PH 114B: Topics in Ethics—Technology Ethics

Course Instructor: Jordan Kokot
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Office Hours: By Appointment

Course Dates: July 10 – Aug. 11, 2023
Zoom: https://brandeis.zoom.us/j/7710565596
Course Time: Tu/W/Th 1:50 – 4:20

Course Description

From TikTok to Meta, and from CRISPR to digital gamification, Extended Reality, and the struggle against climate change, dramatic advances in technology are shaping our world and our lives like never before. This course investigates the moral, social, and political implications of these and other new technologies. How should we understand privacy and surveillance in the age of metadata? Will emerging biotechnologies and life-tracking metrics allow us to re-engineer humanity? Should we edit our genes or those of our children to extend human lives and enhance human abilities? Can geoengineering resolve the climate crisis? How will AI and robotics change the work world? Can machines be "conscious" and what would it mean if they can? Will AI help us reduce bias and combat bigotry, or make things worse? What does the explosion of social media mean for human agency? How can we live an act in meaningful ways in a world increasingly dominated by technological and capital forces?

This course will explore how technology and our attitudes towards it are transforming who we are, what we do, how we make friends, care for our health, and conduct our social and political lives. In doing so, we will also investigate fundamental philosophical and ethical questions about agency, integrity, virtue, "the good," and what it means to be human in an uncertain and shifting world.

Writing Intensive Course Statement

This is a writing intensive course. As such, it incorporates multiple assignments designed to assist students with developing the necessary skills for writing effectively within the humanities, specifically, philosophy. Students will engage different forms of writing — short reflective responses, annotated bibliographies, extended abstracts, close readings, and research papers — and will have opportunities to workshop, revise, and receive feedback on their work throughout the semester. One of the aims of the course is to investigate writing as a mode of learning.

Course Outline

This course is designed to introduce you to the topic of Technology Ethics, or "Tech Ethics." 'Tech Ethics' refers to both a dedicated field of academic philosophical research that encompasses a broad array of questions and dilemmas engendered by the development of modern technologies, and to the ethical elements of the even broader social and political conversation that has arisen around emerging technologies. Consequently, for the bulk of the semester, we will alternate between investigating contemporary ethical

dilemmas through concrete real-world case studies and reading recent academic articles and papers to help clarify and the ethical and philosophical issues involved in those cases.

As an accelerated course, we will focus on four critical areas of Tech Ethics research—Digital Worlds, Artificial Intelligence, Social Media, and Biomedical Technology. before we can directly engage with real-world technologies and dilemmas, we will first need to lay some groundwork. In week one (**Ontology & Ethics of Technology**) we will begin by discussing, a) the "ontology of technology," (what *is* technology) b) some of the basic principles of ethical theory, and c) how we might conceptualize the "relationship between" technology and its human creators and users.

In week two (**Digital Worlds**), we will explore technology's fascinating capacity to create, mix, and deploy "digital worlds" through VR, AR, and XR. We will also discuss the rise of the metaverse and ethics in virtual environments.

In week three (**AI, Privacy, and Surveillance**) we will investigate the relationship between artificial intelligence, big data, surveillance technologies, and power. Topics will include algorithmic justice, ChatGPT, and Surveillance Capitalism.

In our fourth week (**Social Media & Deep Fakes**), we will pivot slightly to discuss social media impacts our private and public discourse. We will talk about filters and how they impact our experience of the world and each other, social media gamification, deep fakes, and the technologies of fake news.

In our last week, (**Biomedical Technology**) we will take on the issue of both technological and genetic enhancement. We will ask "How does technology (re)shape who we are and how we relate to ourselves and to others?" In doing so, we will discuss Digital and Biological "Transhumanism," Neuralink, CRISPR, and other "enhancement" technologies technological encounters with death and transcendence.

Along the way, we will work to develop standards of good argumentation and dialogue, practice careful reading, and try our hands at philosophical writing. Our goal is to develop a small community of curious and supportive minds who can help each other grow as learners, writers, and thinkers. In leaving this class, you should feel better prepared to engage with your peers about some of the most difficult questions, not just of our time, but of all times.

In addition to the assigned readings, your learning will be scaffolded by a series of short exercises and assignments designed to help you develop careful reading skills, ask powerful questions, and practice moral and philosophical reasoning. These exercises will be assigned on a roughly daily basis. You will also be asked at to "take point" for one of our discussions this semester on a topic and article of your choosing. You will be responsible for leading your classmates through a guided discussion, which may involve some additional reading and preparation. Finally, your main assignment for the semester will be to develop a research project of your own on one of the topics of the class. Starting in week two, you will be asked to submit a series of preparatory documents (including an annotated bibliography and a research proposal) in preparation to either write a mid-length (~10-15 page) paper. These projects may be collaborative, though the final product will be your responsibility. Depending on time constraints, we may compile our work into an online class journal (you can see examples of journals from previous classes here: www.techandethics.com)

Note that, as a small summer course, this class will be taught primarily as a tutorial. While we will have daily class readings and topics, the bulk of the work of the course is dedicated to your research and project. As such, you will be required to meet with me one on one during the second week of class to discuss your project.

This class is only an introduction. Every topic we touch on in this course is the subject of its own dedicated field of inquiry with an expansive existing literature! It is my hope that this class will be a doorway for further and deeper thinking for all of you.

Course Objectives

You will develop your abilities to:

- Engage competently with difficult ethical questions prompted by emerging technologies.
- Craft responsible, considered, and well-structured arguments.
- Express yourself orally and converse thoughtfully about complex ideas.
- Gain competency in the general landscape of academic tech ethics, broadly construed.
- Grow as a thinker, learner, reader, and communicator.
- Develop a research interest in one or more area of Tech Ethics.

Schedule of Topics

Please note that this schedule is liable to change depending on student interest and time constraints.

Week 1 (7/10): Ontology and Ethics of Technology
        Day 1: What is Technology?
        Day 2: What is Technology (cont.)?
        Day 3: Ethics and Technology

Week 2 (7/17): Digital Worlds
        Day 4: The Experience Machine & Avatars
        Day 5: VR/XR/AR
        Day 6: Into the Metaverse

Week 3 (7/24): AI, Privacy, & Surveillance
        Day 7: AI and ChatGPT
        Day 8: Algorithmic Justice
        Day 9: Privacy, Surveillance, & Capitalism

Week 4 (7/31): Social Media & Deep Fakes
        Day 10: Social Media, Metrics, & Power
        Day 11: Deep Fakes & Fake News
        Day 12: Filters, Avatars, & the Metaverse

Week 5 (8/7): Biomedical Technologies
        Day 13: Enhancement & Healing (an overview)
        Day 14: Genetic Engineering
        Day 15: Neuralink, Death, & Transcendence

Course Handbook

Instructional Format, Course Pedagogy, and Approach to Learning

This course will be offered in a mixed tutorial/discussion format. While I will occasionally lecture, most of the content and value of the course will come from classroom roundtable discussions, group activities, and research projects. I firmly believe that learning, especially philosophical learning involves a strong dialectical component.

Consequently, there will be a strong emphasis on communitarian approaches to thinking and learning, significant outside reading requirements, and the (well founded) assumption that we all have something important and interesting to bring to the conversation. We learn from each other, not in isolation, and so we will together endeavor to cultivate a classroom ethic of respect and community.

Books and Other Course Materials

All course materials will be available through the class Perusall site. I encourage you to take active notes on your readings either by printing them or using an e-reader with annotation functions. We will occasionally use Perusall to share comments.

You should refer to the syllabus, which will be updated periodically, for the schedule of readings.

Additional Resources: Finding reliable information about philosophy online can be tricky. I highly recommend the following sites:

The Stanford Encyclopedia of Philosophy: https://plato.stanford.edu/
The Internet Encyclopedia of Philosophy: https://www.iep.utm.edu/

I have also included an "Additional Resources" folder for each week on Perusall. In addition to providing further readings for each week, these folders are great places to start for your own research.

Optional Books: Many of the readings for this semester are taken from the Routledge *Technology Ethics: A Philosophical Introduction and Readings* (eds. Gregory J. Robson and Jonathan Y. Tsou, 2023). A pdf of that book is available on the course Perusall page, but you may also purchase a copy on Amazon or elsewhere.

Courseware

Our class has a Perusall site that contains the syllabus, assignments, and other course-related materials. You can log in to our Perusall page through Latte or at:

https://moodle2.brandeis.edu/mod/lti/view.php?id=2630566

Note that we won't be using Latte for this course.

Assignments and Grading Criteria

To make the most out of this class for you and your classmates, you will do a good deal of reading and writing, and you will engage in a variety of class activities. Specific course requirements are to:

- Regularly attend and participate in classroom discussions and activities.

- "Take Point" for one discussion this semester on a topic of your choosing.
- Participate Reading Check-ins, Discussion Questions, Moral Dilemmas, Exercises, and annotations.
- Complete a final research paper, including a research proposal which will be graded as a midterm.

Grading and Evaluation

Your final grade will be calculated as follows:

Attendance and Participation	10%
Weekly Exercises/Assignments	30%
Midterm Research Proposal	20%
Final Research Essay	40%

Participation and Attendance

Since this course is highly discussion based, your regular attendance and active participation are essential both to your own learning and to that of your classmates. Since this is a short course, there are no fee excused absences, but you will be excused in the case of emergency or important personal conflicts. **You must inform me of your intended absence BEFORE you miss class if possible**. If you don't notify me in advance, your absence will count as unexcused, and will incur a penalty in your participation grade.

In order to participate appropriately, you will be expected to prepare for class by reading all of the assigned texts and thinking critically about their content. Participation means regular verbal engagement with the course material. For most of you, this will mean paying attention in class and contributing to the conversation on a regular basis.

I know speaking in class can be a hurdle for some students, and I want everyone to be comfortable in their learning, but it is important that you try to develop public speaking skills as well as you are able. You may supplement class participation with office visits. Attendance and participation are worth 10% of your grade.

Office Hours

Office hours will be by appointment only this semester. Please reach out to me if you would like to schedule a meeting.

Submitting Assignments and Exercises

Assignments will be submitted and returned by email unless otherwise noted. My email address is jordankokot@brandeis.edu. The submission time is at the BEGINNING of the class period on the day that the assignment is due.

Late and Missed Assignments

Unless you make other arrangements with me in advance, graded assignments will be penalized by one-third of a letter grade for each day they are late. Please note too that we will regularly work with our exercises in class. If you are habitually late with your assignments, you will be unable to participate fully in the class.

Academic Integrity

Cases of plagiarism will be handled in accordance with the disciplinary procedures described in Brandeis' Academic Integrity Code, which I encourage you to read here:
https://www.brandeis.edu/student-rights-community-standards/academic-integrity/index.html

Chosen Name and Gender Pronouns

My goal is help create an inclusive learning community that supports students of all gender expressions and identities. While class rosters are provided to instructors with students' legal names, please let me know if you would like to be addressed by a different name than that listed in your academic profile.   You are also invited to tell me early in the semester which set of pronouns (they/their/theirs, she/her/hers, he/him/his, etc.) you feel best fits you. My pronouns are he/him/his. If you have any questions or concerns, please do not hesitate to contact me.

Student Accessibility Support

I assume that all of us learn in different ways. If there are circumstances that may affect your performance in this class, please talk to me as soon as possible so that we can work together to develop strategies for accommodations that will satisfy both your learning needs and the requirements of the course. Whether or not you have a documented accessibility need, Brandeis provides many support services that are available to all students. Their website is here: https://www.brandeis.edu/academic-services/accessibility/index.html

The Accessibility Support Office is responsible for assisting all students.   If you have a disability that changes your learning condition your learning (whether visible or invisible, physical, emotional, or mental), you are encouraged to register with this office. The Accessibility Support Office will work with you to determine appropriate accommodations for your courses, such as additional time on tests, staggered homework assignments, or note-taking assistance. This office will give you a letter outlining the accommodations you need that you can share with your teachers; specific information about your disability will remain private. If you have any questions about accommodation, or what constitutes a disability, I invite you to speak with me or to the Accessibility Support Office.

Student Mental and Emotional Health

I recognize that being a college student can be an extraordinarily difficult and transformational experience, even in the best of times. Unfortunately, even before the COVID crisis, many students around the world were suffering from increased mental and emotional stresses, a pronounced sense of isolation and loneliness, and increased levels of depression, anxiety, and other serious mental health concerns. This situation has only been made worse in the last several years by the pandemic.

While there are limits on what I can do to help, I want aid in your learning in any way possible. Please reach out to me if you are struggling with course material, workload, or other internal or external pressures that are making it difficult to participate fully in this course. Communication is key—so long as you stay in touch with me, we can almost always work something out to help you thrive in this course and beyond.

You don't need to wait for a crisis to seek counseling. If you would like someone to talk to, please reach out to Brandeis Counseling Center here: https://www.brandeis.edu/counseling/ Therapy can be helpful for just about everyone! If you do find yourself or one of your peers in crisis, their emergency consultation number is 781-736-3730 and their crisis number is 781-736-3333.

Course Reading & Assignment Schedule

This schedule is intended as a blueprint and is subject to change based on the needs of the class. Please note that this schedule is subject to change! Changes will be announced in class and will be posted online

Date	Topic/Goals/Content	Readings	Assignments
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Date	Topic/Goals/Content	Readings	Assignments
Introduction: Philosophy & Technology			
In the first weeks of the class, we will get to know each other a bit, introduce the topic of the course, and engage with some of the basics of philosophy, ethics, and technology. We will ask some basic questions about what technology is, how we relate to it, and why it is important, and begin to lay the groundwork for a more careful exploration of the ethical implications of technology. To do so, we will look at three of the most important theoretical ethical frameworks of the last several centuries—Utilitarianism, Deontology, and Virtue Ethics. Finally, we will round out the first unit by returning to the question of how we relate to technology and look more carefully at "Technological Mediation Theory" (or "postphenomenology") and what Heidegger calls the "Technological Attitude."			
Week 1: Greetings, Welcome, & Preliminary Investigations			
Mon., Aug. 29	Introduce class and define course goals Syllabus overview Discussion: *The Machine Stops*	**Required:** - Forster, *The Machine Stops* (1909), sections 1 & 2	
Wed., Aug. 31	Discussion: *The Machine Stops* & *The Nature of Technology* Course Outline / Assignment Structure	**Required:** - Forster, E.M.: *The Machine Stops* (1909), 1, 2, & 3 - Arthur, W.B.: *The Nature of Technology* (2009), Ch. 1 - Syllabus & Course Handbook **Suggested:** - Aristotle: Physics, Book II (c. 350 BCE), (excerpts) - Fassio, "How to Read Philosophy" - Philosophy of Technology (SEP)	- Exercise 1: "Getting to Know You" (due) - Come with questions about the syllabus and course
Week 2: What *Is* Technology			
Wed., Sept. 7 (no class Monday)	Aristotle on Nature and Technology Introduce Technology and Society Conference	**Required:** - Aristotle: *Physics*, Book II (c. 350 BCE), (excerpts) - Schummer, "Aristotle on Technology and Nature" - Max, "How Humans are Shaping our Own Evolution" (2017)	- Exercise 2: Reading Notes (due)
Week 3: Technology & Ethics, Part I (Virtue, Duty, & Utility)			

Date	Topic/Goals	Readings	Assignments
Mon., Sept. 12	Moral Frameworks Pt. 1: Sex Selection & Utilitarianism	**Required:** - "Wanting Babies (Sanghavi, 2006) - "Sex Selection" (Savulescu, 1999) - "The Ethics of Enhancement" (Sandel, 2007) - *Utilitarianism* (Mill, 1863), Ch. 1 & 2	- Exercise 3: Moral Dilemma 1 (assigned)
Wed., Sept 14	Moral Frameworks Pt. 2: Deontology & Virtue Ethics	**Required:** - *The Groundwork for the Metaphysics of Morals* (Kant, 1785), (pgs. 1-40) - *Technology and the Virtues* (Vallor, 2016), Ch. 1 **Suggested:** - *Technology and the Virtues* (Vallor, 2016), Introduction & Ch 2 - Justice: What's The Right Thing To Do? Episode 06: "Mind Your Motive" (Sandel, 2009) (https://youtu.be/8rv-4aUbZxQ)	
Week 4: Technology & Ethics, Part II (Justice, Mediation, & the "Technological Attitude")		
Mon, Sept. 19	The Ontology of Technology and the Technological Attitude	**Required:** - Heidegger, *The Question Concerning Technology* (1954) - Braver, Commentary on QCT **Suggested:** - Kurzweil, *The Singularity is Near,* Ch. 1 (2005)	- Exercise 3: Moral Dilemma 1 (Due)
Wed., Sept 21	Postphenomenology & Mediation Theory	**Required:** - "A Postphenomenological Field Guide" (Rosenberger & Verbeek, 2015)	- Exercise 4: Mediation Relations (Assigned)

Date	Topic/Goals	Readings	Assignments
Unit 2: Technology & the World		
Week 5: Environmental Ethics, Geoengineering & the "Vulnerable World Hypothesis"		
Wed., Sept. 28 (no Monday class)	Environmental ethics and Technology	**Required:** - "Can Selfishness Save the Environment?" (Low, 1993) - "Think Twice about Working for a Climate Villain (Meyer, 2022) - "The Vulnerable World Hypothesis" (Bostrom, 2019) - "The Oxford Principles" of Geoengineering (Rayner, et al 2012) **Suggested:** - Vallor, Ch 6 - Verbeek on Mediation Theory (https://ppverbeek.org/mediation-theory)	-

		- "How Engineering the Human Body Could Combat Climate Change (Ross, 2012) - "The Pope's Moral Case for Taking On Climate Change" (Green 2015)	
Week 6: VR / XR /AR (Welcome to the Metaverse)			
Mon., Oct. 3 (no Wednesday class)	VR/AR/XR & the Metaverse	**Required:** - The Experience Machine (Nozick) - 'Ethics of Representation in VR" (Brey, 1999) - How We Should Build a Virtual Society (Chalmers, 2022) - What is the Metaverse? (Ravenscraft, 2022) - "Environmental Justice in Virtual Worlds" (Werkheiser, forthcoming) - Meta Founders Letter (Zukerberg, 2021) **Suggested:** - "Social Ontology of Virtual Environments" (Brey, 2003) - Physical and Social Reality of Virtual Worlds (Brey, 2014) - Heath-Zuckerberg interview on Oculus Pro - "What is the Metaverse" (Lovich, 2022) - "What is the Metaverse" (Robertson, 2021) - Metaverse Explained (Needle, 2022) - Metaverse Speech (Zuckerberg, 2021) - "On Multiple Realities" (Schutz, 1945)	
Week 7: Artificial Intelligence & Algorithmic Justice			
Wed., Oct. 9 (no Monday class)	Carceral Technologies and Policing	**Required:** - "Mapping City Crime" (Wallace, 2009) - "Machine Bias" (Larson, Mattu, Kirchner, and Angwin, ProPublica, 2016) **Suggested:** - "How We Analyzed the COMPAS Recidivism Algorithm (Larson, Mattu, Kirchner, and Angwin, 2016)	
Thurs., Oct. 13 (replacement class)	Predictive Policing and Big Data	**Required:** - "Surveillant Assemblage" (Hagarty, 2000) - "Tech of Crime Prediction" (Brayne & Christin, 2020) **Suggested:** - "Big Data Surveillance: The Case of Policing"	
Week 8: Robots, Labor, & War			

Date	Topic/Goals	Readings	Assignments
Tues., Oct. 16 (no Monday class)	Robots, Labor, War	**Required:** - "Digidog" (Cramer, 2021) - "Hasbro, Joy for all" (Larson, 2016) - "Human Interruption" (Machemer, 2020)	
Wed., Oct. 19	Human Machine Interface/ Emotional AI	**Required:** - "Zora" (Satariano, 2018) - "Hello Barbie" (Walker, 2001) - Alienation & AI" (Biondi)	
Week 9: Metrics, Data, and Gamification			
Mon., Oct 24	Games & Gamification	**Required:** - Precis of Games (Nguyen) - How Twitter Gamifies Communication (Nguyen) - Games & Value Capture (Nguyen)	- Exercise 7: Project Proposals (assigned)
Wed., Oct 26	Games & Gamification	**Required:** - Games & Value Capture (Nguyen, 2021)	

Date	Topic/Goals	Readings	Assignments
Unit 3: Technology & Humanity			
Week 10: Social Media, Privacy, & Choice, Part I (Surveillance Capital & Behavior)			
Mon, Oct. 31	Privacy and Surveillance Capitalism	**Required:** - "Why do we care about privacy?" (Menand, 2018) - "Privacy is Essential to Human Flourishing" (Citron) - "Surveillance Capital" (Zuboff, 2019) **Suggested:** - "Transparency is Surveillance" (Nguyen) - "China's dystopian tech could be contagious" (Greenfield, 2018)	
Wed., Nov 2	Social media and big data	**Required:** - "Facebook Giving Away Data" (Madrigil) - "How to Excerceise the Power you Didn't Ask For" (Zittrain) - "Social Media, Creator or Destroyer?" (Friedman, 2016) **Suggested:** - "Technology & Tyrany" (Harrari, 2018) - "The Hidden Costs of Automated Thinking" (Zittrain)	- Exercise 7: Project Proposal (Due) - Exercise 8: Annotated Bibliography (assigned)

		- "Hong Kong's Protests Could be Another Social Media Revolution" (Friedman)	
Week 11: Social Media, Privacy, & Choice, Part II (Deep Fakes)			
Mon., Nov. 7	Filters	**Required:** - "How do snapchat and Instagram Filters Work?" (Nambair) - "Synthetic Media" (Whitaker) - "How we fell for filters" (Schroder, 2020) - "Do I Look Like My Selfie?" (Lavrence)	
Wed., Nov 10	Deep Fakes and Affordance Manipulation	**Required:** - "Deep Fakes" (Chesney / Citron) - "Fake America Great Again" (Knight) - "The Proteus Effect" (Yee, 2007) - "Face Off" (Gerstner, 2018)	
Week 12: Augmentation, Part I (Mechanical Augmentation)			
Mon., Nov. 14	Transhumanism	**Required:** - "The Singularity: When will we all become superhumans?" (Thomson, 2021)	- Exercise 8: Annotated Bibliography (assigned) - Exercise 9: Abstracts (assigned)
Wed., Nov. 16	The Ethics of Cyborgs	**Required:** - "Ethics Issues Raised by Human Enhancement" (Miah) **Suggested:** - "What the 2030s will look like w/ Ray Kurzweil" (Tyson, 2022)	
Week 13: Augmentation, Part II (Brain/Machine Interface)			
Mon, Nov. 21 (no Wednesday class)	Brain/Machine Interface	**Required:** - "The Story of Neuralink" (Hamilton) - "BMI & the Singularity" (Kennedy, 2014)	- Exercise 9: Abstracts (due) - Exercise 10: Peer Exchange (assigned)
Week 14: Genetic Enhancement & Transcendence			
Mon., Nov. 28	Enhancement and Perfection	**Required:** - "The Case Against Perfection" (Sandel, 2004) - "Is there a Problem with Enhancement" (Kamm, 2005) - YouTube Videos: "End Aging During your Lifetime," "Why Age," and "Why Die?"	- Exercise 10: Peer Exchange (due)
Wed., Nov. 30	Should we live forever?	**Required:** - "Scientists Develop New Anti-Aging CRISPER Based Gene Therapy" (Grinstein) - "CRISPR Offers the Potential to Live Forever" (Bacher) - Youtube Videos: "How to Cure Aging" **Suggested** - "Maker of suicide pods plans to launch in Switzerland" (Wakefield)	- OPTIONAL: First Paragraph/Outline Due (for comments)

		- Sarco—Assisted Suicide Pod	
Week 15: Justice & Virtue—Where do we go from here?			
Mon., Dec. 5	Justice and Technomoral Virtues	**Required:** - "Keynote Address" (Vallor, 2022) - "On Designing a more Ethical Internet" (Vallor) **Suggested:** - "University Lecture" on Transhumanism and (Race Chude-Sokei, 2022) - *TMV*, Ch 10 (Vallor)	
Wed., Dec. 7	Epilogue & Closing Thoughts	**Required:** - TMV, Epilogue (Vallor)	