

# Techno-Risk

**Richard Clayton**



Presented at: CISEC 2003,  
Cambridge, 10<sup>th</sup> Sept 2003

# Questions to Worry About

- Are you missing out on brand new things?
- Do you assume old assumptions remain true?
- Do you understand how things now scale?
- Do you realise **why** traceability is hard?
- Are you just moving problems around?
- Will you fall out with your customers?

# Norrath

- Hundreds of thousands of visitors a year
- 60,000 visiting there right now
  - \$2,266 GNP per capita (wages \$3.42/hour)
    - GNP/capita more than India or China
    - 77th biggest economy on the planet
- ~ \$2,000,000/month trade in artefacts
  - but no customs arrangements
- Theft and murder are regular occurrences!

# ie: Multi-User Online Games

- Online gaming is \$1.5 billion business
- Network economics suggest growth
  - other figures suggest market saturation
- eBay (etc) used for trading
  - characters (avatars)
  - currency (exchange rates varying 30%/qtr)
  - artefacts (magic swords &c)
- Excellent money laundering prospects ?

# Old Assumptions : SIP

- Phone calls are no longer traceable
  - we learnt that with pre-paid mobiles
  - SIP finally delivers “Voice over the Internet”
- Gateway providers provide cheap calls to anyone who can reach them via IP...
  - but at least users pay for their access
- ...but now community-spirited individuals provide “freephone gateways”

# The Effect of Scale: “Phishing”

- Punter receives email from their bank indicating their details needs refreshing
- URL looks convincing  
`http://www.mybank.com&account@107990442`
- Website looks convincing
  - usually copied from the real thing !
- Currently sites are usually too greedy & punters smell a rat. This will change

Subject: Your Checking Account at Citibank.



Dear Citibank customer,

We are letting you know, that you, as a Citibank checking account holder, must become acquainted with our new Terms & Conditions and agree to it.

Please, carefully read all the parts of our new Terms & Conditions and post your consent.

Otherwise, we will have to suspend your Citibank checking account.

This measure is to prevent misunderstanding between us and our valued customers.

We are sorry for any inconvenience it may cause.

[Click here to access our Terms & Conditions page and not allow your Citibank checking account suspension.](#)

© 2003 Citibank. Citibank (West), FSB. Member FDIC. Citibank with Arc Design is a registered service mark of Citicorp.

  
[Citi.com](http://Citi.com)

A member of  Citigroup  
[Citigroup Privacy Promise](#)  
[Terms & Conditions](#)  
Copyright © 2003 Citicorp

# The Deeper Problem

- Traceability looks in the WRONG direction
- After the event you can tell where the phishing site is and who operated it
- But you want to proactively detect it being set up and activated...
- ... and you'd like to know which other sites the same person set up at the same time!



# Not An Accident!

- Traceability is a side effect of the way the Internet was created and is operated today
- Network operators want to stop bad things happening by disconnecting the source
  - they need only find where the abuse originated
- Law Enforcement (& Regulators) want to prevent abuse or catch the bad individuals
  - which is NOT the same as locating an account

# Displacement: Chip & PIN

- UK Government has pressurised credit card industry into Chip & PIN initiative
- Big Idea is prevent random thefts of cards being useful because PIN cannot be guessed
- So expect a rise in identity fraud instead!
- **AND** expect more cross-border activity
  - fallback mechanisms will weaken the system

# Dumping the Risk

- In the early 1990s “phantom withdrawals” from ATMs were common in the UK
  - many were family members
  - and some were organised gangs of insiders
  - **but** banks with “infallible” systems blamed customers (in the US they couldn’t do this)
- Chip & PIN will bring this all back
  - which is bad for customer relations

# Techno-Risk Summary

- Cross-border economic activity
- Untraceable phone calls
- Sophisticated “phishing”
- Brittle traceability
- Failure of Chip & PIN to reduce fraud
- Consumer disputes when risk falls on them