

The Social and Economic Implications of Information and Communication Technologies

COMM 345, Spring 2007
Tuesday 09:30-11:50 - ASC 231

<http://www-rcf.usc.edu/~fbar/comm345/>

Instructor: François Bar (fbar@usc.edu, ASC 303-A, 213.821.5306)
Office hours: by appointment

Course Description and Objectives

Sweeping social and economic change accompanies the deployment and use of Information and Communication Technologies (ICTs.) This seminar provides an opportunity to explore these changes through a combination of theory and practice. Students will apply social science theory to explore the social and economic implications of ICTs. They will also engage in *learning by using* communication technologies and in mindful observation of their own activities.

A central theme running through this seminar is that choices about the deployment of ICTs shape the communicative power of different actors. These choices, however, are not pre-determined by the characteristics of the technologies. Rather, ICTs can be used in multiple ways, for example to reinforce or undermine central control, privacy, market competition, or democracy. In turn, how technologies are used favors certain exploratory paths and shapes their future evolution.

To explore these mechanisms, the seminar will engage students in several activities in addition to course readings and discussion. In particular, participants will be expected to engage in *learning by using* ICTs and reflecting upon their use. We will study the implications of ICTs at multiple levels of analysis: individual, group, organization and society. Students will also be expected to follow current news and look for connections between news stories and class content. These various activities will be structured around the class assignments described below.

Assignments:

- 1) **Self-observation of your communication activities.** Find your own way to keep a diary of your communication activities for about a week (mediated/non-mediated, analog/digital, mass/interpersonal, etc.) and build an inventory of the ICTs you used (devices, applications, places, etc.) You are encouraged to use a variety of technologies to do this: Paper scraps, voice messages, computer files, pictures, drawings, SMS messages, blogs, etc. The ultimate deliverable will be a multimedia document providing documentation of your communication activities and analysis of the implications of the technologies you used. (due in week 5)
- 2) **Class Presentation** on one of the weekly topics for weeks 6-12. The emphasis of each of these weeks will be on understanding a particular one of the many dynamics at work in "on-line communities." Your presentation will explore how these work through a case study. You will be responsible for choosing background materials (readings, web browsing,...) and activities (on-line participation, exercises,...) in preparation for the class.
- 3) **One larger research project.** Select a research topic by week 6, related to the impact of ICTs on the economy or society. The topic should be either directly related to one of the themes to be discussed in the second part of the course (week 6 - 12), or on another relevant topic to be agreed with the instructor. The final form of your project is flexible,

but should be appropriate for your topic: it can be a traditional paper, a multimedia book, a prototype, a web site, a movie, etc. You could think of the amount of work involved as equivalent to a traditional 15-page research paper. There will be several opportunities to discuss the progress you are making in class as the semester progresses. You will present a draft version of your research project during the last 3 weeks of class. The final version will be due at the end of the semester.

Readings & Participation: Students are expected to read the assigned texts before class and come prepared to discuss them. They are also expected to contribute regularly to an on-line space that will be set up for the class.

Required Readings:

- Readings will be made available on-line, or distributed in class
- Students are also expected to follow ICT-related news throughout the semester. One possible way to do that is to read the New York Times' *Business* section on Mondays and *Circuits* section on Thursday (both available on line at: <http://www.nytimes.com/yr/mo/day/cyber/>)

Grading:

Self-observation: 20%
Large project and presentation: 60%
Class Participation: 20%

Academic Integrity:

The University is committed to maintaining the highest standards of ethical conduct in all academic pursuits. Any student found responsible for plagiarism, fabrication, cheating on examinations, or purchasing papers, or other assignments, will receive a failing grade in the course and may be dismissed as a major in communication. For details, see in particular section 11 of Scampus. (<http://www.usc.edu/dept/publications/SCAMPUS/gov/behavior.html>)

Students with Disabilities and Academic Accommodations:

Students requesting academic accommodations based on a disability are required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP when adequate documentation is filed. Please be sure the letter is delivered to Professor Bar as early in the semester as possible. DSP is open Monday-Friday, 8:30-5:00. The office is in Student Union 301 and their phone number is (213) 740-0776. For additional information, see the Web page of the Disabilities Services Program at: <http://www.usc.edu/student-affairs/asn/DSP>

Schedule

The class is intentionally kept small to encourage discussion and interaction among students. Tuesday class meetings will be more of a lecture, while Thursday meetings will be times to discuss the readings, explore on-line spaces, or work on the research projects.

Week 1: Course overview and introductions

Week 2: Survey of information and communication technologies

Marvin Sirbu, "Telecommunications technology and Infrastructure", in *Annual Review of the Institute for Information Studies* - 1992, pp 155-180

(<http://www.cs.cmu.edu/afs/andrew.cmu.edu/usr9/sirbu/www/pubs/ipaper.html>)

"How Stuff Works":

Telephone: <http://science.howstuffworks.com/telephone.htm/printable>

TV: <http://electronics.howstuffworks.com/tv.htm/printable>

Radio: <http://electronics.howstuffworks.com/radio.htm/printable>

Week 3: The construction of technical systems, part 1 – the case of telecommunication networks

Pool, Ithiel de Sola, *Technologies of Freedom* (Cambridge, Mass. : Belknap Press, 1983), chapter 5

Week 4: The construction of technical systems, part 2 – the case of broadcasting

Technologies of Freedom, chapters 6&7

Week 5: The construction of technical systems, part 3 – the Internet

"What Is The Internet (And What Makes It Work)", Robert E. Kahn and Vinton G. Cerf (December, 1999) (<http://www.policyscience.net/cerf.pdf>)

Week 6: Information Economics

Selections from Shapiro, C. & Varian, H. (1998). *Information rules: A strategic guide to the network economy*. Cambridge, MA: Harvard Business School Publishing

Weeks 7-12: topics TBD from the following (or student choices)

(the themes and order of the following weeks are subject to change. The precise readings will be announced when the schedule is finalized.)

What is Community, on-line?

Wellman, Barry and Gulia, Milena. 1999. "Net Surfers Don't Ride Alone: Virtual Communities As Communities." (<http://www.chass.utoronto.ca/~wellman/publications/netsurfers/netsurfers.pdf>)

Coate, John. 1992 "Cyberspace Innkeeping: Building Online Community"

(<http://gopher.well.com:70/0/Community/innkeeping>)

Case study: the Well, Myspace.com

Electronic Markets – the transformation of marketplace infrastructure

Bar, François. 2001 "The Construction of Marketplace Architecture"

(<http://www.rcf.usc.edu/~fbar/Publications/Brookings-E-Marketplaces.pdf>)

Case study: eBay

Net-based collaborations, open source

Weber, Steven. 2000. "The Political Economy of Open Source"

(<http://brie.berkeley.edu/publications/wp140.pdf>)

Case study: wikipedia (linux?)

Multiplayer gaming

Hertz, JC. 2002. "Harnessing the Hive"

Lenoir, Tim, and Henry Lowood. 2002. "Theaters of War: The Military-Entertainment Complex"

(http://www.stanford.edu/class/sts145/Library/Lenoir-Lowood_TheatersOfWar.pdf)

Case study: Everquest

The new press – blogs and citizen media

Shirky, Clay. 2003. "Power Laws, Weblogs, and Inequality."

(http://www.shirky.com/writings/powerlaw_weblog.html)

Case study: technorati, your favorite blog(s)

Locative media – space and virtuality

Case study: googlemaps

Finding things – search, ontologies, folksonomies

Case study: flickr (google?)

Weeks 13-14-15: research projects presentations