

# Facial Recognition: Standards Recommendations, Community Status, what's next...

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# Overview



- Facial Recognition Standards Recommendations\*
- Policies (Privacy, Security, Legislative)
- Commercial Impact
- AAMVA Interest
- Resources

\* = NIST, Grother April 2012

# Intra/Inter-state, Federal Exchange Recommendations



- Maintain data using standards at source, not just for interchange when needed
- Check applicable law and policy

# Standards to avoid vendor lock-in Recommendations



- Retain the images. Write contractual requirement to retain images in standards-conformant containers, e.g. ISO/IEC 19794-5.
- Test, test, test. Test the conformance of the retained images.

# Common Fails



- Pose
- Illumination
- Expression
- Distortion
- Resolution...*actually, not the problem once thought to be*

# Resolution Recommendations



- Use high resolution cameras only for field of view, and better optical properties
- Collect 120 pixels between eyes. However, these are worthless given poor optics, focus or compression.

# Compression Recommendations



- Retain images with deliberate compression; For a Token image 640 x 480 image, the target file size should be 40KB or higher
- Compress at source. Procure systems that do it properly. Don't re-compress.

# Ageing Recommendations



- Use your own long term datasets to estimate accuracy losses over decades
- Choose algorithms that offer high accuracy



# Pose Recommendations



- Give training to attending operators to check person is facing the camera
- Train that non-frontal pose might be an attempt to evade 1:N duplicate license check

# Final Recommendations



- Don't send “garbage” to the matchers
- Use automated image assessment
- Train Operators (quality & behavior)

# AAMVA Community Use



- Are you using it?
- If so, how?
- Do you know of cooperation outside of your agency?
- Once investigated, what then?
- Any thought to commercial use-case impact?

# Other variables

- Privacy Law
- Legislation
- Access



# AAMVA Interest



- DL/ID (issuance)
- LE (identification)
- ID Mgt. (proofing)
- Anti-Fraud (internal & external)
- Facial Recognition WG

# Facial Recognition Resources



- FISWG – [www.fiswg.org](http://www.fiswg.org)
- FBI – [www.biometriccoe.gov](http://www.biometriccoe.gov)
- BC – [www.biometrics.org](http://www.biometrics.org)
- NIST – [www.nist.gov/itl/biometrics/](http://www.nist.gov/itl/biometrics/)

# Questions/Contact



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