies Learn Your Secrets, New York Times, Feb. 16, 2012.....	171
<i>The problem of inferring identity and definitions of “Personal Information”</i> .....	174
Paul Ohm, Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization, 57 UCLA L. Rev. 1701, 1740 (2010) .....	174
Michael Barbaro and Tom Zeller Jr., A Face Is Exposed for AOL Searcher No. 4417749, N.Y. Times, Aug. 9, 2006 .....	177
Ryan Singel, Netflix Spilled Your Brokeback Mountain Secret, Lawsuit Claims, Wired, Dec. 17, 2009 .....	178
Health Information Portability and Accountability Act (HIPAA) Privacy Rule (1996) .....	179
General Data Protection Regulation (GDPR): Recital 26 .....	182
Article 29 Data Protection Working Party, Opinion 05/2014 on Anonymisation Techniques, 10 April 2014.....	182
Datatilsynet (Danish Data Protection Authority), Supervision of Taxi 4x35's processing of personal data, 18-03-2019 .....	184
U.S. Federal Trade Commission Report, Protecting Consumer Privacy in an Era of Rapid Change, March 2012.....	185
<i>The problem of inferring sensitive information from non-sensitive information</i> .....	187
General Data Protection Regulation (GDPR) Article 9.....	187
California Consumer Privacy Act (CCPA) (as amended by the California Privacy Rights Act (CPRA)).....	187
Colorado Privacy Act (2021) .....	189
Colorado Privacy Act Rules (2023).....	189
Alicia Solow-Niederman, Information Privacy and the Inference Economy, 117 Nw. U. L. Rev. 357, 382–84 (2022) .....	190
Daniel Solove, Data Is What Data Does: Regulating Based on Harm and Risk Instead of Sensitive Data, 118 NW. U. L. REV. __ (forthcoming 2024) .....	191
Paul Ohm, Sensitivity Focused Privacy Laws (draft article).....	192
<i>The problem of using data about some people to build models used to control other people</i> .....	195
Alicia Solow-Niederman, Information Privacy and the Inference Economy, 117 Nw. U. L. Rev. 357, 382–84 (2022) .....	195
Salomé Viljoen, A Relational Theory of Data Governance, 131 Yale L.J. 573, 603–07 (2021).....	195
<b>III. ARTIFICIAL INTELLIGENCE IN CONTEXT .....</b>	<b>200</b>
GENERATIVE AI .....	200
<i>Neural Networks: Technical Primer</i> .....	200
Doug Rose, Artificial Intelligence for Business, Chapters 12-14 (excerpts).....	200
YouTube Primers: 3 Blue 1 Brown.....	201
<i>Generative AI: Technical Primer: Large Language Models</i> .....	202
Timothy B. Lee and Sam Trott, Large language models, explained with a minimum of math and jargon, <a href="https://www.understandingai.org/p/large-language-models-explained-with">https://www.understandingai.org/p/large-language-models-explained-with</a> .....	202
Jesse Vig, GPT-2: Understanding Language Generalization Through Visualization, March 5, 2019, <a href="https://towardsdatascience.com/openai-gpt-2-understanding-language-generation-through-visualization-8252f683b2f8">https://towardsdatascience.com/openai-gpt-2-understanding-language-generation-through-visualization-8252f683b2f8</a> .....	218

Emily M. Bender, Timnit Gebru, Angelina McMillan-Major, and Shmargaret Shmitchell, On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? In Conference on Fairness, Accountability, and Transparency (FAcCT '21), March 3–10, 2021.....	222
Samuel R. Bowman, Eight Things to Know about Large Language Models, <a href="https://arxiv.org/abs/2304.00612">https://arxiv.org/abs/2304.00612</a> .....	225
<i>OPTIONAL Video Explainers</i> .....	229
Optional: A Gentler Take: Kyle Hill, ChatGPT Explained Completely, <a href="https://www.youtube.com/watch?v=-4Oso9-9KTQ">https://www.youtube.com/watch?v=-4Oso9-9KTQ</a> .....	229
Optional: A slightly more technical take: Jay Alammar, The Narrated Transformer Language Model, <a href="https://www.youtube.com/watch?v=-QH8fRhgFHM">https://www.youtube.com/watch?v=-QH8fRhgFHM</a> .....	229
LIABILITY OF LLM CREATORS FOR SPEECH HARMS .....	230
<i>Liability of LLM Creators for Defamation</i> .....	230
James Vincent, OpenAI sued for defamation after ChatGPT fabricates legal accusations against radio host, The Verge, June 9, 2023, <a href="https://www.theverge.com/2023/6/9/23755057/openai-chatgpt-false-information-defamation-lawsuit">https://www.theverge.com/2023/6/9/23755057/openai-chatgpt-false-information-defamation-lawsuit</a> .....	230
Restatement (Second) of Torts § 558 (1977) .....	231
New York Times Co. v. Sullivan, 376 U.S. 254, 256, 84 S. Ct. 710, 713, 11 L. Ed. 2d 686 (1964).....	232
Toni M. Massaro, Helen Norton & Margot Kaminski, Siri-Ously 2.0: What Artificial Intelligence Reveals About the First Amendment, 101 Minn. L. Rev. 2481, 2506–08 (2017).....	234
Eugene Volokh, Large Libel Models? Liability for Ai Output, 3 J. Free Speech L. 489, 514–18 (2023).....	235
<i>Liability for Other Speech-Related Harms</i> .....	240
Winter v. G.P. Putnam's Sons, 938 F.2d 1033, 1033–34 (9th Cir. 1991) .....	240
Samantha Cole, 'Life or Death:' AI-Generated Mushroom Foraging Books Are All Over Amazon, 404Media, <a href="https://www.404media.co/ai-generated-mushroom-foraging-books-amazon/">https://www.404media.co/ai-generated-mushroom-foraging-books-amazon/</a> .....	242
Jane Bambauer, Negligent AI Speech: Some Thoughts About Duty, 3 J. Free Speech L. 343, 348–58 (2023).....	243
Nina Brown, Bots Behaving Badly: A Products Liability Approach to Chatbot-Generated Defamation, 3 J. Free Speech L. 389, 410–14 (2023).....	249
GENERATIVE AI AND COPYRIGHT LAW.....	253
<i>AI and Authorship</i> .....	253
Thaler v. Perlmutter, No. CV 22-1564 (BAH), 2023 WL 5333236, at *1 (D.D.C. Aug. 18, 2023).....	253
James Grimmelmann, Internet Law: Cases & Problems, Chapter 7: Copyright, pp. 415-427 (13th Ed.) .....	261
James Grimmelmann, There's No Such Thing As A Computer-Authored Work- and It's A Good Thing, Too, 39 Colum. J.L. & Arts 403, 408–09 (2016).....	262
<i>Copyright Fair Use and Model Training</i> .....	263
Complaint, Class Action, and Demand for Jury Trial, Sarah Anderson v. Stability AI, Ltd., Complaint, No. 23-CV-00201 (N.D. Cal. Jan. 13, 2023), available at <a href="https://www.courtlistener.com/docket/66732129/andersen-v-stability-ai-ltd/">https://www.courtlistener.com/docket/66732129/andersen-v-stability-ai-ltd/</a> .....	263
Authors Guild, Inc. v. HathiTrust, 755 F.3d 87, 90–92 (2d Cir. 2014) .....	273
Authors Guild v. Google, Inc., 804 F.3d 202, 206–07 (2d Cir. 2015) .....	279
A.V. ex rel. Vanderhye v. iParadigms, LLC, 562 F.3d 630, 633 (4th Cir. 2009)....	285
A Note on Factor One of Fair Use and the Supreme Court: Campbell, Oracle, and Warhol .....	291
<i>Algorithms and Financial Regulation</i> .....	297
In re Barclays Liquidity Cross & High Frequency Trading Litig., 126 F. Supp. 3d 342, 347 (S.D.N.Y. 2015), vacated and remanded sub nom. City of Providence, Rhode Island v. Bats Glob. Markets, Inc., 878 F.3d 36 (2d Cir. 2017) .....	297
United States v. Coscia, 866 F.3d 782, 785 (7th Cir. 2017) .....	302

Robin Feldman & Kara Stein, AI Governance in the Financial Industry, 27 Stan. J.L. Bus. & Fin. 94, 112–17 (2022).....	309
Gina-Gail S. Fletcher, Deterring Algorithmic Manipulation, 74 Vand. L. Rev. 259, 296–99 (2021).....	313
Yavar Bathaee, The Artificial Intelligence Black Box and the Failure of Intent and Causation, 31 Harv. J.L. & Tech. 889, 911–14 (2018) .....	315
MEDICAL MALPRACTICE.....	318
<i>Medical Malpractice Standards of Care</i> .....	318
Restatement (Second) of Torts (1965) .....	318
Wells v. Ferry-Baker Lumber Co., 57 Wash. 658, 658–62, 107 P. 869, 869–70 (1910) .....	318
Lippold v. Kidd, 126 Or. 160, 161–62, 269 P. 210, 211 (1928).....	319
Gonzales v. Peterson, 57 Wash. 2d 676, 681–83, 359 P.2d 307, 310–11 (1961) .....	320
A. Michael Fromkin et. al., When AIs Outperform Doctors: Confronting the Challenges of A Tort-Induced over-Reliance on Machine Learning, 61 Ariz. L. Rev. 33, 59–60 (2019) .....	321
<i>Medical Malpractice and Informed Consent</i> .....	324
Hurley v. Kirk, 2017 OK 55, 398 P.3d 7, 8 .....	324
Perna v. Pirozzi, 92 N.J. 446, 449, 457 A.2d 431, 432 (1983) .....	326
I. Glenn Cohen, Informed Consent and Medical Artificial Intelligence: What to Tell the Patient?, 108 Geo. L.J. 1425, 1444–49 (2020).....	329
<i>Prompt Engineering</i> .....	332
Prompt-Engineering Readings .....	332
Prompt-Engineering Hands-On.....	332
One more reading.....	333
<b>III. REGULATING ARTIFICIAL INTELLIGENCE .....</b>	<b>333</b>
GOVERNANCE STRATEGIES.....	333
<i>Pauses and Bans</i> .....	333
Pause Giant AI Experiments: An Open Letter, We call on all AI labs to immediately pause for at least 6 months the training of AI systems more powerful than GPT-4., March 22, 2023, <a href="https://futureoflife.org/open-letter/pause-giant-ai-experiments/">https://futureoflife.org/open-letter/pause-giant-ai-experiments/</a> .....	333
European Union, AI Act, April 2021 Proposal, <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0206">https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0206</a> .....	334
Pareesh Dave, Focus: U.S. cities are backing off banning facial recognition as crime rises, REUTERS, May 12, 2022 .....	338
<i>Agenda Setting and Trustworthy AI</i> .....	342
White House, Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence, October 30, 2023, <a href="https://www.whitehouse.gov/briefing-room/presidential-actions/2023/10/30/executive-order-on-the-safe-secure-and-trustworthy-development-and-use-of-artificial-intelligence/">https://www.whitehouse.gov/briefing-room/presidential-actions/2023/10/30/executive-order-on-the-safe-secure-and-trustworthy-development-and-use-of-artificial-intelligence/</a> .....	342
European Commission, High-Level Expert Group on Artificial Intelligence Set Up by the European Commission, Ethics Guidelines for Trustworthy AI, April 8, 2019, <a href="https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai">https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai</a> .....	346
White House, Ensuring Safe, Secure, and Trustworthy AI, July 21, 2023.....	348
<i>New/Binary Governance, Managerialism, and Neoliberalism</i> .....	354
Margot E. Kaminski, Binary Governance: Lessons from the GDPR’s Approach to Algorithmic Accountability, 92 S. Cal. L. Rev. 1529, 1557 (2019) .....	354
Ari Ezra Waldman, Power, Process, and Automated Decision-Making, 88 Fordham L. Rev. 613, 624–29 (2019) .....	356
CONSUMER PROTECTION AND DATA PROTECTION APPROACHES.....	362
<i>Consumer Protection and the FTC</i> .....	362



Cat Zakrzewski, FTC investigates OpenAI over data leak and ChatGPT’s inaccuracy, Washington Post, July 13, 2023, <a href="https://www.washingtonpost.com/technology/2023/07/13/ftc-openai-chatgpt-sam-altman-lina-khan/">https://www.washingtonpost.com/technology/2023/07/13/ftc-openai-chatgpt-sam-altman-lina-khan/</a> .....	362
FTC, Civil Investigative Demand, Washington Post .....	365
<i>Data Protection and the GDPR</i> .....	365
EU General Data Protection Regulation Article 22.....	365
EU General Data Protection Regulation, Recital 71 .....	366
EU Article 29 Data Protection Working Party, Guidelines on Automated individual decision-making and Profiling for the purposes of Regulation 2016/679, 3 October 2017 (Revised 6 February 2018).....	367
Colorado Privacy Act.....	375
Colorado Department of Law, Colorado Privacy Act Rules, 4 CCR 904-3 .....	376
<i>Enforcing Consumer Protection, Bias, and Data Protection Laws</i> .....	380
JOINT STATEMENT ON ENFORCEMENT EFFORTS AGAINST DISCRIMINATION AND BIAS IN AUTOMATED SYSTEMS, April 25, 2023.....	380
Michael Atleson, Attorney, FTC Division of Advertising Practices, Keep your AI claims in check, <a href="https://www.ftc.gov/business-guidance/blog/2023/02/keep-your-ai-claims-check">https://www.ftc.gov/business-guidance/blog/2023/02/keep-your-ai-claims-check</a> .....	383
Andrew D. Selbst & Solon Barocas, Unfair Artificial Intelligence: How Ftc Intervention Can Overcome the Limitations of Discrimination Law, 171 U. Pa. L. Rev. 1023, 1026 (2023) .....	384
Adam Thierer, The FTC Looks to Become the Federal AI Commission, July 15, 2023, <a href="https://medium.com/@AdamThierer/the-ftc-looks-to-become-the-federal-ai-commission-15db44e35ace">https://medium.com/@AdamThierer/the-ftc-looks-to-become-the-federal-ai-commission-15db44e35ace</a> .....	387
RISK-BASED REGULATION AND IMPACT ASSESSMENTS.....	391
<i>Risk Regulation Generally</i> .....	391
Margot E. Kaminski, Regulating the Risks of AI, 103 B.U.L. Rev. 101 (forthcoming 2023), <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4195066">https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4195066</a> .....	391
<i>The Proposed AI Act</i> .....	393
European Union, AI Act, European Commission April 2021 Proposal, <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0206">https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0206</a> .....	393
European Parliament, DRAFT Compromise Amendments, 16/5/2023, <a href="https://www.europarl.europa.eu/resources/library/media/20230516RES90302/20230516RES90302.pdf">https://www.europarl.europa.eu/resources/library/media/20230516RES90302/20230516RES90302.pdf</a> .....	403
<i>AI Risk Assessment Frameworks and Approaches</i> .....	406
National Inst. of Standards and Technology (NIST) Artificial Intelligence Risk Management Framework (AI RMF 1.0) .....	406
Government of Canada, Algorithmic Impact Assessment Tool, <a href="https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai/algorithmic-impact-assessment.html">https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai/algorithmic-impact-assessment.html</a> .....	413
Government of Canada, Algorithmic Impact Assessment Questions, Obtained from link at <a href="https://aia.guide/">https://aia.guide/</a> .....	416
<i>Algorithmic Audits</i> .....	421
Ellen P. Goodman & Julia Trehu, Algorithmic Auditing: Chasing Ai Accountability, 39 Santa Clara High Tech. L.J. 289, 302–06 (2023).....	421
Washington DC, Bill: Stop Discrimination by Algorithms Act of 2021.....	424
THE RIGHT TO A HUMAN-IN-THE-LOOP.....	427
<i>Laws Requiring a Human-in-the-Loop</i> .....	427
U.N. Convention on Road Traffic art. 8, Sept. 19, 1949.....	427
European Union, AI Act, April 2021 Proposal, <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0206">https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0206</a> .....	427
<i>Justifications and Efficacy for a Human-in-the-Loop requirement</i> .....	430
Ben Green, The Flaws of Policies Requiring Human Oversight of Government Algorithms, 45 Computer Law & Security Review (2022) .....	430

Rebecca Crootof, Margot Kaminski & Nicholson Price, Humans in the Loop, 76 Vand. L. Rev. 429, 460–61 (2023).....	433
Kiel Brennan-Marquez, Stephen E. Henderson, Artificial Intelligence and Role-Reversible Judgment, 109 J. Crim. L. & Criminology 137, 149–52 (2019).....	437
THE RIGHT TO EXPLANATION.....	440
Equal Credit Opportunity Act (ECOA), 15 U.S. Code § 1691 - Scope of prohibition.....	440
Andrew D. Selbst & Solon Barocas, The Intuitive Appeal of Explainable Machines, 87 Fordham L. Rev. 1085, 1109–17 (2018).....	441
Margot E. Kaminski, The Right to Explanation, Explained, 34 Berkeley Tech. L.J. 189, 209–17 (2019).....	444
<i>Licensure and Justification</i> .....	447
Pew, Issue Brief: How FDA Regulates Artificial Intelligence in Medical Products, August 5, 2021, <a href="https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2021/08/how-fda-regulates-artificial-intelligence-in-medical-products">https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2021/08/how-fda-regulates-artificial-intelligence-in-medical-products</a> .....	447
Gianclaudio Malgieri and Frank Pasquale, Licensing high-risk artificial intelligence: Toward ex ante justification for a disruptive technology, 52 Computer Law & Security Review (2024), <a href="https://www.sciencedirect.com/science/article/pii/S0267364923001097">https://www.sciencedirect.com/science/article/pii/S0267364923001097</a> .....	449
AI IN CHINA.....	455
<i>Chinese AI Regulation</i> .....	455
Matt Sheehan, Carnegie Endowment for International Peace, China’s AI Governance and How They Get Made, July 2023, <a href="https://carnegieendowment.org/2023/07/10/china-s-ai-regulations-and-how-they-get-made-pub-90117">https://carnegieendowment.org/2023/07/10/china-s-ai-regulations-and-how-they-get-made-pub-90117</a> .....	455
<i>The Social Credit Scoring System in China</i> .....	459
Xin Dai, Toward a Reputation State: The Social Credit System Project of China, <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3193577">https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3193577</a> .....	459
Kevin Werbach, Orwell That Ends Well? Social Credit as Regulation for the Algorithmic Age, 2022 U. Ill. L. Rev. 1417.....	460
<i>US Restrictions on Flow of AI Technology to China</i> .....	467
Emily S. Weinstein & Kevin Wolf, CSET, For Export Controls on AI, Don’t Forget the “Catch-All” Basics.....	467
Gregory C. Allen, CSIS, Choking off China’s Access to the Future of AI, Oct. 11, 2022, <a href="https://www.csis.org/analysis/choking-chinas-access-future-ai">https://www.csis.org/analysis/choking-chinas-access-future-ai</a> .....	468
AI & THE INTERNATIONAL LAW OF HUMAN RIGHTS.....	471
UNITED NATIONS, UNIVERSAL DECLARATION OF HUMAN RIGHTS (1948).....	471
Raso, Filippo, Hannah Hilligoss, Vivek Krishnamurthy, Christopher Bavitz, and Kim Levin. 2018. Artificial Intelligence & Human Rights: Opportunities & Risks. Berkman Klein Center for Internet & Society Research Publication, <a href="http://nrs.harvard.edu/urn-3:HUL.InstRepos:38021439">http://nrs.harvard.edu/urn-3:HUL.InstRepos:38021439</a> .....	473
Vinodkumar Prabhakaran, Margaret Mitchell, Timnit Gebru & Iason Gabriel, A Human Rights-Based Approach to Responsible AI, 2022 ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization or (EAAMO '22), <a href="https://arxiv.org/abs/2210.02667">https://arxiv.org/abs/2210.02667</a> .....	482
Anthropic, Claude’s Constitution, May 9, 2023, <a href="https://www.anthropic.com/index/claudes-constitution">https://www.anthropic.com/index/claudes-constitution</a> .....	487
AGI, ALIGNMENT, AND SAFETY.....	491
David Streitfeld, Silicon Valley Confronts the Idea That the ‘Singularity’ Is Here, N.Y. Times, June 11, 2023.....	491
OUPBlog: Interview: Nick Bostrom on Artificial Intelligence.....	493
Center for AI Safety, AI Extinction Statement: Press Release, May 30, 2023, <a href="https://www.safe.ai/press-release">https://www.safe.ai/press-release</a> .....	495
Nate Soares, Safety engineering, target selection, and alignment theory, Machine Intelligence Research Institute, Dec. 31, 2015.....	496
Aaron J. Snoswell, What is ‘AI alignment’? Silicon Valley’s favourite way to think about AI safety misses the real issues, July 11, 2023,	

<a href="https://theconversation.com/what-is-ai-alignment-silicon-valleys-favourite-way-to-think-about-ai-safety-misses-the-real-issues-209330">https://theconversation.com/what-is-ai-alignment-silicon-valleys-favourite-way-to-think-about-ai-safety-misses-the-real-issues-209330</a> .....	498
Nir Eisikovits, AI Is an Existential Threat—Just Not the Way You Think, July 5, 2023, <a href="https://theconversation.com/ai-is-an-existential-threat-just-not-the-way-you-think-207680">https://theconversation.com/ai-is-an-existential-threat-just-not-the-way-you-think-207680</a> .....	500
Aditya Singh and Daniel Vale, A New AI Lexicon: Existential Risk, Oct. 8, 2021, <a href="https://ainowinstitute.org/publication/a-new-ai-lexicon-existential-risk">https://ainowinstitute.org/publication/a-new-ai-lexicon-existential-risk</a> .....	502
<i>Analogies to Other Existential Threats</i> .....	505
Mustafa Suleyman and Eric Schmidt: We need an AI equivalent of the IPCC, Financial Times, Oct. 19, 2023 .....	505
Heidy Khlaap, How AI Can Be Regulated Like Nuclear Energy, Time, Oct. 24, 2023 .....	507
Yasmin Afina & Dr. Patricia Lewis, The nuclear governance model won't work for AI, Chatham House, June 28, 2023, <a href="https://www.chathamhouse.org/2023/06/nuclear-governance-model-wont-work-ai">https://www.chathamhouse.org/2023/06/nuclear-governance-model-wont-work-ai</a> .....	509
<b>CODA</b> .....	<b>513</b>
Frank Pasquale, The New Laws of Robotics, Chapter 8. ....	513