人工智慧法律與政策

ARTIFICIAL INTELLIGENCE LAW & POLICY

Syllabus – Spring 2024
Fridays 10:10-12:00
TSMC 835

Prof. Ching-Fu Lin
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OFFICE HOURS

My formal office hours are Wednesdays from 13:00 to 15:00. Please email me in advance so I can make sure to be in my office when you arrive. If you would like to set a different time to meet, just let me know.

COURSE DESCRIPTION

The future is now. We are entering a new world of Artificial Intelligence (AI). Rapid developments of technologies have transformed AI from academic research projects to emerging forces that can shape the ways in which individuals, business organizations, and governments interact. This seminar (whose inception in 2017 marked the first of its kind in Taiwan) explores many of the legal, social, and political implications of the rise in AI, robots, algorithms, and brain-machine interface. Through the assigned readings and weekly discussion, this Seminar seeks to guide students in identifying the promises and perils of AI and in mapping critical challenges facing users, lawyers, engineers, and policymakers across the globe. Besides a general background of AI, the course will focus on, more specifically, the values and ethics of AI, regulatory design and automated vehicles, autonomous weapon systems and international humanitarian law, algorithmic bias and justice, surveillance and social control, and other problems of accountability, transparency. While other governance issues are of no less importance in the modern society (such as automation and labor, ownership and antitrust, data and privacy protection, and AI/robotic agent personhood), the course is not able to cover all of them within a limited timeframe.

*_This course is instructed in English_.
*_Generative AI will be actively used in class, so familiarize yourself with ChatGPT and other tools will help._

ASSIGNMENTS AND GRADES

The goal of the seminar is for all of us to explore and theorize legal and policy issues regarding the development and application of artificial intelligence from an interdisciplinary perspective. For this to work, all the students are expected to finish the assigned readings before class, come to the seminar with adequate preparation, and actively engage in discussion. All class readings are

accessible at the Google Drive link below:

https://drive.google.com/drive/folders/1XiKV-yvjpytb-V1dOjPM108oDOmFW9O_?usp=sharing

There is no mid-term or final exam. The grades will be based on the following three (3) criteria. *Please read the descriptions below carefully.*

- ✧ Reaction Papers: Each student shall submit four (4) pairs of reaction papers throughout the semester. A reaction paper is NOT a summary of the readings. Rather, a reaction paper should include your comments and critiques on a specific reading assignment (*before* the class discusses it) and analyze how the work fits into the core themes of the seminar. For each "pair" of reaction papers, you will be asked to use Generative AI tools (e.g. ChatGPT) to help you research/construct/draft one, and on a separate task, write the other *entirely* on your own. Each reactions paper should be around 500-750 words, and will be due the *Wednesday before class by noon*. Please upload your reaction papers to the course website by the above deadline, and note that late submissions will not be graded. You are free to submit more than four reactions papers and select the best four for grading consideration. Reaction papers will count for 50% of your grade.

- ✧ Class Participation: Active class participation is required. Ideally, everyone will complete all the required readings (those marked [optional] are for your further reference) before coming to class and have well-thought-out comments and/or questions every class meeting. Generative AI tools will be employed in class to help frame and stimulate discussions (so please install the free version of ChatGPT for learning purposes). Class participation (which may be in the form of a roundtable discussion, brainstorming session, or informal dialogue) constitutes an important part of the seminar and counts for 20% (+10% bonus) of your grade. The final class features a roundtable discussion among all students on examining existing proposals for better AI governance, and may take the form of a poster session or debate.

- ✧ Roundtable Discussion (Presentation): During the final weeks, each student will make a presentation based on a well-thought and prepared topic related to AI law and policy that interests her/him, paving the way for class discussion. The other students are expected to pose questions or give comments to foster deeper exchange of thoughts and analytical brainstorming. Feel free to use Generative AI tools to help you research/construct/prepare the presentation, but you will need to disclose the natureand percentage of contribution of such tools. Students are encouraged to consult the instructor when selecting their topics for roundtable presentations. This will count for 30% of the total grade.

* Auditors who commit to fulfill the above three criteria are welcome to sit in class.

USEFUL LINKS/INFORMATION

- ✧ Berkman Klein Center for Internet & Society, https://cyber.harvard.edu/

- ✧ Stanford Center for Legal Informatics (CodeX), https://law.stanford.edu/codex-the-stanford-center-for-legal-informatics/

- ✧ AI Now Institute at New York University, https://ainowinstitute.org/

- ✦ MIT Media Lab, https://www.media.mit.edu/courses/the-ethics-and-governance-of-artificial-intelligence/

- ✦ Alan Turing Institute, https://www.turing.ac.uk/

- ✦ Oxford Internet Institute, https://www.oii.ox.ac.uk/

- ✦ Allens Hub for Innovation, Law & Technology, https://www.allenshub.unsw.edu.au/

- ✦ Digital Asia Hub, https://www.digitalasiahub.org/

- ✦ Tencent Research Institute, http://www.tisi.org/

- ✦ Library of Congress, https://www.loc.gov/law/help/artificial-intelligence/index.php (Regulation of Artificial Intelligence)

TENTATIVE CLASS SCHEDULE**

Date	Topics & Readings
Week 1 2/23	**COURSE INTRODUCTION**
Week 2 3/1	**NTHU-NYCU MEI-CHU GAMES (NO CLASS)**
Week 3 3/8	**GENERAL BACKGROUND I** o Tomas Weber, *Artificial Intelligence and the Law: Legal Scholars on the Potential for Innovation and Upheaval*, 109 STANFORD LAWYER, Stanford Law School (Dec. 5, 2023), https://law.stanford.edu/stanford-lawyer/articles/artificial-intelligence-and-the-law/ o Gregory N. Mandel, *Regulating Emerging Technology*, 1 LAW, INNOVATION & TECH. 75 (2009), pp. 75-91. o Nir Kosti et al., *Legislation and Regulation: Three Analytical Distinctions*, 7(30) THEORY AND PRACTICE AND LEGISLATION (2019), pp. 169-178. o KAREN YEUNG & MARTIN LODGE, *Algorithmic Regulation: An Introduction*, IN ALGORITHMIC REGULATION (2019), pp. 1-11. o Roger Brownsword, *So What Does the World Need Now? Reflections on Regulating Technologies*, in REGULATING TECHNOLOGIES: LEGAL FUTURES, REGULATORY FRAMES, AND TECHNOLOGICAL FIXES 23 (Roger Brownsword & Karen Yeung eds., 2008), pp. 23-48. [optional] o Harry Surden, *Artificial Intelligence and Law: An Overview*, 35(4) GA. ST. U. L. REV. 1306 (2019), pp. 1306-37. [optional] o AI Now Institute at New York University, *AI Now Report 2019* (December, 2019), pp. 14-24. [optional] o Peter Stone et al., *Artificial Intelligence and Life in 2030: One Hundred Year Study on Artificial Intelligence* (September, 2016), pp. 12-41. [optional] o GARY SMITH, THE AI DELUSION (2018), PP. 207-33. [optional]

** Subject to change by the instructor.

		o MAX TEGMARK, LIFE 3.0: BEING HUMAN IN THE AGE OF ARTIFICIAL INTELLIGENCE (2017), pp. 22-48, 82-133. [optional]
Week 4 3/15		**GENERAL BACKGROUND II** o Bjorn Kleizen et al., *Do Citizens Trust Trustworthy Artificial Intelligence? Experimental Evidence on the Limits of Ethical AI Measures in Government*, 40 GOVERNMENT INFORMATION QUARTERLY (2023), pp.1-11. o Matthew U. Scherer, *Regulating Artificial Intelligence Systems: Risks, Challenges, Competences, and Strategies,* 29(2) HARV. J.L. & TECH. 353 (2016), pp. 353-76. o Jenna Burrell, *How the Machine "Thinks": Understanding Opacity in Machine Learning Algorithms*, BIG DATA & SOCIETY 1 (January-June, 2016), pp. 1-10. o Anupam Chander, *Future-Proofing Law*, 51(1) U.C. DAVIS L. REV. 1 (2017), pp. 1-25. o The Alan Turing Institute, *AI, Human Rights, Democracy and the Rule of Law: A Primer Prepared for the Council of Europe* (2021), https://www.turing.ac.uk/sites/default/files/2021-03/cahai_feasibility_study_primer_final.pdf [optional but recommended] o Ryan Calo, *Artificial Intelligence and Policy: A Roadmap* (August, 2017). [optional] o David C. Vladeck, *Machines without Principles: Liability Rules and Artificial Intelligence*, 89 WASH. L. REV. 117 (2014), pp. 117-50. [optional] o Thomas Burri, *Machine Learning and the Law: Five Theses*, Machine Learning and the Law Conference (2017). [optional] o Matthew Hutson, *Rules to Keep AI in Check: Nations Carve Different Paths for Tech Regulation: A Guide to How China, the EU and the US Are Reining in Artificial Intelligence*, NATURE (Aug. 8, 2023), https://www.nature.com/articles/d41586-023-02491-y [optional] o Lyria Bennett Moses et al., *AI Decision-Making and the Courts: A Guide for Judges, Tribunal Members and Court Administrators*, Australasian Institute of Judicial Administration (published in June 2022, revised in Dec. 2023), https://aija.org.au/publications/ai-decision-making-and-the-courts-a-guide-for-judges-tribunal-members-and-court-administrators-2023-update/ [optional]
Week 5 3/22		**AUTOMATED VEHICLE AND REGULATORY DESIGN** o MIT Media Lab, *Moral Machine*: http://moralmachine.mit.edu/ (**please try this "trolley problem" scenario/dilemma platform before class). o UK Department for Transport, *New Laws to Safely Roll Out Self-driving Vehicles across British Roads* (Nov. 9, 2023), https://www.gov.uk/government/news/new-laws-to-safely-roll-out-self-driving-vehicles-across-british-roads o Jack Stilgoe, *It Will Soon be Easy For Self-Driving Cars to Hide in Plain Sight. We Shouldn't Let Them*, MIT TECH. REV. (May 14, 2022). o Bryan Casey, *Amoral Machines, or: How Roboticists Can Learn to Stop Worrying and Love the Law*, 111 NW. U. L. REV. 231 (2017), pp. 231-50. o W. Bradley Wendel, *Economic Rationality and Ethical Values in Design-Defect Analysis: The Trolley Problem and Autonomous Vehicles*, 55 CAL. W. L. REV. 129 (2018), pp. 129-50. o Mercedes-Benz, *Legal Framework: Automated and Autonomous Driving*, https://group.mercedes-benz.com/innovation/case/autonomous/legal-framework.html o Brittany Eastman et al., *A Comparative Look at Various Countries' Legal Regimes Governing Automated Vehicles*, JOURNAL OF LAW AND MOBILITY (2023),

| | | [optional] |

o Edmond Awad et al., *The Moral Machine Experiment*, 563 NATURE 59 (2018), pp. 59-64. [optional]

o Deloitte Insights, *Forces of Change: The Future of Mobility* (2017), pp. 2-9. [optional]

o Christoph Luetge, *The German Ethics Code for Automated and Connected Driving*, PHILOS. TECHNOL. (2017). [optional]

o Federal Ministry of Transport and Digital Infrastructure (Germany), *Ethics Commission Report, Automated and Connected Driving* (June 2017). [optional]

o Karen Yeung, *Towards an Understanding of Regulation by Design*, *in* REGULATING TECHNOLOGIES: LEGAL FUTURES, REGULATORY FRAMES, AND TECHNOLOGICAL FIXES 79 (Roger Brownsword & Karen Yeung eds., 2008), pp. 79-107. [optional]

o Amitai Etzioni and Oren Etzioni, *AI Assisted Ethics*, 18(2) ETHICS & INFO. TECH.149 (2016), pp. 149-156. [optional]

o Jeffrey K. Gurney, *Imputing Driverhood: Applying a Reasonable Driver Standard to Accidents Caused by Autonomous Vehicles*, *in* ROBOT ETHICS 2.0: FROM AUTONOMOUS CARS TO ARTIFICIAL INTELLIGENCE 51 (Patrick Lin et al. eds, 2017), pp. 51-62. [optional]

o Anjanette Raymond et al., *Building a Better HAL 9000: Algorithms, the Market, and the Need to Prevent the Ingraining of Bias*, NW. J. TECH. & INTELL. PROP. (2017). [optional]

Week 6 3/29

ALGORITHMIC BIAS AND THE CRIMINAL JUSTICE SYSTEM

o *State v. Loomis*, 881 N.W.2d 749 (Wis. 2016).

o Julia Angwin et al., *Machine Bias*, PROPUBLICA (May 23, 2016), pp. 1-12.

o Frank Pasquale, *Secret Algorithms Threaten the Rule of Law*, MIT TECHNOLOGY REVIEW (June 2017), pp. 1-4.

o Han-Wei Liu et al., *Beyond State v. Loomis: Artificial Intelligence, Government Algorithmization, and Accountability*, 27(2) INT'L J. L. & INFO. TECH. 122 (2019), pp.122-41.

o Julia Dressel & Hany Farid, *The Accuracy, Fairness, and Limits of Predicting Recidivism*, 4(1) SCIENCE ADVANCES (January 17, 2018), pp. 1-5. [optional]

o Richard E. Susskind, *Artificial Intelligence, Expert Systems and Law*, 5 DENNING L.J. 105 (1990), pp. 105-16. [optional]

o Frank A. Pasquale & Glyn Cashwell, *Prediction, Persuasion, and the Jurisprudence of Behaviorism*, 68 U. TORONTO L.J. 63 (2018), pp. 63-81. [optional]

o Ellora Israni, *Algorithmic Due Process: Mistaken Accountability and Attribution in State v. Loomis*, HARV. J.L. & TECH. DIGEST (August 31, 2017), pp. 1-3. [optional]

o Solicitor General's Amicus Brief, No. 16-6387 (Petition for a Writ of Certiorari to the Supreme Court of Wisconsin), pp. 1-23. [optional]

o Benjamin Alarie et al., *How Artificial Intelligence Will Affect the Practice of Law*, 68 U. TORONTO L.J. 106 (2018), pp. 106-24. [optional]

o Andrea L. Roth, *Machine Testimony*, 126 YALE L.J. 1972 (2017), pp. 1974-2053. [optional]

o Geneviève Vanderstichele, *The Normative Value of Legal Analytics. Is There a Case for Statistical Precedent?*, University of Oxford Master Thesis (2019). [optional]

o Tim Wu, *Will Artificial Intelligence Eat the Law? the Rise of Hybrid Social-Ordering Systems*, 119 COLUM. L. REV. 2001 (2019). [optional]

	o Olivier Sylvain, *Recovering Tech's Humanity*, 119 COLUM. L. REV. 252 (2019). [optional] o Andrea Roth, *Trial by Machine,* 104 GEO. L.J. 1245 (2016). [optional]
Week 7 4/5	**SPRING BREAK (NO CLASS)**
Week 8 4/12	**MIDTERM EXAM PERIOD (NO CLASS)**
Week 9 4/19	**AUTONOMOUS WEAPON SYSTEMS AND INTERNATIONAL LAW** o Frank Bajak, *Pentagon Pushes A.I. Research toward Lethal Autonomous Weapons*, CBS NEWS (Nov. 25, 2023), https://www.cbsnews.com/sanfrancisco/news/pentagon-pushes-ai-research-toward-lethal-autonomous-weapons/ o UK Parliament Committee, *How Should Autonomous Weapons Be Developed, Used and Regulated?* (Mar. 6, 2023), https://committees.parliament.uk/committee/646/ai-in-weapon-systems-committee/news/186511/how-should-autonomous-weapons-be-developed-used-and-regulated/ (**just read the questions) o Kenneth Anderson & Matthew C. Waxman, *Law and Ethics for Autonomous Weapon Systems: Why a Ban Won't Work and How the Laws of War Can*, Columbia Public Law Research Paper 13-351 (2013), pp. 1-27. o Alan L. Schuller, *At the Crossroads of Control: The Intersection of Artificial Intelligence in Autonomous Weapons Systems with International Humanitarian Law*, 8 HARV. NAT'L SECURITY J. 379 (2017), pp. 382-425. o International Committee of the Red Cross (ICRC), *Views of the ICRC on Autonomous Weapons System*, Convention on Certain Conventional Weapons (CCW), Meeting of Experts on Lethal Autonomous Weapons Systems (LAWS), (April 11, 2016), pp. 1-6. o Peter Asaro, *Autonomous Weapons and the Ethics of Artificial Intelligence*, *in* ETHICS OF ARTIFICIAL INTELLIGENCE 86 (S. Matthew Liao ed., 2020). [optional] o Michael Hirsh, *How AI Will Revolutionize Warfare*, FOREIGN POLICY (Apr. 11, 2023), https://foreignpolicy.com/2023/04/11/ai-arms-race-artificial-intelligence-chatgpt-military-technology/ [optional] o Eileen Guo & HikmatNoori, *This is the Real Story of the Afghan Biometric Databases Abandoned to the Taliban*, MIT TECH. REV. (March 5, 2021). [optional] o [Names Redacted], *Lethal Autonomous Weapon Systems: Issue for Congress*, Congressional Research Service (April 14, 2016), pp. 1-26. [optional] o Neil Davison, *A Legal Perspective: Autonomous Weapon Systems under International Humanitarian Law*, UNODA Occasional Papers No. 30 (2017), pp. 1-18. [optional] o Mary L. Cummings, *Artificial Intelligence and the Future of Warfare*, Chatham House (January, 2017). [optional] o United States Department of Defense, *Directive 3000.09* (November 21, 2012; Incorporating Change 1, May 8, 2017). [optional] o Nehal Bhuta et al., *Present Futures: Concluding Reflections and Open Questions on Autonomous Weapons Systems*, *in* AUTONOMOUS WEAPONS SYSTEMS: LAWS, ETHICS, POLICY 347 (2016), pp. 347-83. [optional]

Week 10 4/26	**AI AND HUMAN RIGHTS** o Council of Europe, *Human Rights by Design: Future-proofing Human Rights Protection in the Era of AI* (2023), pp. 9-12, 17-18, 23-36. o Filippo A. Raso et al., *Artificial Intelligence & Human Rights: Opportunities & Risks*, Berkman Klein Center for Internet and Society at Harvard University Research Publication No. 2018-6 (Sep. 25, 2018), pp. 7-58. o Maria Paz Canales et al., *What Would a Human Rights-based Approach to AI Governance Look Like?*, Global Partners Digital (Sep 19, 2023), https://www.gp-digital.org/what-would-a-human-rights-based-approach-to-ai-governance-look-like/ o VA Greiman, *Human Rights and Artificial Intelligence*, 20(1) JOURNAL OF INFORMATION WARFARE (2021), pp. 50-62. [optional] o Lorna McGregor et al., *International Human Rights Law as a Framework for Algorithmic Accountability*, 68 INT'L & COMP. L.Q. 309 (2019), pp. 309-43. [optional] o Anne Dulka, *The Use of Artificial Intelligence in International Human Rights Law*, 26 STAN. TECH. L. REV. 316 (2023). [optional] o Anupam Chander, *The Racist Algorithm?*, 115(6) MICH. L. REV. 1023 (2017), pp. 1023-45. [optional] o Access Now, *Human Rights in the Age of Artificial Intelligence* (Nov., 2018). [optional] o Steven Livingston & Mathias Risse, *The Future Impact of Artificial Intelligence on Humans and Human Rights*, 33(2) ETHICS & INT'L AFFAIRS 141 (2019), pp. 141-58. [optional]
Week 11 5/3	**DATA-DRIVEN SOCIAL CONTROL AND RULE OF LAW** o Sarah Zheng & Jane Zhang, *China Wants to Regulate Its Artificial Intelligence Sector Without Crushing It*, TIME (Aug. 14, 2023), https://time.com/6304831/china-ai-regulations/ o Ángel Díaz, *Data-driven Policing's Threat to Our Constitutional Rights*, Brookings Institute (Sep. 13, 2021), https://www.brookings.edu/articles/data-driven-policings-threat-to-our-constitutional-rights/ o Yu-Jie Chen et al., *"Rule of Trust": The Power and Perils of China's Social Credit Megaproject*, 32(1) COLUM. J. ASIAN L. 1 (2018), pp. 1-34. o Danielle Keats Citron & Frank Pasquale, *The Scored Society: Due Process for Automated Predictions*, 89(1) WASH. L. REV. 1 (2014), pp. 1-33. o Stephan Raaijmakers, *Artificial Intelligence for Law Enforcement: Challenges and Opportunities*, 17(5) IEEE SECURITY & PRIVACY 74 (2019), 74-77. o TateRyan-Mosley, *I Asked an AI to Tell Me How Beautiful I Am*, MIT TECH. REV. (March 5, 2021). [optional] o Gavin Sullivan, *Law, Eechnology, and Data-driven Security: Infra-Legalities as Method Assemblage*, 49(S1) JOURNAL OF LAW AND SOCIETY (2022), pp. 31-50. [optional] o Rashida Richardson et al., *Litigating Algorithms 2019 US Report: New Challenges to Government Use of Algorithmic Decision Systems* (Sep., 2019). [optional] o Stanley Greenstein, *Preserving the Rule of Law in the Era of Artificial Intelligence*, 30 ARTIFICIAL INTELLIGENCE AND LAW (2022), pp. 191-323. [optional] o VIRGINIA EUBANKS, AUTOMATING INEQUALITY: HOW HIGH-TECH TOOLS PROFILE, POLICE, AND PUNISH THE POOR (2018). [optional] o FRANK PASQUALE, THE BLACK BOX SOCIETY: THE SECRET ALGORITHMS THAT CONTROL MONEY AND INFORMATION (2015). [optional]

	o Mireille Hildebrandt, *Law as Information in the Era of Data-Driven Agency*, 79(1) MODERN LAW REVIEW (2016), pp. 1-30. [optional] o Emre Bayamliogl & Ronald Leenes, *The "Rule of Law" Implications of Data-driven Decision-making: A Techno-Regulatory Perpective*, 10(2) LAW, INNOVATION AND TECHNOLOGY (2018), pp. 295-313. [optional]
Week 12 5/10	**RECENT REGULATORY EXPERIMENTATION** o Regine Paul, *European Artificial Intelligence "Trusted Throughout the World": Risk-based Regulation and the Fashioning of a Competitive Common AI Market*, REGULATION & GOVERNANCE (2023) 1-18. o Microsoft, *Guidelines for Human-AI Interactions*, https://learn.microsoft.com/en-us/ai/guidelines-human-ai-interaction/; https://www.microsoft.com/en-us/research/uploads/prod/2019/01/Guidelines-for-Human-AI-Interaction-camera-ready.pdf o European Union AI Regulation Act (Proposal) (note that the trialogue reached a political agreement in December 2023 and the final text will be released in 2024): https://www.europarl.europa.eu/news/en/headlines/society/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence [optional but recommended] o President Biden's *Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence* (Oct. 30, 2023), 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/ [optional but recommended] o Organisation for Economic Co-operation and Development (OECD), *Recommendation of the Council on Artificial Intelligence*, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449 o U.S. National Institute of Standards and Technology, *Artificial Intelligence Risk Management Framework* (2023): https://doi.org/10.6028/NIST.AI.100-1 [optional] o OECD, *The State of Implementation of the OECD AI Principles Four Years on*, https://www.oecd.org/publications/the-state-of-implementation-of-the-oecd-ai-principles-four-years-on-835641c9-en.htm [optional]
Week 13 5/17	**ROUNDTABLE PRESENTATIONS I**
Week 14 5/24	**CONFERENCE (NO CLASS)**
Week 15 5/31	**ROUNDTABLE PRESENTATIONS II**
Week 16 6/7	**FINAL EXAM PERIOD (NO CLASS)**