

Aviation (in-)security

Ethical trade-offs in risk based passenger screening

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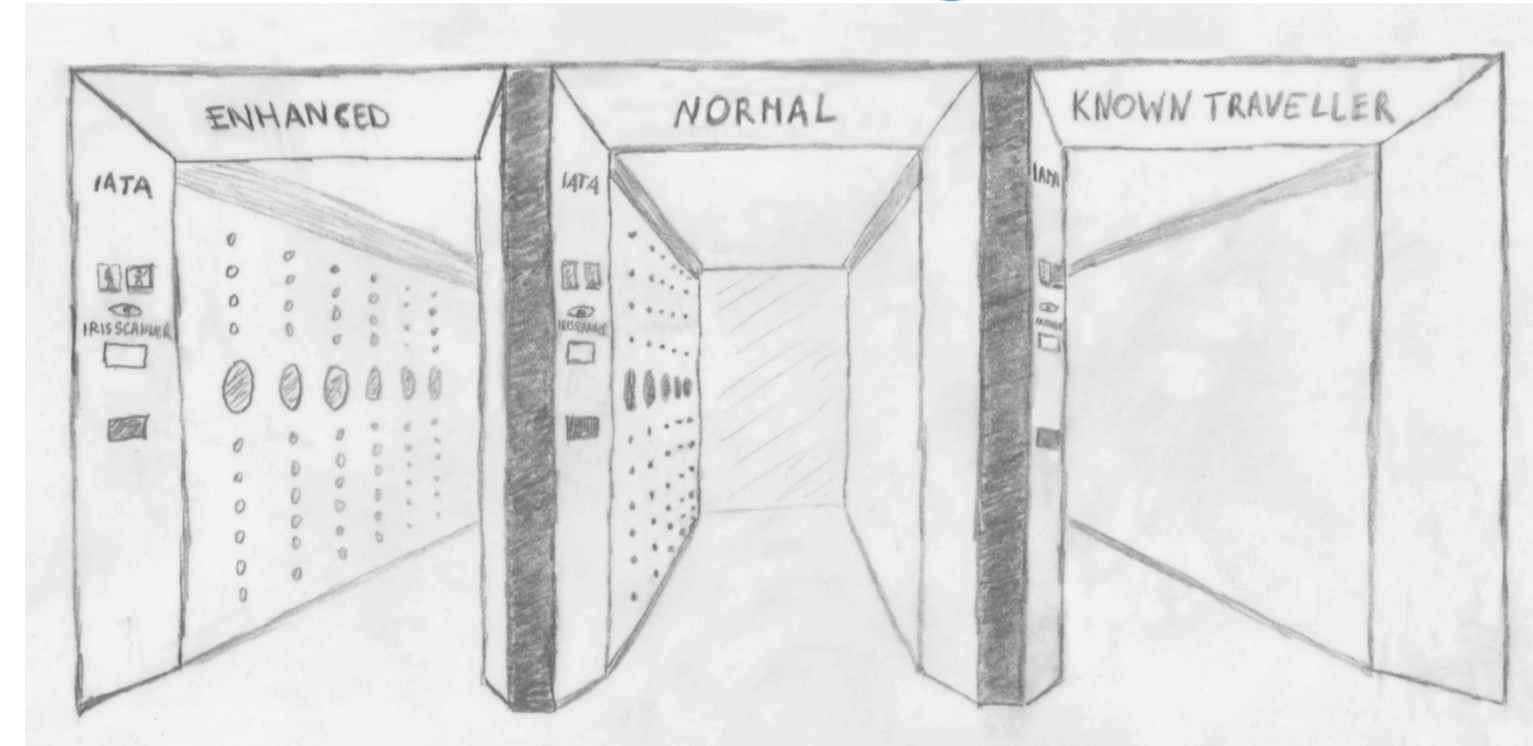
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Introductory information

Need for ethical research

- In aviation security, risk based screening (RBS) has become a hot topic and is often seen as the **'screening paradigm of the future'**
- Countries like the USA have **already implemented** risk based screening concepts (Secure Flight, Pre), other countries like UK, NL are running trials
- There is **no clear definition** of what RBS really is and different actors mean very different things
- Currently there is **no systematic identification of ethical chances and dangers** of RBS concepts.

Risk based screening (RBS)



IATA's (2011) Checkpoint of the Future concept: "Screening different passengers in different ways"

Underlying ethical risk typology

An analysis of the public debate on non-intended impact of airport security screening in academia, the public media, in statements of civil rights organizations, as well as in the EU Charter of Fundamental Rights resulted in a structured **typology of potential ethical risks of airport passenger screening** (VOLKMANN 2013). A similar approach has been proposed in the context of KEENEY ET AL. (1984)'s "Wertbaumanalyse" for normative political consulting. The structure of the typology is based on GUELKE (2011).

PUZZLE: WHAT DO DIFFERENT ACTORS MEAN BY THE TERM 'RISK BASED SCREENING' AND WHAT ETHICAL TRADE-OFFS ARE INVOLVED COMPARED TO CLASSICAL SCREENING?

Three versions of the risk based screening paradigm

The classical passenger screening paradigm:

- Detect prohibited items (manually or automatically)
- All passengers are subject to the same processes
- Goal: "Find the bad object"

- All passengers and carry-on luggage must be screened
- All alarms must be resolved by additional screening
- Different procedures result solely from random or actual alarms

1. Circumstantial Risk Based Screening

Analysis of non-passenger-related data is meant to identify a subset of flights that pose a higher risk of being attacked. Risk assessment based on:

- Origin & destination of flights
- Size of the plane
- Airline operator or nationality
- Current threat information from law enforcement
- ...
- **Passengers on different flights are screened differently**
- **Goal: "Find endangered flights"**

Currently trialed in NL (SURE!)

2. Passenger Profiling

Analysis of external, passenger related data meant to identify a subset of passengers that fit higher risk of attack profiles. Risk assessment based on:

- Watch list of known or suspected terrorists
- Other kinds of terrorists or extremists data bases
- APIS data (seating, food choice, ...)
- ...
- **Passengers in different risk categories are screened differently**
 - No-fly category
 - Selectee category (for additional screening)
 - Trusted traveller category
- **Goal: "Find the bad guy"**

Implemented in the USA (Secure Flight, Pre), Subset in CA (Passenger Protect)

3. Behavioral Analysis

Analysis of passenger behavior in or near the checkpoint meant to identify a subset of passengers that have a higher risk of intending to attack. Risk assessment based on:

- Behavioral cues for 'deception' such as unconscious facial expressions associated with lying (US model)
- Lack of background knowledge or lack of detail in answers to 'interviews' (Israeli model)
- Divergence from a threshold of "normal behavior" triggers more intensive screening
- **Passengers behaving differently with respect to given criteria are screened differently**
- **Goal: "Find bad intent"**

Implemented in the USA (SPOT), Israel (EI AI)

Ethical impact assessment

Risk Categories	Privacy intrusion	Error and Discrimination	Restriction of civil liberties
Types of risks	Bags, pockets, luggage	Alternative screening	Restriction of free movement
	Body	False alarms	Lack of accountability
	Private life	False or incomplete external data	Misuse of data
	Disclosure to others	Affecting non-travellers	Lack of transparency

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Acknowledgements



Further Information

