PRoTECT online seminar

Session 2

Case studies: The protection of public spaces at practitioner level

Super-Recognizers in Policing –

Berlin Model for Super-Recognizer Identification

Dr. Meike Ramon & Simon Rjosk, M.Sc.

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PRoTECT is funded by the European Union's Horizon 2020 - Research and Innovation Framework Programme, under grant agreement no 815356

Super-Recognizers in Policing –

Berlin Model for Super-Recognizer Identification (BeMo SR-id)

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Ramon M & Rjosk S (2021). Super-Recognizers in Policing – best practices established during development of the Berlin Model for SR-identification (BeMo SR-id).

In: *Best Practice Handbook of the EU project SafeCi - Safer Space for Safer Cities*

SafeCi
Safer Space for Safer Cities

Police Politie · Polisen · POLIISI HELSINKI · POLIZEI BERLIN · POLICE LETZEBUERG · .LPD · POLÍCIA SEGURANÇA PÚBLICA

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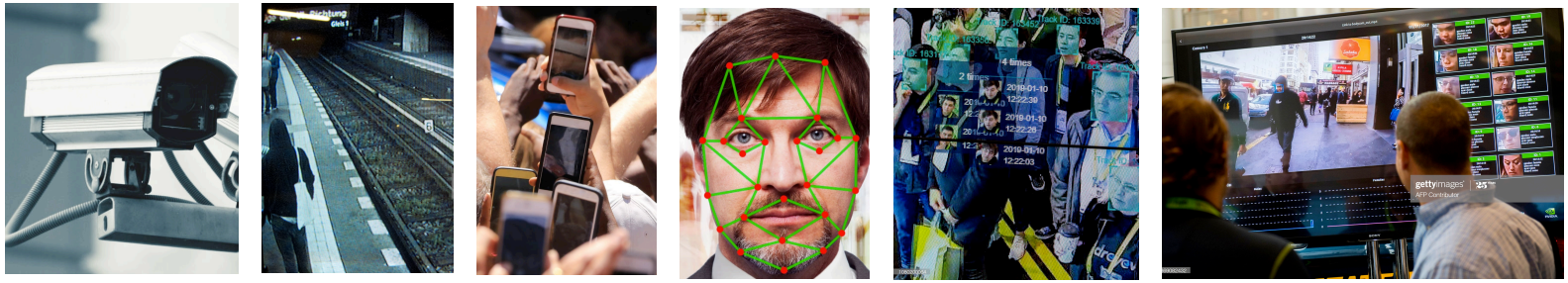
Background

Increasing interest in SR deployment in policing



Source: ghettyimages

Growing demand for image/video processing

Issues concerning automatic solutions

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The problem

Increasing interest in SR deployment in policing

🖐 No data available ⇔ many open questions

- ***What*** is a SR?
- ***How*** should SRs be identified?
- ***Who*** should identify SRs?
- ***Why*** deploy SRs? Expected outcome?
- …

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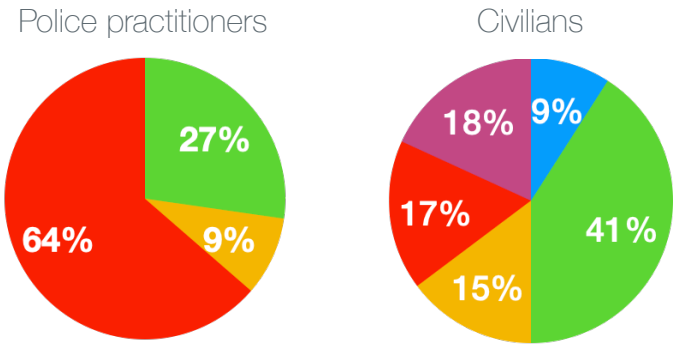
The problem

*"What is a Super-Recognizer (SR)?"**

* Poll conducted prior to the 2nd workshop of the EU project SafeCi – Safer Space for Safer Cities

- People who never forget a face.
- 1-2% of the population; can remember 80% of seen faces.
- … above average face matching.
- …recognizing others via various cues (face, posture, gait, etc).
- I don't know.



🖐 Varied definitions among practitioners, researchers & civilians

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The problem

How should SRs be identified?

Phillips et al (2018), *PNAS*

"… **any [lab test]** in the superrecognizer literature; e.g. […] **Glasgow Face Matching Test (GFMT)** …

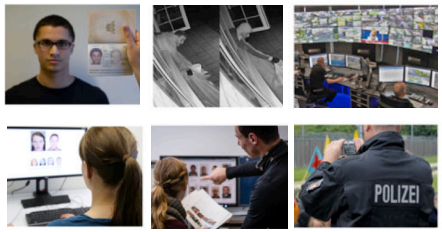
"Same person?"

White et al (2017), *QJEP*

"**Developmental prosopagnosia (DP)** is commonly referred to as '**face blindness**' …

[…] **did not differ from normative scores** on the **GFMT**"

Ramon et al (2019), *BJP*



Lab vs. real world ?

- 🖐 **Currently no consensus on diagnostic criteria & tests**
- 🖐 **Questionable research practices** (e.g. insufficient sensitivity & relevance for police tasks)

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The problem

Existing methods:

suboptimal to identify SRs & evaluate their deployment

What's needed:

Solution for SR-identification developed specifically

to meet the needs of the police

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The proposed solution

Berlin Model for Super-Recognizer Identification (BeMo SR-id)

- **Collaborative:** combines scientific procedures & policing practices
- **Tech-assisted, human-centered assessment** of face processing
  - police-relevant psychometric testing
  - large-scale, representative validation (total possible N: >25K Berlin employees)

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The proposed solution

Berlin Model for Super-Recognizer Identification (BeMo SR-id)

5-step approach:

1

Task analysis

Image search & comparison

eg image analysis, crime series grouping, prevention

Source: ghettyimages

Source: CVDazzle

Search & surveillance

eg monitoring or targeted search for wanted individuals

Source: ghettyimages

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The proposed solution

Berlin Model for Super-Recognizer Identification (BeMo SR-id)

5-step approach:

1	**2**
Task analysis	**Development**

Translation:

Relevant tasks ➔ Experiments

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The proposed solution

Berlin Model for Super-Recognizer Identification (BeMo SR-id)

5-step approach:

1	2	**3**
Task analysis	Development	**Technical implementation**

🤘 Thanks to our developers!

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The proposed solution

Berlin Model for Super-Recognizer Identification (BeMo SR-id)

5-step approach:

1	2	3	4	5
Task analysis	Development	Technical implementation	**Pilot** "Testing the test"	**Roll-out**
			Summer 2020	***Fall/winter 2020***

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Results

Berlin Model for Super-Recognizer Identification (BeMo SR-id)

= State of the art assessment of face processing combining science & policing

- **Police-relevant**

  - Real case material & professionally relevant tasks

- **Scientific**

  - Validated in representative, large population (⇔ uncontrolled mass online testing)

  - Procedures/data/results OPEN and transparent via scientific publication

- **Available to other agencies for free**

  - Enabling widespread comparability; evaluation of deployment

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Challenges and lessons learned

Berlin Model for Super-Recognizer Identification (BeMo SR-id)

What we needed / wanted:

- Clarity (definitions, expectations) & transparency
- *Police-relevant* & objective assessment tool

Challenges:

- Strict data protection laws in Berlin
- Distributed, interdisciplinary team

What we learned:

- Solid work takes time, effort & collaboration
- Interdisciplinary work ➔ learning opportunities

Future opportunities:

- Evaluate task-specific deployment of Be-Mo SRs
- Evidence-informed practices & operations

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Thanks

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Interested in BeMo SR-id?

Contact us

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Read more

- Ramon M & Rjosk S (2021). Super-Recognizers in Policing – best practices established during development of the Berlin Model for SR-identification (BeMo SR-id).
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SafeCi Safer Space for Safer Cities

- Ramon M (submitted). Super-Recognizers – a novel diagnostic framework, 40 cases, and guidelines for future work.

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