

# Big Data, Big Responsibilities: The Law and Ethics of Business Analytics

Instructor: [Mihir Kshirsagar](#)

Contact: [mkshirsa@wharton.upenn.edu](mailto:mkshirsa@wharton.upenn.edu)

Office Hours: Thursdays 2:00p -3:00p or by appointment

## General Description

This course introduces students to the legal, policy, and ethical dimensions of algorithmic decision making. We are in the midst of a profound shift in society where critical decisions in commercial and social contexts are increasingly being run through automated decision-making systems. This increased reliance on data-driven decisions creates opportunities for both financial gain and social good. But it poses challenges to social norms and laws that require careful thinking about how to make sound, ethical decisions. Because regulations are rapidly evolving in this space, there is an urgent need for forward-thinking businesses to anticipate these novel risks and build sustainable business models. The class will engage in discussions about novel challenges that are now frequently in the news.

## Learning Objectives

My goal is to help you think about challenging analytical questions through an ethical framework. The course is designed to help you:

1. Understand the legal and ethical implications of business decisions;
2. Exercise thoughtful judgment and communicate your values;
3. Evaluate the risks and opportunities of relying on algorithmic decision making.

## **Course Structure**

We cover a lot of ground in just 6 classes. I have attempted to keep the readings manageable, with the goal that everyone comes to the class fully prepared to participate actively. Each session will be divided into two parts. First, is a lecture and discussion of the readings. Second, is a case study discussion. I will share a short memo to prepare you for the case study. In class, I will ask students to adopt the perspectives of different stakeholders and engage in a structured debate of the issue.

## **Course Requirements and Grading**

### *Final Paper [50%]*

The final project is a strategic memo directed to a specific company or organization that recommends whether and how to adopt a data-driven decision-making tool. The memo should be 2000 words (provide a word count at the end) and should describe the context for the decision, identify the relevant legal and ethical challenges, and make concrete recommendations for what action the business should take to address those challenges. The memos will be graded based on the quality of the analysis, engagement with the ethical considerations, persuasiveness, and organization. I will ask for a draft introductory paragraph for the memo ahead of the deadline.

### *Weekly Responses [25%]*

By 10a on the day of our seminar (Thursday) please submit three or four bullet points sharing your reactions to the weekly prompt. Completing the assignment on time will score you full points.

### *Participation [25%]*

Participation credit will be assessed holistically: quality matters, not just quantity. The course structure is particularly dependent on active participation, respectful listening, and open dialogue. Please use the feature on Canvas to record your attendance and request any absences via email.

### *Deadlines*

Deadlines are an inevitable part of life. Please respect them out of regard for yourself and your peers. If you encounter difficulties, I am open to finding accommodations, but I need sufficient notice before the deadline or there will be a grade penalty.

## **Weekly Schedule**

### ***Week 1: Overview***

*When Does Predictive Technology Become Unethical?* Eric Siegel, Harvard Business Review, Oct. 2020: <https://hbr.org/2020/10/when-does-predictive-technology-become-unethical>

*Putting Responsible AI Into Practice*, Rumman Chowdhury et al., MIT Sloan Management Review, Oct. 2020: <https://sloanreview.mit.edu/article/putting-responsible-ai-into-practice/>

Alondra Nelson (White House OSTP), *Americans Need a Bill of Rights for an AI Powered World*, <https://www.whitehouse.gov/ostp/news-updates/2021/10/22/icymi-wired-opinion-americans-need-a-bill-of-rights-for-an-ai-powered-world/>

*Case study: Student Data*

*Pre-read: Virtual Classrooms and Real Harms: Remote Learning at U.S. Universities*, Cohney et al., USENIX SOUPS 2021: <https://arxiv.org/abs/2012.05867>.

### ***Week 2: Fundamentals***

*Ethical Lenses in Technology Practice*, Shannon Vallor, Irina Raicu, Brian Green, Markkula Center for Applied Ethics, July 2020: <https://www.scu.edu/ethics-in-technology-practice/ethical-lenses/>

John Tasioulas, *Artificial Intelligence, Humanistic Ethics*,  
<https://www.amacad.org/publication/artificial-intelligence-humanistic-ethics>

*Case Study: Content Moderation*

*Pre-read:* Content moderation, AI, and the question of scale, Tarleton Gillespie, *Big Data & Society*, Aug. 2020: <https://journals.sagepub.com/doi/full/10.1177/2053951720943234>

### ***Week 3: Fairness & Discrimination***

*Assessing risk, automating racism*, Ruha Benjamin, *Science* (Oct. 25, 2019):  
<https://science.sciencemag.org/content/366/6464/421>.

*Introduction: Fairness & Machine Learning*, Solon Barocas, Moritz Hardt, Arvind Narayanan: <https://fairmlbook.org/introduction.html>

*Optional:* Watch *Coded Bias* on Netflix

*Case Study: Apple Card*

*Pre-read:* New York Department of Financial Services Report on the Apple Card Investigation, Mar. 2021:  
[https://www.dfs.ny.gov/system/files/documents/2021/03/rpt\\_202103\\_apple\\_card\\_investigation.pdf](https://www.dfs.ny.gov/system/files/documents/2021/03/rpt_202103_apple_card_investigation.pdf)

### ***Week 4: Consumer Protection***

*Dark Patterns: Past, Present, and Future*, Narayanan et al., *Communications of the ACM*,  
<https://cacm.acm.org/magazines/2020/9/246937-dark-patterns/fulltext>

FTC, *Aiming for truth, fairness, and equity in your company's use of AI*,  
<https://www.ftc.gov/business-guidance/blog/2021/04/aiming-truth-fairness-equity-your-companys-use-ai>

*Case Study: Online Advertising*

*Pre-read: Department of Housing & Urban Development lawsuit against Facebook:*  
[https://www.hud.gov/sites/dfiles/Main/documents/HUD\\_v\\_Facebook.pdf](https://www.hud.gov/sites/dfiles/Main/documents/HUD_v_Facebook.pdf)

### ***Week 5: Privacy & Data Protection***

*Big data, artificial intelligence, machine learning and data protection*, ICO United Kingdom (2017), <https://ico.org.uk/media/for-organisations/documents/2013559/big-data-ai-ml-and-data-protection.pdf>

Congressional Research Service, *Overview of the American Data Privacy and Protection Act, H.R. 8152*, <https://crsreports.congress.gov/product/pdf/LSB/LSB10776>

*Case study: Algorithmic Hiring*

*Pre-read: Princeton Dialogue on AI and Ethics, Hiring by Machine Case Study:*  
<https://aiethics.princeton.edu/wp-content/uploads/sites/587/2018/12/Princeton-AI-Ethics-Case-Study-5.pdf>

### ***Week 6: Accountability & Data Governance***

GAO, *Artificial Intelligence: An Accountability Framework for Federal Agencies and Other Entities*, June 2021, <https://www.gao.gov/assets/gao-21-519sp.pdf>

David Robinson, *The Kidney Transplant Algorithm's Surprising Lessons for Ethical A.I.*,  
<https://slate.com/technology/2022/08/kidney-allocation-algorithm-ai-ethics.html>

**Optional Additional Materials:**

AI Nation Podcast: <https://why.org/programs/ai-nation/>

Black Mirror on Netflix

Movies: Minority Report; Moneyball, Margin Call, Coded Bias, The Social Dilemma,  
The Circle