Hearing on
"Use of Security Scanners at EU Airports"
Brussels, 11 January 2011

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# Presentation on:

# The politico-military-industrial security complex & the sale of snake-oil

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Slide 1

## The political and security context:

- Major social challenges, including (but not limited to) terrorist threats
- Extreme difficulties in meeting those challenges
- Wish to be proactive, leading to State (and social) protection being "moved forward" (Cobler, 1970s!)
- Political need to be "seen to be doing something"
- Industry likes to sell (even if the product is snake oil)
- Politicians don't understand the technologies, or the limitations of the technologies

#### The result:

"We are building the biggest, most comprehensive, most expensive, most intelligent IT system in the world to counter [whatever!]"

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Slide 2

#### The un-understood limitations:

- All identifiers are probabilities, not certainties
- "Live" systems suffer from serious intolerances: what works in the lab may not work on the ground
- Analyses of personal behavioural characteristics even less reliable
- Lie detectors are snake oil (Eriksson & Lacerda, 2007: see last slide for reference), but new, worse types of snake oil are increasingly being peddled, such as:
  - √ "Human Threat Identification at a Distance" (HTID)
  - √ "non-invasive neuro-logic sensors"
  - ✓ "intention-detectors"
  - ✓ Etc.
    - NASA, DARPA but also the EU 7FP:
  - ✓ "Automatic Detection of Abnormal Behaviour & Threats"

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Slide 3

# Assessing the systems and their limitations (I):

First check the very <u>validity</u> of the assumptions underpinning any proposed system
 (Eriksson & Lacerda showed that the lie detector systems they investigated could not even work in theory):

If something cannot even work in theory, if the very assumptions on which it is built are demonstrably false, it cannot ever be used in a "proportionate", acceptable manner!

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Slide 4

# Assessing the systems and their limitations (II):

- Next, beware of the built-in limitations and risks:
  - (i) Always remember the BASERATE FALLACY!! (see Schneier's blog entry: reference in last slide):
  - If you are looking for extremely rare incidents or targets (such as terrorists) in a large population (like everyone passing through a major airport), there are always going to be either too many "false positives" or too many "false negatives": this is mathematically unavoidable; you cannot defeat the baserate fallacy by throwing more money at the system!
  - (ii) "Threat-detectors" and "profiles" are norm-confirming:
  - It is a major threat to our democratic societies if "abnormal" behaviour is *ipso facto* classified as a (potential) threat (see the very recent ICHRP report listed on the last slide)
  - If this is done by increasingly unchallengeable, supposedly "intelligent" and "(self-)learning" computer systems, we are undermining the very fabric of a civilised society under the Rule of Law!
  - (ii) Partly as a result of the above, such systems can lead to built-in, automated (even if perhaps unconscious) discrimination

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Slide 5

We don't want or need "safeguards" to ensure that such systems will only be used in an "appropriate", "proportionate" manner - we want and need to make sure that they are never used, ever, in Europe (or if we could help it, elsewhere)!

Thank you!

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#### Handout:

D KORFF, Technologies for the use of images. Automated processes of identification, behavioural analysis and risk detection. Control at the airports, paper first
presented at a seminar on Security, Privacy & Data Protection, organised by the Spanish Data Protection Agency, Madrid, June 2010.

#### See also:

- Douwe Korff, TIA & PNR, Paper No. 3 in: Ian Brown and Douwe Korff, Privacy & Law Enforcement, study by FIPR (the Foundation for Information Policy Research) for the UK Information Commissioner, 2005.
- Douwe Korff, <u>Guaranteeing Liberty or Big Brother: Surveillance in the United Kingdom</u>, presentation at the 2007 Summer Academy of the Schleswig Holstein Independent Privacy Protection Centre (ULD), Kiel, 24 August 2007, pp. 16 17. The presentation can be found at: https://www.datenschutzzentrum.de/sommerakademie/2007/.
- Re the "Baserate Fallacy", see the blog entry "Data Mining for Terrorists" on the website Schneier on Security, <a href="http://www.schneier.com/blog/archives/2006/03/">http://www.schneier.com/blog/archives/2006/03/</a>, quoted in full (with further references, including a link to a CIA book confirming the "baserate fallacy" limitation) in Douwe Korff, <a href="mailto:Guaranteeing Liberty">Guaranteeing Liberty</a> (above), under the heading "data mining", pp. 63 66.
- Anders Eriksson and Francisco Lacerda, <u>Charlatanry in forensic speech science: A problem to be taken seriously</u>, International Journal of Speech, Language and the Law [formerly Forensic Linguistics], 2007, Vol. 14, No. 2, pp. 169 193, removed from the online version of this journal under pressure from the manufacturer of the snake oil "lie detector" product, but available from the website of Columbia University's Department of Computer Science, at: <a href="http://www.cs.columbia.edu/~julia/papers/eriksson&lacerda07.pdf">http://www.cs.columbia.edu/~julia/papers/eriksson&lacerda07.pdf</a>.
- Modes and Patterns of Social Control Implications for Human Rights Policy, ICHRP, December 2010, available from: <a href="http://www.ichrp.org/files/reports/61/Social Control and Human Rights ICHRP Electronic Final.pdf">http://www.ichrp.org/files/reports/61/Social Control and Human Rights ICHRP Electronic Final.pdf</a>

See also generally my SSRN webpage: <a href="http://ssrn.com/author=1098072">http://ssrn.com/author=1098072</a>