COMPSCI 82, Fall 2009
Technical and Social Foundations of the Internet

Owen Astrachan
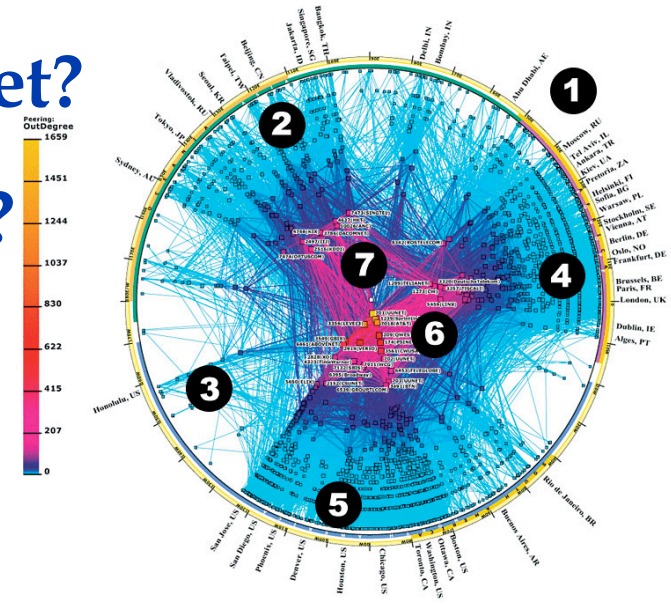
http://www.cs.duke.edu/courses/cps082/fall09

http://www.cs.duke.edu/~ola

Course Details

- **See the course website for full disclosure**
- **Weekly readings, responses, web/written**
  - ➢ Make sure you know your group and due dates
  - ➢ Written work: web responses, written responses
- **Midterm and Final**
  - ➢ "Open notes", midterm has take-home component
- **Book report**
  - ➢ Done in groups
- **Comporting yourself in and out of 82**

Internet: Where is it going?

- **What is IPv4? Who created it?**

- **Who governs the Internet?**

- **What is a domain name?**

- **What is a cookie?**

- **What is peering?**

- **What is DNS? ICANN?**

- **What is IP, SMTP, BGP, HTTP?**

Internet: Where is it going?

- **Colbert and Zittrain: Future of the Internet**
  - ➢ **Tethering, what happened with 1984/Kindle?**
- **Chris Anderson on Free**
  - ➢ **Making money from free services?**
- **Daily Show and iFeud**
  - ➢ **Duke students and iPhone Apps**
- **Net Neutrality via YouTube and ComedyCentral**

XKCD meets Compsci 82

- **Policy, Technology, Humor**

- (pretend to) Laugh at these

AWAITING THE JUDGES' RULING AT THE PIRATE BAY TRIAL:

I WISH THIS WERE IN AMERICA.

WHY?

I HEAR WE'D GO BEFORE A JURY OF OUR PEERS, AND I'VE ALWAYS SEEDED GENEROUSLY.

Internet People/Personalities

- **We've seen Tim Berners-Lee, but he's new**
  - ➢ **Who helped invent the Internet?**

- **From Sean Fanning to Mark Zuckerberg …**
  - ➢ **Internet transforms society?**

- **Does Google rule the world? Virtual world?**
  - ➢ **What about Bing? Wolfram-Alpha?**

Jon Postel

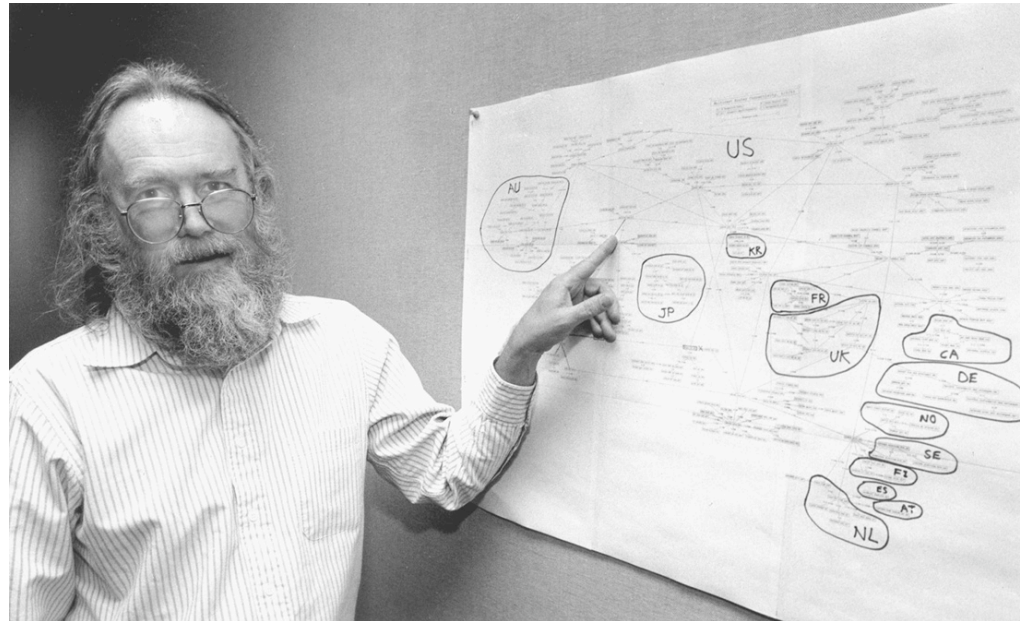- **Size matters**
- **DNS**
- **Names**
- **Numbers**
- **ICANN**

- **U.S.A. v World**

Froomkin, Wrong Turn in Cyberspace

Mark Zuckerberg

- **Facebook and beacon?**

- **Privacy? From whom?**

- **Facebook apps**
  - ➢ **iPhone?**

- **Targeted Ads**

Google and Scale

- **# Queries/day?**

- **How does Google make money?**

- **What about privacy?**

- **What about gmail?**

Picture of Original Server (Stanford)

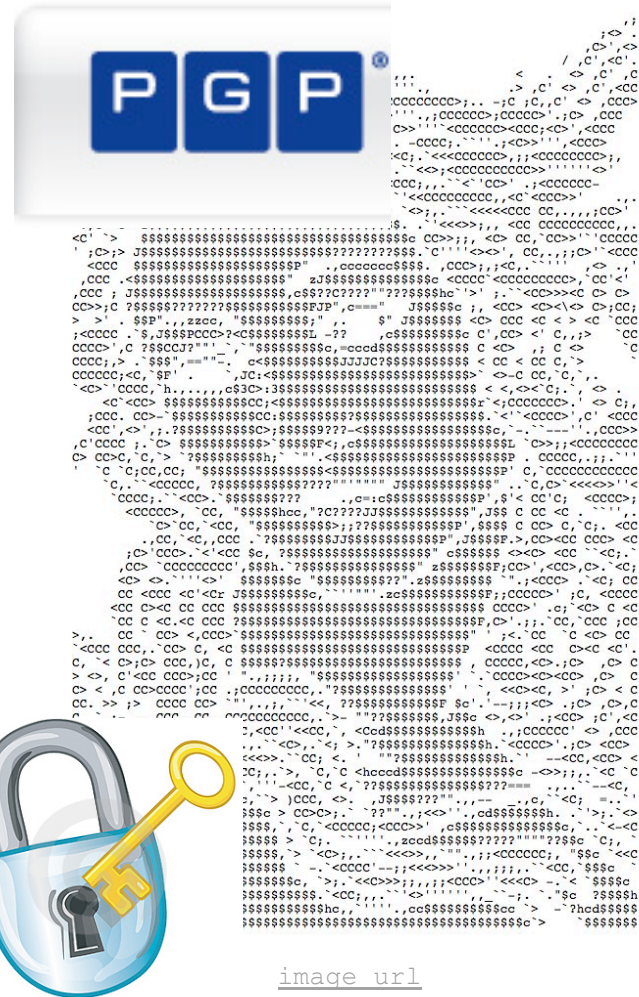# Who are Sergey and Larry?

What is google.org?

Court Cases: Legal/Policy/Technology

- **How has the Internet changed law?**
  - ➢ **How does law change the Internet?**

- **IP^2: What Compsci 82 is about?**
  - ➢ **Internet Protocol meets Intellectual Property**

- **Where is there a right to privacy?**
  - ➢ **School, home, work?**

US v Boucher

- **Border crossing**

- **pr0n (and child)**

- **PGP encryption**

- **5th Amendment**

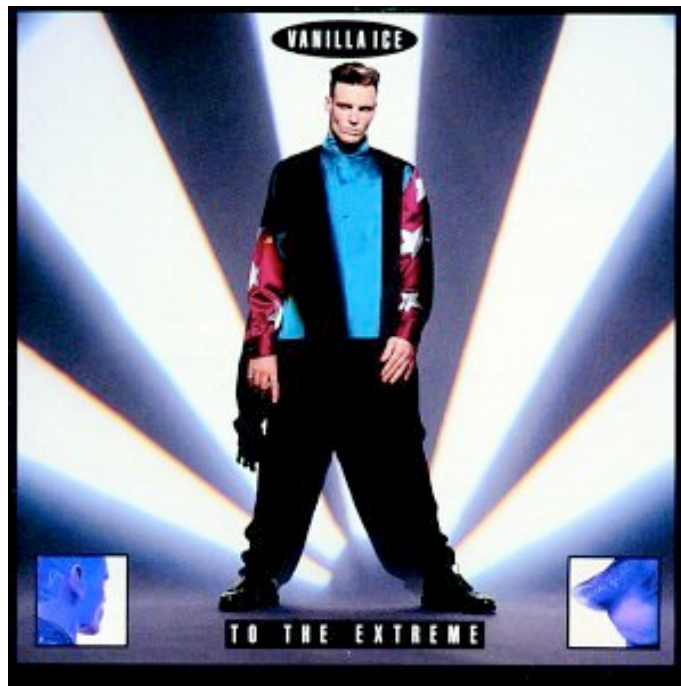image url

Larry Lessig

- **Law Professor**

- **Creative Commons**

- **Change Agent?**

- **Code is law**
  - ➤ **East meets West**

creative commons license

Copyright Infringement?

ice ice baby (youtube)

Under Pressure (youtube)

Bridgeport Music v Dimension Films

Get Off Your Ass and Jam (youtube)

Get Off Your Ass and Jam (youtube)

100 miles and running video

UGC, mp3, DRM, DMCA

- ## mp3 vs AAC
  - ➤ **Code? Codec?**

- ## Copy Protection
  - ➤ **From whom?**

- ## UGC, Youtube
  - ➤ **What about you?**

DMCA Slide Show