

New Challenges for International Cooperation: Automation, AI and Digital Trade

Instructor: Carlos Felipe Balcázar

E-mail: carlos.balcazar@yale.com

Course Description:

International cooperation has faced many challenges since World War II, but a new set of inter-related challenges are becoming center-focus for social scientists and policymakers alike: the domestic and international political consequences of automation, of Artificial Intelligence (AI), and the rapid expansion of digital trade, including governments' and firms' decisions related to data localization.

In this course we will explore numerous questions that are receiving increasing attention from scholars and policy makers across the globe:

- Who are the winners and losers from automation? And relatedly, what are the impacts of automation on voters' and legislators' support for economic nationalism?
- Can the rapid pace of AI adoption across the world generate socio-political turmoil? Will AI generate dystopian societies? What are the domestic and international challenges to regulate AI?
- What are the socio-political implications of digital trade? And why are countries facing enormous challenges to regulate digital trade and data flows from a global perspective?

Overall, the course will take a hands-on approach: We will closely interrogate the arguments and evidence presented in the readings, prioritizing depth of analysis over quantity of articles covered. Then, on the basis of these inputs, our goal is to propose and test (new) theories that help us understanding the implications that automation, AI and digital trade pose for both domestic politics and international cooperation.

Course Requirements

1. Attendance and participation (10%):

All students are expected to attend all seminar meetings and participate in class discussions. All students are expected to complete the required weekly readings before class. Students should come to

class with a list of thoughts and questions that they want to share with the class.

Debate Rules: In class discussions students must contribute to creating an inclusive learning environment. Please use a civil and respectful language and be mindful of others' feelings.

2. Group activities (10%):

Students are expected to participate in two group activities that will be carried out during the semester. These activities will consist of thinking carefully through a case study, requiring policy advice, and debating the policy advice with the rest of the class and the political constraints this advice could face. These activities will be conducted in groups of three (3) students. These groups will be formed by the instructor using a random number generator to create the groups. The instructor will also incentivize participation from each group member during the debate to prevent free-riding.

Logistic for absences during group activities: Absences during group activities will be tolerated only under exceptional circumstances, provided evidence for these circumstances. If this is the case, the student will take a quiz during office hours to obtain the grade for the missed group activity. The quiz will be about the topic covered during the student's absence.

3. Response papers (30%):

A response paper is a critical assessment of the weekly materials, not a summary of the readings. Students are expected to complete all the required readings to prepare a response paper.

Logistics for response papers: Response papers cannot exceed two pages, double-spaced, 12pt, 1-inch margins; they must be formatted in PDF; and they must be uploaded to the course's website the day before class. Write your name at the top of page 1. You can obtain three possible grades in your response paper: + (not good), ++ (solid), +++ (excellent). Requirement for an "A-" in this seminar requires an average of ++ in the response papers. A higher score than that is the best path toward an "A" grade. Late submissions of response papers will carry grade penalization.

4. Term paper proposal (20%): All students must write a term paper related to the topics we will cover in class. A term paper is research essay intended to present a case study, a concept, or argue a point; it is a piece of original work presenting and defending in detail a hypothesis. The term paper proposal will be a five-page preliminary essay, not including the bibliography. Term paper proposals should be uploaded to the course's by the end of the Midterms Examination Period.

Instructions regarding the term paper proposals will be provided by the instructor a two weeks before the deadline. Students are encouraged to come to office hours to discuss their term paper ideas early in the semester.

5. Term paper (30%): Final versions of term papers must be ten pages long, not counting the bibliography. Term paper topics need not be the same as the term paper proposal, but changing topics

midway through the semester can make writing the term paper more challenging. Term papers must be uploaded in PDF format to the course's website by the end of the Final Examination Period.

Instructions regarding the term paper will be provided by the instructor two weeks after the term paper proposal is due.

Readings

There is no textbook for this class. Required readings are expected to be completed before class. Students should make an effort to distill the main argument of those papers if the reading is technically demanding, and assess critically the evidence presented in the reading.

Diversity, Equity, Inclusion, & Accessibility

I am committed to making this course a safe and open learning environment for all students, regardless of background, race, ethnicity, country of origin, gender identity, sexual orientation, abilities, or religion. Students are expected to treat each other with respect at all times, and should expect the same from me. If you believe this obligation has not been fulfilled, I encourage you to bring your concerns to me, to the Department Chair or Director of Graduate Studies, or to the Department of Politics Climate Committee.

I. The political economy of automation

Week 1. Technological change and the losers from automation

Boix, C. (2020). *Democratic capitalism at the crossroads: technological change and the future of politics*. Princeton University Press. Chapters 4-6.

Mansfield, E. D. and Rudra, N. (2021). Embedded Liberalism in the Digital Era. *International Organization*, 75(2):558–585.

Optional readings:

Hall, P. A. and Soskice, D. (2001). *Varieties of capitalism: The institutional foundations of comparative advantage*. OUP Oxford. Chapter 1.

Frank, M. R., Autor, D., Bessen, J. E., Brynjolfsson, E., Cebrian, M., Deming, D. J., Feldman, M., Groh, M., Lobo, J., Moro, E., et al. (2019). Toward understanding the impact of artificial intelligence on labor. *Proceedings of the National Academy of Sciences*, 116(14):6531–6539.

Week 2. Anxiety for technological change in a historical perspective

Autor, D. H. (2015). Why are there still so many jobs? The history and future of workplace automation. *Journal of Economic Perspectives*, 29(3):3–30.

Mokyr, J., Vickers, C., and Ziebarth, N. L. (2015). The history of technological anxiety and the future of economic growth: Is this time different? *Journal of Economic Perspectives*, 29(3):31–50.

Optional readings:

Mokyr, J. (2018). Editor's introduction: The new economic history and the Industrial Revolution. In *The British industrial revolution*, pages 1–127. Routledge.

Lafortune, J., Lewis, E., and Tessada, J. (2019). People and machines: A look at the evolving relationship between capital and skill in manufacturing, 1860–1930, using immigration shocks. *Review of Economics and Statistics*, 101(1):30–43.

Week 3. The domestic and international political consequences of automation

Balcazar, C. F. (2023). Globalization, unions and robots: The effects of automation on the power of labor and policymaking. *Mimeo Yale University*.

Gallego, A. and Kurer, T. (2022). Automation, digitalization, and artificial intelligence in the workplace: implications for political behavior. *Annual Review of Political Science*, 25:463–484.

Optional readings:

Owen, E. (2020). Firms vs. workers? the political economy of labor in an era of global production and automation. In *Columbus, OH: Annual Meeting of the International Political Economy Society*.

Baccini, L. and Weymouth, S. (2021). Gone for good: Deindustrialization, white voter backlash, and US presidential voting. *American Political Science Review*, 115(2):550–567.

Week 4. Automation and economic nationalism

Anelli, M., Colantone, I., and Stanig, P. (2019). We were the robots: Automation and voting behavior in Western Europe. *BAFFI CAREFIN Centre Research Paper*, (2019-115).

Wu, N. (2022). Misattributed blame? attitudes toward globalization in the age of automation. *Political Science Research and Methods*, 10(3):470–487.

Optional readings:

Thewissen, S. and Rueda, D. (2019). Automation and the welfare state: Technological change as a determinant of redistribution preferences. *Comparative Political Studies*, 52(2):171–208.

Chaudoin, S. and Mangini, M.-D. (2023). Robots, foreigners, and foreign robots: Policy responses to automation and trade. Mimeo, Harvard University.

II. The political economy of AI

Week 5. AI and the future of work

Frey, C. B. and Osborne, M. A. (2017). The future of employment: How susceptible are jobs to computerisation? *Technological forecasting and social change*, 114:254–280

Grace, K., Salvatier, J., Dafoe, A., Zhang, B., and Evans, O. (2018). When will ai exceed human performance? evidence from ai experts. *Journal of Artificial Intelligence Research*, 62:729–754.

Optional readings:

Agrawal Ajay, Joshua Gans, A. G. (2019). *The Economics of Artificial Intelligence: An Agenda*. University of Chicago Press. Chapters 6, 12.

Rothstein, S. A. (2022). *Recoding power: tactics for mobilizing tech workers*. Oxford University Press. Chapter 1.

Week 6. The political consequences of AI

Zhang, B. (2023). Public Opinion toward Artificial Intelligence. In *The Oxford Handbook of AI Governance*. Oxford University Press.

Balcazar, C. F., Becher, M., and Stegmuller, D. (2024). Cosmopolitanism and distributive conflict in the age of AI: Theory and evidence from the advent of GPTs. *Mimeo Yale University*.

Optional readings:

Agrawal Ajay, Joshua Gans, A. G. (2019). *The Economics of Artificial Intelligence: An Agenda*. University of Chicago Press. Chapters 14 and 19.

Frey, C. B. (2019). *The Technology Trap*. Princeton University Press. Chapters 9-13.

Week 7. AI and discrimination

Mittelstadt, B. (2019). Principles alone cannot guarantee ethical ai. *Nature machine intelligence*, 1(11):501–507.

Ntoutsis, E., Fafalios, P., Gadiraju, U., Iosifidis, V., Nejdil, W., Vidal, M.-E., Ruggieri, S., Turini, F., Papadopoulos, S., Krasanakis, E., et al. (2020). Bias in data-driven artificial intelligence systems—an introductory survey. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, 10(3):e1356.

Optional readings:

Mehrabi, N., Morstatter, F., Saxena, N., Lerman, K., and Galstyan, A. (2021). A survey on bias and fairness in machine learning. *ACM Computing Surveys (CSUR)*, 54(6):1–35.

Heinrichs, B. (2022). Discrimination in the age of artificial intelligence. *AI & society*, 37(1):143–154.

Week 8. AI and authoritarianism

Bloom, P. (2023). *Authoritarian capitalism in the age of globalization*. Edward Elgar Publishing. Chapters 3, 4 and 5.

Beraja, M., Kao, A., Yang, D. Y., and Yuchtman, N. (2023). Ai-tocracy. *The Quarterly Journal of Economics*, 138(3):1349–1402.

Optional readings:

Dragu, T. and Lupu, Y. (2021). Digital Authoritarianism and the Future of Human Rights. *International Organization*, 75(4):991–1017.

Earl, J., Maher, T. V., and Pan, J. (2022). The digital repression of social movements, protest, and activism: A synthetic review. *Science Advances*, 8(10):1–16.

III. Technological change and global governance

Week 9. Global governance of technological change

Narula, R. (2014). *Globalization and technology: Interdependence, innovation systems and industrial policy*. John Wiley & Sons. Chapters 1 and 2.

Taylor, M. Z. (2016). *The politics of innovation: Why some countries are better than others at science and technology*. Oxford University Press. Chapters 1-4 and 7.

Optional readings:

Gilpin, R. and Gilpin, J. M. (2001). *Global political economy: Understanding the international economic order*. Princeton University Press. Chapter 6.

Milner, H. V. and Solstad, S. U. (2021). Technological Change and the International System. *World Politics*, 73(3):545–589.

Week 10. AI in a global governance perspective

Miaillhe, N. and Lannquist, Y. (2020). Global governance of artificial intelligence. *Handbook of Artificial Intelligence and Robotic Process Automation: Policy and Government Applications*, pages 23–30.

Taeihagh, A. (2021). Governance of artificial intelligence. *Policy and society*, 40(2):137–157.

Optional readings:

Dafoe, A. (2018). Ai governance: a research agenda. *Governance of AI Program, Future of Humanity Institute, University of Oxford: Oxford, UK*, 1442:1443.

Best, E., Robles, P., and Mallinson, D. J. (2024). The future of AI politics, policy, and business. *Business and Politics*, pages 1–9.

Week 11. Intellectual property rights

May, C. (2015). *The global political economy of intellectual property rights: The new enclosures*. Routledge. Introduction, chapters 1 and 5.

Hilty, R. M., Hoffmann, J., and Scheuerer, S. (2021). Intellectual Property Justification for Artificial Intelligence. In *Artificial Intelligence and Intellectual Property*. Oxford University Press.

Optional readings:

Li, S. (2021). Closing the institutional gap: Protecting technology in foreign direct investment. In *Academy of Management Proceedings*, volume 2021, page 16112. Academy of Management Briarcliff Manor, NY 10510.

O'Brien-Udry, C. and Pratt, T. (2021). Innovation and interdependence: The case of gene-editing technology. Technical report, Yale University.

IV. Digital trade and the statecraft of data localization

Week 12. International cooperation in digital trade governance

Weymouth, S. (2023). Digital globalization: Politics, policy, and a governance paradox. *Elements in International Relations*.

Ferracane, M. F. and van Der Marel, E. (2024). Governing personal data and trade in digital services. *Review of International Economics*.

Optional readings:

OECD (2023). *Handbook on measuring digital trade*. The International Monetary Fund, the Organisation for Economic Co-operation and Development, the United Nations and the World Trade Organization. Chapters 1 and 2.

Suh, J. and Roh, J. (2023). The effects of digital trade policies on digital trade. *World Economy*, 46(8):2383–2407.

Week 13. Statecraft through data localization

Oppenheimer, H. (2023). Weaponized interdependence and deglobalization: How the Snowden leaks shaped the internet's structure. *Mimeo Harvard University*.

Han, S. (2024). Data and statecraft: why and how states localize data. *Business and Politics*, pages 1–26.

Optional readings:

Chander, A. and Lê, U. P. (2014). Data nationalism. *Emory LJ*, 64:677.

Farrell, H. and Newman, A. L. (2019). Weaponized Interdependence How Global Economic Networks Shape State Coercion. *International Security*, 44(1):42–79.