

Ethics of Data Science

Fall 2025

Professor

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Office hours: MW 12:45 – 2:45 pm, or by appointment

Meeting Details

Days: MW
Time: 9:30 – 10:20 am
Place: WALC, 1018
Course: PHIL 208

Teaching Assistants (TAs)

Name	Email	Office Location	Office Hours
Woomin Park	park1824@purdue.edu	by appointment	by appointment
Sedong Seo	seo123@purdue.edu	by appointment	by appointment

Course Description

Data-driven technologies now shape nearly every facet of our lives. They curate our social media feeds, nudge our shopping habits, match us on dating apps, guide our commutes, and influence decisions about policing, sentencing, hiring, healthcare, credit, and more. This revolution unfolded so quickly (and quietly) that we've barely paused to consider its nature, scope, or consequences. The result? A wave of urgent moral questions: How might data technologies remake the world for immense good? What about catastrophic harm? How are they designed to capture our attention and steer our behavior? Do we have any obligation to resist? Should governments intervene (ban TikTok?), and if so, how? What happens when these tools are used for surveillance by employers, militaries, or states? How do they expose our biases, and what should we do about it? Will they trigger mass unemployment, and what responsibilities do we have to those displaced? And what moral burdens fall on the developers of such powerful tools? By the end of the course, you'll be equipped to wrestle with these questions—sharpening your own views and defending them with reasons and arguments.

Course Texts

All course texts are available in PDF form on the lecture Brightspace page.

Course Materials

All other course materials (e.g., lecture slides, exam study guides, exam answer keys) will be available on the lecture Brightspace page under "Content."

Course Requirements	Weight	Where will it be assessed?
• Participation	15%	Based on performance in recitation
• Ethical Theory Quiz (Fri., Sep. 5)	5%	True/False quiz during recitation
• Two Questions Assignments	15%	Submitted on Brightspace before lecture
• Exam 1 (Fri., Oct. 3)	20%	Blue Book exam taken during recitation
• Exam 2 (Fri., Nov. 7)	20%	Blue Book exam taken during recitation
• Final Exam (TBA, Dec. 15 – 20)	25%	Blue Book exam during exam week

Attendance

Attendance is required for both lectures and recitations. You're allowed three (3) no-questions-asked "freebie" absences total—across lectures and recitations. No need to email me or your TA (no doctor's notes, no funeral programs). After that, each additional absence (that isn't due to official University business) knocks two points off your participation grade. Your TA tracks attendance, so make sure you're counted. Use your freebies wisely.

Grading Scale

A: 94 – 100 A-: 90 – 93 B+: 87 – 89 B: 84 – 86 B-: 80 – 83 C+: 77 – 79
C: 74 – 76 C-: 70 – 73 D+: 67 – 69 D: 64 – 66 D-: 60 – 63 F: < 60

Office Hours & Accessibility

I'm happy to meet with you during my office hours to discuss assignments, course material, or philosophy generally. Your TA is, too. I've listed our office hours and locations at the top of page one. Can't make those times? Email us to set up an appointment. Zoom is fine, too.

I'm committed to making the class fully accessible regardless of disabilities. If there's something I can do to make it more accessible, let me know or (if you prefer) have the Disability Resource Center reach out to me on your behalf.

Participation

Participation begins by carefully reading the assigned text before each lecture. You'll then need to contribute to your recitation discussion: ask a question, offer a comment, or take a stab at an idea. If you're shy, that's fine. You can earn participation credit later in the semester once you're more comfortable, or by visiting office hours (mine or your TA's), chatting after class, or engaging over email. You don't need to talk constantly in recitation to earn a high participation grade. Quality matters, too. Ideally, you'll aim for both. Sometimes you'll say something that doesn't quite make sense. That's fine. Philosophy is hard. Struggling out loud is part of the process. Make your best effort even if you're unsure. That's how you learn literally anything—trying and failing until you get it.

Two Questions Assignments

Each lecture has an assigned reading. Before each lecture begins at 9:30am, you must submit two questions about the assigned reading on your recitation's Brightspace page. The assignment locks at 9:30am, so your TA won't accept late submissions. (Blame me.) Since we meet twice a week, you'll typically submit four questions per week—two before Monday's lecture and two before Wednesday's.

Each question you ask must be derived from the assigned text. You must include a quote or citation of an exact page, indicating to your TA which part of the text prompted your question. If you do not do this, you will not receive credit for the assignment. Questions will generally begin with something like, "[Author] says x on page y . I'm wondering z ." Clarificatory questions (e.g., "What does the author mean here?") are fine, but you're allowed a maximum of one clarificatory question per submission. At least one question must go deeper—e.g., raising an objection, identifying an ambiguity, exploring a broader implication, or testing internal consistency. (If you're unsure at first, just do your best—your TA will help you improve in recitation.)

This assignment is designed to: (1) encourage you to read carefully, (2) hold you accountable for doing the reading, (3) prepare you to participate in recitation, and (4) provide a structured way for you to ask questions that actually receive answers.

Tip: Pose your question in a way that makes it blindingly obvious to your TA that you've read the assigned reading carefully. This kind of question is not convincing: “What does consequentialism say about our duties to our families?” First, there is no quote or page citation. I have no idea what part of the text prompted this question. Second, the question doesn't explain why consequentialism might entail something problematic about our duties to our families. Why might it? Why is this issue worth considering? Third, someone who hasn't done the assigned reading (but merely read the Wikipedia page on “consequentialism”) could easily ask a vague question like this. It demonstrates no familiarity with the peculiarities of the assigned text.

Here's a way to ask that same question that *would* demonstrate you've read carefully: “Does consequentialism condemn parents who give birthday gifts to their children rather than donating the money to charity? I can see why it might, since, on page *x*, [Author] claims that consequentialism requires us to *maximize* good consequences. And often, the money parents spend on their children's birthday presents could be better spent elsewhere. On the other hand, on page *y*, [Author] claims that consequentialism is attractive because it accommodates many of our common-sense moral judgments. And common sense allows parents to buy birthday gifts for their kids. So, my question is: What does consequentialism actually imply about cases like this?”

Chatbots: The Policy

Submitting AI-generated work as your own is academic dishonesty and carries the same penalties as [plagiarism](#). If any part of your assignment is produced by a chatbot (e.g., ChatGPT, Gemini, Claude, Grok), you will be reported to the Office of Student Rights and Responsibilities for review of your standing at Purdue.

Chatbots: The Policy's Justification

Imagine a strength coach tells a client, “Do some deadlifts.” The client replies, “Sure, but in the real world, we have forklifts to lift heavy stuff. So, shouldn't I be allowed to use one?” The strength coach should respond, “You don't get it. The point of lifting weights isn't to move heavy stuff from A to B. It's to build bodily strength—your capacity to move stuff around without technology. You build strength by lifting weights yourself, not outsourcing it to a machine. So, no forklift. Get to work.”

Same for this class. I'm your academic coach. My job is to help you strengthen your thinking, writing, and speaking. The assignments are your mental workouts—strength training for your mind. If you ask me, “Why can't we use AI to complete our assignments? In the real world, we have AI to answer questions!” I'll respond, “You don't get it. The point of the assignments is not to generate a bunch of text for your TAs to read. It's to improve your thinking, writing, and speaking—your capacity to do these things without technology. You build these capacities by completing the assignments yourself, not outsourcing the work to a machine. So, no AI. Get to work.”

Freedom of Expression Policy

Students are encouraged to exercise their right to free inquiry and expression. Any idea that's relevant to the course content is fair game. You're responsible for learning the course material, but you're not required to agree with it. Your grade will reflect the quality of your academic work, not the positions you take. You may take reasoned exception to, or withhold judgment about, any view presented on matters of conscience or controversy. When you encounter ideas that you find offensive, immoral, or unwise, you are encouraged to engage them with reasons, evidence, and arguments. However, threats, harassment, or behavior disruptive to the learning environment won't be tolerated and will be reported to the Office of the Dean of Students.

Course Schedule

Ethics: The Basics

Week 1	Aug. 25	What's Ethics? How will this class work? (no assigned reading)
	Aug. 27	Russ Shafer-Landau, "Consequentialism"
Week 2	Sep. 1	Labor Day (no class, no assigned reading)
	Sep. 3	Russ Shafer-Landau, "Kantian Ethics"

Ethics of Data Science: The Big Picture

Week 3	Sep. 8	<i>Weapons of Math Destruction</i> (Ch. 1: What is a Model?) Optional: The Era of Blind Faith in Big Data Must End
	Sep. 10	Fazelpour & Danks, "Algorithmic Bias: Senses, Sources, Solutions"

Recommendation Algorithms

Week 4	Sep. 15	<i>Weapons of Math Destruction</i> (Ch. 4: Online Advertising) Optional: How Online Advertising Works Optional: How TikTok's Algorithm Figures You Out
	Sep. 17	Daniel Susser, "Technology, Autonomy, and Manipulation" Optional: How Recommender Systems Work Optional: How Technology is Hijacking Your Mind

The Attention Economy

Week 5	Sep. 22	Castro & Aylsworth, "Is There a Duty to Be a Digital Minimalist?" Optional: How They Addict Us
	Sep. 24	Castro & Pham, "Is the Attention Economy Noxious?"

Social Media and the Information Environment

Week 6	Sep. 29	Thi Nguyen, "Escape the Echo Chamber"
	Oct. 1	Thi Nguyen, "How Twitter Gamifies Communication"

Predictive Policing

Week 7	Oct. 6	<i>Weapons of Math Destruction</i> (Ch. 5: Justice in the Age of Big Data) Optional: How Cops Are Using Algorithms to Predict Crimes
	Oct. 8	Duncan Purves, "Fairness in Algorithmic Policing" Optional: Does Predictive Policing Make Us Safer?

Evaluating Resumés and Job Performance

Week 8	Oct. 13	Fall Break (no class)
	Oct. 15	<i>Weapons of Math Destruction</i> (Chs. 6 & 7: On the Job) Optional: How AI is Deciding Who Gets Hired

Criminal Sentencing

Week 9	Oct. 20	Clinton Castro, “What’s Wrong with Machine Bias?” Optional: The Dangerous Math Used to Predict Criminals
	Oct. 22	Bagaric & Hunter, “Enhancing the Integrity of Sentencing through AI”

Artificial Intelligence and the Future of Work

Week 10	Oct. 27	John Danaher, “Will Life Be Worth Living in a World Without Work?” Optional: AI and the Future of Work: A Pessimistic View
	Oct. 29	John Tasioulas, “Work and Play in the Shadow of AI” Optional: AI and the Future of Work: An Optimistic View

Autonomous Weapons

Week 11	Nov. 3	Michael Robillard, “The Ethics of Weaponized AI” Optional: Autonomous Weapons (BBC)
	Nov. 5	Muller, “Autonomous Killer Robots are Probably Good News”

Catastrophic Risk

Week 12	Nov. 10	Adam Bales, “Artificial Intelligence: Arguments for Catastrophic Risk” Optional: The Godfather of AI Warns of Catastrophic Risk
	Nov. 12	Bostrom, <i>Superintelligence</i> (Ch. 9: The Control Problem) Optional: Bostrom Discusses AI Utopia and AI Doom
Week 13	Nov. 17	Bostrom, <i>Superintelligence</i> (Ch. 13: Choosing Criteria for Choosing Values) Optional: Can AI Do Ethics?
	Nov. 19	More on Catastrophic Risk and AI Alignment (no assigned reading)

Our Relationship to Artificial Agents

Week 14	Nov. 24	Steve Petersen, “The Ethics of Robot Servitude”
	Nov. 26	Sampson, “Are Superintelligent Agents More Valuable than Humans?”

Workplace Ethics: Why do We do Bad Stuff?

Week 15	Dec. 1	Stanley Milgram, "The Perils of Obedience"
	Dec. 3	Bazerman & Tenbrunsel, "Ethical Breakdowns"
Week 16	Dec. 8	Heath, "Ethics & Moral Motivation: A Criminological Perspective"
	Dec. 10	Final Exam Review