

RFID and Biometrics

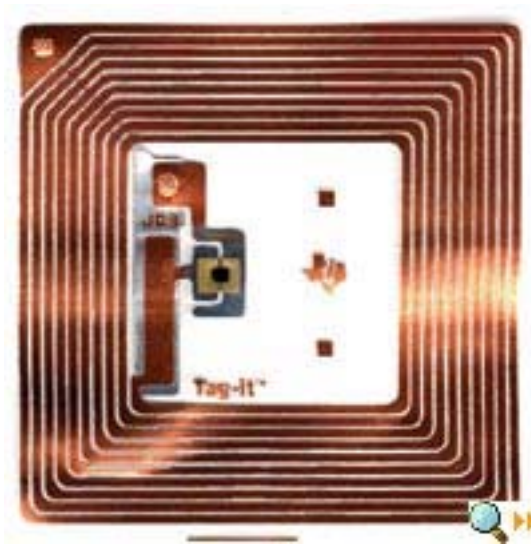
Law of Unintended Consequences

Robert Eryou

Law of Unintended Consequences

Whether or not what you do has the effect you want, it will have three at least that you never expected, and one of those usually unpleasant.

The “Internet of Things”



A building protected by nothing more than a cheap combination lock but inhabited by people who are alert and risk-aware is much safer than one with the world's most sophisticated alarm system whose tenants assume they're living in an impregnable fortress.

~ Grand Theft: Confessions of a Master Jewel Thief, Bill Mason

Deployed RFID Examples

- Pet tracking
- Payment and Credit Cards
- Manufacturing / Supply Chain
- Physical Access Control
- Inventory Control (item level tracking)

RFID Hacks and Evasions

- Disabling Tags (hammer, microwave)
- Denial of Service (interference)
- Reprogramming (modification)
- Duplication (replay)
- RFID Malware (infiltration)
- Faraday's Cage (block transmissions)

Biometric Hacks

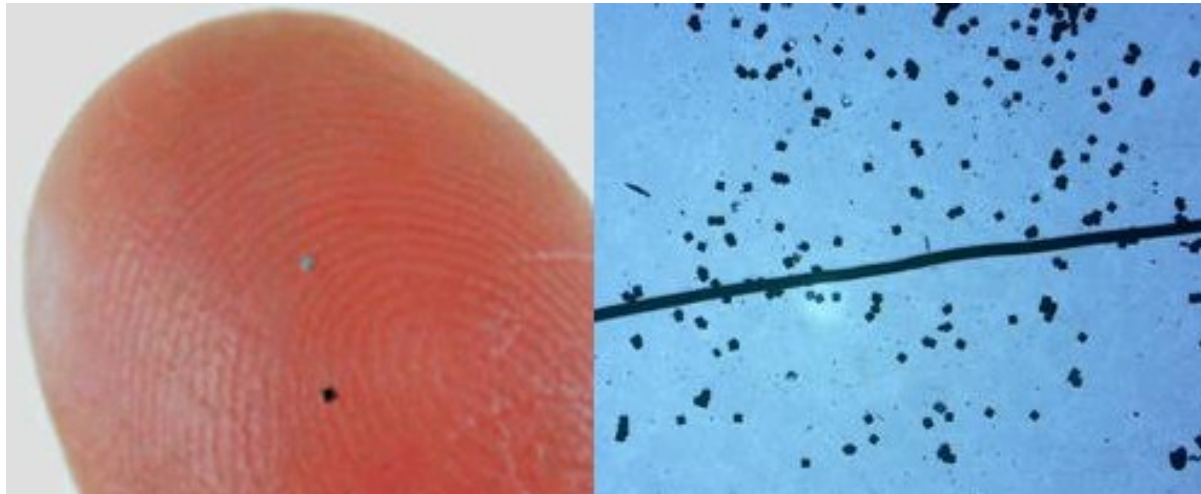
- Reader / Scanner
- Transmission Medium
- Authentication Server
- Coercion or Removal
- Spoofing (Gummy Finger)



Most privacy failures result from
security weakness

Stranger Examples of RFID

- Edible RFID
- RFID Ink “Tattoo” (injected RFID)
- RFID Powder



Information Leakage

Skimming or “know your target”



Mini Motorby Billboard



Make everything as simple as possible
... but no simpler.

~ Albert Einstein

Choice

(a conscious user action)

- Broadcast (transmission)
- Handshake (reception)
- Notification (audit)

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