

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>

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1.1

Course Details

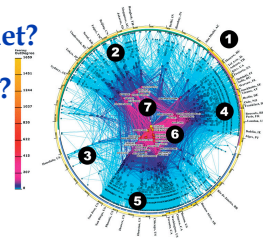
- See the course website for full disclosure
- Weekly readings, responses, web/written
 - Make sure you know your group and due dates
 - Written work: web responses, written responses
- Midterm and Final
 - “Open notes”, midterm has take-home component
- Book report
 - Done in groups
- Comporting yourself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

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1.2

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?



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1.3

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

YouTube

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1.4

XKCD meets Compsci 82

- **Policy, Technology, Humor**
- (pretend to) Laugh at these



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1.5

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?

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1.6

Jon Postel

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

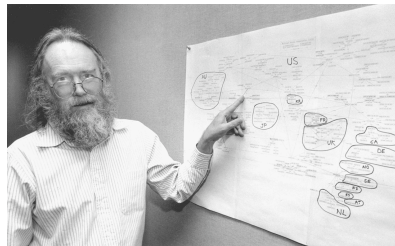


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- **U.S.A. v World**
Froomkin, Wrong Turn in Cyberspace

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1.7

Mark Zuckerberg

- **Facebook and beacon?**
- **Privacy? From whom?**
- **Facebook apps**
 - iPhone?
- **Targeted Ads**



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1.8

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

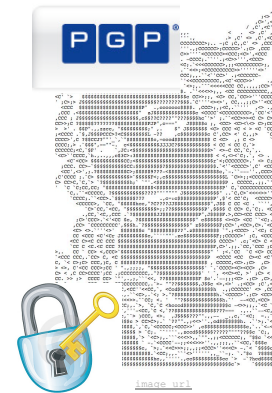


Image url

Larry Lessig



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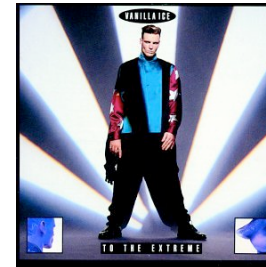
- Law Professor
- Creative Commons
- Change Agent?
- Code is law
 - East meets West

[creative commons license](#)

1.13

Copyright Infringement?

[ice ice baby \(youtube\)](#)



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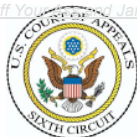
[Under Pressure \(youtube\)](#)

1.14

Bridgeport Music v Dimension Films

[Get Off Your Ass and Jam \(youtube\)](#)

[Get Off Your Ass and Jam \(youtube\)](#)



[100 miles and running video](#)

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1.15

UGC, mp3, DRM, DMCA

- mp3 vs AAC
 - Code? Codec?
- Copy Protection
 - From whom?
- UGC, Youtube
 - What about you?



YouTube



[DMCA Slide Show](#)

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1.16