History and Philosophy of Internet Technology
STS-UY 2444-A [22261], Spring 2016
2:30 to 4:20 pm, Mondays and Wednesdays, Room JAB 777
Department of Technology, Culture and Society
New York University Polytechnic School of Engineering

Instructor
Dr. Christopher Leslie
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5 MetroTech Center (Dibner Building), LC 131

Office Hours
Generally, I’ll be available on from 12–2 pm on Mondays when classes are in session. If this time is not convenient, contact me to make an appointment.

Course Description
The story of how the Internet came to be offers many insights into science and technology studies generally. There are many lessons about how history is used to justify current practices and to foreclose on innovation in the future — and, as well, there are opportunities to understand how the philosophy of a technology guides its innovation and can be used to evaluate its development. In studying the history of the Internet broadly, we shall seek to demolish false beliefs about its development and learn how law, policy, and culture can foster innovation. Students must have completed EXPOS-UA 1 (or an equivalent) before taking this course.

Objectives
This semester you will learn about:
• The issues raised by modern science and technology.
• The historical paths taken by networks that led to modern infrastructure
• How the development of technology differs in recent historical periods
• Fundamental concepts of Science and Technology Studies, like constructivism, determinism, postcolonialism, infrastructure studies, actor-network theory

Structure
Most class time is devoted to lectures about course topics, discussion of the reading assignments, and in-class analysis of primary source material. Although a portion of our class is devoted to discussion, this discussion is guided and you should consider the content to be just as important as a lecture.

Readings
You must purchase these books:

Other assignments will be found online and in NYU Classes (http://newclasses.nyu.edu). Please let me know well in advance of class if you have any trouble locating a required reading.
Grading

Class components are weighted as follows:

- Declamation Presentation 15%
- Quizzes 20%
- Papers (10% each) 20%
- Exams (15% each) 45%

Letter grade equivalents are:

- A: 90–100 (90–94 = A–)
- B: 80–89 (87–89 = B+, 80–82 = B–)
- C: 70–79 (77–79 = C+, 70–73 = C–)
- D: 60–69 (67–69 = D+) ; F: <60

Requirements

Accommodations: If you are student with a disability who is requesting accommodations, please contact NYU’s Moses Center for Students with Disabilities at (212) 998-4980 or mosecsd@nyu.edu. You must be registered with CSD to receive accommodations. Information about the Moses Center can be found at http://www.nyu.edu/csd/. The Moses Center is located at 726 Broadway on the 2nd floor.

Attendance: On-time attendance for the entire class period is mandatory. Students who miss four or more classes automatically fail the course. For the purposes of attendance, missing fewer than twenty minutes counts as one-third of an absence (arriving late, departing early, leaving the room). Missing more than twenty minutes counts as an absence. Doctor’s notes or other documents are not necessary, but if you must miss class, it is your responsibility to find out from a classmate what you missed.

Attentiveness: Please pay attention during class and avoid behaviors that distract others. Do not eat, drink, or sleep during class. You should not use electronic devices, such as cell phones or laptops, at all. Do not hold side conversations; if someone tries to talk to you during class, tell him or her to speak to you after class. Do not bring visitors without advance permission.

Declamation: Each student will participate in one of the declamations listed on the schedule. This involves a little research into the personality and ideals of the person you are assigned and your active involvement in the discussion with the other students according to their personae.

Examinations: There are three exams during our regular class meetings. They consist of short answer and essay questions. Each is cumulative and closed-book.

Honesty: Please be advised that I take the University policy about academic dishonesty seriously and will punish cheating or plagiarism (passing off other people’s ideas as your own) by awarding a grade of “F” for the course and referring cases to Student Affairs for further action.

Participation: There is no grade for participation. I encourage you to participate, so that the course discussions reflect your interests. If you are the kind of person who likes to participate, I encourage you to make a space for others who might be shyer.

Preparation: According to New York State guidelines, a student should spend at least two hours to prepare for each hour in class. Thus, for this course, you can expect to spend at least eight hours per week outside of class getting ready for class. Please plan accordingly so that you can read thoroughly, write carefully, and reflect thoughtfully.

Quizzes: There will be unannounced quizzes on the reading assignments and course lessons. You may consult your own handwritten notes, but not books or printouts, for these quizzes. If you miss a quiz due to lateness or absence, you shall receive a zero.

Papers: You will write two papers of at least 1,000 words (three full pages) each for this class based on the declamation exercises. Both must be uploaded to NYU Classes and scanned by Turnititin before 10 am the day after the deadline; no late papers will be accepted. You must document your sources in MLA or Chicago author-date style, both in the text of the paper and at the end in your works cited section. Note that, according to NYU policy, I cannot accept emailed papers; for this reason, leave time before a deadline. If you are having trouble uploading your paper, contact the Help Desk at (212) 998-3333.


Goldsmith, Jack and Tim Wu. 2006. *Who Controls the Internet? Illusions of a Borderless World.* Legal history, as far back as DNS but mainly concerned with the 1990s.


Hauben, Michael and Ronda Hauben. 1995. *Netizens: On the History and Impact of Usenet and the Internet.* Invaluable source of user comments on the early days of Usenet.


Explores the connections between innovation and structure of the Internet.


**Tentative Assignment Schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Monday, Jan. 25</td>
<td>Introduction</td>
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<tr>
<td>Wednesday, Jan. 27</td>
<td>The History and Philosophy of Technology</td>
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<td>Eszter Hargittai and Yuli Patrick Hsieh, “Digital Inequality.”</td>
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<tr>
<td>Monday, Feb. 1</td>
<td>From Utopian Days to Monopolies</td>
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<td>Wednesday, Feb. 3</td>
<td>FM Radio and Television</td>
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<td>Monday, Feb. 8</td>
<td>Ma Bell</td>
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<td>Last day to drop without receiving a grade of W.</td>
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<td>Wednesday, Feb. 10</td>
<td>Background for ARPANet</td>
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<td>Paul Baran, “On Distributed Communications” (excerpt).</td>
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<td>J. C. R. Licklider, “Memorandum for Members and Affiliates the Intergalactic Computer Network.”</td>
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<td>View IBM, “On Guard! The Story of SAGE.”</td>
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<tr>
<td>Wednesday, Feb. 17</td>
<td>Toward More Modern Networks</td>
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<td>Janet Abbate, “From ARPANet to Internet.”</td>
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<td>Monday, Feb. 22</td>
<td>Exam 1</td>
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<td>Wednesday, Feb. 24</td>
<td>Competing Philosophies</td>
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<td>Monday, Feb. 29</td>
<td>Rebirth of Old Media</td>
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<td>Wednesday, Mar. 2</td>
<td>How Al Gore Invented the Internet</td>
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<td>Shane Greenstein, <em>How the Internet Became Commercial</em>, Chapter 1 to 3</td>
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Monday, Mar. 7  Declamation #1
Wednesday, Mar. 9  BBS and Industry

Monday, Mar. 21  Consumer Access
   Paper 1 due

Wednesday, Mar. 23  Dot-Com Boom

Monday, Mar. 28  Aftermath of the Bust
   Greenstein, *How the Internet Became Commercial*, Chapter 13 to end.

Wednesday, Mar. 30  Introduction to International Stories
   Guobin Yang, “Utopian Realism in Online Communities.”

Monday, Apr. 4  Exam 2
Wednesday, Apr. 6  Fiber Optics
   Nicole Starosielski, *The Undersea Network*, preface, introduction and Chapter 1.

Monday, Apr. 11  Histories of Cable Stations

Wednesday, Apr. 13  Declamation #2

Monday, Apr. 18  Cable Ecology
   Starosielski, *The Undersea Network*, preface, Chapter 4 and 5.

Wednesday, Apr. 20  Unintended Consequences
   Starosielski, *The Undersea Network*, Chapter 6 and conclusion.

Monday, Apr. 25  Materiality of Infrastructure
   Paper 2 due.

Wednesday, Apr. 27  Political Environment

Monday, May 2  Information and Power

Wednesday, May 4  Closing Evaluation
   Cory Doctorow, “You Can’t Destroy the Village to Save It: W3C vs DRM, Round Two.”

Monday, May 9  Exam 3