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Responsible Innovation in Mobile Border Management: Social and Ethical Aspects Research

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Overview

1 Analytical approach : some key concepts

2 Three main socio-ethical challenges

3 Core principles

4 Translation into socio-ethical requirements

1 Key concepts

Responsible Research & Innovation (RRI):

'a transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products' *(Von Schomberg, 2011, p. 9).*

1 Key concepts

- Technology as socio-material configuration

- **Technological scripts and in-built users**

- **Affordances**

1 Key concepts

- **Technical solutions as chains of translations**

1   Mobile biometric devices and

biometric errors

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2 Three main socio-ethical challenges

MobilePass

1 Mobile biometric devices and
   biometric errors

2 Mobile biometric devices afford (new) practices
   of information processing

2 Three main socio-ethical challenges

MobilePass

1 Mobile biometric devices and
    biometric errors

2 Mobile biometric devices afford (new) practices of
    information processing

3   Mobile biometric devices afford the 'portability'
    of the networked biometric border

3. Core Principles

* Legitimacy and proportionality

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* **Compliance with existing laws and regulations**

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* **Legitimacy and proportionality**
* **Compliance with existing laws and regulations**
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* **Fairness and equality**
* **Rigorous and realistic assessment**
* **Proactive responsibility**

4. Translation into socio-ethical requirements

Guidelines for design

Guidelines for demonstration phase

Operational Guidelines

Mandatory requirements for design (A-level)	
TRANSPARANT TECHNOLOGIES (TT)	
ATT-005	The system SHALL communicate explicitly about the probabilistic nature of biometric recognition
ATT-006	The operator MUST be in control of the technology and be allowed to overrule processes and results.
ATT-008	The device SHALL provide for storing of statistical data for the purpose of quality control and performance analysis

4. Translation into socio-ethical requirements -example

INCLUSIVE DESIGN (ID)	
AID-001	The capturing technologies MUST produce images of sufficient quality* for users of different age, gender, and ethnicity
AID-002	The capturing technologies MUST produce images of sufficient quality* for users with different physical characteristics and different physical and cognitive skills (see also 'device user interface')
AID-003	The comparison algorithms MUST produce accurate matching results* for users of different age, gender, and ethnicity

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4. Translation into socio-ethical requirements -example

2. Policies and practices for exception handling, for dealing with biometric errors, and for dealing with non-matches (EH)					
AEH-001	Policies and procedures for exception handling MUST be developed that respect human dignity			M	operator and regulator
		BEH-001-1	Travellers who cannot use the biometric system due to temporary or permanent conditions SHOULD get a manual first line check	D	operator
AEH-002	Policies and procedures for handling (biometric) errors MUST be developed			M	operator and regulator

Thank you for your attention

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