Harvard Kennedy School of Government

DPI-207/ DES-3479/ Phil 166T

Philosophy of Technology: From Marx and Heidegger to Artificial Intelligence, Genome Editing, and Geoengineering

Fall 2023

(Version of December 12, 2023)

Instructor:

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Class:

Monday/Wednesday, 10:30-11:45 am

Location:

Starr Auditorium

Office Hours:

Sign up for Tuesdays 4.30 â€“ 6 pm, in person (encouraged) or by zoom

Review Session:

Friday 1:30-2:45 pm (L230), plus one more TBD

Teaching Fellow:

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OVERVIEW

Technology shapes how power is exercised in society, and thereby also shapes how the present changes into the future. Technological innovation is all around us, and new possibilities in fields like artificial intelligence, genome-editing and geoengineering not only reallocate power, but might transform human life itself considerably, to the point of modifying the essence of what it is to be human. While ethical

considerations enter prominently, the philosophy of technology is broader than its ethics. It aims to interpret and critically assess the role of technology for human life and guide us to a more thoughtful integration of technology in our individual lives and in public decision making. This course aims to teach you to do just that, starting with basic stances and key figures in the field and then progressing towards a number of challenges around specific types of technology as they arise for the 21st century. At times it is tech optimism that dominates these debates (sometimes even techno-boosterism that sees technology as key to heaven on earth), at other times it is more low-spirited attitudes from Romantic uneasiness to doom-and-gloom Luddism and technology-bashing. A closer look at these attitudes â€“ alongside reflection on how technology and power are intertwined â€“ will help generate a more skeptical attitude towards all of them and contribute to more level-headed debates, which are badly needed.

CROSS-REGISTRATIONS

This class is registered at the Harvard Kennedy School, at the Harvard Graduate School of Design, and also at Harvard College â€“ and the expectation is that, as in previous years, the quality and content of the class discussions will greatly benefit from the presence of students from different schools. Students at those schools should enroll under their respective course number. Others should register under the HKS version of this course, and thus will technically need to submit a petition. At the beginning of the semester it will take several days of processing in the HKS Registrarâ€™s Office to clear the petitions â€“ but email confirmation from the instructor means you will get enrolled. We have been assigned a fairly large classroom, so it should be possible to accommodate everyone.

REQUIREMENTS AND EVALUATION

Participation in Class and in Sections

You are expected to attend every class prepared to discuss the materials of the day. You should participate in class discussions and contribute in ways that clarify your thoughts, engage othersâ€™ insights, and propel the conversation forward. Absences will officially be excused only for medical or family emergencies and for religious holidays. Please schedule interviews, ordinary medical appointments, other academic events and all other business around the classes. It is understood that this is not always possible, and if it only happens on a few occasions it will not hurt your standing in this class, but in such cases you cannot be officially excused. You are expected to attend the entirety of each class, so please schedule other courses in a way that allows you to be at each session for its duration.

I will have an agenda for each session and will pursue certain learning goals with the assistance of a power point presentation that will be made available to you. The design of the sessions will vary, but the presentation is the starting point for conversations that will occur both with the group as a whole and in small groups. Participation is greatly encouraged (and I will be prepared for conversations to go into directions that he had not planned on).

There will be sections. Attending sections is required. For this class experience has shown that students get more out of it if they attend section regularly, and the best way of making that happen is to make the sections mandatory. If attending section causes great strains on a studentâ€™s schedule and thus might make it otherwise impossible for this student to attend the class, we can make an exception to this requirement, but this should be the case only in rare circumstances. Participation (which includes attendance and the quality and quantity of contributions) in class and section combined counts for 20% of the grade.

Students are also encouraged to follow the Carr Centerâ€™s series â€œToward Life 3.0,â€ which will feature speakers on a variety of ethical and human rights-related issues arising around technological innovation and generally to have on their radar that the Carr Center does a fair amount of work in this space.

Every member of the Harvard community brings unique life experiences and perspectives into our classes and campus life. As schoolmates, we enrich each other's academic and social experiences by being appreciative of everyoneâ€™s distinctive contributions. Please express your ideas and share your personal experiences related to anything we cover in class as we journey together. Do reach out if you have ideas or concerns for enhancing inclusion. If you have concerns or reservations about your willingness or ability to contribute in class, please arrange to meet with during office hours to discuss strategies that advance your learning and growth. Please consider sharing your pronouns and proper pronunciation of your name. Do feel empowered to remind us â€“ **and overall, do feel empowered to make this your class!**

Class Reflections

All students are expected to submit brief reflections on the material of the classes (no more than 200 words). These reflections are due by 9 pm of the day before each class (and since one such day is a Sunday, you are much encouraged to submit them earlier). The submission system is set up in such a way that it will not accept late submissions. This input will be helpful for me to structure the sessions (and create incentives for you to engage with the material). These submissions will each be graded check minus/check/check plus (1, 2, 3 points) and in the end, be transformed into a component grade (where an A would be given if most of these submissions received a check plus). A check plus (3 points) is for a reflection that includes your own thoughts (think of two or three insightful observation about the assigned readings, but it could also be done in other ways), rather than just a summary of what is in the readings. A check (2 point) is a reflection that is mostly a summary. A check minus is a reflection that falls below the standard of an accurate summary. **You are expected to submit twelve of these â€“ and cannot receive a passing grade for the class unless you do so**. This is not a demanding requirement, as it basically involves posting such reflections once a week. But we will not offer the option of making up for missed reflections at the end of the semester, so please make sure you are on top of them throughout. If students submit more than twelve of them, the lowest-graded ones will be removed in the end. These reflections count for 15% of the grade.

Written Assignments

Papers will be take-home exercises with a prompt given to students a week ahead of when they are due. There are two papers that must be submitted for this course. Each is to be 1,000 words; the first will count for 15% of the final grade and the second for 20%. Late assignments will be penalized.

Paper One Due Date: **Wednesday, October 11 (noon); topics to be given out by Monday, September 25)**

Paper Two Due Date: **Wednesday, November 15 (noon); topics to given out by Wednesday, November 1**

General directions detailing expectations and best practices re. paper writing will be provided. The papers will be graded for clarity, structure and cogency of the reasoning. The final exam will consist of essay questions that are to be answered in no more than 2,000 words in total. It counts for 30% of studentsâ€™ final grade. The final exam is take-home, and topics will be posted by Monday, November 20**.** It will be due by 11:59 pm on Friday, December 15. Details will be provided during the semester. Please note that we give you plenty of time for each assignment â€“ but for that reason will also be reluctant to give you extensions unless there is a very good reason. Please plan ahead: there is no obligation to wait to write a paper until closely before the deadline.

Office Hours

It is strongly suggested that students avail themselves of the opportunity to discuss course material and assignments during office hours â€“ and more generally, students are very much encouraged to build a relationship with the members of the teaching team. Office hours are not, however, opportunities to obtain information missed during absences from class. Such material should be obtained from classmates.

Use of Electronic Devices

Cell phones are not permitted in class, unless explicitly permitted. Laptops may be used only for taking notes. Students enrolled in this course must commit to a respectful and collaborative learning environment. In that spirit, please do not aim to secretly exempt yourself from this policy. It is challenging to have a balanced policy on electronic devices these days. On the one hand students should be able to make use of their devices during class to the extent that these devices aid with learning. On the other hand, electronic devices create distractions - not only for those who immediately use them, but also for class participants around them. Please use your devices wisely, that is, in ways that contribute to a high-quality learning atmosphere in class (and be self-critical about what does).

ACCESSIBILITY & ACCOMMODATIONS FOR STUDENT LEARNING

HKS is committed to full inclusion of students with disabilities (learning, mental health related, physical, chronic illness, temporary injury, etc.). HKS provides accommodations and support to students with documented disabilities on a case-by-case basis. If you have a disability, or might have a disability and would like to receive accommodations for your learning, you must disclose and provide medical documentation to Melissa Wojciechowski St. John, the Senior Director of Student Services and local disability coordinator in the Office of Student Services. She can talk to you about your needs and assist in the process of implementing accommodations. Because accommodations may require planning and

generally cannot be provided retroactively, you should contact her as soon as possible.

ACADEMIC INTEGRITY

Students must observe Kennedy School and Harvard University rules regarding the citation of sources. Any sentences or paragraphs taken verbatim from the writing of (or interviews with) any other person or persons, or from your own writing that has been published elsewhere, must be placed in quotation marks and their source must be clearly identified. Changing the wording of a sentence or passage slightly does not evade the requirement for citation. Indeed, whenever you are drawing an important argument or insight from someone else, even if you reword it into your own words, a reference to the source is required. Including material from others in the assignments without appropriate quotation marks and citations is regarded, as a matter of School and University policy, as a serious violation of academic and professional standards and can lead to a failing grade in the course. Please see the following links for more specific guidelines and citation instructions.

Link to the HKS Website on Academic Integrity

Link to the Harvard Guide to Using Sources

If you have any questions about how to interpret the requirements regarding academic integrity for a particular assignment, please ask the instructor.

POLICY ON USE OF GENERATIVE AI FOR COURSEWORK

Generative Artificial Intelligence (AI) will likely influence the way you work in your future careers. We encourage you to spend some of your time at Harvard learning to use this powerful new tool to work more productively and learn more effectively.

For your academic work, generative AI can help you learn but it can also hinder your development. You could use this technology to complete class assignments while doing little work yourself, but doing so would rob you of the learning experiences you came to Harvard for. Working through the course assignments will help you develop your thinking and skills, a key goal of education. At its best, generative AI can be like an instructor with unlimited time to work with you one-on-one. This virtual instructor should be used to help you learn but not to do the work for you.

The three guidelines below are designed to help you use generative AI to get the most out of your HKS experience.

1. It is generally acceptable to use generative AI for finding information and for solidifying your knowledge of the course content. For instance, it is fine to use AI-powered web search and to have â€œconversationsâ€ with tools like ChatGPT to help you explore ideas, refine your thinking, identify examples, and better understand the course material. However, unless otherwise specified, it is a violation of the HKS Academic Code to incorporate into your coursework text produced predominantly by generative AI â€” similar to copying from a book or article. For example, it would be inappropriate to simply rewrite a draft generated by AI.

2. Generative AI can produce false or misleading information. You are ultimately responsible for the accuracy of any work you submit.

3. Given the range of learning goals at Harvard, individual instructors may create course-specific policies that differ from these general guidelines. If you have any doubt about whether a specific use of generative AI is permitted for an assignment or course, you should discuss it with your instructor prior to using it.

READING MATERIALS

As it happens, the state of the art in philosophy of technology is captured well by Mark Coeckelberghâ€™s *Introduction to Philosophy of Technology* (Oxford University Press, 2020) and the 2014 anthology on *Philosophy of Technology,* edited by Robert Scharff and Val Dusek (referred to below as â€œSDâ€). These two books are required purchases, available to order in hard copy or ebook format at the Harvard Coop: https://tinyurl.com/Place-Fall-Book-Order-Here. In addition, the following books are recommended (and their purchase is voluntary) as supplementary introductory discussions of the philosophy of technology: Val Dusek, *Philosophy of Technology: An Introduction* (Blackwell Publishing, 2006), and Peter-Paul Verbeek, *What Things Do: Philosophical Reflections on Technology, Agency, and Design* (Penn State University Press, 2005). The latter title is available via Project Muse. Dusekâ€™s book is the more introductory.

SYNOPSIS

This class progresses from foundational discussions (largely grounded in two philosophical traditions known as phenomenology and critical theory, which have dominated the debates in the philosophy of technology all along) via an extensive exploration of issues at the nexus of technology, knowledge and power to more applied and practical questions about architecture, design, digitalization and artificial intelligence, gene-editing, and geoengineering.

Class 1: Introduction - Thinking about Technology

PART I: Technoskepticism and Beyond (3 sessions)

(Class 2: Lewis Mumford and the Megamachine; Class 3: Martin Heideggerâ€™s â€œQuestion Concerning Technology;â€ Class 4: Overcoming Technoskepticism - Technology as Mediator)

Part II: Critical Theory and Technology (3 sessions)

(Class 5: Technology and the Critique of Capitalism â€“ Karl Marx; Class 6: Technology and the Critique of Capitalism Beyond Marx; Class 7: Sheila Jasanoff on Coproduction and Sociotechnical Imaginaries)

PART III: TECHNOLOGY, KNOWLEDGE AND POWER (8 sessions)

(Class 8: Knowledge and Power -- Michel Foucault; Class 9: Knowledge and Power -- Langdon Winner; Class 10: Walter Benjamin on Mechanical Reproduction; Class 11: Technology and Gender Roles; Class 12: At the Intersection of Feminism and Posthumanism - Donna Haraway; Class 13: Another Posthumanism: Bruno Latour on Actor-Network Theory; Class 14: Race and Technology; Class 15: Afrofuturism)

PART IV: ARCHITECTURE AND DESIGN (3 sessions)

(Class 16: The Ethics of Design; Class 17: Walter Benjamin on Architecture, Distraction and Phantasmagorias; Class 18: Securing Democratic Access to Public Spaces - Analog and Digital)

PART V: CONTEMPORARY CHALLENGES (7 sessions)

(Class 19: The Digital Age and on Towards Life 3.0; Class 20: Deepfake Technology; Class 21: Data and the Future; Classes 22/23: Genetic Engineering and Transhumanism; Classes 24/25: Climate Change and Geoengineering)