ForceMetrics Officer Performance Analytics

Predictive Analytics Platform for Law Enforcement Officer Performance and Engagement

Andre McGregor

Denver Presentation – Aug 2020
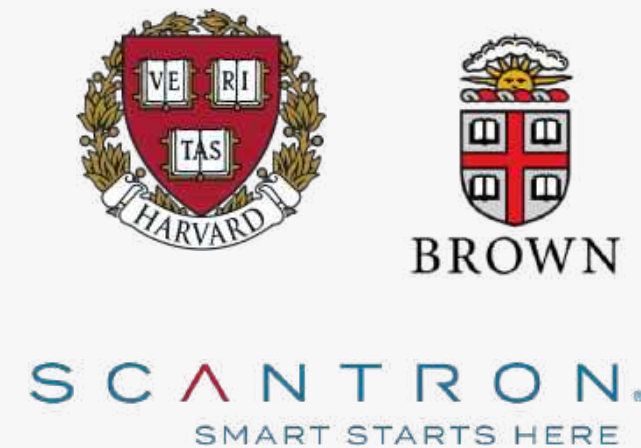
The Team

Andre McGregor
Founder | CEO

Shane McGregor
Co-Founder | Analytics

Leslie Kershaw
Operations

Jason Truppi
Engineering

Jon Fisher
Law Enforcement Liaison

Black-Owned | Culturally Diverse Team
Law Enforcement Officers + Engineers + Entrepreneurs

The Problem

On one end, trust has degraded between the police and the public

Public's lack of trust in police officers has reached a critical peak with 24 million people protesting racially disparate deaths and inconsistent use of force directly related to failed officer performance

On the other end, officer morale and fatigue is at its all-time worst

Officer morale and fatigue can be linked to a policing model based on the fastest response time by the closest officer rather than having the right responder for the right situation at the right time

Limited advances in officer performance technologies

Limited data correlations involving officer involved complaints and use of force

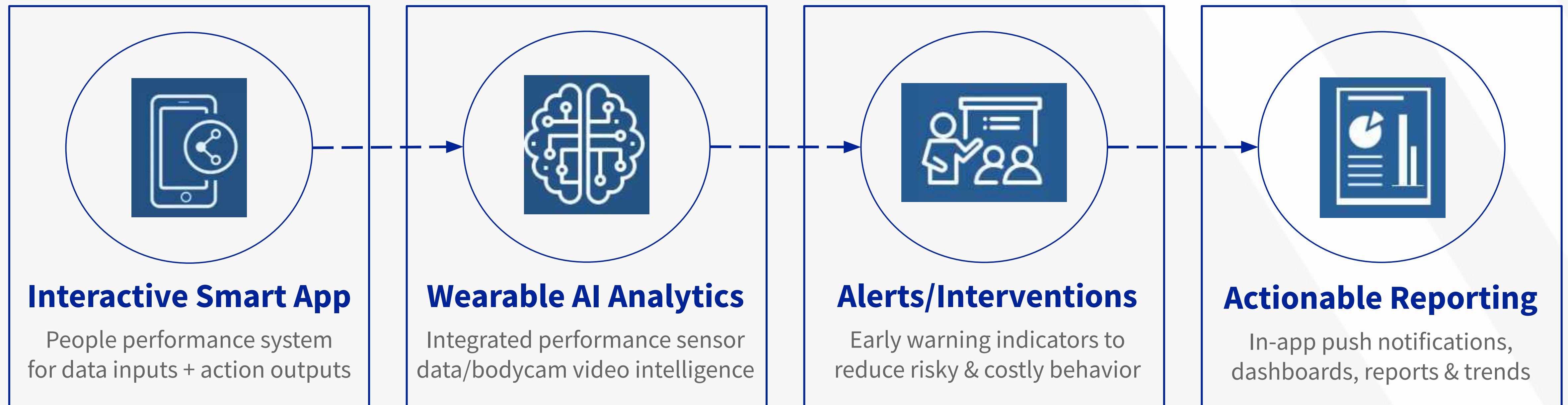Lack of artificial intelligence bodycam & wearable sensor analytics

Data scientists have yet to capture the true complexities of daily police work

Why Now?

‣ Recent protests show a *public sentiment of more doubt than trust* towards the U.S. justice system and the actions of its police officers, bringing *police officer morale at an all time low*

‣ *Subjective emotions, not objective data,* have driven many departmental decisions for police officer hiring, promotions, and disciplinary actions.

‣ *Police data analysis is heavily skewed towards crime prevention*, with officer-specific performance data limited to call type, volume, complaints, and use of force.

‣ Bodycam footage is important for the public to understand use of force situations, however *we need many more data points to provide a well-rounded view* of officer performance.

‣ Crime prevention has notoriously focused on having the fastest response times, rather than *having the right responders, at the right time, for the right situation*.

‣ Beyond a tragic loss of life, a $75,000 per year officer with a use-of-force death resulting in a *$5 million dollar taxpayer settlement is a bad return on investment*.

The Solution

Interactive Smart App

People performance system
for data inputs + action outputs

Wearable AI Analytics

Integrated performance sensor
data/bodycam video intelligence

Alerts/Interventions

Early warning indicators to
reduce risky & costly behavior

Actionable Reporting

In-app push notifications,
dashboards, reports & trends

The Solution

EASY

> > >

DIFFICULT

Who are you as an individual?

‣ Simplified personality tests to identify individual people traits, motivators, and behavior attributes

‣ Examples: assertiveness, aggressiveness, ego, empathy, skepticism, openness, cautiousness

What do you _actually_ do for work?

‣ Using dispatch, incident, and supervisor log data to archetype "a day in the life" for each officer

‣ Examples: patrol, domestic violence, homicide, investigations, inmate transport, special events

How does your body react?   (the physiology of work)

‣ Supplement subjective performance reviews with objective physiological/biomechanical movements

‣ Examples: Alterations in respiration, heart rate, body temperature, speed/acceleration, fatigue
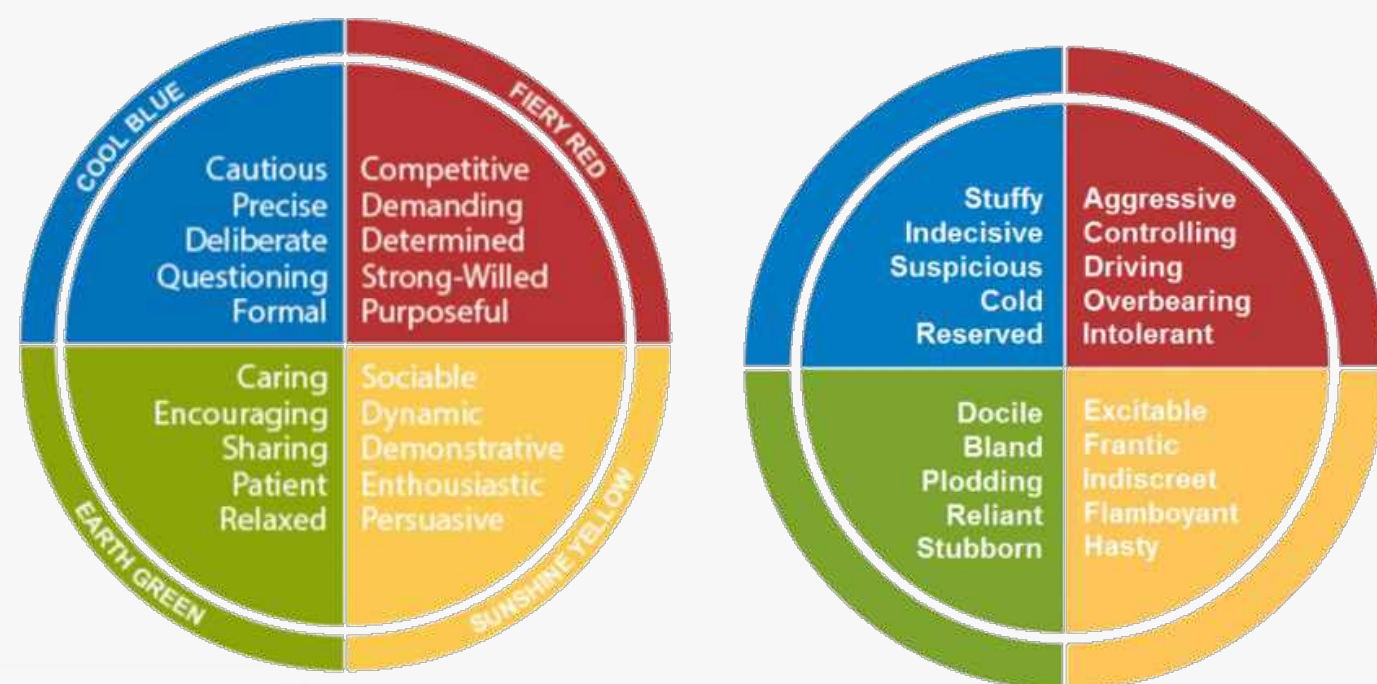
How does your brain respond?   (the psychology of work)

‣ Combine personality data with environment triggers and physiological changes for brain interpretation

‣ Examples: how to enable creative thinking, structure rewards, handle pitfalls, manage "gut instincts"
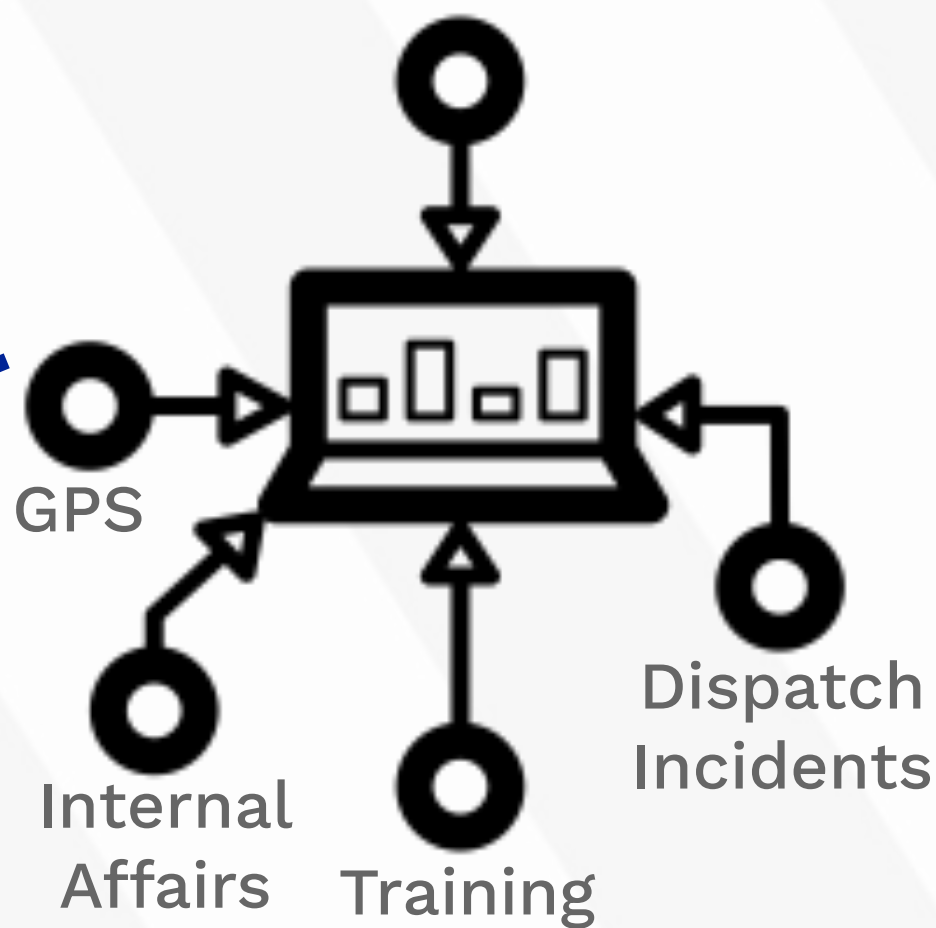
The Product

Wearable Sensors

On a good day

On a bad day

Personality Profiles + Surveys

ForceMetrics

GPS

Internal Affairs

Training

Dispatch Incidents

Predictive Analytics Forecasting

Bodycam | Dashcam Machine Learning

The Product

On a good day

COOL BLUE
Cautious
Precise
Deliberate
Questioning
Formal

FIERY RED
Competitive
Demanding
Determined
Strong-Willed
Purposeful

EARTH GREEN
Caring
Encouraging
Sharing
Patient
Relaxed

SUNSHINE YELLOW
Sociable
Dynamic
Demonstrative
Enthousiastic
Persuasive

On a bad day

Stuffy
Indecisive
Suspicious
Cold
Reserved

Aggressive
Controlling
Driving
Overbearing
Intolerant

Docile
Bland
Plodding
Reliant
Stubborn

Excitable
Frantic
Indiscreet
Flamboyant
Hasty

Success Factors

Command Staff

‣ Strong calls for defunding police departments nationally are forcing cities to rethink their response strategy with smarter training — a strategy which will need accurate data forecasts to develop new mandates.

‣ Predictive analytics based on officer performance data are a step toward to improve community engagement by acknowledging that officer behavior must be assessed, and acted upon.

First Line Supervisors

‣ Officer performance data integrated into dispatch operations will allow departments to better align their response strategy to deploy the right responder, at the right time, for the right situation.

‣ Hiring focuses on weeding out bad candidates rather than selecting the best ones. We can all agree on the traits of a bad cop, but it is of greater importance to identify all of the traits that make a good cop.

Officers

‣ With many states rapidly passing laws requiring immediate release of all use-of-force bodycam footage, it will more important than ever to have a full picture of officer performance as judgments are being passed

Traction

Active Pilot - East Brunswick NJ Police Department (Initiated June 2020)

Use dispatch, gps and officer performance datasets to forecast lowest-performing officers susceptible to complaints and use of force.

‣ Ingest departmental datasets into our data warehouse to develop officer performance forecast models
‣ Develop initial mobile app with IMREADY© officer daily self-assessment, surveys, and intervention alerts
‣ Pilot wearable performance sensors on officers to baseline body responses to specific call types/stressors
‣ Summarize ideal/destructive traits within the ranks of top and bottom performing officers.

Active/Planned Pilot Discussions

‣ Dallas Police Department, Houston Police Department (Texas)
‣ Kansas City Police Department (Missouri)
‣ Denver Police Department (Colorado)

ForceMetrics

Employee Personality Traits meet Wearable Sensor Analytics for Officer Engagement

ForceMetrics
Denver, Colorado

Andre McGregor
m. 917.991.7115
andre@forcemetrics.ai