

Identity and Economics: Terrorism and Privacy

Adam Shostack

Victor Lopez-Florez

- An illegal immigrant from El Salvador, was paid \$100 to help Ahmed Alghamdi get a real Virginia ID card.
- Alghamdi was one of the hijackers on UA flight 175.
- Lopez-Florez was convicted on November 19, 2001

Overview

- Terrorism and security and ID cards
- Economics of ID cards
- ID cards and privacy

Trust

- Trust, Trustworthy and Trusted
- Trust is the state of accepting a risk from, or being vulnerable to someone
- Trustworthy people behave to reward your trust
- Trusted is someone who is able to violate the security system

Terrorism

- Terrorism: *Use of violence to intimidate and advance a political purposes*
- We would like to be free of such violence
- To fight terrorism, our security goals:
 - Intelligence
 - Prevention
 - Response
- How does ID interact with these goals?

Driver's License Security: Essential to Homeland Security?

“It may be the only way to stay a step ahead of the counterfeiters and help keep the nation's skies secure.” (Linda Lewis, AAMVA)

National ID Card: The Ultimate Security Measure

“Most of us already carry several identification cards, including a driver's license and a Social Security card, so why not something that's a little more robust?... A card that really proves you are you would simplify transactions and prevent future applications from being hindered by suspicion...”

Evaluating Security Mechanisms

- What problem does the security measure solve?
- How well does the security measure solve the problem?
- What other problems does this measure create?
- What are the costs of the security measure?
- Is it worth doing?

Terror & ID

- Strong constant ID checks may make terrorist travel & activity harder
- May increase quality of intel
- Will increase quantity of data
- Huge dragnet, constitutionality problems
- Energy misdirected

Terror & ID

- There is a very short list of known terrorists
 - A few hundred names
 - Those names are so widely distributed that the terrorists know they're on the list
 - As does everyone named David Nelson
 - Lots of unknown terrorists
 - Checking ID does not catch unknown terrorists

National Crusades

- Abortion, Guns, Drugs
 - Always a supply and demand
- War on Terrorism
 - No demand curve!
 - Bringing in economics of ID cards prevents us from winning

Economics of ID Cards

- Huge market for fake ids (college students, foreign workers)
- ID becoming harder to forge
- Transitioning to a huge market for fraudulent ID
- Millions of Lopez-Florezes

New Jersey Press Release

April 21 2003

- “In 2002 ... the State Police arrested members of two major document fraud rings. Since the summer, approximately 200 individuals have been arrested for trying to obtain fraudulent identification from the DMV, 15 employees have been faced with criminal charges, and dozens of others have been fired.”

DHS Information Bulletin

July 23 2003

“DHS conducted a survey...”

“...from February to May, hundreds of official identification cards, badges, decals, uniforms, and government license plates were reported stolen or lost.”

“No historical baseline data”

The American Identity Infrastructure

- The national id card has many uses
- Driving, working, flying, drinking, voting
- Drives
 - Fake ID
 - Fraudulent ID
- ID cards lead to people being trusted

Breadth of ID use

- Ask any college student
 - Drinking
- Ask Victor Florez-Lopez, or any other immigration specialist
 - Working
- Renting an apartment, getting a health club membership, cell phone, etc

“More secure ID cards”

- Biometrics
- Holograms and Microprinting
- Online validators
- More ID checking
- All combine to create a market for issuance fraud

Economics of Security

- Companies don't spend on security
- Should they spend those resources on checking IDs?
- Companies want the customer's money
- Do they really care if the ID is real?
 - Doesn't that require ignoring that the ID is fake?

Where's the Birthday?

Québec 



Anne-Marie Lapointe

Permis de conduire

L1531-171266-08

LAPOINTE ANNE-MARIE

333 BOUL. JEAN-LESAGE

QUEBEC

(DC) G1K&J6

Sexe (F) - Your: PERS - Taille (m): 1,68

Classes: 5 6A

Condition(s): A C

N° de référence : P B M R 9 2 V 3 V

Délivré le 1999 11 08 Expire le 2004 12 17
Paiement exigé le 17 décembre 2000, 2002

Motivation to Check ID

- A CBS News undercover investigation tested airport security using a \$150 fake driver's license...The tickets were used at five different airports in California and Nevada. We found that ticket and security agents paid little attention to the counterfeit driver's license, which contained a made-up name and address.

Nash Equilibria

- Game theory
- Everyone makes rational choices
- Suboptimal results are locked-in

Nash Equilibria and ID

- Checking ID as CYA
 - Entering buildings
 - Flying
 - Bars
- Hard to be the first skyscraper to stop wasting people's time

Privacy and the ID infrastructure

- National ID infrastructure is free to use
 - No cost to view an ID
- Required to have an ID to live (in practice)
- Anyone can ask to see it, copy down data
- No cost to company
- ID theft costs to citizens
- ID is government subsidy for privacy invasion

Consequences of ID Theft

“Malcolm Byrd was home with his two children on a Saturday night when a knock came at the door. Three Rock County, Wis., sheriff’s officers were there with a warrant for Byrd’s arrest. Cocaine possession, with intent to distribute, it said. Byrd tried to tell them that they had the wrong man, that it was a case of mistaken identity, that he was a victim of identity theft. But they wouldn’t listen. Instead they put him in handcuffs and drove him away. Again.”

Future of ID Theft

- Economics ensure its going to get *much* worse
- Arrest records
 - cost of arrests
- Mortgage theft
 - cost of mortgages
- Virginia ID Theft passports

Advice to Businesses Designing Systems

- Consider what an ID gets you
- Ask yourself about liabilities
 - ID theft
 - CA disclosure laws
 - HIPPA, GLB, other laws

DHS encourages...

- “Check multiple forms of valid identification for each facility visitor”
- “Improve ID card technology to eliminate reuse or unauthorized duplication”
- (July 22, “Potential Terrorist Use of Official Identification, Uniforms, or Vehicles”)

Challenge Your Executives

- Does this spending solve our security problems?
- What problems does it create for our employees?
- Can we talk to our industry association to move to better measures?

Advice to Governments Designing Systems

- Everyone checking IDs reduces the value of ID systems where they really matter
- Identity infrastructures and “freeloading” are a bad combination
- If their name is in a database, a terrorists are really motivated to get fraudulent ID

“Missing Computer Adds to Airport Screeners’ Woes”

- Federal officials are quietly scouring the Washington DC area for a stolen laptop with information on dozens of airport baggage and passenger screeners that could be used to forge IDs.”
- “We’ve let our screeners know they need to safeguard their personal information”
– (TSA spokeswoman Chris Rhatigan)

Real Advice to Governments

- Legalize teen drinking
 - Dry up the college student demand
- Legalize immigration
 - Dry up the working demand
- Do it to save lives

Conclusions

- Problems are economic
- Problems are solvable

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