

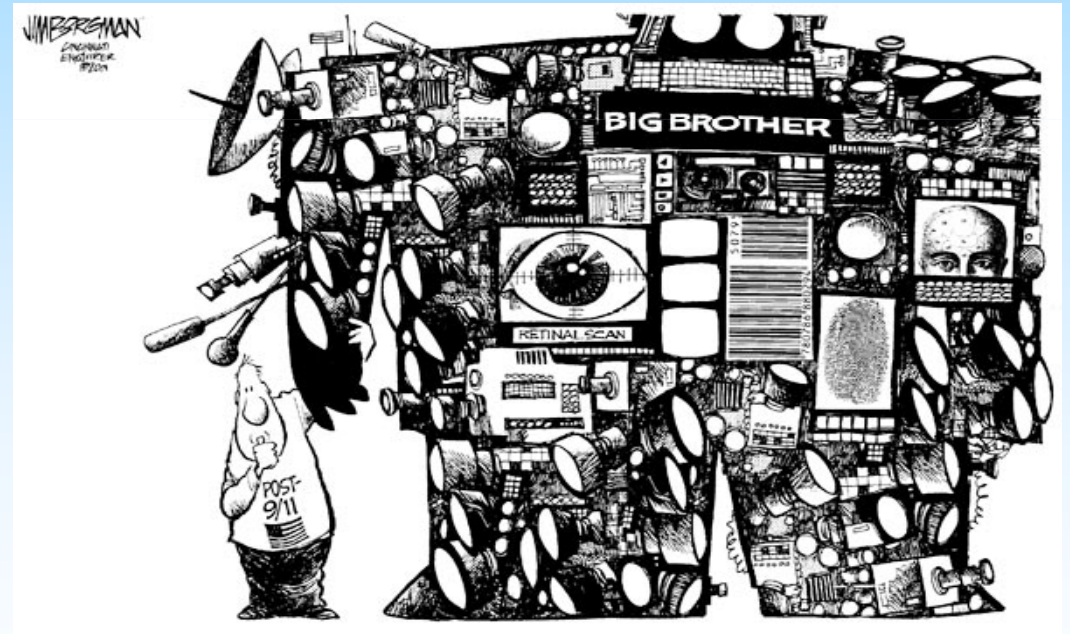
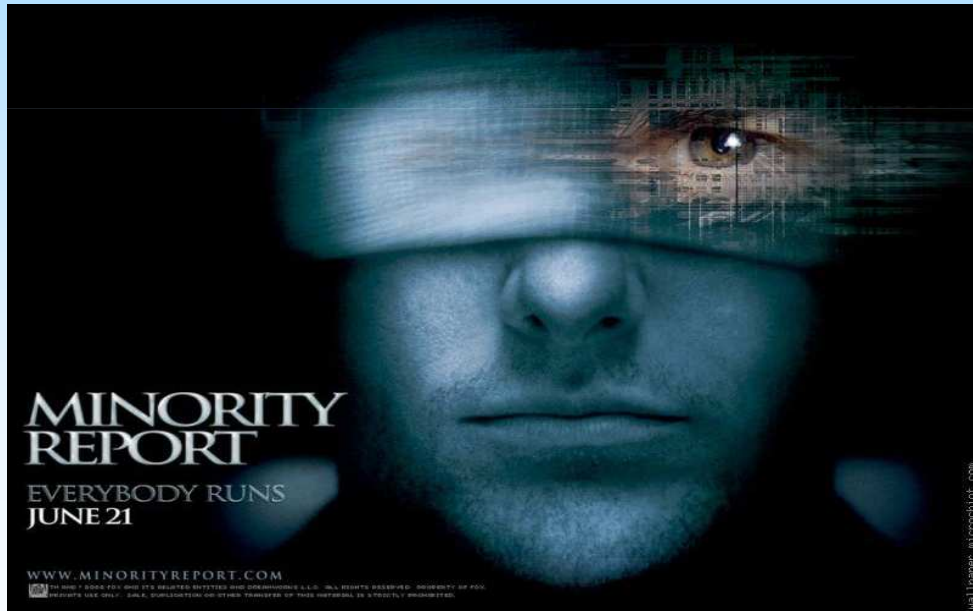
Identification at a Distance



"Would you like to see the top on Google Earth?"

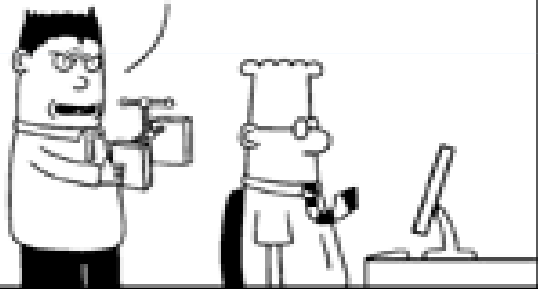
Privacy Concerns

- Will biometric be used to track people?
- Will biometric be used only for the intended purpose? Will the databases be “linked”? (**Function creep**)
- How do we alleviate these concerns?



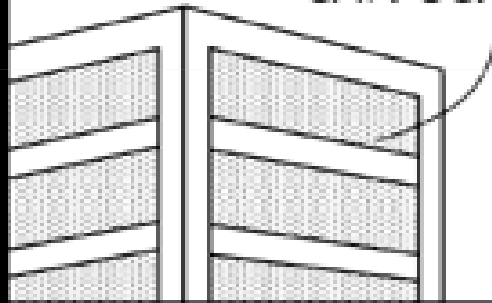
New Biometric Traits

I AM MORDAC, THE PREVENTER OF INFORMATION SERVICES, AND I BRING YOU MY NEWEST BIOMETRIC SCANNER.



www.dilbert.com scottadams@aol.com

INSTEAD OF A PASSWORD, I PUT THIS ON YOUR HEAD AND SQUEEZE UNTIL YOU SCREAM IN A WAY THAT ONLY YOU CAN SCREAM.



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NO, THAT'S NOT YOU. GAAA! GAAA! GAAA!



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Phishing

- Credit card fraud: ~\$56B in 2005
- Skimming: “double swipe”—once at the POS & once on a handheld device; download on hotel key

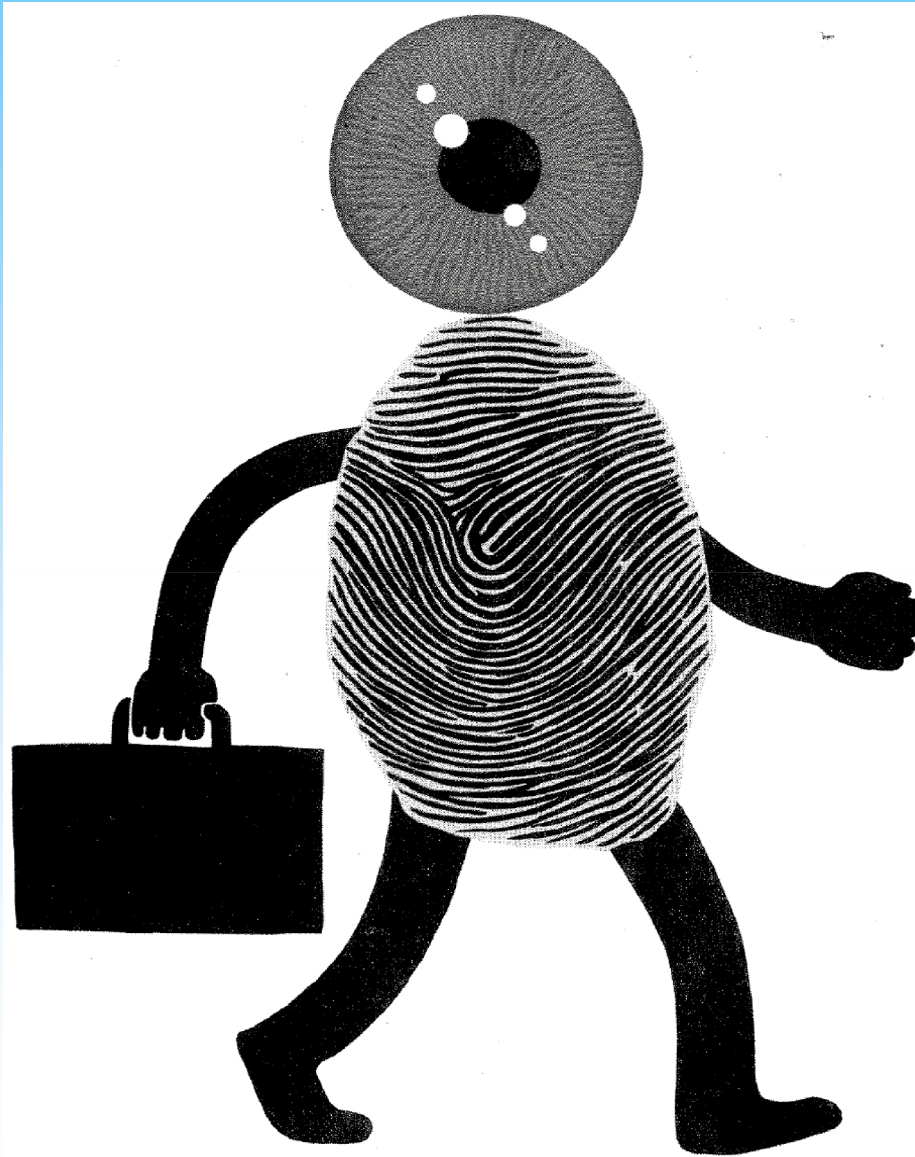
Mike Keefe Editorial Cartoon





**"I'm sorry, but someone else with
that identity is already here."**

The Winning Card



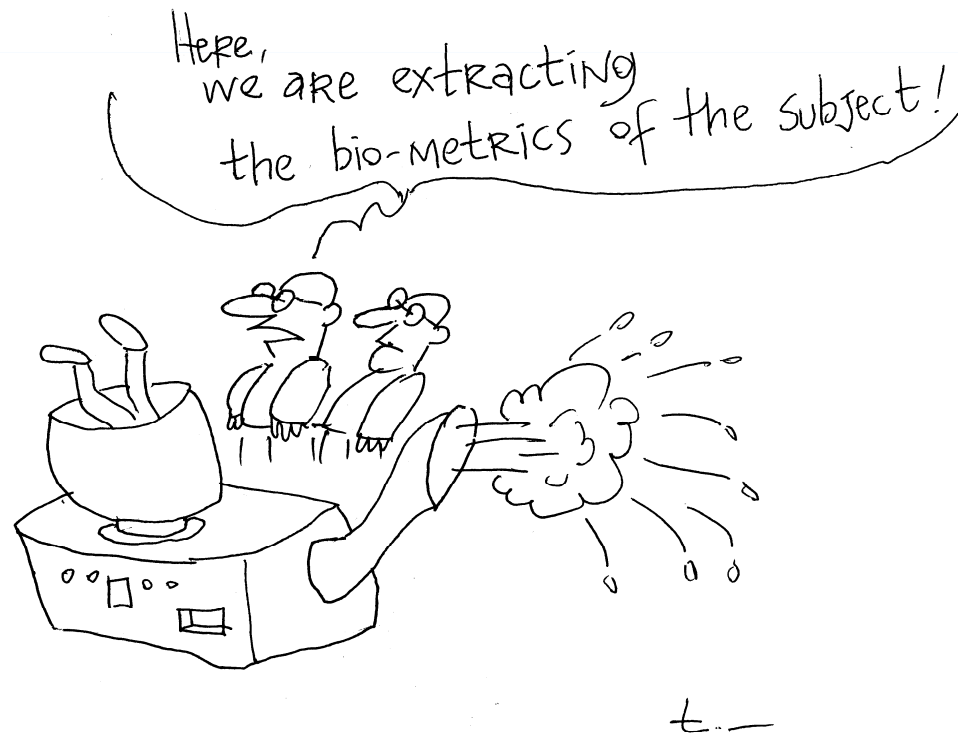
*“**Basic Pilot Program** (DHS) should include tamperproof ID for job-seekers, incorporating biometrics. Only then would it be possible to establish not only that job applicants are authorized to work but also that **they are who they say they are**”*

New Biometric Traits!



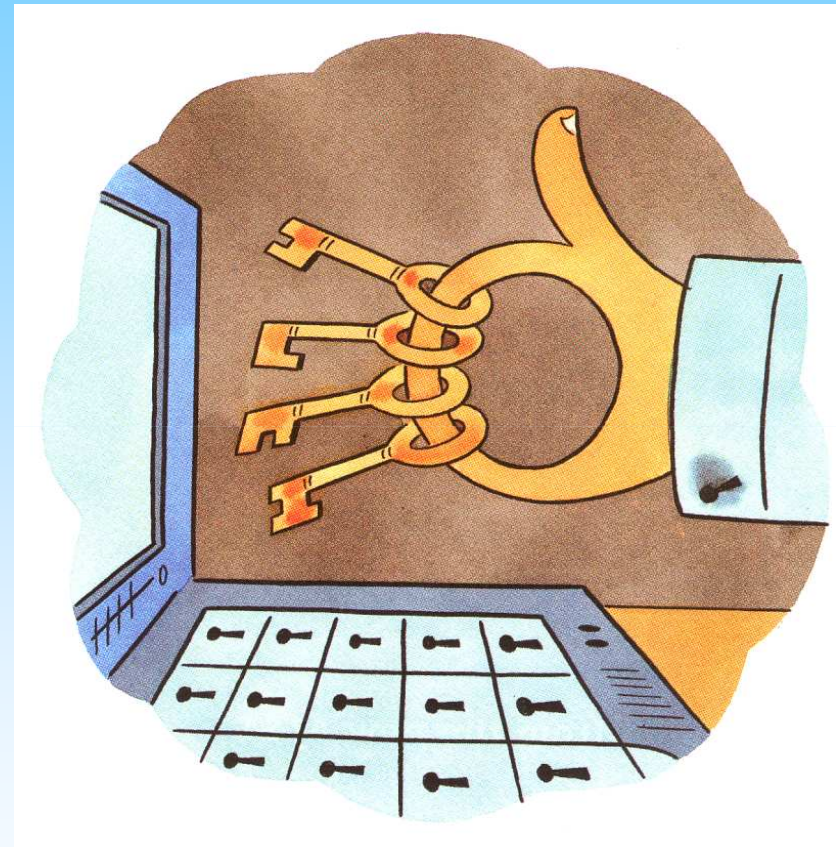
Biometric Recognition

- **Automatic** recognition of individuals based on their anatomical and behavioral traits

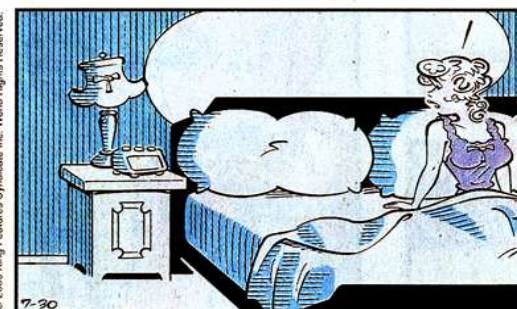
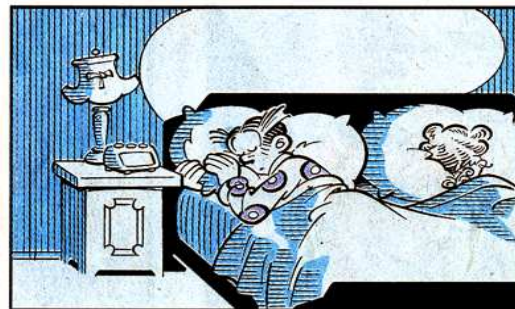
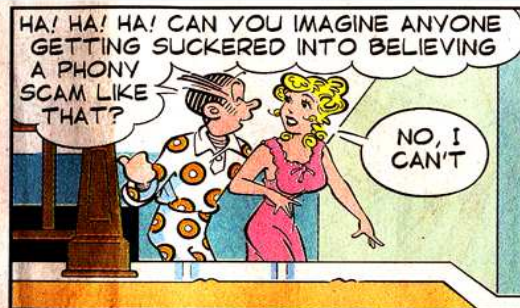
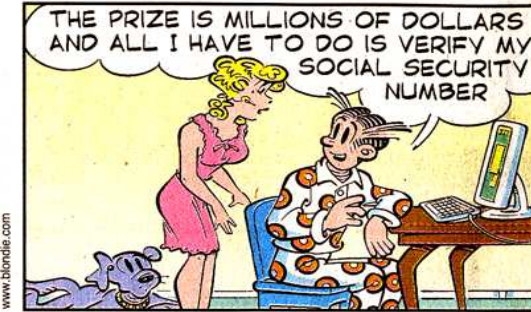


Telltale Fingertips

- How you type can allow websites to know who you are – or aren't
- Keystroke patterning was first employed by the military a century ago in its use of Morse code, which also allows senders to be identified by their typing rhythms



Phishing



July 31, 2006

Who is Moving the Mouse?

Personalization: Understand customer interests



Comm. ACM, August 2006

Identity Theft

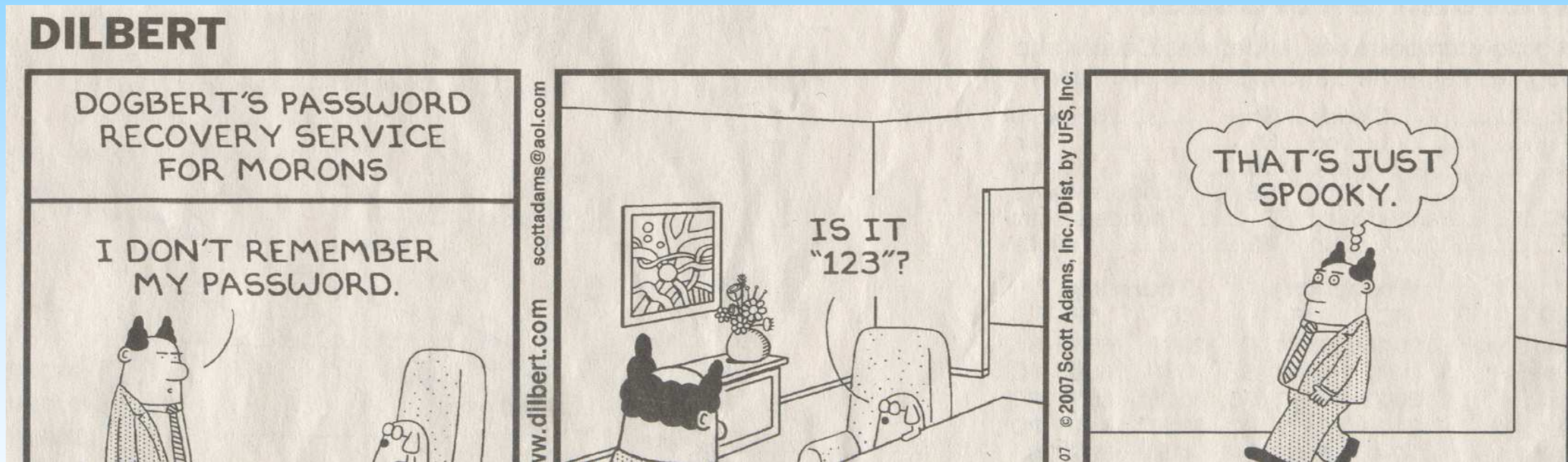
Credit card fraud amounts to **billions in losses for millions of customers**

Mike Keefe Editorial Cartoon



Cards, Passwords and PIN

Surrogate representations of identity based on “what you know” or “what you have” cannot be trusted



Ten most common passwords: password, 123456
Qwerty, abc123, letmein, monkey, myspace1, password1, link182, (your first name)

<http://www.pcmag.com/article2/0,1895,2113976,00.asp>

Biological Principles

- Uniqueness (individuality)
- Permanence (persistence)
- Classifiability (indexing)
- Genotype & phenotype characteristics

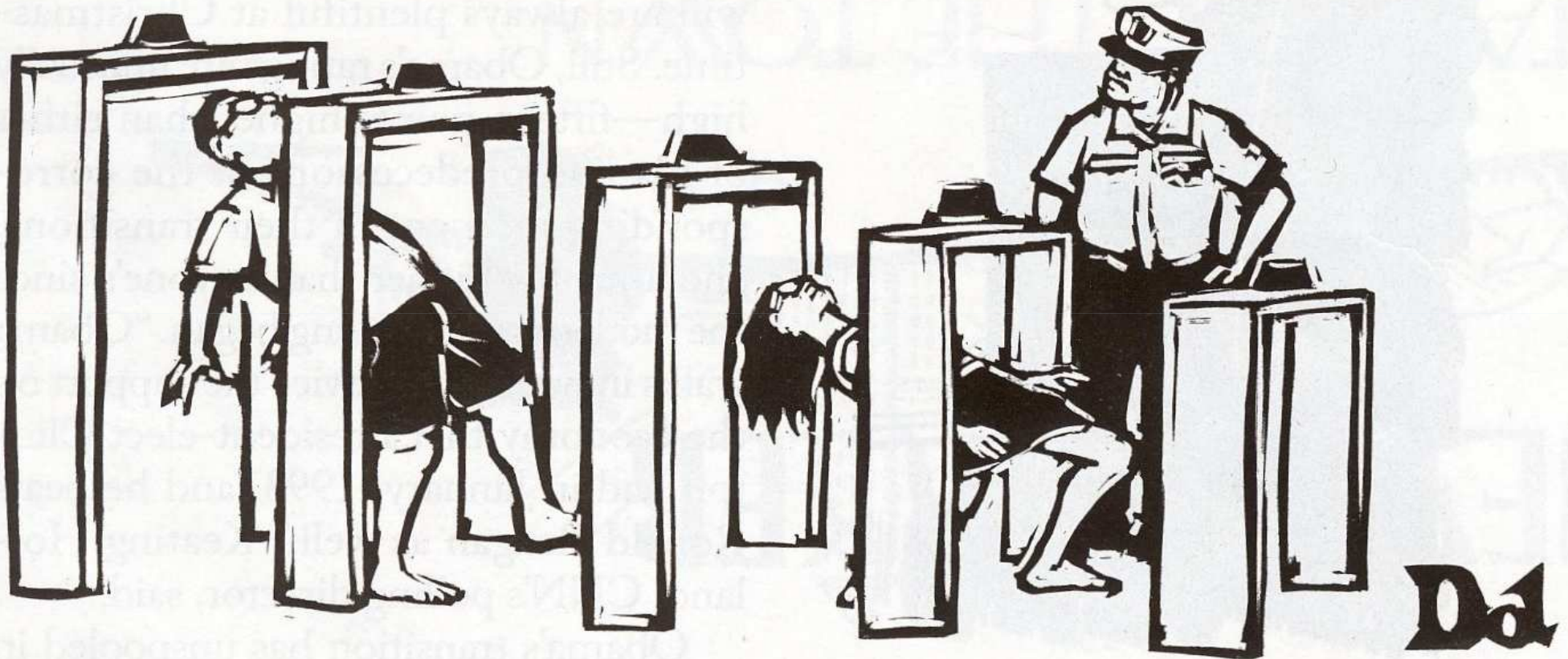


Identical twins have different prints



Fingerprint = “uniqueness”

CARIBBEAN AIRPORT SECURITY



Courtesy: The New Yorker, January 19, 2009