

Philosophy of Technology

Semester: Spring 2024
Room: 112 Miner Hall

Time: Tues/Thurs 9:00-10:15am
Course Website: Canvas

Instructor: Jamee Elder
Email: jamee.elder@tufts.edu
Office Hours: Tuesday 10:30-11:30am
Location: 223A Miner Hall

TA: Yiran Chen
Email: yiran.chen@tufts.edu
Office Hours: Wednesday 2:00-3:00pm
Location: 223 Miner Hall (The Agora)

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1 Course Description

Technology is integrated into every aspect of our lives. Computers of all shapes and sizes are part of our daily routines, and we now socialise, shop, do our banking, get our news, and even meet potential dates online. Medical innovations have the capacity to alter the course of a person's life, but access to life-saving interventions is contingent on a patient's physical and social position in the world. Emerging AI applications such as Stockfish, IBM Watson and ChatGPT have the ability to perform many tasks as well or better than humans. In this course we will explore how emerging technologies transform the world we live in and how ethical issues arise through these interactions. In doing so, we will be guided by questions such as: what values shape the design and implementation of a technology? Whose life is made better and whose life is made worse? To what extent do we control emerging technologies, and to what extent does it control us? Some topics that we will cover include: social media and identity; privacy and big data; weak and strong artificial intelligence, and transhumanism. Drawing from a range of literature, this course will engage students in interdisciplinary discussions about the opportunities and pitfalls of emerging technologies.

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2 Learning Goals

By the end of this course:

- You will be able to apply different frameworks for ethical decision making.
- You will be able to identify morally-salient features of case studies involving emerging technologies.
- You will be able to think and communicate clearly about the ethics of emerging technologies.

3 Text(s)

There are no required textbooks. All required course readings will be uploaded to Canvas or will be freely available online. In some cases, you may need to use your Tufts credentials to access something through the Tufts library. Please feel free to ask me if you need help accessing any of the readings.

4 Course Requirements

4.1 Meaningful Participation (15%):

Philosophy is a group activity; together we are more than the sum of our parts. With this in mind, students are expected to carefully study all required readings for each week and come prepared to discuss them, raise questions about them, and draw attention to their strengths and weaknesses.

In addition, students will complete pre-class **reading journals** and end-of-class **one-minute papers**, which will contribute to their ‘meaningful participation’ grade. These are required, but will not themselves be graded.

- **Reading journals:** By 5:00pm on the day before every class, you will submit a journal entry consisting of 2-3 questions that you had about the text (via Canvas).
- **One-minute papers:** At the end of each class, we will devote a few minutes to writing “one-minute papers” in which you briefly respond to a prompt (given in class):

Your participation grade will be based on the consistency and quality of your contributions in class discussions, reading journals, and one-minute papers.

Attendance: You should attend every class. However, I understand that extenuating circumstances arise that can make this difficult. If you cannot attend a class or will be more than 15 minutes late, please let me know.

Any more than two unexcused absences or missed journal entries will negatively impact your participation grade.

4.2 Short Papers (40%)

You will complete two short papers, each 1500 words in length, responding to a specific question or reacting to a short reading. Each of these papers will be worth 20% of your final grade, so the short papers will be worth 40% of your grade in total.

- Short Paper 1 (20%): Due **Friday, 23 February** by **5:00pm**.
- Short Paper 2 (20%): Due **Friday, 29 March** by **5:00pm**.

4.3 Final Paper (45%):

The final paper (approx. 3000 words) will be due on **Friday, 3 May** by **5:00pm**. For this paper, you will choose a recent debate or controversy about a particular kind of digital technology and subject it to careful analysis, based on independent research.

This project will be broken up into several steps:

1. A research question and annotated bibliography (15%)
 - due **Friday, 8 March** by **5:00pm**
2. A first draft that argues for a particular answer to your research question (this should be submitted via canvas by the due date but will not be graded. Instead, you will get feedback via in-class peer-review)
 - due **Friday, 12 April** by **5:00pm**
3. A peer review assignment, where you provide constructive feedback on peer drafts and submit a brief report reflecting on the peer-review process (5%)
 - due **Friday, 19 April** by **5:00pm**
4. Final paper (25%)
 - due **Friday, 3 May** by **5:00pm**

Further instructions for writing this paper will be distributed separately.

Note that all major assignment deadlines appear in the appropriate place in the following course outline, indicated by a “★ ★ ★”

Course Outline

All readings listed here are subject to change. The current version of this document will always be available on Canvas.

Unit 0. Introduction & Preliminaries

Thursday, 18 January:

- Introductions & preliminaries (no required reading)

Tuesday, 23 January:

- Wendell Wallach. *A Dangerous Master: How to keep technology from slipping beyond our control*. Basic Books, New York, 2015, Chapter 1 “Navigating the Future”

Thursday, 25 January:

- Michael J. Quinn. *Ethics for the Information Age*. Pearson, 7th edition, 2017, Chapter 2 (pp. 67-99)

Tuesday, 30 January:

- Shannon Vallor. *Technology and the Virtues: A Philosophical Guide to a Future Worth Wanting*. Oxford University Press, New York, 2016, Introduction and Chapter 6, “Technomoral Wisdom for an Uncertain Future: 21st Century Virtues”

Thursday, 1 February: No class (JE away for conference)

Unit 1: Social Media and Identity

Tuesday, 6 February:

- Sherry Turkle. *Alone Together: Why We Expect More From Technology and Less From Each Other*. Basic Books, New York, NY, 2011, Chapter 8 (pp. 151-170)

AND

- Mark Robinson, “Is Your Cellphone Destroying Your Morals? Devices, Distraction and the Impossible Ethics of Modern Life”, <https://bit.ly/30xn73i>

Thursday, 8 February:

- Sci Guys Podcast, *The Science of Parasocial Relationships (with Shaaba.)*. Watch: <https://youtu.be/c9YJKLxd2UU> or listen wherever you get your podcasts. Episode webpage: <https://bit.ly/45znnG2>.
- OPTIONAL: Shaaba Lotun, Veronica M Lamarche, Spyridon Samothrakis, Gillian M Sandstrom, and Ana Matran-Fernandez. Parasocial relationships on youtube reduce prejudice towards mental health issues. *Scientific reports*, 12(1):16565–16565, 2022

Tuesday, 13 February: Either:

- Listen: TEC Talks Podcast, Technology Ethics Center, University of Notre Dame, Episode 1: Social Media Addiction: Adding Insult to Injury (April 20, 2022) <https://techethics.nd.edu/tec-talks/> or wherever you get your podcasts,

OR

- For a deeper dive, read: Vikram R. Bhargava and Manuel Velasquez. Ethics of the attention economy: The problem of social media addiction. *Business Ethics Quarterly*, 31(3):321–359, 2021. doi: 10.1017/beq.2020.32 (discussed in the podcast)

Thursday, 15 February:

- Shannon Vallor. *Technology and the Virtues: A Philosophical Guide to a Future Worth Wanting*. Oxford University Press, New York, 2016, Chapter 7, “New Social Media and the Technomoral Virtues”

Unit 2. Artificial Intelligence, Robots & Automation

Tuesday, 20 February:

- Stuart J. (Stuart Jonathan) Russell, Peter Norvig, and Ernest Davis. *Artificial Intelligence : a Modern Approach*. Prentice Hall series in artificial intelligence. Prentice Hall, Upper Saddle River, New Jersey, third edition. edition, 2010

Thursday, 22 February: No class (Tufts Monday)

***** Friday, 23 February: Submit First Short Paper by 5:00pm (via Canvas)**

Tuesday, 27 February:

- John W. Patty and Elizabeth Maggie Penn. Algorithmic fairness and statistical discrimination. *Philosophy compass*, 18(1), 2023
- OPTIONAL: Watch “Algorithmic Bias and Fairness: Crash Course AI #18” for a more accessible introduction to key ideas.

Thursday, 29 February:

- Emily Sullivan. Understanding from Machine Learning Models. *The British journal for the philosophy of science*, 73(1):109–133, 2022

Tuesday, 5 March:

- Michael J. Quinn. *Ethics for the Information Age*. Pearson, 7th edition, 2017, Chapter 10, section 10.2 (pp.458-69): Automation and Employment.

AND

- Angela Watercutter. AI, the WGA Strike, and What Luddites Got Right. *Wired*, 2023. URL <https://www.wired.com/story/wga-strike-artificial-intelligence-luddites/>

Thursday, 7 March:

- “Simulacrum”, in Ken Liu. *The Paper Menagerie and Other Stories*. Saga Press, London, 2016 (pp.112-22)

AND

- Mark Coeckelbergh. *Robot Ethics*. The MIT Press essential knowledge series. The MIT Press, Cambridge, Massachettes, 2022, Chapter 3: “Robotic Home Companions, Privacy, and Deception” (pp. 25-33)

***** Friday, 8 March: Submit research question and annotated bibliography by 5:00pm (via Canvas)**

Unit 3. Data Security & Privacy

Tuesday, 12 March:

- Bruce Schneier. *Data and Goliath*. W. W. Norton and Company, New York, NY, 2015, Chapters 1 & 2: “Data as a By-product of Computing” and “Data as Surveillance” (pp.15-38)

Thursday, 14 March:

- Bruce Schneier. *Data and Goliath*. W. W. Norton and Company, New York, NY, 2015, Chapters 7 & 10: “Political Liberty and Justice” and “Privacy” (pp.107-126, pp.147-157)

————— **SPRING BREAK** —————

Tuesday, 26 March:

- Moxie Marlinspike. Why ‘I Have Nothing to Hide’ Is the Wrong Way to Think About Surveillance. *Wired*, 2013, url: <https://bit.ly/3qzzbZQ>

Thursday, 28 March:

- Mark Robinson, “Can Kim Kardashian Help Bioethics? Celebrity Data Breaches and Software for Moral Reflection”, <https://bit.ly/3QJI10K>

***** Friday, 29 March: Submit Second Short Paper by 5:00pm (via Canvas)**

Tuesday, 2 April:

- Watch: Theo Anthony. *All Light, Everywhere*. Neon, 2021. Access with Tufts credentials at: <https://www.kanopy.com/en/tufts/video/12333392>

Unit 4. Human Augmentation

Thursday, 4 April

- Eric Juengst and Daniel Moseley. Human Enhancement. In Edward N. Zalta, editor, *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University, Summer 2019 edition, 2019

Tuesday, 9 April:

- Watch: *Fixed: the science/fiction of human enhancement*. Making Change Media, 2013. Access with Tufts credentials at: <https://www.kanopy.com/en/tufts/video/144970>

Thursday, 11 April:

- “The Truth of Fact, the Truth of Feeling” in Ted Chiang. *Exhalation*. Alfred A. Knopf, New York, first edition. edition, 2019 (pp. 185-230).
- OPTIONAL: Andy Clark and David Chalmers. The Extended Mind. *Analysis*, 58(1): 7–19, 01 1998. doi: 10.1093/analys/58.1.7

***** Friday, 12 April: Submit first draft of final paper by 5:00pm (via Canvas)**

Tuesday, 16 April:

- In-class workshop: peer review of paper drafts

Thursday, 18 April:

- Watch: Andrew Niccol. *GATTACA*. Image Entertainment, 1997. Access [here](#) (log in using your Tufts credentials)

***** Friday, 19 April: Submit peer review report by 5:00pm (via Canvas)**

Wrapping Up

Tuesday, 23 April:

- Catch-up day (or: discussion on topic TBA)

Thursday, 25 April:

- Wrap-up session

***** Friday, 3 May: Submit final paper by 5:00pm (via Canvas)**

5 Course Policies

5.1 Classroom Learning Agreement

5.2 Late or Incomplete Work

We all live busy lives outside of the classroom and we each face our own unique challenges. I understand that these challenges will sometimes make it difficult to complete class assignments or to show up for class ready to make our best contributions.

Please let me know as soon as possible (and ideally before the deadline) if you know that you will struggle to meet a deadline. When you do, we can determine a reasonable timeline for you to complete the assignment or, under some circumstances, an alternative way for you to demonstrate your learning

All students are entitled to three no-questions-asked 24-hour extensions, which can be used for any major assignment (short papers, annotated bibliography, final paper, peer review report). You still need to let me know if you want to use one of these extensions! Further extensions are at the instructor's discretion, but I promise to be as flexible as possible in offering reasonable extensions.

Late work without such an extension will be penalized by 1/3 of a letter grade per day (so, e.g., an A- handed in one day late would become a B+).

6 Other Policies and Resources

6.1 Tufts Academic Resources

The **StAAR Center** offers a variety of FREE resources, available to *all students*. Students may make an appointment to work on any writing-related project or assignment, attend subject tutoring in a variety of disciplines, or meet with an academic coach to hone fundamental academic skills like time management or overcoming procrastination. Students can make an appointment for any of these services by visiting go.tufts.edu/TutorFinder, or by visiting their website: <https://students.tufts.edu/staar-center>

6.2 Accommodations

Tufts is committed to providing equal access and support to all qualified students through the provision of reasonable accommodations. If you have a disability that requires reasonable accommodations, you are encouraged to contact the StAAR Center at:

- StaarCenter@tufts.edu or
- 617-627-4539.

Please be aware that accommodations cannot be enacted retroactively, making timeliness a critical aspect for their provision.

In addition, students with or without a formally documented disability are warmly encouraged to contact me about accommodations. I am committed to collaborating with students to ensure that my course does not present unreasonable or inequitable barriers to their success.

6.3 Religious Accommodations

Tufts University faculty, staff, and administration highly value and acknowledge the religious diversity of its student body. Students seeking religious accommodations related to their holy days are encouraged to collaborate with faculty to make arrangements during the first week of each semester. The religious holy days calendar, including the holy days policy from the Faculty Handbook, is available [here](#) for your reference. Students seeking additional support may refer to the University Religious Accommodations Policy, available [here](#). The University Chaplaincy is also available to respond to questions on religious observances; their contact information is available [here](#).

6.4 Academic Integrity

All members of the Tufts community are responsible for integrity in their own behavior and for contributing to an overall environment of integrity at the university. You can find resources relating to academic integrity in the Tufts Academic Integrity handbook ([click here](#)). It is your responsibility to familiarize yourself with the requirements of ethical behavior and academic work as described in Tufts' Academic Integrity handbook.

If you ever have a question about the expectations concerning a particular assignment or project in this course, please ask me for clarification.

The Faculty of the School of Arts and Sciences and the School of Engineering are required to report suspected cases of academic integrity violations to the Dean of Student Affairs Office. If I suspect that you have cheated or plagiarized in this class, I must report the situation to the dean.

6.5 Guidelines for the use of AI

In this course, you may use AI tools for your learning, just as you can collaborate with your peers for things such as brainstorming, getting feedback, revising, or editing of your own work. However, you may not submit any work generated by an AI program as your own. This is a violation of Tufts Academic Integrity policies.

To help guide you in the use of AI in this course, consider the following guidelines:

- Familiarize yourself with AI tools, including that: Bias is embedded in the creation of these systems and in their output and you may encounter harmful language and ideas; AI platforms can produce inaccurate or false information with confidence (so called hallucinations, e.g, it frequently invent false references); Text from AI may closely mimic human knowledge, understanding and even human emotions; Many of these tools retain the rights to use your information and the content shared with them in a variety of ways.
- Cite all AI tools when used or referred to in assigned work. See [How to Cite ChatGPT](#) from the APA & [How to Cite Generative AI](#) from the MLA. Identify the way it contributed to your work. For example, you can include a statement that you asked an AI to “identify any grammatical or spelling errors” in your writing, or you used it to get started in thinking about topics for your paper. Any statement directly generated by an AI system should be in quotes.
- If you have questions please ask via email, in office hours or during class.

6.6 Student Support, Including Mental Health

As a student, there may be times when personal stressors or difficulties interfere with your academic performance or well-being. The **Dean of Student Affairs Office** offers support and care to undergraduates and graduate students who are experiencing difficulties, and can also aid faculty in their work with students. In addition, through **Tufts' Counseling and Mental Health Service (CMHS)** students can access mental health support 24/7, and they can provide information on additional resources. CMHS also provides confidential consultation, brief counseling, and urgent care at no cost for all Tufts undergraduates as well as for graduate students who have paid the student health fee. To make an appointment, call 617-627-3360. Please visit the CMHS website: <http://go.tufts.edu/Counseling> to learn more about their services and resources.

7 Other Resources

7.1 The Stanford Encyclopedia of Philosophy

Find it online here: <https://plato.stanford.edu/>

The SEP is a good place to start when learning about a new philosophical topic. The SEP entries are written by experts in that area and generally provide a good overview of the issues.

A good next step is often to follow up by reading the sources that the SEP entry sites on a particular issue.