Syllabus for PADM 596
Independent Study: Artificial Intelligence Governance and Policy
Fall 2022

Professor: Dr. Daniel J. Mallinson

Office:	W-160K
Office Hours:	By appointment
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Course Description: This course is an independent study co-designed by the student and instructor. The student will gain an understanding of AI governance and policy. The study will principally focus on governance in the United States, but will include aspects of cross-national comparison. The study will examine AI governance from both a scholarly and practical perspective. This will include extensive reading of the scholarship on AI governance as well as review of AI applications at the national, state, and local levels. The student will also develop a deeper understanding of collaborative governance and policy diffusion theory. They will will integrate the concepts present in these theories with AI governance practice and policy. The student will develop an original research paper that contributes to either the collaborative governance or policy diffusion literatures. The final paper will ultimately be submitted to a peer reviewed journal for publication. The instructor will mentor and meet with the student on a weekly basis to discuss the material and development of the final project.

Learning Objectives:

- Critical Thinking

    - The student will read and critically evaluate literature on AI governance

    - The student will read, critically evaluate, and integrate literature on collaborative governance and policy diffusion

- Information Literacy and Research Skills

    - The student will complete a research project that builds on existing scholarly literature

- Program Competence

    - The student will gain a better understanding of public policy process theory and its application to contemporary problems

Methods for Learning and Teaching: This independent study will require substantial self-paced work on the part of the student. We will meet most weeks via Zoom to discuss how the study is progressing and to tackle any questions about the material.

Reaching Our Goals

E-mail Policy: I will work to respond to e-mails within 24 hours during the week and 48 hours on the weekend.

Assessing Progress Towards Our Goals

The following assessments will be used to track your progress towards meeting our course goals: response memos and a final paper. Each component represents the following percentage of your final grade:

Three literature reaction papers	30%
Paper Outline	5%
Rough Draft	5%
Final Paper	50%

We will use the following grade scale:

Letter	Percent
A	94 to 100
A-	90 to 93
B+	87 to 89
B	84 to 86
B-	80 to 83
C+	77 to 79
C	70 to 76
D	60 to 69
F	Below 60

Reaction Papers: You will be required to write three reaction papers. These should be no more than 2 single spaced pages. Content is critical, not volume, so read carefully, think, take notes on your reading of the articles/books then write a well thought-out reaction paper. The goal of the reaction paper is to get your scholarly reaction to the readings, how they fit in the larger literature, address important questions, move the field forward, add new knowledge, challenge existing themes, and sometimes, completely miss the point. Reaction papers will encourage critical thinking about the readings. Your papers may focus on theoretical, empirical, methodological, integrative or practical issues. By now, you should

know not to summarize and you cannot cover the entire article packet or book in detail. Rather, analyze, think and digest the readings, and react to it and focus on the connection between readings and what they mean and offer some novel insight on some part of them or as a whole.

Final Paper: Drawing from your reading of the AI governance, collaborative governance, and policy diffusion literatures, you will develop an original empirical study. The final paper will be scaffolded, with an outline and rough draft due during the semester and the final paper due during Finals Week. The outline must follow the structure of the final paper and will act as a proposal for the project. After the project is refined and approved, you will produce a full rough draft. The paper should have the following format:

1. Introduction

2. Literature review and theory

3. Section explaining your methodological approach to answering your questions

4. The results of your analysis

5. Discussion

6. Conclusion

The final paper should be roughly 8,000 words. It should also be formatted based on the target journal for submission.

Academic Integrity
Academic dishonesty is not limited to simply cheating on an exam or assignment. The following is quoted directly from the *PSU Faculty Senate Policies for Students* regarding academic integrity and academic dishonesty: "Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating of information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students."

All University and Penn State Harrisburg policies regarding academic integrity/academic dishonesty apply to this course and the students enrolled in this course. Refer to the following URL for further details on the academic integrity policy of Penn State Harrisburg: `https://harrisburg.psu.edu/academics/academic-guidelines-and-policies`. Each student in this course is expected to work entirely on her/his own while taking any exam, to complete assignments on her/his own effort without the assistance of others unless directed otherwise

by the instructor, and to abide by University and Penn State Harrisburg policies about academic integrity and academic dishonesty. Academic dishonesty can result in an assignment of "F" or "XF" as the final grade for the student.

Disability Access

Penn State welcomes students with disabilities into the University's educational programs. Penn State values diversity and inclusion; we are committed to a climate of mutual respect and full participation. Our goal is to create environments that are usable, equitable, inclusive, and welcoming. Every Penn State campus has a Student Disability Resources office. Student Disability Resources at Penn State Harrisburg is located in the Student Enrichment Center Room 205. The Assistant Director of Student Disability Resources, Alan Babcock, can be reached via email at aub15@psu.edu or phone 717-948-6025.

To receive consideration for accommodations, please contact Student Disability Resources (SDR), participate in an intake interview, provide documentation of your disability, and complete an online Introductory Questionnaire. Please know that you are not required to already have documentation to begin the process with SDR, as SDR can assist with the process of requesting accommodations. Additional information is available on the (https://harrisburg.psu.edu/student-disability-resources). If the documentation supports requests for reasonable accommodations, SDR will provide you with an accommodations letter, which you can then give to your professors. Please know that requests for accommodations and support must be initiated by the student and communication with professors regarding the approved accommodations must be initiated by the student. You will receive accommodations after you give your accommodations letter to your professors. It is recommended that you share your accommodations letters with your professors as early in the semester as possible. Professors do not provide accommodations retroactively.

Counseling Services

Success in college depends heavily on your personal health and wellbeing. Please recognize that some stress and anxiety is a normal part of life and the college experience, and it can be compounded by unexpected setbacks or life changes outside the classroom. Penn State Harrisburg has a number of support options listed in this syllabus.

If you are experiencing issues that feel unmanageable, you reach the point that you have difficulty concentrating and/or feeling motivated, or have anxiety or feelings of depression that interfere with your ability to take care of yourself or your daily responsibilities, please consider talking with someone in CAPS (Counseling and Psychological Services). We have a range of services to help you navigate issues that are impacting your ability to be healthy, well, and productive at college.

You can learn more about the confidential mental health services available on campus by visiting the Counseling and Psychological Services website or by calling (717) 948-6025 Monday through Friday 8am to 5pm. CAPS is located on the 2nd floor of the Student Enrichment Center, Suite 205. You can access crisis services 24/7/365 by calling 1-877-229-6400 or by texting "LIONS" to 741741. Find us on Instagram or on Facebook.

Educational Equity

Penn State takes great pride to foster a diverse and inclusive environment for students, faculty, and staff. Acts of intolerance, discrimination, harassment, and/or incivility due to age, ancestry, color, disability, gender, national origin, race, religious belief, sexual orientation, or veteran status are not tolerated and can be reported through Educational Equity at the Report Bias site: https://equity.psu.edu/reportbias. Penn State's Code of Conduct can be found at the following link: `https://studentaffairs.psu.edu/support-safety-conduct/student-conduct/code-conduct`.

Direct all inquiries regarding the nondiscrimination policy to The Office of Diversity, Equity, and Inclusion at Penn State Harrisburg at 717-948-6016, and to Equity & Compliance at 717-948-4381 or in person in Olmsted E125.

Mandated Reporting

Penn State is committed to equal access to programs, facilities, admission, and employment for all persons. It is the policy of the University to maintain an environment free of harassment and free of discrimination against any person because of age, race, color, ancestry, national origin, religion, creed, service in the uniformed services (as defined in state and federal law), veteran status, sex, sexual orientation, marital or family status, pregnancy, pregnancy-related conditions, or physical or mental disability, gender, perceived gender, gender identity, gender expression, genetic information or political ideas. Discriminatory conduct and harassment, as well as sexual misconduct and relationship violence, violates the dignity of individuals, impedes the realization of the University's educational mission, and will not be tolerated. Gender-based and sexual harassment, including sexual violence, are forms of gender discrimination in that they deny or limit an individual's ability to participate in or benefit from University programs or activities. For reporting resources, and support, please visit `titleix.psu.edu`.

Penn State strongly encourages all members of the campus community to take appropriate action by providing support and encouraging those impacted by such incidents to submit a report to the Title IX Coordinator. You may also submit a report online by using the Incident Report Form found here: Office of Sexual Misconduct Prevention & Response Incident Report Form. If the University Title IX staff receives information about an incident, they will reach out to offer information about resources, rights, and procedural options available to you.

At Penn State Harrisburg, your point of contact is:

Nicholas Paesano Sexual Misconduct Resource Person Penn State Harrisburg E-126 Olmsted Building 717-948-4385

Penn State's Title IX Coordinator is: Suzanne Adair, Interim Title IX Coordinator 222 Boucke Building University Park, PA 16802 814-867-0099 titleix@psu.edu

Other resources that are available include:

- Penn State Harrisburg Counseling and Psychological Services, SEC 205 - 717-948-6025
- Department of Safety & Police
    - Campus Police: 717-979-7976
    - Local Police: 717-543-2200 or 911
- YWCA Confidential Domestic Violence & Sexual Assault Services: 1-800-654-1221 (available 24/7)
- Contact Helpline: 800-932-4616 (24-hour community crisis hotline)
- Pinnacle Health Harrisburg: 717-782-3131
- Penn State Harrisburg Student Health Services, 220 Capital Union Building: 717-948-61015
- Penn State Hotline: 800-560-1637 (Anonymous reporting)

In Case of Emergency In the event of a University-wide emergency, course requirements, classes, deadlines, and grading schemes are subject to changes that may include alternative delivery methods, alternative methods of interaction with the instructor, class materials, and/or classmates, and a revised semester calendar and/or grading scheme.

For more general information about the emergency situation, please refer to:

- Penn State Harrisburg's home page at http://harrisburg.psu.edu/

- PSUAlert (http://psualert.psu.edu/psualert/). This is a service designed to alert the Penn State community via text messages to cell phones when situations arise on campus that affect the ability of the campus - students, faculty and staff - to function normally. Everyone is encouraged to sign up to receive the text alerts.

- Messages will be placed at the 717-948-6000 campus phone number

In the case of a University-wide emergency, please refer to the following about changes in this course:

- Canvas: https://psu.instructure.com/courses/2116052

- Instructor's email: mallinson@psu.edu

Basic Needs Statement

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to life, and believes this may affect their performance in the course, is urged to contact the Office of Student Affairs (syw10@psu.edu, 717-948-6180) for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable him to provide any resources that he may possess.

Writing Tutoring and Other Academic Support

The Russell E. Horn Sr. Learning Center may have a tutor who can assist you with this course. An appointment is recommended. Appointments are available in-person or on Zoom, depending on your preference.

To make an appointment:

Visit: Student Enrichment Center Room 201 Or go to: starfish.psu.edu and click on "My Success Network" Or call: 717-948-6475 Or email: PSHLearningCtr@psu.edu

The Learning Center can help you in a variety of ways:

Academic Success Coaches Get help with time management, organization, test-taking, study skills, as well as speech and presentation preparation and delivery.

Subject Area Tutoring Courses including accounting, biological and behavioral science, computer science, economics, finance, mathematics, physical sciences, statistics, engineering, and some world languages are supported by peer and professional tutoring.

Writing Get help with the development of essays, papers, resumes, cover letters, scholarship applications and much more. We can help at any stage from brainstorming ideas to citing sources to polishing your final product.

The Lambert Undergraduate Advising Center can assist you with exploring majors and minors, understanding academic policies, and planning courses for future semesters.

Drop-in Quick Question Advising is available during the semester both in-person and online (no appointment necessary!). See dates, times, and locations at: bit.ly/whatsnexthbg

To contact the Advising Center:

Visit: Student Enrichment Center Room 204 Or call: 717-948-6604 Or email: HBGAdvisingCenter@psu.edu

Course Schedule

Week 1: AI Background (8/25)

- Jordan, M. I. and T. M. Mitchell. 2015. "Machine Learning: Trends, Perspectives, and Prospects." *Science* 349(6245): 255-260.

- The 2016 and 2021 *One Hundred Year Study on Artificial Intelligence (AI100)*. Stanford University. https://ai100.stanford.edu.

- Frantz, Roger. 2003. "Herbert Simon. Artificial Intelligence as a Framework for Understanding Intuition." *Journal of Economic Psychology* 24(2): 265-277.

- Simon, Herbert A. 1987. "Two Heads Are Better Than One: The Collaboration Between AI and OR." *Interfaces* 17(4): 8-15.

- West, Darrell M. and John R. Allen. 2020. *Turning Point: Policymaking in the Era of Artificial Intelligence*. Brookings Institution.

Week 2: Collaborative Governance and Networks (9/1)

- Kim, J. 2006. "Networks, network governance, and networked networks." *International Review of Public Administration* 11(1).

- Naveed, S., and Azhar, A. 2022. "Structure, governance and challenges of networks in the public sector: the case of the power network in Pakistan." *International Journal of Public Sector Management* 35(1).

- Stransky-Can, K. 2022. "In Between New Public Management and Network Governance in Austria, Finland and Scotland: Potential Conflicts in Autonomy Understandings of Governments and Universities." *Journal of the Knowledge Economy.*

- Ansell, C. and A. Gash. 2018. "Collaborative platforms as a governance strategy." *Journal of Public Administration Research and Theory* 28(1): 16–32.

- Emerson, K., T. Nabatchi, and S. Balogh. 2011. "An integrative framework for collaborative governance." *Journal of Public Administration Research and Theory* 22(1): 1–29.

- Morcol, Goktug, and Aaron Wachhaus. 2009. "Network and Complexity Theories: A Comparison and Prospects for Synthesis." *Administrative Theory & Praxis* 31(1): 44-58.

Week 3: Policy Diffusion (9/8)

- Rogers, Everett. 2003. *Diffusion of Innovations.* 5th Edition. Free Press.

- Shipan, Charles R. and Craig Volden. 2021. *Why Bad Policies Spread (and Good Ones Don't).* Cambridge University Press.

- Desmarais, Bruce A., Jeffrey J. Harden, and Frederick J. Boehmke. 2015. "Persistent policy pathways: Inferring diffusion networks in the American states." *American Political Science Review* 109(2): 392-406.

- Miller, Chad R., and Brian Richard. 2010. "The policy diffusion of the state R&D investment tax credit." *State and Local Government Review* 42(1): 22-35.

- **Reaction Paper 1 Due**

Week 4: IT Regulation (9/15)

- Cortez, Nathan. 2014. "Regulating Disruptive Innovation." *Berkeley Technology Law Journal* 29(1): 175-228.

- Cohen, Julie E. 2016. "The Regulatory State in the Information Age." *Theoretical Inquiries in Law* 17(2): 369-414.

- Razzaque, Anjum. 2021. "Artificial Intelligence and IT Governance: A Literature Review." In *The Big Data-Driven Digital Economy: Artificial and Computational Intelligence*, Al-Sartawi, Abdalmuttaleb M. A. Musleh (ed.). Springer. pp. 85-97.

Week 5: AI Governance Frameworks (9/22)

- Buiten, Miriam C. 2019. "Towards Intelligent Regulation of Artificial Intelligence." *European Journal of Risk Regulation* 10(1): 41-59.

- Wischmeyer, Thomas and Timo Rademacher. 2020. "*Regulating Artificial Intelligence*. Springer.

- de Almeida, Patricia Gomes Rego, Carlos Denner do Santos, and Josivania Silva Farias. 2021. "Artificial Intelligence Regulation: A Framework for Governance." *Ethics and Information Technology* 23: 505-525. Taeihagh, Araz. 2021. "Governance of Artificial Intelligence." *Policy & Society* 40(2): 137-157.

- Wirtz, Bernd W, Jan C. Weyerer, and Benjamin J. Strum. 2020. "The Dark Sides of Artificial Intelligence: An Integrated AI Governance Framework for Public Administration." *International Journal of Public Administration* 43(9): 818-829.

- Young, Matthew M., Justin B. Bullock, and Jesse D. Lecy. 2019. "Artificial Discretion as a Tool of Governance: A Framework for Understanding the Impact of Artificial Intelligence on Public Administration." *Perspectives on Public Management and Government* 2(4): 301-313.

- Zuiderwijk, Anneke, Yu-Che Chen, and Fadi Salem. 2021. "Implications of the Use of Artificial Intelligence in Public Governance: A Systematic Literature Review and a Research Agenda." *Government INformation Quarterly* 38(3): 101577.

- Henman, Paul. 2020. "Improving Public Services Using Artificial Intelligence." *Asia Pacific Journal of Public Administration* 42(4): 209-221.

- Mantymaki, Matti, Matti Minkkinen, Teemu Birkstedt, and Mika Viljanen. 2022. "Putting AI Ethics into Practice: The Hourglass Model of Organizational AI Governance." *arXiv*.

- **Reaction Paper 2 Due**

Week 6: AI Regulatory Concerns (9/29)

- Amodei, Dario, Chris Olah, Jacob Steinhardt, Paul Christiano, John Schulman, and Dan Mane. 2016. "Concrete Problems in AI Safety." *arXiv*. July 25.

- Stahl, Bernd Carsten. 2021. *Artificial Intelligence for a Better Future*. Springer.

- Janssen, Marijn, Paul Brous, Elsa Estevez, Luis S. Barbosa, and Tomasz Janowski. 2020. "Data Governance: Organizing Data for Trustworthy Artificial Intelligence." *Government Information Quarterly* 37(3): 101493.

- Donahoe, Eileen and Megan MacDuffee Metzger. 2019. "Artificial Intelligence and Human Rights." *Journal of Democracy* 30(2): 115-126.

- Larsson, Stefan and Fredrik Heintz. 2020. "Transparency in Artificial Intelligence." *Internet Policy Review* 9(2).

- Zuiderveen Borgesius, F. J. 2020. "Strengthening legal protection against discrimination by algorithms and artificial intelligence." *International Journal of Human Rights* 24(10).

- Chiao, V. 2019. "Fairness, accountability and transparency: Notes on algorithmic decision-making in criminal justice." *International Journal of Law in Context* 15(2).

Week 7: Research Planning (10/6)

- No meeting, just work on research outline
- **Outline Due**

Week 8: (10/13)

- Progress Meeting

Week 9: AI Regulation in the Comparative Perspective (10/20)

- European Commission. "A European Approach to Artificial Intelligence."

- Engler, Alex. 2022. "The EU and US Are Starting to Align on AI Regulation." The Brookings Institution.

- Roberts, Huw et al. 2020. "The Chinese Approach to Artificial Intelligence: An Analysis of Policy and Regulation." *AI & Society* 36: 59-77.

- Butcher, James and Irakli Beridze. 2019. "What is the State of Artificial Intelligence Governance Globally?" *The RUSI Journal* 164(5-6): 88-96.

- Radu, Roxana. 2021. "Steering the Governance of Artificial Intelligence: National Strategies in Perspective." *Policy and Society* 40(2): 178-193.

- **Reaction Paper 3 Due**

Week 10: International AI Governance (10/27)

- Erdelyi, Olivia J. and Judy Goldsmith. 2022. "Regulating Artificial Intelligence: Proposal for a Global Solution." *Government Information Quarterly.* FirstView.

- Ala-Pietila, Pekka and Nathalie A. Smuha. 2021. "A Framework for Global Cooperation on Artificial Intelligence and Its Governance." Ins *Reflections on Artificial Intelligence for Humanity*, Braunschweig, Bertrand and Malik Ghallab (eds.). Springer. pp 237-265.

- Fournier-Tombs, Eleonore. 2021. "Towards a United Nations Internal Regulation for Artificial Intelligence." *Big Data & Society* 8(2): 1-5.

Week 11: (11/3)

- **Rough Draft Due**

Week 12: AI Governance in the Private Sector 1 (11/10)

- Eom, S.-J. 2022. "The Emerging Digital Twin Bureaucracy in the 21st Century." *Perspectives on Public Management and Governance* 5(2): 174–186.

- Agustiono, W. 2018. "Information Technology Governance: A Cross Comparison in Public and Private Sectors." *Advanced Science Letters* 23(12).

- Tonelli, A. O., de Souza Bermejo, P. H., Aparecida dos Santos, P., Zuppo, L., and Zambalde, A. L. 2017. "It governance in the public sector: a conceptual model." *Information Systems Frontiers* 19(3).

Week 13: AI Governance in the Private Sector 2 (11/17)

- Juiz, C., Guerrero, C., and Lera, I. 2014. "Implementing Good Governance Principles for the Public Sector in Information Technology Governance Frameworks." *Open Journal of Accounting* 3(1).

- Mohamed, N., Kaur, J., and Singh, G. 2012. "A conceptual framework for information technology governance effectiveness in private organizations." *Information Management and Computer Security* 20(2).

Week 14: Thanksgiving Break (11/24)

- No meeting

Week 15: Writing Week (12/1)

- Check in meeting

Week 16: Writing Week (12/8)

- Check in meeting

Week 18: Finals Week

- **Final Research Paper Due Thursday December 15 by 11:59pm**