

# The Internet of Ideas

12 Pecha-Kucha

Or

Research Elevator Pitches

Jon Crowcroft

# Key-not

- This is not a retrospective
  - post hoc
- Nor is this a vision thing
  - navel-gazing not my thing
- It's what I try to do with my students
  - And they did all the real work...

# Silver Lining



# Heat dissipation

Push to edge

Virtual super-peer

Xen-peer

# Address-less-ness





SNA

Rendezvous

# Intentional IP



**Tweet-based-prefetch**

# SATNAV based handover

# Social IP



Friend-of-friend

In every packet



Learn your mileu

# Spam as Cover Traffic



# Steganocodemail

Botnets as onion router

# Partial Path Preparation



“Now this is not the end. It is not even the beginning of the end. but it is, perhaps, the end of the beginning.”

**Making mpl's respectable**

Fixing up wireless hops



# Cross layer impedance matching

# Software Radio in the Cloud



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L to R: David Crosby, Gene Clark, Michael Clarke, Chris Hillman, Roger McGuinn



Lots of nearby cpus

Save battery

Use local radio different

# Greening Netflix



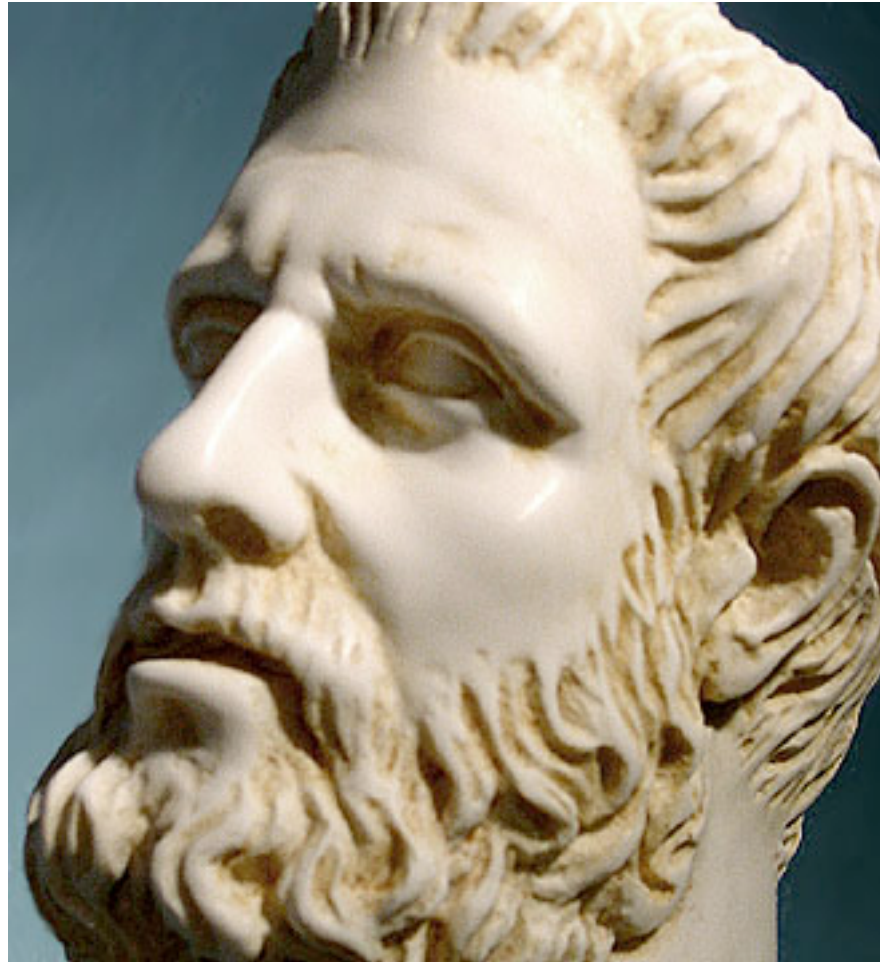
Postal multicast w/ cache

Real p2p multicast w/ cache



Which pollutes more?

# Hippocratic Databases for Social Net Traces



“Do no harm”

**Functional dbase**

# Info-theory query analysis

# Bedless Testbeds



Repeatability?

No: reproduce *statistics*.



Predictable experiment is just  
a design.

# Cyclic Levy Flights



Mobility models that explain...

As well as generate...

Realistic traces...

Snakes on a Plane, in 3D!!!



Predict, shadow, trail...

Phone app in the cloud



**Not thin client - fast migration**

Needs virtualised phones

**Snakes/threads**

3D: Human, thread, VM

# Please don't blame me...

- ...if it all goes horribly wrong
- One purpose for showing these ideas
  - Is to develop *critical faculties*
  - *But not to select/filter on bogus criteria, e.g.*
    - *Business case*
    - *Deployment*
    - *Other non-technical considerations for which we have no scientific methods*
      - *psychology, economics, philosophy etc*
    - etc

# Acknowledgements

- SRG, UCL Nets group/G11
- My PhD students over last 27 years
- My wife who hates geeks, except for me and the kids.

# Backup...

- Power-napping - regenerative braking for CPUs
- Distributed traffic lights on iphones
- Spread Spectrum Internet Tomography
- Resist TM, C, P and R