

DATA, WORK & ORGANIZATIONS

OS 495-003

Fall 2020

Tu/Th 2:30pm-4pm, 110 Weiser Hall

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Remote office hours TBA, or email for appointment

COURSE DESCRIPTION

Data, numbers, algorithms, and analytics are transforming work and organizations. This class will help you understand how. Drawing on both classic insights from organization theory and recent work on technologies, we'll explore how data is changing the nature of work, what managers do, and how organizations make decisions. You'll learn about auditing algorithms, why numbers are often ignored, how "neutral" data can reproduce existing inequalities, and how to use data ethically. Topics will include AI and hiring, social media and journalism, algorithmic bias, the gig economy, technology and workplace discipline, managing with metrics, numbers and policing, and socially responsible data use.

The ultimate goal of this class is to attune you to some of the less obvious ways that data and its technologies work in real organizational contexts. When you are in a position to be making decisions about whether an automated hiring system, about how to implement new analytics that promise to achieve greater efficiency, or perhaps find yourself frustrated that your organization seems to ignore data entirely, I want you to have a bigger toolkit for making wise decisions, anticipating unintended consequences, and understanding social effects. I also want you to recognize the ways that data is, in a very real sense, power, and to be able to think carefully about who it helps and who it harms in any given situation.

We will achieve these goals by working through several major topics. We'll start the semester with some history and conceptual work, jumping back and forth between present data controversies and surprisingly similar debates from 50 or 100 years ago. We'll then spend several weeks looking at how data-driven technologies are reorganizing work—both in less-skilled jobs, like retail, and professional ones, like journalism. We'll move on to some of the ways that data, algorithms and artificial intelligence are being used in managerial activities like hiring and scheduling, and then look at how data can transform organizations as a whole—as when testing introduces accountability into schools, or predictive analytics change how police organizations do their jobs. Finally—although we'll be considering this throughout—we'll spend some time specifically on the ethics of data, and considering efforts to make data better serve those who are usually subject to it.

COURSE REQUIREMENTS AND GRADING

You do not need to purchase any books for this class. All readings will be posted to Canvas (umich.instructure.com) and/or available electronically through the library.

Your grade will be based on several components, described below. Assignments will be submitted through Canvas.

Participation (15% of grade). This class works best when students are actively engaged, thinking and talking about the issues we discuss. Attendance is important—but so is showing knowledge of the readings, asking meaningful questions, and engaging in productive discussion. This is not a lecture-centric class. Because of the COVID situation, there is no official policy this semester about how many absences are okay. If you need to miss class, miss class. However, please give me a heads up beforehand if possible, and if not, as soon afterward as you are reasonably able.

Two short reflections (10% of grade total). These are two 2-pp. reflection memos, one due close to the beginning of the semester, and one due close to the end. The first one will ask you to think ahead to the final project and consider what problem you might be interested working on—even before you have a full sense of what topics we will cover. The second will ask you to take a look back at the end of the semester, and identify three takeaways from the class and briefly discuss them. Reflection memos are due by 11:59pm the day before class (Mon 9/7, Mon 12/7).

Six structured and unstructured reading responses (20% of grade). Engaging with the reading is a critical part of this class. Over the course of the semester, you will submit six written responses (of about 1 p. each) to the readings. You can choose which readings to respond to, but there will be some guidelines so that your responses are spread out over the course of the semester. For some days, the response will be fairly unstructured: you might touch on questions you have, think of similar examples, or discuss your reaction. For others, I will provide a specific question or ask you to do a specific thing related to the reading (like identify and discuss a real-world example of the phenomenon it describes). Reading responses are due by 11:59pm the day before class.

Midterm analytical paper (20% of grade). You will write an analytical paper of about 1500 words (4-5 pp.) on one of the two following topics. The midterm paper is due at 11:59pm on Fri 10/16.

- Pick one of the four workplaces we discussed in class: trucking, retail, Uber, or journalism. Reflect on how the introduction of data-driven technology into your industry has changed the nature of that work, for better or for worse. Then analyze these developments through a rationalist and a critical lens, weighing the costs and benefits of the new technology for the workers, the organizations that employ them, and (if you're feeling ambitious) society.
- Pick two of the four workplaces we discussed, and compare and contrast the effects of data-driven technology on workers within them. In what ways are they positive and/or negative, and what do you think accounts for some of the differences you see across the two cases?

Final project (35% of grade). This project has a team component and an individual component. Based on overlapping interests, you will be placed into a team of 3-4 people and will identify together a current controversy around data and its use. This may be about the unintended implications of some business application (like the use of AI in hiring), a broader social issue (like how work should be regulated in the gig economy) or something else entirely—the scope here is pretty broad. Your team will propose and revise a topic (with feedback from me), then research that topic together and develop and give a presentation on it to the rest of the class (10%). You will then individually write a report of about 3000 words (8-10 pp.) that analyzes your controversy and proposes some guidelines for decision-making around it (25%). This project will be broken down in more detail as we get to the second half of the class. The presentations will take place on Th 12/3 and Tu 12/8, and the final report is due at 11:59pm on Fri 12/11.

A FEW OTHER NOTES

COVID caveats

There is a lot that is uncertain right now, about everything from this course format (will we have to move online?) to the state of the world (what will happen after the election?). Many people are currently experiencing mental health issues or facing other kinds of challenges (e.g. food or housing insecurity, family care responsibilities). You may be among them.

If you find that you are having issues—physical, mental, familial, personal, whatever—**that are interfering with your ability to succeed in this class, please let me know and we will work something out.** I am not going to ask a lot of questions or require proof: if you ask for an accommodation this semester—extra time, an alternative way to meet some course requirement, whatever—you are almost certainly going to receive it.

I do reserve the right to change the syllabus or assignments if our collective situation changes significantly. I will always give you plenty of notice before making any changes, and the broad intentions for each assignment (interaction with the class, engagement with the readings, analysis of a real-world problem, etc.) will remain the same. I will not add work. Because this is a newly developed class, it is also possibly that I may make some tweaks to the readings as we progress through the semester together.

Academic integrity

While you are encouraged to talk with your peers about the content of the course, you are expected to complete each assignment on your own, or, as relevant, with your team members. In particular, while you will conduct research for your final project and write a presentation as a group, your final report must be written completely independently, although you are welcome discuss your report with other members of your team..

All students are required to abide by the academic honesty guidelines of the University of Michigan. Among other things, this means: (1) Students must submit only their own, original work in fulfillment of course requirements; and (2) Consulted works much be cited using an accepted documentation style. Violating this policy may cause the student to receive a zero on the assignment, to fail the course, to receive academic probation, or to be expelled from the university. If you have questions, please ask.

SCHEDULE

Date	Broad topic	Specific topic	Reading(s)	Due this week	Memos by this date*
Tu 9/1	Intro	Intro			
Th 9/3	Intro	The dilemmas of data	How A-levels work Algorithms Can't Fix Broken Systems On A Levels Ofqual and Algorithms		
Tu 9/8	History	Rational/normative/critical: wave 1	Excerpt from Frederick Taylor's <i>Principles of Scientific Management</i> (1911) Spend 15 minutes exploring this website on the Human Relations movement Race and America: Why Data Matters	Assn 1 (9/7)	
Th 9/10	History	Rational/normative/critical: wave 2	Podcast: "Why the Bronx Burned" Excerpt from Harry Braverman's <i>Labor and Monopoly Capital</i> (1974)		
Tu 9/15	History	Big data: different, but same?	"Big Data: The Management Revolution" (HBR 2012) "Companies Are Failing in their Efforts to Become Data-Driven" (HBR 2019)		1
Th 9/17	Theory	Myth, ceremony & decoupling	Bromley & Powell, "From Smoke and Mirrors to Walking the Talk" (2012)		
Tu 9/22	Theory	The politics of data	Winner, "Do Artifacts Have Politics?" (1980)		
Th 9/24	Work	Truckers	Levy, "The Contexts of Control: Information, Power, and Truck-Driving Work" (2015) Video: Automation Is Coming for Truckers - But First, They're Being Watched How Hard Will the Robots Make Us Work?		

Tu 9/29	Work	Retail	Van Oort, "The Emotional Labor of Surveillance: Digital Control in Fast Fashion Retail" (2019) "What Customer Data Collection Could Mean for Workers" (HBR 2016)		2
Th 10/1			Flex day - leaving unscheduled for contingencies		
Tu 10/6	Work	Gig work	Selections from Alex Rosenblat's <i>Uberland: How Algorithms Are Rewriting the Rules of Work</i> (2019)		
Th 10/8	Work	Journalism	Christin, "Counting Clicks: Quantification and Variation in Web Journalism in the United States and France" (2018)		
Tu 10/13	Work	Overview	Kellogg, Valentine & Christin, "Algorithms at Work: The New Contested Terrain of Control" (2020)	Midterm paper (10/16)	3
Th 10/15	Manage	AI and hiring	"The Legal and Ethical Implications of Using AI in Hiring" (HBR 2019) Challenges for Mitigating Bias in Algorithmic Hiring Amazon Scraps Secret AI Recruiting Tool That Showed Bias Against Women van den Broek, Sergeeva & Huysman, "Hiring Algorithms: An Ethnography of Fairness in Practice" (2019)		
Tu 10/20	Manage	Data and hiring	Kiviat, "The Art of Deciding with Data: Evidence from How Employers Translate Credit Reports into Hiring Decision" (2019) Cost Cutting Algorithms Are Making Your Job Search a Living Hell		
Th 10/22	Manage	Flexible scheduling	Schneider & Harknett, "Consequences of Routine Work-Schedule Instability for Worker Health and Well-Being" (2019) Here's What Happens When an Algorithm Determines Your Work Schedule		4
Tu 10/27	Orgs	Data and recoupling	Hallett, "The Myth Incarnate: Recoupling Processes, Turmoil, and Inhabited Institutions in an Urban Elementary School" (2010)		

Th 10/29	Orgs	Rankings	Sauder & Espeland, "The Discipline of Rankings: Tight Coupling and Organizational Change" (2009)	
Tu 11/3			Election day - no class, go vote if you're able	
Th 11/5	Orgs	Inequality: criminal justice	Brayne, "Big Data Surveillance: The Case of Policing" (2017) Podcast: The Crime Machine (part 1) Podcast: The Crime Machine (part 2)	
Tu 11/10	Orgs	Inequality: criminal justice	Skeem, Scurich & Monahan, "Impact of Risk Assessment on Judges' Fairness in Sentencing Relatively Poor Defendants" (2020) Machine Bias Can You Make AI Fairer Than a Judge? Play Our Courtroom Algorithm Game	5
Th 11/12	Orgs	Classification situations	Fourcade & Healy, "Classification Situations: Life-Chances in the Neoliberal Era" (2013)	
Tu 11/17	Ethics	Auditing algorithms	Ajunwa, "Hiring by Algorithm: Predicting and Preventing Disparate Impact" (2016)	
Th 11/19	Ethics	Alternative governance	Davis & Shibulal, "Taming Platform Capitalism to Meet Human Needs" (2019)	
Tu 11/24			Thanksgiving, no class	
Th 11/26			Thanksgiving, no class (subsequent classes online)	
Tu 12/1	Ethics	Organizing around data	Scientists and Activists Use Data to Give a Platform to People of Color Detroit Community Technology Project: Data Justice	6
Th 12/3	Presentations			Presentations

Tu Presentations
12/8
Fri
12/11

Presentations
Assn 2 (12/7)
Final report
(12/11)

* Of the six total reading response memos, you should have this many turned in by this date (so: one memo by Tu 9/15, two memos by Tu 9/29, etc.)