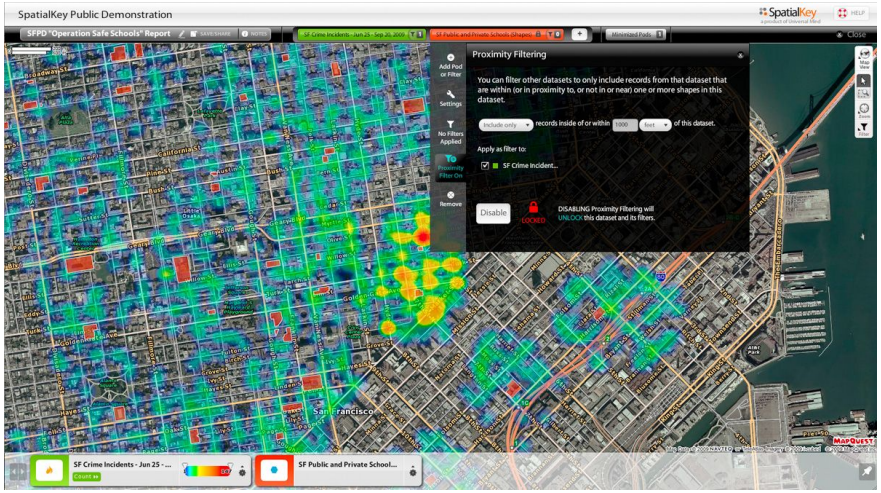
Racial Bias in Predictive Policing

Chris O'Brien and Emma Wingreen

Origins of Policing Algorithms

- Historical roots in **actuarial justice**, attempts to predict parole recidivism in 1920s Chicago: Source: Ferguson (2017)
- NYPD started using predictive policing software as early as 2012 to predict where crimes including shootings, burglaries, felony assaults, and grand larcenies of motor vehicles would occur. The algorithms were used to assign officers to monitor specific areas. Source: Brennan Center
- Also in 2012, the Chicago Police Department created a list of people it considered most likely to commit gun violence or to be a victim of it. Source: Chicago Mag



How predictive policing works

- Machine learning models are trained on two types of data (Source MIT Tech. Review):
  - Location based algorithms predict where crime will occur (based on links between places, events, and historical crime rates)
  - Other tools predict which people are likely to be involved in future criminal activity

PROS: Helps Prevent Potential Future Crimes

- Place-based predictive policing, the most widely practiced method, uses pre-existing crime data to identify places and times that have a high risk of crime.

  Source: Brennan Center

- LAPD uses a points-based system to evaluate the risk that individuals pose so that they can be monitored by police

  Source: The Intercept

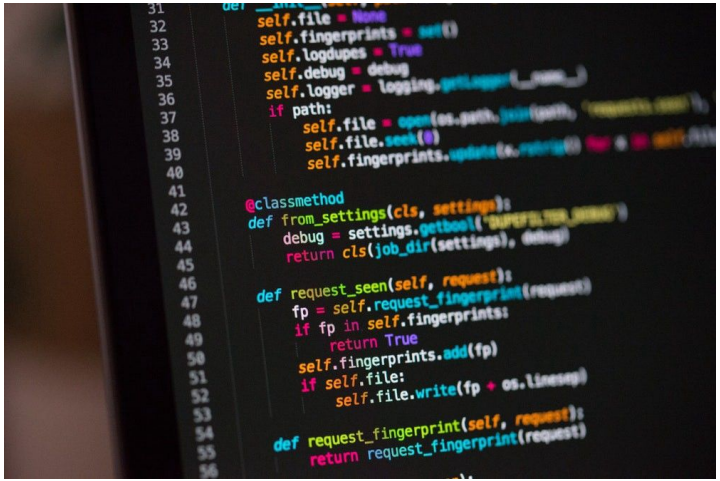
PROS: Designed to Be Race Blind (In Theory)

“It is math, not magic, and it’s not racist.”

— LAPD spokesman

PATTERN, a risk assessment algorithm designed to predict recidivism among federal prison inmates, is designed to assign the same risk score to two offenders of different races with similar or identical criminal profiles

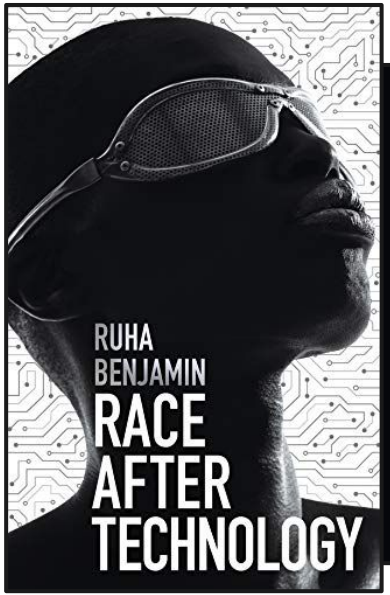
Source: APA Online

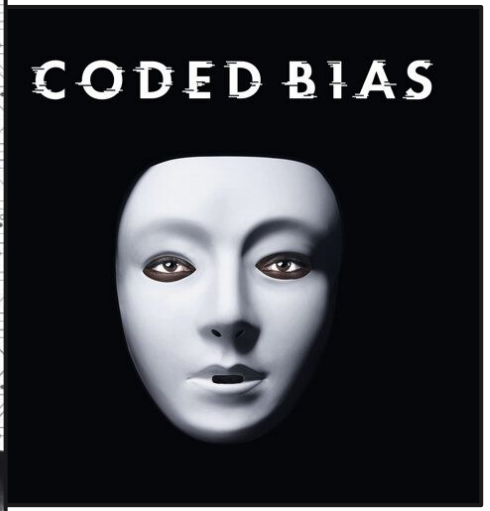


PROS: Has Drawn Attention To Race-Based Algorithmic Bias

In practice: “Only 7 percent of Black males received a minimum-risk score compared to 30 percent of White males, 53 percent of Black males received a high-risk score compared to 29 percent of White males, and 10 percent of Black females received a high-risk score compared to 5 percent of White females.”

Source: APA Online





Cons

- **Transparency**: Police often don't reveal exactly what technologies they're using or how they work (Vox, Brennan Center)
    - Concerns about civil liberties violations
    - Concerns about racial bias (more on this next slide)

CONS:

- Racial bias in the training data (MIT Tech. Review):
  - Police are known to arrest more people in BIPOC predominant neighborhoods, meaning more crime will be predicted in these locations
  - To compensate, PredPol algorithms are now trained on victim reports, which are less likely to be biased by existing policing procedures
  - However, data from victim reports is also skewed:
    - Black people are less likely to be reported for a crime than white
    - People are less likely to report crimes in areas where police are known to be racist or corrupt

Discussion Questions:

- Do you think predictive policing is an effective way of preventing crime?
- How might facial recognition software impact predictive policing? See *Coded Bias* for examples
- What are other examples of software that might be racially biased?

Sources

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