

History HH2012
Cybersociety
Nanyang Technological University
Semester 1, 2012

Logistics:

Instructor: Assistant Professor Hallam Stevens

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Academic units: 3 AU

Prerequisites: None

Lectures: Wednesdays 11.30pm-1.30pm

Tutorials: Wednesdays

Learning objectives:

- To familiarize students with the historical processes within which the internet emerged;
- To critically analyze the socio-political and technological forces in shaping the internet and other recent communications technologies;
- To understand how emerging artefacts such as email, hypertext, Facebook, Second Life and Twitter have influence upon our everyday life.

Content:

Cybersociety explores the social, cultural, moral, legal and political implications of the Internet and other recent communications technologies. Tracking the history of the Internet from a 'survivable' cold war network to a social networking tool, the class will explore how these technologies have transformed privacy, sociality, notions of selfhood and identity, commerce, globalization, the media, and the boundaries of the body. By studying packet switching, email, hypertext, Facebook, Second Life, and Twitter as cultural as well as technological phenomena, we will explore the complicated influence of these artefacts on our everyday lives.

Learning Outcomes

- Understanding the complex forces shaping the origin and evolution of the internet;
- Be able to apply what learned in the class for a critical analysis on the multi-layered relationship between technologies and society;
- Be able to undertake critical analysis (both written and orally) of key themes from social science and historical perspectives

Assessment:

Reading/commentary (10%)

You will be expected to post commentary on the readings on the class Facebook page. Dialogue with other students' commentary is encouraged, as is posting of links to other relevant material. 10% of your grade will be based on your online engagement with readings and classmates. You will also be graded on participation in Twitter and clicker exercises during class. **Due: ongoing throughout the semester.**

Creative project (20%)

One creative project, due at end of semester. The list of project topics is given at the end of this document. **Due: Wednesday November 14th, 5pm.**

In-class presentation (20%)

One in-class presentation during lecture or tutorial times. The topics are listed under each week below. Each requires investigation of a technical topic related to that week's lecture; the aim is to explain your subject in a way that makes it comprehensible to your classmates. You must pick a topic in the first week of class. You will be required to present for 10-15 minutes. Group work is encouraged. **Due: in class throughout semester.**

Final examination (50%)

A 2½-hour final written examination will be given, covering the content of the entire course, including all the lectures and reading material. **Date: TBD**

Lectures and readings:

Week 1 (August 15th):

Lecture: Introduction and overview

Reading:

- Paul Edwards (1996). "From operations research to the electronic battlefield" in *The closed world: computers and the politics of discourse in cold war America*, pp. 113-145. Cambridge, MA: MIT Press.

No project. No tutorial.

Week 2 (August 22nd):

Lecture: Origins of the ARPANET

Watch: *Nerds 2.0.1: A brief history of the Internet* (1998)

Reading:

- Janet Abbate (2000). "Building the ARPANET: Challenges and strategies" in *Inventing the Internet*, pp. 43-81. Cambridge, MA: MIT Press.

Project: Packet switching; Project MAC;

Week 3 (August 29th):

Lecture: Users transform the network

Watch: *BBS: the documentary* (2005)

Reading:

- Ian Hardy (1996). "The evolution of ARPANET email" Honors thesis, Department of History, University of California Berkeley.

Project: Usenet; Modem; BBS

Week 4 (September 5th):

Lecture: From the ARPANET to the Internet

Watch: 'Who really created the Internet?' (Lecture, Peter Willetts, 29 October 2009, City University London)

Reading:

- Juan D. Rogers (1998) "Internetworking and the politics of science: NSFNET in Internet history" *The information society* 14(3): 213-228.

Project: TCP/IP; DNS; Fibre optic cable

Week 5 (September 12th):

Lecture: From hypertext to the World Wide Web

Watch: *Pirates of Silicon Valley* (1999)

Reading:

- Tim Berners-Lee (1989). "Information management: a proposal" Available at: <http://www.w3.org/History/1989/proposal.html>

Project: Hypertext Transport Protocol; Web browser

Week 6 (September 19th):

Lecture: Doing business online: the dot-com boom

Watch: *Startup.com* (2001)

Reading:

- Chris Anderson (2004). "The Long Tail" *Wired* 12.10.
- Kevin Kelly (2008). "Better than free" Weblog. Available at: http://www.kk.org/thetechnium/archives/2008/01/better_than_fre.php

Project: How do websites capture and store information from users? (there are multiple ways – you can choose to focus on one or try to give an overview)

Week 7 (September 26th):

Lecture: Media and democracy

Watch: [TBD]

Reading:

- Cherian George (2005) "The internet's political impact and the penetration/participation paradox in Malaysia and Singapore" *Media culture and society* 27(6): 903-920.
- John Palfrey, Bruce Etling, and Robert Faris (2009). "Reading Twitter in Tehran?" *The Washington Post*. June 21. Available at: <http://www.washingtonpost.com/wp-dyn/content/article/2009/06/19/AR2009061901598.html>

Project: How does Twitter work?; Proxies;

Mid-semester break

Week 8 (October 10th):

Lecture: User-generated organization

Watch: *Life in a Day* (2011)

Reading:

- Jeff Howe (2006). "The rise of crowdsourcing" *Wired* 14.06. Available at: <http://www.wired.com/wired/archive/14.06/crowds.html>

- Andrew Keen (2007). "Introduction," pp. 1-10 in *The Cult of the Amateur: how today's Internet is killing our culture*. New York: Doubleday.

Project: Foldit; EteRNA; Google PageRank;

Week 9 (October 17th):

Lecture: Copyright, copyleft, and the Napster generation

Watch: *Rip! A remix manifesto* (2009)

Reading:

- John Perry Barlow (1996). "A declaration of the independence of cyberspace" Available at: <https://projects.eff.org/~barlow/Declaration-Final.html>
- Eric Raymond (1997). "The Cathedral and the Bazaar" Available at: <http://www.catb.org/~esr/writings/cathedral-bazaar/cathedral-bazaar/>

Project: Pick one DRM technology and explain how it works.

Week 10 (October 24th):

Lecture: Privacy, hackers, and cyberterror

Watch: *War Games* (1983)

Reading:

- Google privacy policy.
- Facebook's privacy policy.

Project: Cookies; Packet sniffing; pick a particular worm or virus and explain how it works.

Week 11 (October 31st):

Lecture: Science and knowledge online

Watch: *Truth in numbers? Everything according to Wikipedia* (2010)

Reading:

- Jonathan Zittrain (2008). "[The Lessons of Wikipedia](#)," pp. 127-148 in *The future of the Internet and how to stop it*. New Haven, CT: Yale University Press.
- Wikipedia article: "[Criticism of Wikipedia](http://en.wikipedia.org/wiki/Criticism_of_Wikipedia)." Available at: http://en.wikipedia.org/wiki/Criticism_of_Wikipedia

Project: How does Wikipedia try to ensure the validity of its information?

Week 12 (November 7th):

Lecture: Sociality and community

Watch: *Second Skin* (2008)

Reading:

- Michael Wesch (2009) "Youtube and You: Experiences of self-awareness in the context collapse of the recording webcam" *Explorations in media ecology* 8(2): 19-34.

Project: Flash; API; Javascript; CSS

Week 13 (November 14th):

Lecture: The future of the Internet

Watch: *Tim Berners-Lee TED talk* and *Web 3.0* (Kate Ray)

Reading:

- Tim Berners-Lee, James Hendler, Ora Lassila (2001). "The semantic web" *Scientific American* May. Available at: <http://www.scientificamerican.com/article.cfm?id=the-semantic-web>

Project: HTML5; RDF; OWL; What is net neutrality and why is it important?

Creative projects:

- Imagine you were in control of the early ARPANET. What rules would you devise and why? How would you manage the network?
- Devise a Whole Earth Catalog for the 21st Century. What aims would it have? What would it look like? What form would it take?
- Write about your experience in a MUD or MOO. (Yes, this means you actually have to go to a MUD or a MOO and spend some time there).
- Make the ugliest website possible (code it in HTML, or use Dreamweaver or equivalent software and put it online).
- Devise your own mark-up language
- Create a business plan for an Internet start-up (either now, or imagine you were doing it in 1995).
- Find or devise a problem (perhaps a problem from another class) that is extremely difficult to solve by any conventional means. Devise a way to solve it using mechanical-turk or some similar crowd-sourcing technology.
- Follow a story in the blogosphere and in the 'legacy' online media. What are the differences?
- Make a short movie promoting a political or social cause. Post it on YouTube.
- Write an updated version of the Declaration of the Independence of Cyberspace.
- Build a crowd-sourcing website – eg. an online dictionary of NTU (or Singapore) jargon that can be updated by the NTU (or Singapore) community (like UrbanDictionary.com)
- Write your own copyleft license / copyright 'hack'
- Contribute to an open-source software project -- you could either write code or test it out and report bugs. Document this in some way.
- Keep track of everything you Google for a week. Imagine passing this information on to a total stranger -- could they identify you?
- Devise a web scavenger hunt: this should give people clues to finding certain information or places on the Internet, with those places providing further clues, just like a real-world scavenger hunt. Obviously, things people can Google will be too easy to find.
- invent a language that makes online communication even more expressive.
- Join Second Life or similar online community. Contribute to it in some way: build a house, make clothing, earn some cyber-cash (eg. Linden dollars -- but not by selling a physical object, that's too easy!).
- Do an 'anthropology of chatroulette.' Use Michael Wesch's 'Anthropology of YouTube' project (Kansas State University) as your model. What kinds of human interactions take place in chatroulette?
- What is your vision of Web 3.0? How should the web evolve?
- Devise your own project! Talk to me about it to approve before proceeding.