**Week 1**

Explore a current “code of ethics” or "professional conduct" in a setting that inspires you. This can be a professional association, a corporate acknowledgment, or a governing framework (e.g., The Association of Computing Machinery's Code of Ethics found here - [https://www-acm-org.libproxy.lib.unc.edu/code-of-ethicsLinks to an external site.](https://www-acm-org.libproxy.lib.unc.edu/code-of-ethics)).

As you review consider what ethical frameworks are embedded into this document. Is anything missing? Why or why not? In your reply, post a link to the code of conduct you reviewed.

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[https://www.mlb.com/player-resource-center/player-policiesLinks to an external site.](https://www.mlb.com/player-resource-center/player-policies) (Major League Rule 21)

These policies primarily emphasize a virtue ethics approach to decision-making. They are intended to preserve fairness in the league by forcing it's employees to eliminate all outside influences. By doing so it is developing the character of the players and umpires and is consistent over as these policies shouldn't change.

These also show the duty framework as they are pretty obviously the right thing to do. It is not fair to purposefully lose a game in order to make money or to pay an umpire so that they can make calls in your favor. These policies were also created based on past actions, in the 1919 playoffs one team conspired with bettors to intentionally lose the World Series in order to win money.

There are a few changes I would make to the policies:

In section (a) Misconduct in Playing Baseball, they specify 'his best efforts', which although there is yet to be a non-male player in the MLB, this could have been easily written to be gender neutral.

In section (d) Gambling, there is no mention of players, club officials, etc. acting as advisors to others who can bet. I feel it would be easy for them to alert a family member or friend that their team plans to rest players and to bet for the other team to win. Although the player, official, etc. may not directly gain from the bet it would help those around them.

**Week 2**

Consider a second order effect of a data science tool/model that has yet to be considered. What is it? What are the pros and cons of these effects?

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For work I run create Monte Carlo simulations which forecast failures for components on an aircraft (can be applied to other mechanical systems as well). The goal of the simulations is to find which interval for inspections leads to reducing costs and increasing safety while still keeping the fleet readiness high. In order to create these simulations we create Weibull models for each failure mode on the component. We then determine which existing inspections check for these failure modes and the probability of detection for each of the inspections. Once all of the inputs are determined, the Monte Carlo simulation is ran hundreds of times and the results are averaged to get a picture of expected supply chain requirements and fleet readiness in a given time frame.

What these models do not consider at all is the maintainers that are actually doing the inspections and maintenance as a result of found failures. When testing different potential new inspection intervals we never consider that decreasing the interval leading to more inspections may over time increase the probability of detection as well as increase detection of failures of surrounding components. Some inspections may also be more intense to perform on the maintainers and increasing the frequency of them may lead to more injuries for the maintainers. The decision on which inspections are implemented and at which intervals is often decided by engineers with minimal to no experience actually in the hanger performing the inspections and maintenance.

Pros:

* Increased frequency allows maintainers improve their detection rate leading to more repairs and less replacements.
* Reduced replacement rate reduces supply requirements allowing logistics to focus on other components.
* Turnaround time for repairs is quicker increasing fleet readiness in case of emergency.

Cons:

* Maintainers are forced to rush inspections as leadership expects them to still be completed in original time frame to ensure fleet readiness.
* Maintainers are forced to perform straining inspections more often leading to increased injuries.
* Increased maintenance induced damage as a result of increased frequency of inspections.

**Week 3**

Find a service you might want to sign up for or an app you’d like to download. You do not need to use your real information, but take a moment to sign up for this service. What questions do they ask you? What did the terms of service say? Write a small post reflecting on what they asked of you and what ethical frameworks were followed (if any).

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I decided to go into the app store and download one of the most popularly downloaded apps currently , Whatnot. Whatnot is a shopping/marketplace app where users can do live auctions.

In the influencers Terms and Conditions, it states that influencers must keep posts about WhatNot products for a year after they stop their partnership with WhatNot, all posts must be approved by WhatNot and influencers must also send post metrics to WhatNot about posts promoting WhatNot sales. Although this may seem like standard practice I feel this makes the influencers more or less puppets of WhatNot. They are just faces that sell on the app to grow popularity and entice users to use the app regularly leading to more sales for WhatNot.

In order to be a verified seller you must provide a picture of a government issued ID. Although this has become standard, for some communities it is harder to obtain. It is possible to get an ID without getting a Driver's License but regardless you need to go to a DMV which are only open during work hours and often require long waits. This discourages people with lower incomes who have to work those hours in order to support themselves and their families.

They can also collect data from your comments, direct messages, photographs are products to be sold, and livestreams during auctions. This data along with your email, phone number and mailing address can be shared with business partners. This data will also be used to customize your experience. They can also use your data to create de-identified, aggregated datasets for analyses on demographics and purchase trends.

Overall I think that there is minimal ethical in their terms of service and privacy policy. Similar to most companies their goal is to collect data, provide suggestions based on models that categorize you based on your interactions on the app and then provide the data to other companies to be sold.

**Week 4**

Where do you see data violence? Take some time and consider what might constitute data violence. Then post about what you realized. What is “violence” and is it possible to mitigate?

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Data violence is created by every individual throughout the data process. From the data collectors who may focus on one group of people or exclude other groups. To data extraction and transformation where certain attributes may be dropped because they are thought to be "unnecessary" but instead assist in telling the story of how the collected data was biased. To the data model where certain features are weighed more than others causing the model to create associations between words that are based on the creators racist, sexist or other types of prejudice. Data violence can be caused by immoral practices or processes in one, many or all of these stages. An example of Data Violence is the COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) algorithm which is used by the United States criminal justice system. This tool was designed to predict the likelihood of an offender committing another crime. This algorithm used historical crime data to make predictions. Since the historical data was highly skewed towards black individuals due to racially biased policing the algorithm was much more likely to label black individuals as high risk candidates for reoffence. For this example, simple data normalization through sampling could have easily solved the issue. If the training dataset was equally proportioned by race, gender, first crime offended, and other key attributes then the model would be more likely to produce unbiased results.

**Week 5**

The United States and the EU have very different ways of thinking about privacy. Explore some of the new EU policies in place. Do you think this goes far enough? How are they different to what we are doing here?

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It is clear that the European Union’s General Data Protection Regulation (GDPR) represents a landmark shift toward individual empowerment and corporate accountability. Unlike the more fragmented United States landscape—where privacy protections are driven by sector-specific laws and vary significantly from state to state—the GDPR provides a single, comprehensive legal framework. It defines personal data expansively, covers any automated or structured manual processing, and grants citizens access, rectification, erasure, and data portability rights. Organizations must also adopt “privacy by design and default,” and report breaches within 72 hours, under threat of steep fines.

I believe the GDPR goes a long way toward protecting privacy, particularly through its extraterritorial scope and hefty penalties that incentivize compliance. However, new technologies like AI and pervasive IoT devices continue to outpace regulatory clarity. In contrast, US companies operate under a mosaic of state and federal rules that often rely on opt-out mechanisms and provide more limited individual rights, such as weaker data deletion requirements and milder penalties. I appreciate the GDPR’s emphasis on transparent, lawful processing and robust individual empowerment, but I also recognize that keeping pace with technological advances will require ongoing updates and international cooperation. Regardless, the EU has shown they care immensely more about their citizens data privacy and protection as compared to the US.

**Week 6**

Choose one of the case studies available below:

* [**https://ethos.academicdatascience.org/how-this-works/**](https://ethos.academicdatascience.org/how-this-works/)
* [**https://www.youtube.com/watch?v=QHlacIwhZVo**](https://www.youtube.com/watch?v=QHlacIwhZVo)

Write about which case you choose and what you learned from this activity.

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From the “Estimating Population with Cell Phone Records” case study, I learned how collecting cell‐phone data to track population movements involves hidden ethical issues. At first glance, using aggregated cell‐tower pings to estimate where people are seems like a straightforward technical process. However, this activity showed me that assumptions such as “one phone equals one person” can be inaccurate. For instance, low‐income families often share devices or use prepaid SIM cards that may not be consistently active. As a result, their movements might not be counted correctly.

I also saw how power dynamics affect data ownership and interpretation: telecom companies control the raw data and decide who can access it, often prioritizing business or government needs over individual privacy. Meanwhile, marginalized groups—such as migrant workers or undocumented residents—can remain “invisible” because their phone usage patterns don’t fit the usual models. This invisibility can reinforce existing social inequalities when policies and resources are based on flawed data.

By examining this case through lenses of positionality, power, sociotechnical systems, and narrative, I realized that ethical reflection must be part of every step. For example, the narrative that “big data will solve outdated census methods” ignores who benefits (urban planners, private firms) and who loses out (underrepresented communities). In summary, this exercise reinforced that good data science practice requires questioning basic assumptions about who is counted, why they are counted, and who gains so that well‐intentioned projects do not unintentionally cause harm.

**Week 7**

* What do you think is better for promoting safe and trustworthy data science tools?  Corporate/Self Governance, Litigation, and/or Government Legislation? Consider the pros and cons of each approach and back your arguments with real-world examples.

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In an era where data drives critical decisions, I argue that the most effective path to safe and trustworthy tools lies in corporate and individual self-governance. By developing clear standard operating procedures (SOPs) and industry-led guidelines, organizations can stay nimble and leverage their own expertise to address emerging challenges.

Why it works:

* Agility & Expertise: Companies can update policies on the fly, drawing on in-house technical teams who understand the nuances of their own products.
* Best-Practice Collaboration: Groups like the Partnership on AI (est. 2016) bring together leading firms—Amazon, Google, Microsoft, IBM, and more—to craft shared standards for fairness, transparency, and robustness.
* Building Trust: Publicly committing to responsible practices not only reassures customers but can also deter regulators from imposing heavy-handed rules.

Where it falls short:

* Uneven Uptake: Without legal teeth, smaller firms may ignore voluntary standards altogether.
* Conflicts of Interest: Companies might downplay risks to protect their bottom line.
* Greenwashing Risk: Bold pledges can ring hollow unless backed by third-party audits or public accountability.

A great example of a major company taking initiative to make the world better in response to a terrible injustice was in June 2020—just days after the killing of George Floyd and amid nationwide protests against police brutality—IBM’s CEO Arvind Krishna sent a letter to key members of Congress announcing that “IBM will no longer offer, develop, or research general-purpose facial recognition or analysis software” and opposing any use of such technology for mass surveillance or racial profiling. Krishna emphasized that “now is the time to begin a national dialogue on whether and how facial recognition technology should be employed by domestic law enforcement agencies,” effectively calling on lawmakers to create binding guardrails rather than leaving decisions solely to vendors and police forces. Although this was in response to an event instead of being proactive it shows that companies can react and implement new policies quicker than governments or lawsuits can be settled.

**Week 8**

Select an industry (e.g., construction, education, finance, healthcare) and examine the impact of AI-driven hiring on both employees and employers. Discuss the advantages and disadvantages, considering factors such as job roles, education and experience levels, as well as demographics like race, gender, ethnicity, and religion.

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The healthcare industry is increasingly adopting AI-driven hiring tools to streamline recruitment processes. For employers, these systems offer clear advantages: they can quickly screen thousands of applicants, match candidates to specialized roles based on certifications and experience, and even analyze video interviews for soft skills like empathy and communication—qualities highly valued in healthcare settings.

For employees, AI hiring can make job applications more accessible and less biased in theory. Automated systems can eliminate some human prejudices by focusing on qualifications rather than subjective impressions. For example, AI might ensure that a qualified nurse with an international degree gets fair consideration, or that early-career professionals aren’t automatically screened out based on limited experience.

However, the disadvantages are significant. AI systems often rely on historical hiring data that may reflect existing biases. If past hiring favored certain groups—such as white, native-born, or male candidates—AI models may unintentionally reinforce these patterns, disadvantaging women, racial minorities, immigrants, and religious minorities. Moreover, the complexity of healthcare roles—where human empathy, cultural sensitivity, and bedside manner are critical—can be hard for algorithms to fully evaluate.

Education and experience levels can also create barriers. Candidates from non-traditional backgrounds or with gaps in employment may be penalized by rigid AI filters. Entry-level applicants, career changers, or those with alternative certifications may struggle to get past automated screenings.

In summary, while AI-driven hiring in healthcare offers efficiency and scalability for employers, it carries risks of perpetuating inequality and overlooking vital human qualities. Careful design, diverse training data, and ongoing oversight are essential to ensure these tools promote fair and effective hiring practices.

**Week 9**

Look at the [NYC White Collar Crime Heat Map.](https://whitecollar.thenewinquiry.com/) If this were the data used to drive predictive policing – who would be at risk?

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If the NYC White Collar Crime Heat Map were used to drive predictive policing, the people most at risk would likely be professionals and businesspeople in wealthy, high-income neighborhoods. Unlike traditional crime maps that focus on street crime in low-income areas, this map highlights areas with high concentrations of financial misconduct—like corporate fraud, embezzlement, insider trading, and regulatory violations. These tend to cluster in places like Midtown and Wall Street, where financial firms and investment companies are based.

Using this kind of data in predictive policing flips the usual script. In most predictive systems, policing tools are focused on poorer communities, reinforcing stereotypes and increasing surveillance in neighborhoods already over-policed. But here, the data points to areas of power and privilege. If used seriously, predictive tools might suggest monitoring banks, accounting firms, or even certain corporate buildings. However, it’s unlikely that such a system would ever be implemented with the same level of scrutiny or aggression seen in traditional predictive policing models. This shows how bias doesn’t only come from the data—it’s in how we choose to act on it.

White collar crimes can cause massive harm—job losses, housing crises, and even recessions. Yet, they’re often treated as lower priority, partly because the people who commit them have influence and resources. If we’re going to use data science in policing or policy-making, we have to ask: whose harm matters, and who gets targeted? This example shows that ethical data science isn’t just about building fair models—it’s about challenging power structures and questioning the goals behind the tools we build.

**Week 10**

What would it look like if teachers or nurses became robots? What might some positive and negative outcomes be of this technological replacement?

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If teachers or nurses were replaced by robots, the social and institutional impacts would be profound. On a functional level, robotic educators or caregivers could offer precision, efficiency, and 24/7 availability. In schools, AI-powered teachers might provide personalized instruction, adaptive learning paths, and instant feedback, potentially narrowing learning gaps. In hospitals and clinics, robotic nurses could administer medication, monitor vital signs, and assist with routine procedures—reducing workload and error rates in high-stress environments.

However, the replacement of human teachers or nurses with robots also raises serious concerns. Teaching and nursing are not merely technical tasks; they are fundamentally relational professions built on empathy, communication, and emotional support. Robots may struggle to recognize nuanced human emotions or respond with the kind of compassion that fosters trust and comfort. This is particularly critical in vulnerable populations—young children, the elderly, or patients in distress—where human presence has psychological and therapeutic value.

Economically, large-scale replacement could displace millions of workers, particularly women, who dominate both professions. This could widen gender and income inequality and strain social support systems. Culturally, replacing caregiving roles with machines might undermine societal values related to compassion, mentorship, and human connection.

At best, robotic technologies should augment—not replace—human educators and caregivers. Assistive robots could take over repetitive or physically demanding tasks, freeing humans to focus on interpersonal engagement. This hybrid approach might preserve the irreplaceable aspects of human care while enhancing service delivery.

In conclusion, while robotic integration into teaching and nursing could improve efficiency and consistency, a wholesale replacement risks dehumanizing essential services. A balanced strategy—one that preserves human empathy while leveraging technological strengths—offers the most ethical and sustainable path forward.

**Week 11**

Should AI be used to solve governmental problems? What are the benefits/weaknesses of this kind of integration?

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In an age where time is one of our most precious resources, artificial intelligence (AI) offers governments a chance to reclaim it. From improving efficiency to democratizing access to services, AI presents enormous potential for solving systemic challenges in the public sector. However, its implementation also carries significant risks that must be thoughtfully addressed.

One of the clearest benefits is the ability to automate time-consuming tasks. As one government-focused article highlighted, federal employees spend nearly half a billion hours annually on documentation, costing taxpayers over $16 billion; as a government employee I can confirm this to be true, I spend a lot of time reading and writing documentation. AI can streamline these processes, freeing up human capacity for more meaningful and mission-critical work. Similarly, IBM’s exploration of AI in banking shows how customer service, fraud detection, and compliance can be improved through AI, demonstrating transferable lessons for public agencies.

Beyond efficiency, AI can enhance accessibility and personalization in services. Just as generative AI creates personalized banking experiences or acts as a virtual financial advisor, government agencies could use similar tools to deliver tailored public services, support policy analysis, or improve citizen engagement.

However, these advantages must be weighed against notable weaknesses. Risks include job displacement, reduced morale, and increased dependency on opaque systems. As Sam Altman emphasized in his TED talk, society must carefully navigate the balance between innovation and accountability. Questions about intellectual property, bias, and safety are especially pressing when government systems—meant to serve all—are influenced by AI trained on biased data.

In conclusion, AI should be used to solve governmental problems, but only with safeguards in place. Transparent frameworks, inclusive stakeholder engagement, and ongoing oversight are essential to ensure that the technology serves public good without undermining trust, fairness, or human agency. The goal shouldn't be to replace public workers—but to empower them to focus on the work that truly matters.

**Week 12**

In the Hollywood blockbuster *Her*, the lead character falls in love with their automated assistant and blurs the boundaries between human/bot intimacy. In what ways might this be a near future? What other ways could AI impact the future of Hollywood?

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As AI systems become increasingly sophisticated in mimicking emotional intelligence and personalized interactions, the line between human and machine intimacy continues to blur. Platforms like Blued already hint at this reality. As discussed in Calculating Dating Goals, users are engaging in “data gaming” to optimize visibility and match success within algorithm-driven dating platforms. This shows how users not only understand but emotionally respond to algorithmic feedback—an early form of relational engagement with machines.

The implications for Hollywood are profound. AI is no longer just a subject of storytelling but a collaborator in storytelling itself. AI-generated scripts, voice cloning, and deepfake technology are reshaping production timelines, actor contracts, and creative processes. In the future, actors may license their digital likenesses, enabling studios to feature them in films indefinitely. This creates exciting possibilities but also raises ethical concerns about consent, labor, and representation.

Moreover, Hollywood might begin to cater to AI audiences. As generative AIs consume and produce media, studios may analyze AI preferences to develop content that resonates with both humans and algorithms—an odd but possible demographic shift.

Finally, as with the users of Blued who game data to be seen and desired, future audiences may grapple with similar algorithmic pressures in virtual spaces. Emotional resonance and performance might no longer be about human relatability alone, but how well a character “performs” for recommendation engines.

What *Her* imagined, we are now rehearsing in real time. The only question left is whether we’ll write the script—or let the algorithm do it for us.