

The Need for an Open Source Face Quality Assessment Software

Workshop on Face Image Quality

EAB – NIST - eu-LISA

16-18/11/2021

European Commissions' Open Source Strategy

"Think Open"

- The Commission's strategy for the internal use of Open Source Software was adopted in 2000 and updated three times since then
- Vision for encouraging and leveraging the transformative, innovative and collaborative power of open source, its principles and development practices
- Promotes the sharing and reuse of software solutions, knowledge and expertise, to deliver better European services that benefit society and lower costs to that society



eu-LISA approach to standardization & open source

- **eu-LISA promotes standardization and open source due to various reasons**
 - ❑ better interoperability between systems
 - ❑ transportability across framework contracts
 - ❑ technology agnostic solutions offer
 - ❑ financial advantages (reduced license and operational costs)
 - ❑ resource optimization (less projects)
 - ❑ provides a uniform experience
- **open-source solutions used in the biometric domain**
 - ❑ NIST containers for biometric data exchange
 - ❑ NFIQ2
- **open-source solutions awaited**
 - ❑ standardized scalar metrics for FI quality (ISO)



“NFIQ2”-like algorithm for face?

- **Disadvantages**

- proprietary libraries may be better tailored to a specific matching engine

- **Advantages**

- no vendor lock-in
- fosters interoperability
- enables comparability
- allows for setting the quality thresholds for recapturing independently from the matching engine
- reduces impact in case of a contractor change
 - no replacement of the USK on (ten)thousands of national workstations and mobile devices – convenient for both eu-LISA and Member states

Minimal requirements

- should provide good processing performance (fit hard SLA constraints)
- should have good maintenance behind
- should provide quality as algorithm prediction and ideally for human eye verification

SC37 ISO Standards followed by eu-LISA

Liaison Category C



29794 Biometric sample quality (WG3)

- Part 4 – Fingerprint Image Data
- Part 5 – Face Image Data



30107 Biometric presentation attack detection (WG3)

- Part 1 – Framework
- Part 3 – Testing and reporting
- Part 4 - Profile for evaluation of mobile devices



22604 Biometric recognition of subjects in motion in access related systems (WG4)



24358 Face aware capture subsystems specification (WG4)



19795 Biometric performance testing and reporting (WG5)

- Part 1 Framework (revision)
- Part 10 Quantifying biometric system performance across demographic groups

THANK YOU!

eu-LISA

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