POL 444: Global Catastrophic Risks

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Class	Office
Th 12:00-1:40	TuTh 3:00-4:00 or by appointment
Eliot 419	ETC 203
https://moodle.reed.edu/course/view.php?id=5191	http://alexmontgomery.com

Course Description and Goals

Half-credit course for one semester. This course investigates global catastrophic risks—challenges, some created by humans and others by nature—that have the potential to drastically alter human civilization, the planet, or life itself. Such "apocalyptic" risks include extreme climate change, ecological catastrophes, global pandemics, nuclear war, artificial intelligence, and asteroid impacts. The course will analyze these nascent Armageddons using a variety of theoretical perspectives including the precautionary principle, the social construction of risk, normal accidents theory, and concepts of high-reliability operations. Prerequisites: sophomore standing and Political Science 240 or Sociology 211, or consent of the instructor. Conference.

Learning Outcomes and Distribution Requirements

After successfully completing this class, a student will:

- learn the theoretical underpinnings of the study of global catastrophic risks;
- understand how different systems theories relate to each other and to the world;
- know how to apply systems theories to historical and contemporary events.

This course can be used towards your Group II, "History and Social Sciences," requirement. It accomplishes the following learning goals for the group:

- Analyze institutions, formations, languages, structures, or processes, whether social, political, religious, economic, cultural, intellectual or other.
- Think in sophisticated ways about causation, social and/or historical change, human cognition, or the relationship between individuals and society, or engage with social, political, religious or economic theory in other areas.

Along with any introductory POL course, this course also fulfills half of the History and Social Sciences divisional requirement for non-Political Science HSS students. For Political Science students, it counts as one of the four "additional" courses required and towards subfield depth in International Relations. It is also an ICPS course.

Requirements

Class Participation: Students are required to actively participate in the class; they will have the opportunity to do so both during and outside of class hours. Good participation involves—among other things—listening carefully to others, referring or responding to the previous speaker's comments while citing them by name, and asking questions in addition to or instead of making statements. There *is* such a thing as bad participation. This includes—but is not limited to—overriding others, dominating conversations, and conducting ad hominem attacks. Conflicts do arise in the classroom, and I expect you to engage with and resolve them as a learning opportunity in or after class; I am a resource for this. Participating includes reading carefully, posting memos before section, engaging in discussions during section, and continuing conversations after class.

Reading: Skim the piece before reading it – title, abstract, introduction, and conclusion. Try to get the basic argument. It is much better to get the basic argument of every piece than it is to read every word of one or two pieces. When you read a text, you should annotate it. Highlight or circle signposts, including causal questions, summaries, conclusions, assumptions, counterarguments, lists, and emphasis (See Amelia Hoover Green's article "How to Read Political Science"). When you are done, write up a short outline/summary of the piece for your own reference (See my handout on "How to write summaries after taking notes").

Before Class Memos: Starting the first week, every student will author a short (about 250-500 words) reaction memo. The memos are not meant to be summaries of the articles or books. Instead, they are intended to help you organize your ideas and to help situate the readings vis-a-vis each other for that day as well as the course thus far. Your memo should respond to the readings thoughtfully, and should include the following elements: a) a "wow" statement about an idea or ideas that you appreciated; b) some puzzles regarding ideas that you did not fully understand and/or a thoughtful critique of one or two particular arguments that you did not find persuasive and c) some unanswered questions or thoughts for discussion that arose while you were doing the reading. Please remember to address the collective assignment of readings by not focusing solely on just one reading or a subset throughout the entire memo. I will read them and return them to you at the start of class on Thursday - no need to bring a hard copy to class. They will not be given extensive comments and we will use an internal check, check plus/check minus grading scheme. Late memos will not be accepted. This should be turned in to the appropriate forum on the course website by 8 AM on Thursday.

During Section Discussion: Class will sometimes start with an interruptible mini-lecture on my part; only after we've covered the basics of the articles and how they relate to each other will we move to discussion. I do this to ensure that you understood the basic assumptions, mechanisms, and implications of each theory, and will consequently often contain a Socratic component. This is also a good time to ask questions! Sometimes this will take up almost the entire class period. This is another reason why I ask you to list puzzles in your memos so I can get a sense of where you are stuck or what you are interested in and incorporate that into the mini lecture part. As the class progresses and as we move from theory to practice, we will dedicate more time to the discussion portion of class. Sometimes we will not get to all of the readings or very far in the discussion. This is deliberate; you will still benefit from the context provided by those pieces even if we don't discuss them. If we miss something in class, you are most welcome to post (or re-post) your thoughts to Slack after the class. If you typically don't say much in class, posing thoughts or responding to others' contributions is a good way to demonstrate engagement.

After Class Conversations: There used to be a post-class Moodle general forum for the entire semester, but no one used it, so I've moved it to Slack instead. Please post any remaining questions and observations there for the class to answer/discuss. I will also participate. I also invite you to go there and continue the conversation that we started in class—or even to start a conversation there before class.

Makeups: If you miss a day of class for any reason whatsoever, you may make it up by posting a summary of each of the readings for that day to the relevant Moodle forum. In order to make up missed days from the first half of the semester, these must be posted before the first day of classes after the break; from the second half, by the end of reading period. If you are sick, do NOT come to class and spread it to the rest of us, even if you test negative for COVID. Instead, stay home, write your summaries up (which all of you should be doing every day in any case), and get better.

Readings: Readings for the course are drawn from books and E-Readings, the latter of which can be downloaded directly from the links on Moodle. These are best used in conjunction with Zotero, which is supported by the library. Students are expected to bring a copy of the readings to class every day for reference. Students who use laptops and tablets for notetaking learn less and do less well on assessments, and the mere presence of your smartphone reduces your available cognitive capacity; consequently, *laptops and cell phones are not permitted in class*, although tablet devices and convertible laptops may be used without a keyboard for the sole purpose of bringing the readings. Readings marked "Further" on the syllabus are other relevant articles or books; they are not required for class. Students who have a particular interest in the topics in question are encouraged to read these pieces and to incorporate them into their assignments.

Required

- Charles Perrow (1999) *Normal Accidents: Living with High-Risk Technologies*. New York, NY: Basic Books, 411, ISBN 0691004129
- Gene I. Rochlin (1998) *Trapped in the Net*. Princeton, NJ: Princeton University Press, 218, ISBN 9780691002477

Course Website

Frequent reading of the course website will be helpful for success in the class. Discussion and collaboration with your peers is available to you through the website as well as in class; supplemental and core readings will be made available there; and assignments will be turned in electronically using the site.

Assignments

There is one formal piece of work for this course: a final paper. A document explaining the final paper will be passed out in class. In general, I look for four things: A clear argument in the introductory paragraph, an explanation of the theories that you will be using, an illustration of your argument with direct examples, and a conclusion that discusses the implications of your findings. Please note that bibliographies are required and do count towards the word count.

Citation and Plagiarism: A major goal of this course is to encourage good reading, research, and citation habits. Good research requires good documentation of sources and the ability to put one's own analysis and thoughts into a paper rather than relying on others. When in doubt as to whether you should cite something, always do it. Citations are required for ideas as well as facts, and are imperative even if you are not directly quoting authors. Make sure that you provide as specific a citation as possible; if an author discusses an idea in one section or one page, cite the specific section or page instead of the full article or book. I usually recommend that students use in-text author-date citation with full Chicago Manual of Style citations; see their Citation Quick Guide: <http://www.chicagomanualofstyle.org/tools citationguide.html>.

However, style is less important than the cites being present. If you use an idea or a fact without attribution, you are plagiarizing someone else's work. Plagiarism and cheating are violations of academic integrity and thus violations of Reed's Honor Principle. As specified by Reed's academic conduct policy, such violations will result in disciplinary actions, including suspension or permanent dismissal from the College. Plagiarism is submitting a piece of work which in part or in whole is not entirely the student's own work without attributing those same portions to their correct source. For examples of plagiarism and how to avoid it, see <http://tinyurl.com/jdlrbd3>. If nothing else, you should avoid "sinister buttocks" syndrome. For more information on Reed's policies see:<http://www.reed.edu/academic/gbook/comm pol/acad conduct.html>.

Plagiarism often comes as the result of a student being up against a deadline without being able to meet it. If you are having trouble meeting a deadline for whatever reason, please contact me. Because every assignment is a paper that will be handed out well in advance, I have no problem giving extensions. It is always better to ask for more time than to plagiarize. When you ask for an extension, you should a)explain what events are causing you to miss the deadline (if academic, you don't need to tell me if personal) and b)request an amount of time proportional to the interfering events. You may ask for an extension up to, but not exceeding, the amount of time remaining for the assignment, except for cases of emergencies or unanticipatable circumstances.

Online "Learning Support" Platforms: All work submitted as your own, oral or written, must truly be your own, that is, the product of your own thinking, reading, interpretations, analyses, insight, creative efforts, speaking and writing, and not the work or product of another person or mechanism. Online "learning support" platforms, including AI Large Language Models such as ChatGPT, as well as online assignment help tools such as Chegg, cannot be used for course assignments except as explicitly authorized by the instructor. Using these platforms to write your papers, exams, lab or computer reports, or to generate presentations or discussion comments in this class is thus equivalent to plagiarism and will be treated as such. *None of this*

precludes discussing your work with other students, tutors, or professors, swapping outlines and paper drafts for editing, and so forth; in fact, you are encouraged to do so—and to thank them in your paper, just as we do in our articles.

The following actions are prohibited in this course absent explicit permission from the instructor:

- Submitting all or any part of an assignment prompt (e.g. a paper topic or exam question) to an online learning support platform;
- Incorporating any part of an AI generated response in an assignment;
- Using AI to brainstorm, formulate arguments, or template ideas for assignments;
- Using AI to summarize or contextualize source materials, review literatures or represent, review or synthesize others' work or contributions;
- Using AI to describe cases, fact situations, states of the world or to collect or generate data or evidence to contextualize or conduct analyses;
- Using AI to develop analytical approaches or models or to organize and interpret evidence or results of analyses;
- Using AI to outline or write papers, memos, presentations or parts of those;
- Submitting your own work for this class to an online learning support platform for iteration or improvement.

If you are in doubt as to whether you are using AI tools or an online "learning support" platform appropriately in this course, I encourage you to discuss your situation with me.

Support and Accommodations: As always, academic support workshops are available throughout the semester, including for Zotero; writing drop-in is available 7-10 PM Su–Th, and individual tutors can help with specific courses. If you'd like to request academic accommodations due to a disability, please contact Disability and Accessibility Services. As soon as they have sent out the Accommodation Notification Letter, schedule an appointment with me to discuss how those accommodations could apply to this course.

31-Aug: 01.Prediction, Catastrophe, and Risk (135 Pages)

- Nick Bostrom and Milan M. Ćirković (2011) Introduction. In Bostrom and Ćirković Global Catastrophic Risks. chapter 1, 1–29
- Ulrich Beck (1992) From Industrial Society to the Risk Society: Questions of Survival, Social Structure and Ecological Enlightenment. Theory, Culture, and Society. 9(1), 97–123 <http://dx.doi.org/10.1177/026327692009001006>
- Daniel W. Drezner (2015) Do Experts and the Public Think Differently about the Apocalypse? The Washington Post.March 13, 3 <http://www.washingtonpost.com/posteverything/wp/2015/03/13/d o-experts-and-the-public-think-differently-about-the-apocalypse/> – visited on 2015-04-01, ISSN 0190–8286
- Dennis Pamlin and Stuart Armstrong (2015) Global Challenges: 12 Risks that Threaten Human Civilisation – the Case for a New Category of Risks. February Global Challenges Foundation. Executive summary only (4-24) <https://www.pamlin.net/s/12-Risks-that-threaten-human-civilisation-GCF-Oxford-2015.pdf> – visited on 2015-04-01
- John Mecklin (2019) Special Issue: Apocalypse Soon? How Civilization Might End—and How to Make Sure it Doesn't. Bulletin of the Atomic Scientists. 75(6)November, 263–294 <http://dx.doi.org/10.1080/00963402.2019.1680045>, ISSN 0096–3402
- Alexander H. Montgomery and Amy J. Nelson (2020) The Rise of the Futurists: The Perils of Predicting with Futurethink. November <https://www.brookings.edu/research/the-rise-of-the-futurists-the-perils-of-predicting-with-futurethink/> – visited on 2020-11-30
- Montgomery, Alexander H. 2023. "Uncertainty and Its Discontents: Worldviews in World Politics. Edited by Peter J. Katzenstein. Cambridge: Cambridge University Press, 2022. 320p. 34.99 Paper." *Perspectives on Politics* 21 (2). Cambridge University Press: 793–95. doi:10.1017/S1537592723000063.
- Science and Security Board (2023) It is 90 Seconds to Midnight: 2023 Doomsday Clock Statement. January 24 Bulletin of the Atomic Scientists <https://thebulletin.org/doomsday-clock/current-time/>

Further

- Eliezer Yudkowsky (2011) Cognitive Biases Potentially Affecting Judgement of Global Risks. In Bostrom and Ćirković Global Catastrophic Risks. chapter 5, 91–119
- Milan M. Ćirković (2011) Observation Selection Effects and Global Catastrophic Risks. In Bostrom and Ćirković *Global Catastrophic Risks*. chapter 6, 120–145

07-Sep: 02.Complex Systems (191 Pages)

02.1.Nuclear Power (132 Pages)

- Charles Perrow (1999) Chap. Introduction, 1-3 In Perrow *Normal Accidents*, 3–101

Chernobyl

- E. Stang (1996) Chernobyl - System Accident or Human Error? *Radiation Protection Dosimetry*. 68(3-4)December, 197–201 <http://dx.doi.org/10.1093/oxfordjournals.rpd.a031864>, ISSN 0144–8420

Diablo Canyon

- Paul R. Schulman (1993) The Negotiated Order of Organizational Reliability. *Administration and Society*. 25(3)November, 353–372 <http://dx.doi.org/10.1177/009539979302500305>

Fukushima

- Charles Perrow (2011) Fukushima and the Inevitability of Accidents. *Bulletin of the Atomic Scientists*. 67(6)November/December, 44–52 <http://dx.doi.org/10.1177/0096340211426395>

Zaporizhzhia

- Amy J. Nelson and Chinon Norteman, "What to Do about the Zaporizhzhia Nuclear Power Plant," *Brookings: Order from Chaos* (blog) March 23, 2023, https://www.brookings.edu/articles/what-to-do-about-the-zaporizhzhia-nuclear-power-plant/..

Further

- Mathilde Bourrier (1996) Organizing Maintenance Work at Two American Nuclear Power Plants. *Journal of Contingencies and Crisis Management*. 4(2)June, 104–112 <http://dx.doi.org/10.1111/j.1468-5973.1996.tb00082.x>, ISSN 1468–5973
- Charles Perrow (2007) Are Terrorists as Dangerous as Management? The Nuclear Plant Threat. In The Next Catastrophe: Reducing Our Vulnerabilities to Natural, Industrial, and Terrorist Disasters. Princeton, NJ: Princeton University Press, ISBN 0691129975. chapter 5, 133–173
- M. V. Ramana (2011) Beyond Our Imagination: Fukushima and the Problem of Assessing Risk. April 19 Bulletin of the Atomic Scientists website <http://thebulletin.org/web-edition/features/beyond-our-imagination-fukushima-and-the-problem-of-assessing-risk>
- James M. Acton and Mark Hibbs (2012) Why Fukushima Was Preventable. March Carnegie Endowment for International Peace <http://carnegieendowment.org/files/fukushima.pdf> – visited on 2014-04-30
- James Mahaffey (2014) Atomic Accidents: A History of Nuclear Meltdowns and Disasters: From the Ozark Mountains to Fukushima. In Mahaffey Atomic Accidents, 357–375
- James Mahaffey (2014) Tragedy at Fukushima Daiichi. In Mahaffey Atomic Accidents. chapter 10, 376–403
- Jeva Lange (2015) America's Nuclear Power Plants Use Passwords like '1234'. October 5 TheWeek <https://theweek.com/speedreads/581374/americas-nuclear-power-plants-use-passwords-like-1234> – visited on 2020-01-03

02.2.Managing Complexity (55 Pages)

- Karl E. Weick (1987) Organizational Culture as a Source of High-Reliability. *California Management Review*. 29(2) Winter, 112–127
- Karlene H. Roberts (1990) Managing High Reliability Organizations. California Management Review. 32(4), 101–113 <http://www.proquest.com/docview/215882454/abstract/9E9672491ACD40B4PQ/1> – visited on 2021-06-01, ISSN 00081256
- Robert Jervis, "Complexity and the Analysis of Political and Social Life," *Political Science Quarterly*, Vol. 112, No. 4 (1997), pp. 569–593, doi:10.2307/2657692.

Further

- Todd R. La Porte and Paula M. Consolini (1991) Working in Practice but Not in Theory: Theoretical Challenges of "High-Reliability Organizations". *Journal of Public Administration Research and Theory*. 1(1)January, 19–48 <http://www.jstor.org/stable/1181764>

- Gene I. Rochlin (1993) Defining "High Reliability" Organizations in Practice: A Taxonomic Prologue. In Karlene H. Roberts, editor *New Challenges to Understanding Organizations*. New York, NY: Macmillan, ISBN 0024020524. chapter 2, 11–32
- Yacov Y. Haimes (2011) Systems-Based Risk Analysis. In Bostrom and Ćirković *Global Catastrophic Risks*. chapter 7, 146–163
- Robert Jervis (1997) System Effects: Complexity in Political and Social Life. In Jervis *System Effects*, 1–295
- John M. Murray (2021) *Future Operational Environment: Forging the Future in an Uncertain World 2035-2050*. Army Futures Command 525-2 AFC Pamphlet, 19 pages <https://apps.dtic.mil/sti/citations/AD1128552> – visited on 2021-08-11

14-Sep: 03.Computing (137 Pages)

03.1.Computerization (74 Pages)

- Gene I. Rochlin, "Trapped in the Net" (Princeton, NJ: Princeton University Press, 1998), pp. 1–73.

03.2.Cyber (63 Pages)

- Brent Kesler, "The Vulnerability of Nuclear Facilities to Cyber Attack," *Strategic Insights*, Vol. 10, No. 1 (Spring 2011), pp. 1–11.
- Andy Majot and Roman Yampolskiy, "Global Catastrophic Risk and Security Implications of Quantum Computers," *Futures*, Confronting Future Catastrophic Threats To Humanity, Vol. 72 (September 2015), pp. 17–26, doi:10.1016/j.futures.2015.02.006.
- Pavel Sharikov, "Artificial Intelligence, Cyberattack, and Nuclear Weapons—A Dangerous Combination," *Bulletin of the Atomic Scientists*, Vol. 74, No. 6 (November 2018), pp. 368–373, doi:10.1080/00963402.2018.1533185.
- Jacquelyn Schneider, Benjamin Schechter, and Rachael Shaffer, "Hacking Nuclear Stability: Wargaming Technology, Uncertainty, and Escalation," *International Organization* August 2023, pp. 1–35, doi:10.1017/S0020818323000115.

Further

- Dana A. Shea, "Critical Infrastructure: Control Systems and the Terrorist Threat," CRS Report (Congressional Research Service, January 20, 2004).
- Richard A Clarke and Robert K Knake, *Cyber War: The Next Threat to National Security and What to Do about It* (New York: Ecco, 2010), http://www.worldcat.org/oclc/506247862.
- Cordula Droege, "Get off My Cloud: Cyber Warfare, International Humanitarian Law, and the Protection of Civilians," *International Review of the Red Cross*, Vol. 94, No. 886 (2012), pp. 533–578, doi:10.1017/S1816383113000246.
- Kamal T. Jabbour and E. Paul Ratazzi, "Deterrence in Cyberspace," in Adam Lowther, ed., *Thinking about Deterrence: Enduring Questions in a Time of Rising Powers, Rogue Regimes, and Terrorism* (Maxwell Air Force Base, AL: Air University Press, 2013), pp. 37–47.
- Lucas Kello, "The Meaning of the Cyber Revolution: Perils to Theory and Statecraft," *International Security*, Vol. 38, No. 2 (October 2013), pp. 7–40, doi:10.1162/ISEC_a_00138.
- Jon R. Lindsay, "Stuxnet and the Limits of Cyber Warfare," *Security Studies*, Vol. 22, No. 3 (2013), pp. 365–404, doi:10.1080/09636412.2013.816122.
- Richard Danzig, "Surviving on a Diet of Poisoned Fruit: Reducing the National Security Risks of America's Cyber Dependencies," http://www.cnas.org/surviving-diet-poisoned-fruit.
- Dan Goodin, "Hack Said to Cause Fiery Pipeline Blast Could Rewrite History of Cyberwar," http://arstechnica.com/security/2014/12/hack-said-to-cause-fiery-pipeline-blast-could-rewrite-history-of-cyberwar/.
- Peter W. Singer and Allan Friedman, "Cult of the Cyber Offensive," *Foreign Policy*, p. 11.
- Heather M. Roff, "Deterrence in Cyberspace and the OPM Hack," http://duckofminerva.com/2015/06/deterrence-in-cyberspace-and-the-opm-hack.html.
- Heather M. Roff, "It's the Biggest National Threat and We Can't Help You," http://duckofminerva.com/2015/04/its-the-biggest-national-threat-and-we-cant-help-you.html.
- U.S. Department of Defense, "The (DOD) Cyber Strategy," http://www.defense.gov/home/features/2015/0415_cyber-strategy/.
- James A. Winnefeld Jr., Christopher Kirchhoff, and David M. Upton, "Cybersecurity's Human Factor: Lessons from the Pentagon," *Harvard Business Review*, p. 18.

21-Sep: 04.Market and Political Collapses (206 Pages)

04.1. Market Collapse (99 Pages)

- Gene I. Rochlin (1998) Chap. 5-6 In Rochlin Trapped in the Net, 74–107
- Peter Taylor (2011) Catastrophes and Insurance. In Bostrom and Ćirković Global Catastrophic Risks. chapter 8, 164–183
- Mauro F. Guillén and Sandra L. Suárez (2010) The Global Crisis of 2007–2009: Markets, Politics, and Organizations. In Lounsbury and Hirsch Markets on Trial: The Economic Sociology of the U.S. Financial Crisis: Part A, 257–279 <https://www.emerald.com/insight/content/doi/10.1108/S0733-558X(2010)000030A012/full/html> – visited on 2021-06-07
- Charles Perrow (2010) The Meltdown Was Not an Accident. In Lounsbury and Hirsch Markets on Trial: The Economic Sociology of the U.S. Financial Crisis: Part A, 309–330

Further

- Anke Müssig (2009) The Financial Crisis: Caused by Unpreventable or Organized Failures? *International Journal of Economic Sciences and Applied Research*. 2(1), 51–70
- Donald Palmer and Michael Maher (2010) A Normal Accident Analysis of the Mortgage Meltdown. In Lounsbury and Hirsch *Markets on Trial: The Economic Sociology of the U.S. Financial Crisis: Part A*, 219–256
- <https://doi.org/10.1108/S0733-558X(2010)000030A011> – visited on 2021-06-07
- Donald Palmer and Michael W. Maher (2010) The Mortgage Meltdown as Normal Accidental Wrongdoing. *Strategic Organization*. 8(1)February, 83–91 <http://dx.doi.org/10.1177/1476127009355368>. Publisher: SAGE Publications, ISSN 1476–1270
- Marc Schneiberg and Tim Bartley (2010) Regulating or Redesigning Finance? Market Architectures, Normal Accidents, and Dilemmas of Regulatory Reform. In Lounsbury and Hirsch *Markets on Trial: The Economic Sociology of the U.S. Financial Crisis: Part A*, 281–307 <https://www.emerald.com/insight/content/doi/10.1108/S0733-558X(2010)000030A013/full/html> – visited on 2021-06-07

04.2. Political Collapse (107 Pages)

- Robin Hanson (2011) Catastrophe, Social Collapse, and Human Extinction. In Bostrom and Ćirković *Global Catastrophic Risks*. chapter 17, 363–380
- Bryan Caplan (2011) The Totalitarian Threat. In Bostrom and Ćirković *Global Catastrophic Risks*. chapter 22, 504–519
- Sheri Berman et al. (2018) A Discussion of Steven Levitsky and Daniel Ziblatt's How Democracies Die. *Perspectives on Politics*. 16(4)December, 1092–1104 <http://dx.doi.org/10.1017/S1537592718002852>. Publisher: Cambridge University Press, ISSN 1537–5927, 1541–0986
- Steven Levitsky and Daniel Ziblatt (2018) How Democracies Die. In Levitsky and Ziblatt *How Democracies Die*, 1–32
- Steven Levitsky and Daniel Ziblatt (2018) How Democracies Die. In Levitsky and Ziblatt *How Democracies Die*, 204–231

Further

- Charles Tilly (1999) War Making and State Making as Organized Crime. In Theda Skocpol, Peter Evans and Dietrich Rueschemeyer, editors *Bringing the State Back in*. Cambridge. chapter 5, 169–191
- Carl Schmitt (2005) Chap. 1-2 in Political Theology: Four Chapters on the Concept of Sovereignty. Chicago: University of Chicago Press, 6–35, ISBN 9780226738895
- Carl Schmitt (2008) The Concept of the Political: Expanded Edition. In *The Concept of the Political: Expanded Edition*. University of Chicago Press, 19–79

28-Sep: 05.Autonomous Weapons (218 Pages)

- Gene I. Rochlin, "Trapped in the Net" (Princeton, NJ: Princeton University Press, 1998), pp. 108–209.
- Heather M. Roff, "Autonomous or `Semi' Autonomous Weapons? A Distinction Without Difference" January 16, 2015, http://www.huffingtonpost.com/heather-roff/autonomous-or-semi-autono_b_6487268.html.
- Heather M. Roff, "Meaningful Human Control or Appropriate Human Judgment? The Necessary Limits on Autonomous Weapons" (Review Conference of the Convention on Certain Conventional Weapons (CCW), Geneva, 2016).

- Paul Scharre, "Army of None: Autonomous Weapons and the Future of War" (W. W. Norton & Company, 2018), pp. 143–202.
- U.S. Department of Defense, "DOD Adopts Ethical Principles for Artificial Intelligence" February 24, 2020, https://www.defense.gov/News/Releases/Release/Article/2091996/dod-adopts-ethical-principles-for-artificial-intelligence/.
- Matthijs M. Maas, Kayla Lucero-Matteucci, and Di Cooke, "Military Artificial Intelligence as a Contributor to Global Catastrophic Risk," in S. J. Beard et al., ed., *The Era of Global Risk: An Introduction to Existential Risk Studies* (Open Book Publishers, 2023), pp. 237–284, doi:10.11647/obp.0336.

Further

- Chris C. Demchak, "Tailored Precision Armies in Fully Networked Battlespace: High Reliability Organizational Dilemmas in the `Information Age'," *Journal of Contingencies and Crisis Management*, Vol. 4, No. 2 (June 1996), pp. 93–103, doi:10.1111/j.1468-5973.1996.tb00081.x.
- Ronald C. Arkin, "The Case for Ethical Autonomy in Unmanned Systems," *Journal of Military Ethics*, Vol. 9, No. 4 (December 2010), pp. 332–341, doi:10.1080/15027570.2010.536402.
- Eliezer Yudkowsky, "Artificial Intelligence as a Positive and Negative Factor in Global Risk," in Nick Bostrom and Milan M. Ćirković, ed., *Global Catastrophic Risks* (Oxford University Press, 2011), pp. 308–345.
- Ian Kerr and Katie Szilagyi, "Asleep at the Switch," *How Lethal Autonomous Robots Become a Force Multiplier of Military Necessity. Miami: University of Miami School of Law* 2012, p. 39.
- Kenneth Anderson and Matthew C. Waxman, "Law and Ethics for Autonomous Weapon Systems: Why a Ban Won't Work and How the Laws of War Can," SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, April 10, 2013), http://papers.ssrn.com/abstract=2250126.
- Heather M. Roff, "The Strategic Robot Problem: Lethal Autonomous Weapons in War," *Journal of Military Ethics*, Vol. 13, No. 3 (2014), pp. 211–227, doi:10.1080/15027570.2014.975010.
- Michael Horowitz and Paul Scharre, "An Introduction to Autonomy in Weapon Systems" February 13, 2015, http://www.cnas.org/intro-to-autonomy-in-weapon-systems.
- Heather M. Roff, "Lethal Autonomous Weapons and Jus Ad Bellum Proportionality," *Case Western Reserve Journal of International Law*, Vol. 47, No. 1 (April 2015), pp. 37–52.
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