PredPol is not a Black Box

P. Jeffrey Brantingham
UCLA Professor of Anthropology & Co-Founder of PredPol

jeff@predpol.com
Key Points

1. functionality – the science behind PredPol
2. testing – randomized trials & deployments
3. customization – no distractions
4. implementation & security – fast & robust
5. integration – flexible, seamless fit
6. demonstration – PredPol live
1. functionality

long-term resource allocation

chase overnight crime

Hollenbeck, 2006
event data + math

repeat victimization
local search
near-repeats
generators

near real-time data
low friction

tactical ambiguity → tactical clarity

www.predpol.com
dynamic micro-scale predictions

precision & tactical clarity

adaptive
knowledge, skills & experience

problem-oriented environmental design community policing

place-based intelligence-led broken-windows
2. experimental testing

randomized controlled trials • matched areas • natural dosage experiments
head-to-head accuracy

head-to-head crime reduction

- PredPol: -8% to 5% of total patrol time
- LAPD Hotspotting: 2.1x reduction

MPS Lewisham Feb-Mar 15

1.2% of land area under prediction – 6.6% accuracy overall
Lewisham Crime Impact

Jan 14       Apr 15

percent crime reduction

0%          0%

-5%          -5%

-10%         -10%

-15%         -15%

-20%         -20%

-25%         -25%

MPS          MPS

LWS          LWS

Burglary, Robbery, Theft of/from Vehicle

NYC_0000758
NYPD Tests July 2015

First Platoon
Second Platoon
Third Platoon

Manhattan North • Queens South • Staten Island
3. customization

mission maps

user, data & deployment management

shift & crime

pre-schedule missions

real-time dosage tracking

hit-scoring
4. implementation & security

Jurisdiction & Shift Structure

Classification & Historical Data

data 1

data 7

data 14

data 21

Data Pipe

QA

Secure Cloud Hosting

RMS

AES

SSH

User

PredPol Algorithm

Prediction Set

Encrypted DB

Data Processing
5. integration

web & mobile

automated delivery

full API integration

Atlanta PD Crime Center
PredPol

is NOT:

• profiling of individuals
• a replacement for knowledge, skills & experience
• new infrastructure

IS:

• accurate prediction of crime location & time
• day-to-day operations focused
• a means for reducing the costs of crime
Questions?