Internet & Society: The Technologies and Politics of Control
Professor Jonathan Zittrain co-taught with Professor Joi Ito, Director of the MIT Media Lab
Harvard Law School
Winter 2017

Mon-Fri
10:30am-noon; 12:45pm-2pm
Milstein West AB

Syllabus

I. Course Description

This course offers a rigorous introduction to the field of cyberlaw. We will investigate the evolving nature of online architecture and activities, and the ways in which law has been, and will be, leveraged to influence them.

Course themes include the complex interaction between Internet governance organizations and sovereign states, the search for balance between the ease of disseminating information online and the interest of copyright holders, privacy advocates, and others in controlling that dissemination, and the roles of intermediaries and platforms in shaping what people can and cannot do online. The course will include an array of learning and teaching methods. Students will be expected to participate in a variety of activities.

II. Class Schedule

The class meets every day from January 3rd to January 13th in Milstein West AB. Each day will be divided into three phases: the morning session from 10:30am to noon, lunch from noon to 12:45pm, and the afternoon session from 12:45pm to 2pm. Lunch will be provided.

A more detailed schedule of the topics we will be covering each day follows below.

Topics (2 per day other than the last day)

Day 1: Introduction, Right to Be Forgotten and Jurisdiction
Day 2: Copyright, DRM debate between Professor Ito and Professor Zittrain (afternoon session)
Day 3: Cryptocurrency
Day 4: Private Infrastructures for Government Surveillance, John DeLong/Bruce Schneier talk (morning session)
Day 5: Net Neutrality and Internet Architecture, Dialogue with Andy Ellis (afternoon session)
Day 6: Weaponized Social, Open discussion with John Palfrey (morning session)
Day 7: Free vs. Proprietary Code and Content, Dialogue with David Clark (afternoon session)
Day 8: Governance, Artificial Intelligence
Day 9: Conclusion

III. Class Requirements

The purpose of this class is to give students a sense of the historical battles of the Internet, what different actors were thinking, what they were trying to accomplish, and what levers they pulled in order to select for specific outcomes. Students should apply what they have learned from historical examples to a current Internet issue discussed in class and describe in a 12-15 page paper what a viable solution might look like. Solutions could take the form of a policy recommendation, project proposal, or code. The paper or project proposal will be due on Friday, January 20th, and may be submitted by email to Samantha Bates at sbates@law.harvard.edu.

IV. Class Materials

There is no required textbook for this class. All readings will be available online on the class H2O playlist: https://h2o.law.harvard.edu/playlists/51511.

We will have a slack channel for the class. Please click on the following link to sign up: https://internet-society2017.slack.com/signup.

Students should bring their laptops to class to use for daily activities, but all electrical devices must remain off during lectures.

V. General Information

Professor Zittrain and Professor Ito will be available for group office hours after class on the following dates:

- Wednesday, January 4th from 2:15-3:15pm in Milstein West.
- Monday, January 9th from 2:15-3:15pm in Milstein West.
- Wednesday, January 11th from 2:15-3:15pm in Milstein West.
For other general scheduling/appointment questions, please contact:

**Amanda McMahan**  
*Assistant to Professor Zittrain*  
Office Phone: 617-495-8351  
Email: a2jz@law.harvard.edu  
Office location: Griswold Hall, 5th floor, Room #505

**Yuko Barnaby**  
*Assistant to Media Lab Director Ito*  
Office Phone: 617-999-5579  
Email: yuko@media.mit.edu  
Office location: MIT Media Lab, E-14, Director’s Office 245

For course related (readings/paper) questions, please contact:

**Samantha Bates**  
*Research Associate*  
Email: sbates@law.harvard.edu

**Natalie Saltiel**  
*Coordinating Editor for the Journal of Design and Science (JoDS)*  
MIT Media Lab  
Email: nsaltiel@media.mit.edu

For other information about the class, please contact:

**Shailin Thomas**  
*Teaching Fellow*  
Email: sthomas@jd18.law.harvard.edu

**Jordi Weinstock**  
*Visiting Scholar*  
Email: jordi.weinstock@gmail.com
Reading Assignments

Day 1: Introduction

Welcome! We aspire to the implausible: a nine-day introduction to the unusual dynamics of the world’s digital space, sufficient for a strategic understanding of what makes it difficult (but far from impossible) to regulate or shape; who’s trying to do it nonetheless; and how such efforts have fared over the past twenty years, with an eye towards lessons for influencing the space and the behavior within it today.

In addition to offering some frameworks for thinking about Internet architecture and policy, and the curious open and generative nature of the phenomenon, we will delve into the net as a contingently global phenomenon, and the way that complicates regulation by traditional sovereigns. Our case study will be the current debates around implementation of Europe’s “right to be forgotten” in search engine results. As you complete the readings, you might see how you’d answer the question of what a state like France’s view should be towards the scope of its RTBF regulation, and whether the kind of “zoning” described in the Cato Institute article from thirteen years ago (!), is realizable and desirable.

Readings:

  - Read pages 1-5, 7-9, 57-61, 63-65, 67-71.
  - Read pages 154 (beginning “Imagine a world”) - 161

Jurisdiction

Day 2: Copyright

Copyright was once thought of as the defining battle of consumer networking. Academic technologies brought into the mainstream made it trivial to prepare and distribute perfect copies of copyrighted work without permission -- and the comparatively powerful organizations representing copyright holders saw this as an existential threat.

We will read some of the “grim joy” experienced by Internet freedom types in dancing on the grave of copyright in the mid-1990s -- and immerse in some of the law and policy changes effected in the United States to deal with the problem without running up against the equities of rapidly-growing intermediaries of online and Internet service providers (turns out, there’s a difference).

The copyright wars revealed a variety of strategies that we’ll look at with the benefit of years of hindsight, including lawsuits against network providers, software makers, and individual users both sending and receiving files, as well as technical changes designed to make it more difficult to share items that wish not to be shared. Ultimately we are drawn to the question of whether the wars were won by one side or another, or whether it’s more accurate to say that they simply faded away. What issues today feel make-or-break, yet could simply fade rather than be resolved, and why?

We’ll end the day with a peek into, and practice of, a current intense if obscure debate: that of whether digital rights management hooks should be placed into standards for Web browsers.

Readings:

Day 3: Cryptocurrency

One view of the progression of digital technology has been roughly from amateur to professional, from open to closed, and from chaotic to ordered -- as the early successes from left field of Google, Facebook, and Twitter enter publicly-traded adulthood. At the ripe year of 2017, are there still digital disruptions to be had?

The phenomenon (and increasing literal value) of cryptocurrency -- and, for that matter, the foundational blockchain technologies on which it can be based -- seems to indicate that there are still surprises from left field. What does the rise of cryptocurrency tell us about the state of cyberspace, and what should we expect -- and hope for -- next?
Readings:

Introduction


[OPTIONAL: for a more in depth technical introduction to Bitcoin]


Bitcoin & the Blockchain

- Joi Ito, “Why anti-money laundering laws and poorly designed copyright laws are similar and should be revised,” (March 12, 2016) http://pubpub.ito.com/pub/dmca-drm-aml-kyc-backdoors archived at https://perma.cc/7T7T-UPJK.
  - Read Chapter 10: Money

Ethereum

Day 4: Private Infrastructures for Government Surveillance

Digital privacy has at times been understood as privacy against corporate intrusion (think ad networks); against government (think the various government intelligence-gathering establishments around the world); and against one another (think drones as well as more pedestrian technologies that empower people to document facts about, or even doxx, each other).

This session will look at the second form of surveillance, especially as effectuated through the cooperation or compulsion of private intermediaries. How successful is such surveillance, and will it continue to be effective as the public reacts by potentially adopting privacy-enhancing tools? How successful do we want it to be, and how might frameworks agreeable within jurisdictions that embrace the rule of law be used or abused within those that do not?

Readings:

Day 5: Internet Architecture/Net Neutrality

We increasingly assume the availability of commodity networking -- a flat fee for access -- even as the way in which we experience the Internet is evolving through a curious microeconomics, a mishmash of policies designed to subsidize or regulate access, and a sometime ability to arbitrage around arrangements through technologies to facilitate access sharing and virtual tunneling.

How is Internet access likely to evolve, and what choices exist for polities with particular ideals about how it should work?

Discussion will include Andy Ellis, Berkman Klein Center Fellow and CSO of Akamai, one of the most important companies that people haven’t heard of.

Readings:
Net Neutrality

- [FOR REFERENCE] Net Neutrality timeline, Public Knowledge:

  - Read the introduction and Part I A, pages 141-147.
Day 6: Weaponized Social

The time when the solution to bad speech could be advanced as simply more speech might seem quaint. The famously libertarian Electronic Frontier Foundation recently released a white paper in which it acknowledged a line between a clash of ideas and flat-out harassment, with the latter causing less rather than more robust debate. Separately, concerns about outright false news that spreads virally have inspired calls for action by intermediaries like Facebook -- a self-described technology, rather than media, company.

Applying lessons from the conflicts of the past two decades online, how might we agree upon a vision for social networking even if we disagree on many substantive issues to be debated there, and what are the roles, if any, of regulators and private platforms in establishing boundaries on behavior online through code or legal sanction?

Is it more difficult to agree on a vision is our media is no longer about the battlefield or the real world but is the battlefield and the real world?
Readings:
The Problem

The Search for Solutions
● Dia Kayyali and Danny O’Brien, “Facing the Challenge of Online Harassment” Electronic Frontier Foundation (January 8, 2015)
Day 7: Free vs. Proprietary Code and Content

This day examines quite different models for the development and distribution of software -- which can also serve as models for hardware, and for content. What kind of ecosystem, featuring what models, is desirable?

We will think about current issues in cybersecurity as a case study in why free vs. proprietary code might matter, and take up the question of how regulation might be applied when there are no easily identified intermediaries in the production of code.

And we will hear from the legendary David Clark, one of the framers of the Internet.

Readings:

  - Read Chapter 4: Generative Patterns (pages 67-100).
Day 8: Governance

The tensions between free vs. proprietary software help focus us on foundational questions of governance that are threaded through the course. To what extent should new technologies be shaped and shared by anyone without gatekeeping? 2017 may find the Internet in middle age. Do its puzzles suggest anything about whether and how to resolve governance questions for more newly mainstreamed technologies like machine learning and other AI?

In addition to the challenges that the Internet has provided in regulation and governance, the inability to really understand what many “learned” algorithms do, and their ability to have properties and abilities beyond the capabilities of their initial designers, presents additional challenges when thinking about whether and how to regulate the research, as well as the deployment, of AI. Phenomena like digital currencies and distributed AI systems reprises the ideas and challenges of Barlow’s declaration of independence of cyberspace.

Readings:
Governance: IoT Security
- J.M. Porup, “‘Internet of Things’ security is hilariously broken and getting worse” Ars Technica (January 23, 2016)

Governance: Algorithmic Accountability
- Carole Cadwalladr, “Google, democracy and the truth about internet search,” The Guardian (December 4, 2016)
  ○ Read the Introduction and Chapter 1 (will print for the students)
Artificial Intelligence


Day 9: Conclusion
