PREDICTIVE POLICING AND THE PERFORMATIVITY OF DATA

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ETHNOGRAPHIC QUESTIONS

How does the HunchLab team negotiate the potentially discriminatory nature of predictive policing with the otherwise benign and politically progressive projects that Azavea typically undertakes?

(Or, more broadly: How do producers of policing technology deal with the potential for discriminatory bias in the data?)
PREDICTIVE POLICING

Predictions of risk.

- **Offender-based**
  - Predicts perpetrators
    - e.g., the Chicago “Heat List” or SSL
  - Predict recidivists
    - e.g., COMPAS
- Geospatial
PREDICTIVE POLICING

Predictions of risk.

- Offender-based
- Geospatial
  - divides jurisdictions into grids
  - historic crime data
  - predictions by crime type and d
CRITIQUES OF PREDICTIVE POLICING

“Machine Bias,” (May 23, 2016). Julia Angwin, Jeff Larson, Surya Mattu and Lauren Kirchner, ProPublica.
CRITIQUES OF PREDICTIVE POLICING

CRITIQUES OF PREDICTIVE POLICING

Jeremy Heffner (left), product manager and senior data analyst. Chip Koziara (right), product sales.
PERFORMANCE AND PERFORMATIVITY

**Performance.** Representational; predictive accuracy as measured against ground truth data.
PERFORMANCE AND PERFORMATIVITY

Performativity. Nonrepresentational; predictions affecting the conditions in which the statistical-representational apparatus is situated.
TECHNICAL RESPONSES TO BIAS
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- Diversification of data

HunchLab models broken down by variable.
**TECHNICAL RESPONSES TO BIAS**

- Randomization

_HunchLab webinar explaining the Allocation Engine._
Adaptive Tactics mobile interface: Officers’ GPS indicates when they are in the predictive mission area; the software starts a timer and recommends tactics.
FROM PREDICTIVE TO PRESCRIPTIVE POLICING?

Descriptive Analytics
- Analyses historical data
- Drill-down functionality
- Regression
- Trend reporting
- Data modelling
- Management reports
- Why is this happening?

Predictive Analytics
- Using past data to predict future events and behaviours
- Data mining
- Forecasting
- Monte Carlo Simulation
- Pattern recognition
- What will happen next?

Prescriptive Analytics
- Identifying best courses of action and responses
- Optimisation
- Scheduling
- Simulation
- Game theory
- What should we do next?
CONCLUDING THOUGHTS

Thanks!