



**BODY-WORN
CAMERA**
POLICY AND IMPLEMENTATION PROGRAM

Advancements in BWC and Related Technology

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Thomas Naughton, Sergeant, St. Louis County Police Department

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Advancements in BWC and Related Technology

Elliot Harkavy

Senior Advisor, CNA,

BWC Training and Technical Assistance (TTA)

Technology Advisor

Examples of Advanced Topics

- Video Analytics
 - i.e., Object Recognition, Artificial Intelligence (AI), Transcription, Natural Language Processing (NLP), Facial Recognition (FR), Automated License Plate Reader (ALPR), Reporting Assistance, Statistical Analysis
- New BWC Features
 - i.e., GPS, LTE/5G, Live Streaming, Officer Down, Shot Detection, CAD/RMS Links, etc.
- Digital Evidence Integration
 - Compiling digital evidence across multiple sources for a unified view
- Redaction
- Digital Ethics
- Legal Compliance

Advancements in BWC and Related Technology

Christian Quinn

Major (Ret.) Fairfax County Police

BWC TTA Subject Matter Expert (SME)

Policy & Legislative Updates

- AI Restrictions
- FR “Bans”
- Reform
- Funding

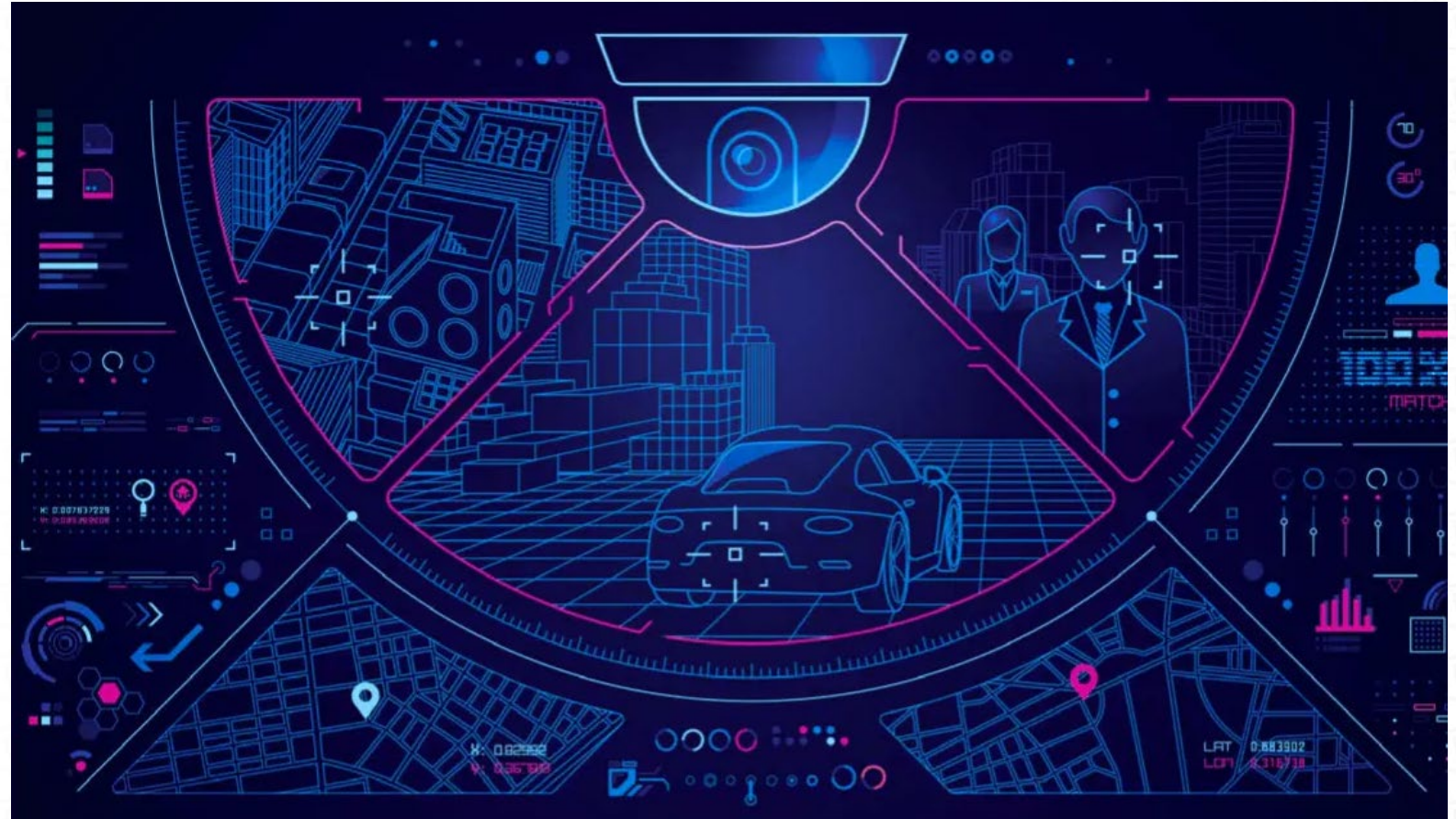


Advanced Video Analytics



Policy and Ethical Considerations

- AI-enhanced Searchability
- Universal Integration
- Sentiment Analysis
- Biometric Identification



What is NLP?



A Tool to Enhance Police Accountability?

- Most BWC footage is never reviewed
- Ongoing analysis, instead of only after negative outcomes have already occurred

An Investigative Tool?

- Rapidly review initial statements and utterances
- Automated report writing and review

A Tool to Efficiently Process Evidence?

- Removes burden of tagging and “marking” videos
- Automated transcription
- Automated discovery compliance

A Tool Not Without Concerns?

- Ability to spot key words: nicknames, slang, etc.
- Voice matching against jail databases

Ensuring Ethical Use of New Technologies



- Defined, Legitimate Purposes
- Policies and Guardrails
- Community Engagement
- Balance



Advancements in BWC and Related Technology

Thomas Naughton

Sergeant, Camera Systems Administrator

St. Louis County Police Department

St. Louis County Police Camera Program



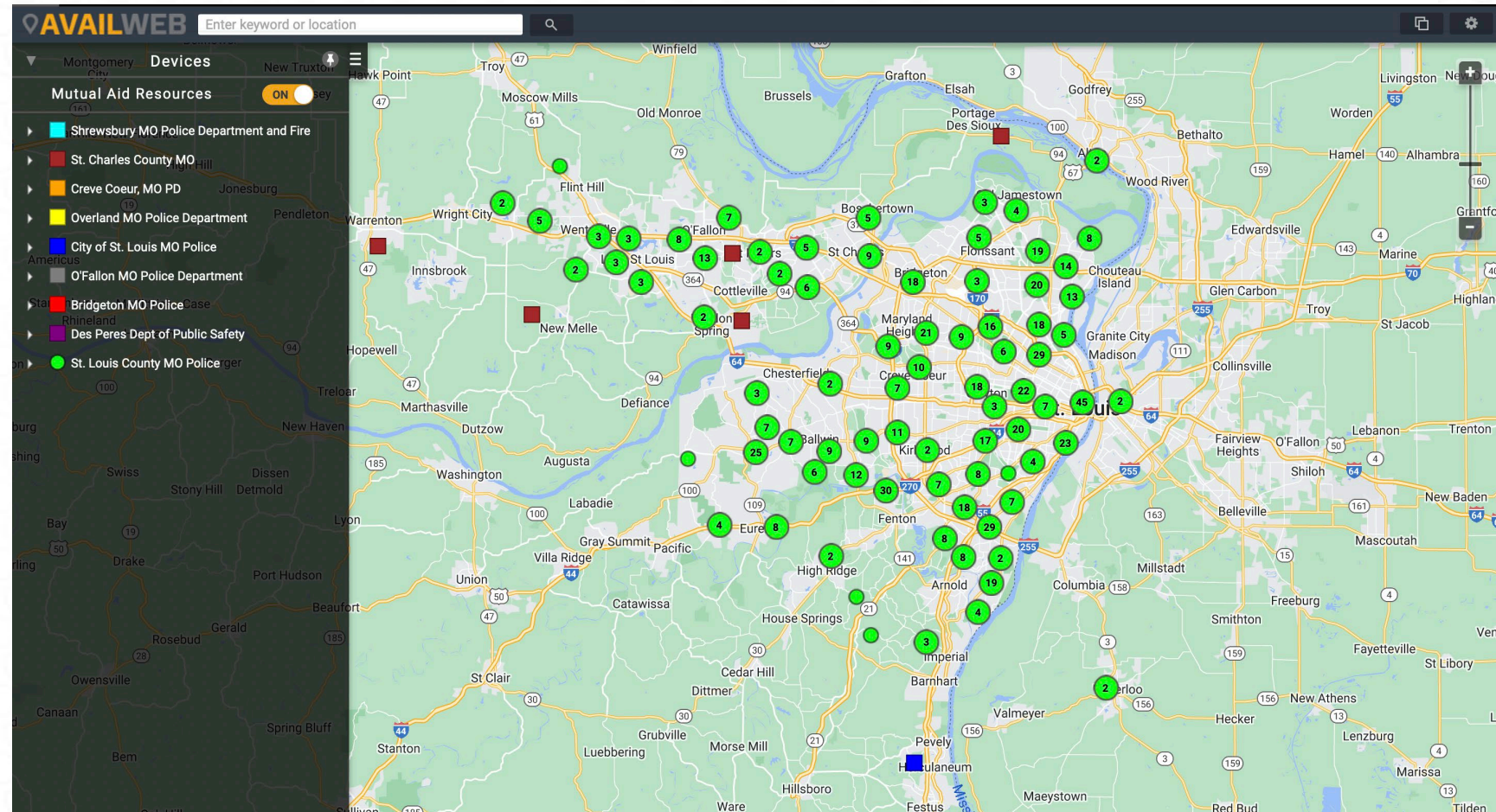
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- Contract signed August 2019
- In-car systems installed October/November 2019 to 400+ vehicles
- Trained, commissioned, and professional staff 900+ December 2019
- Program mandatory and live by January 1, 2020, at 12:00 a.m.
- Nearly 500 terabytes of data to date
- 100 ALPR systems
- Partnership with eight other agencies and growing as system footprint expands in the region for mutual aid

Local Partnerships

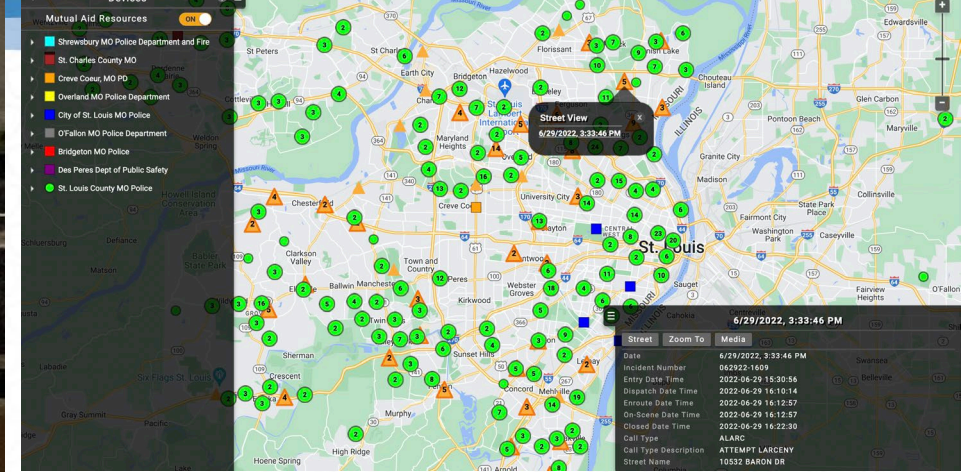


- St. Louis County Police has partnerships with nearly 2 dozen agencies, allowing for real-time live GPS updates
- Utilizing the approach of a regional asset instead of just a camera
- New regional BWC user group





- Integration with Computer Aided Dispatch for automated recordings based on call types
- Geofencing/Action Zone ability for mass messaging, recordings, live streaming, etc.



Tactical Operations (SWAT)

- Utilizes BWC on robot and allows for live streaming
 - Possibility to communicate with text-to-speech via messaging to BWC
- ### Command Functions
- Ability to live stream vehicles and body cameras to multiple command posts for real-time intelligence for active shooters, civil disturbances, and other major events
 - Ability to see containment, officer location, and vehicle location and send real-time alerts with photos attached



Advancements in BWC and Related Technology

Nick Petitti

Adrian Martin

Business Intelligence

Rochester (NY) Police Department

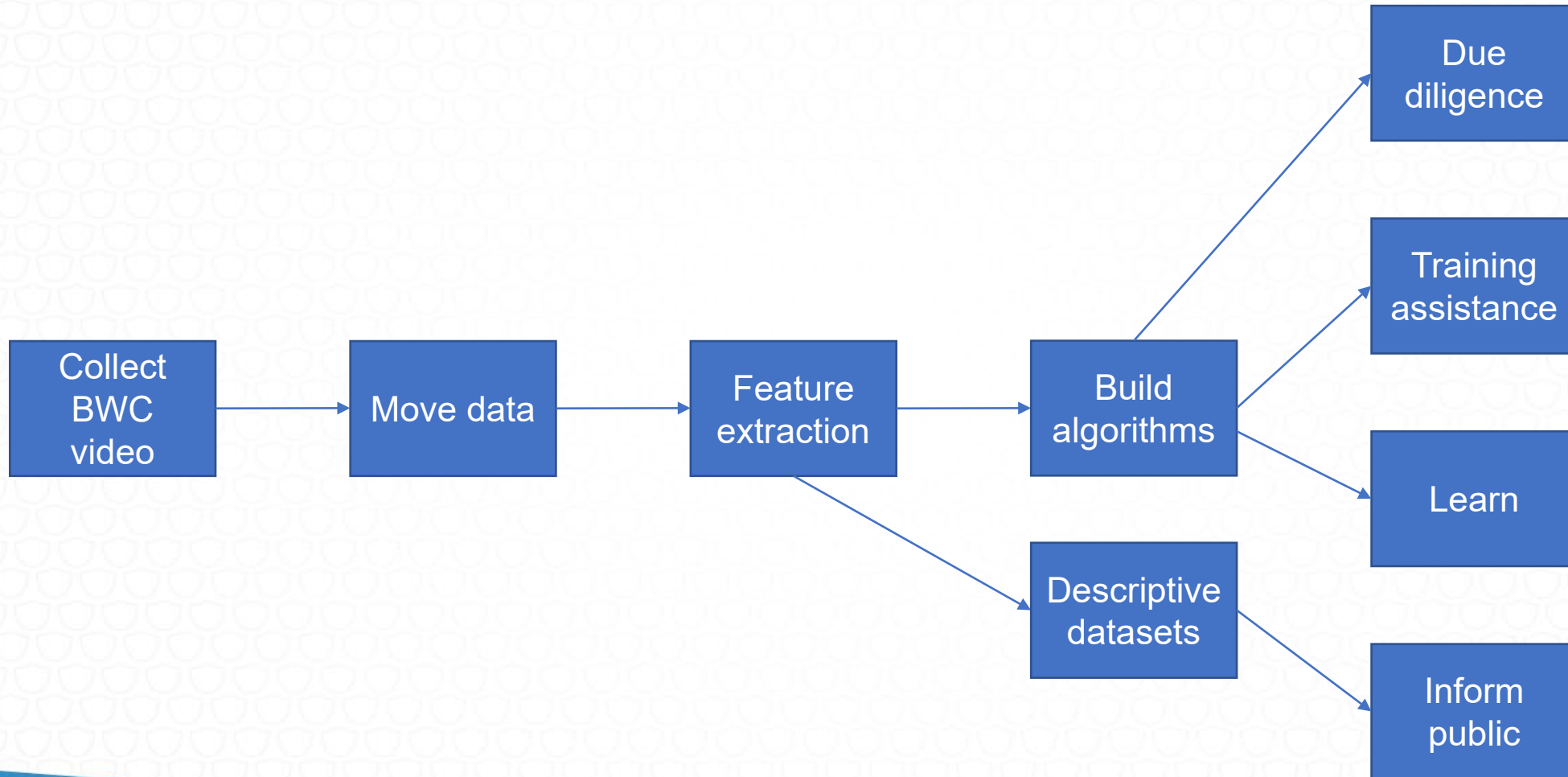
FY22 BWCPIP Demonstration Project



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- Support for research and analysis of department BWC footage to create a machine learning pipeline that can aid RPD in routine compliance auditing and learn from the wealth of data it possesses
- Builds upon lessons learned under a prior research partnership with the Rochester Institute of Technology
- Combines the analysis of written reports with programmatic analysis of BWC footage through automated audio transcription and computer vision analysis

Project Flow





Project Areas of Inquiry

- Trend analysis of patterns of de-escalation
- Pair and compare analysis of Use of Force incidents
- Academy and in-service training aids using an indexed library of videos reflecting specific real-world scenarios
- Compliance auditing to review and improve report quality
- Creation of publicly available datasets

Additional Challenge: Switching BWC

Old system: C3 Sentinel Catalog

- ONLY photo/video evidence
- M1G3/M1G3S/M1G4 cameras
- On-premise file storage

New system: Genetec Clearance

- Full DEMS
- I-Pro 4000 cameras
- Cloud file storage
- In-car tagging system
- Soft launch Sept 1, 2023
- Complete switchover by Jan 2024



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Panel Discussion and Q&A