Measuring Efficiency, Effectiveness, and Business and Public Safety Value

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Face Recognition Hollywood Style

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Face Recognition

What it *really* looks like.
Science & Research

• National Institute of Standards and Technology
  • FR Vendor Test - 2018
  • Algorithm Upgrades - 2019
  • FRVT Ongoing – summer 2019

• West Virginia University Cooperative Agreement with Florida Institute of Technology and Notre Dame
  • Performance variances of FR algorithms across demographic groups – 2019
CJIS FR Programs

Next Generation Identification – Interstate Photo System (NGI-IPS)

Facial Analysis, Comparison, and Evaluation (FACE) Services Unit
• Next Generation Identification - Interstate Photo System (NGI-IPS) is a repository of all photos associated with a tenprint fingerprint submission

• Dependent upon law enforcement to submit photos with a criminal arrest to build volume

• Authorized law enforcement may submit up to 25 photos per transaction

• Quality mug shot submissions are important
Current State
- Criminal mug shot photos—over 36.9M
- Unique Identities—Over 17M

Who is connected (17 states/agencies are conducting FR search of IPS)
FBI FACE Services, Michigan, Arkansas, Texas, Maine, New Mexico, Delaware, DC Metro, South Carolina, West Virginia, Arizona, Louisiana, Hawaii, Kentucky, Iowa, Missouri, and Colorado

Connectivity Status (9 States not submitting criminal mugshots)
Alaska, South Dakota, Mississippi, Rhode Island, Connecticut, North Dakota, Ohio, Montana, and Minnesota

Future Connectivity
Massachusetts
The FACE Services Unit:

- Provides **investigative leads** to the FBI Field Offices through the use of face recognition
- Supports FBI active investigations and assessments
- Searches selected databases both internal and external to the FBI

**NOTE:** *The FACE Services Unit does **NOT** provide 1:1 identifications*
NGI-IPS Likely Candidate Report

Report Information:
- Report Number: 61056905-042702016-132751
- Case Number: 122591265
- Submission Date: 04/27/2016
- Priority: 3 - Routine
- ORI: WVFB1066
- TCN: E2016111800000140263
- TCR: 0122595638

Results:
- Considered Candidate: 4
- Match Score: 11677
- UCN: 1HE6NCLN6
- Image Request: No
- Prepared By: macavelli (EID: 61056905)

PROBE

CANDIDATE
Training & Best Practices

• FBI created the Facial Identification Scientific Working Group (FISWG) – www.fiswg.org
  • Mission – “Develop consensus standards, guidelines, and best practices for the discipline of image-based comparisons of human features.”
  • “Guidelines and Recommendations for Facial Comparison Training to Competency”
• Organization of Scientific Area Communities (OSAC) Facial Identification Subcommittee’s standards and guidelines
• NGI Policy Implementation Guide
Biometric Training

Examples of FACE Services specialized training include:

- Photoshop Training
- Bone Structure
- Musculoskeletal
- Facial Analysis
- Facial Comparison
- Ear Comparison
- Drug Effects
- Age Progression
- Aging & Facial Alterations
- Universal Face Workstation (UFW)
FACE Services Success

PITTSBURGH FIELD OFFICE

FUGITIVE: Violent Criminal – Unlawful Flight to Avoid Prosecution
- Sentenced October 28, 2015
- Coordinated efforts with the FBI and ten law enforcement agencies

Likely Candidate Photos

Pennsylvania Driver’s License
Arkansas Department of Finance & Administration
Mug Shot Photo

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