

Stupid Economics?

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FC'05
Roseau, Dominica

3rd March 2005

Security is a branch of economics

Argued (Anderson, Varian et seq) that it explains a lot of puzzling behaviour...

- People buy backup solutions
 - albeit after they have lost data
- People buy anti-virus software
 - protecting their data
- People don't buy firewalls
 - why spend money to protect Bill Gates?

Security is a branch of economics

- ATM fraud levels explained by incentives
 - in US the bank stands the cost
 - in the UK it is the customer
- Microsoft's policy is rational
 - huge “first mover” effect, so shipping something that's “good enough” is wise

But how much of this is true?

- Can we explain the distribution of AV software or firewalls more clearly by looking at what it is cheap to bundle ?
- Maybe the crooks are more motivated to go after ATMs in the UK (or easier to catch)?
- Does Chip&Pin affect credit card fraud?
- Do immobilisers reduce car crime?
- Does CCTV reduce crime?

Easy to be seduced by economics

- More junk email than junk snail mail
- “Must be” the cost per unit
- Hence paying for email fixes problem?
- Micropayments schemes still pie in the sky!
- Hashcash (at about tenth cent per email)?
 - at dreadful response rates: \$33 break even
 - defeated by an army of compromised machines

We don't have any numbers

- Don't know how much spam (or mail lists)
- Don't know spam response rates
- Don't know how many virus infections
- Don't know how much phishing loss
- Don't know how many protected by AV
- So perhaps suitable for economics where they tend to manipulate symbols anyway...

Summary

- Economics does help us to explain some puzzling things
- And they have a pile of cool results on auctions, elections and stuff that don't make it into CS101
- But it's a complex world, and maybe we haven't explained things properly... perhaps not yet time to change department