# Sex and Drugs and Rock 'n Roll or privacy in online social networks

Jon Crowcroft, University of Cambridge

Jon.Crowcroft@cl.cam.ac.uk

http://www.cl.cam.ac.uk/~jac22

10.7.8 NGN 2008

#### Dunbar's Number & Trust

- Dunbar's number usually cited as 150
  - Size of simple communities of humans
  - Reflects ability to cope with group
  - Humans gossip rather than physical grooming
  - Language lets us abstract
  - We can reason up to 5 levels of intentionality
  - (Shakespear does 6:-)
- $T = 1 / [3.x^N]$ 
  - T is trust metric
  - 3.x is a number between 3 and 4
  - N is distance in social net

## Why?

- $\sim$  N = 0 = Kin (sex)
- N = 1 = friends (beer/drugs)
- N = 2 or more = acquaintances (dancing/music/laughing at same jokes)
- How does this help in facebook?

## Social Networks Project

- We're looking at co-lo networks
  - c.f. haggle, cityware bluetooth etc
- AND online social networks
  - Friendship graph on orkut, li, facebook
- AND communication networks
  - Email address book, sms, phonecalls
- Can use to infer real realationship
  - I.e. type of edge in graph (and value of N)

#### Trust

- Trust in terms of revelation/disclosure
  - Or carrying data (in ferry net)
  - Or simple grouping for ACLs
- Need to do some experiments
  - Figure out how ties are broken
  - Forgetting
  - How new tools/technology affect
  - Size and dynamics of social net...

### Questions?

- What net/edge type is more likely to cause an edge in another net?
- Does meeting someone domiante over online or vice versa -
  - I.e. how does new tech affect x (size of immediate gang) and
  - N (scope of gang/level of intentionality reasoning?)?
- Can you use this to detect dodgy behaviour?
- Has anyone got an mp3 of the blockheads on their phone or laptop?