AFIS quality requirements and implementations

NFIQ II workshop

Gaithersburg, MD
Examples we deal with

Link to QC presentation
Current status of QC

QC-Level (minimum requirements)

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<tbody>
<tr>
<td>A</td>
<td>E.g. NFIQ 1 and 2</td>
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<tr>
<td>B</td>
<td>NFIQ I (Various settings)</td>
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<tr>
<td>C</td>
<td>Other algorithm (proprietary)</td>
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QC at any step?
Implementation Options

QC-Level (minimum requirements)

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<tr>
<td>A</td>
<td>E.g. NFIQ II High level (analogue NFIQ I 1 and 2)</td>
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<tr>
<td>B</td>
<td>E.g. NFIQ II Lower level (analogue NFIQ I 1 to 3)</td>
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<tr>
<td>C</td>
<td>Other algorithm</td>
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Place fingerprinted ➔ B ➔ City/ state police/ other agency central site ➔ BKA receiving interface ➔ B ➔ EURODAC transactions ➔ INTERPOL-Communication ➔ VIS-transactions
Fingerprint expert perspective
- Quality vs. matchability and completeness

SFin generated image

NI ST SD27
Use cases for NFIQ II

- Automatic selection of the „best“ NIST-files for international correspondance
Use cases for NFIQ II

- Automatic rejection of poor quality transactions
- Replacement of NFIQ I quality check on capture stations and other implementations
What is still missing with NFIQ II

- Algorithm for latents (finger and palm)
- Algorithm for palms
- Algorithm to detect what we deal with
- (Algorithm to detect altered fingerprints)