COMM 345: The Social and Economic Implications of Information and Communication Technologies

Fall 2011 - Tuesday-Thursday 11:00-12:20 – KER101

Instructor: François Bar (fbar@usc.edu, KER 209, 213.723.1789)
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 practices and 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. 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.** Keep a diary of (some aspect of) your communication activities for a few days (3 to 5 days, depending on your focus. You may want to keep track of mediated/non-mediated communications, analog/digital, mass/interpersonal, etc. You could build an inventory of the ICTs you used (devices, applications, places, etc.). You may want to consider giving up one or more communication tool during those few days and reflect on the impact. You are encouraged to use a variety of technologies to do this (e.g. voice messages, tweets, video, pictures, drawings, SMS messages, blog posts, 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. Think of questions such
as the following: How does the technology you use shape your communication activities? Does it influence their content? How do the institutional / economic arrangements matter? This is due in week 5, and you will make a brief class presentation.

2) **Short class presentations.** In preparation for each class meeting, a student will select a current news story related to the topic of that day's class, present it, and lead a brief class discussion. Each student will be responsible for 2 class meetings.

3) **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 course, 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 game, a website, 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 final draft of your research project during one of the last 3 class meetings. 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.

**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 regularly read the New York Times’ *Technology* section (http://www.nytimes.com/pages/technology)

**Grading:**
Self-observation: 20%
Class Participation (including the 2 short presentations): 20%
Research project and presentation: 60%

**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://web-app.usc.edu/scampus/1100-behavior-violating-university-standards-and-appropriate-sanctions/)
**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](http://www.usc.edu/student-affairs/asn/DSP)

**Schedule**

**Week 1**

**Tue, Aug 23**  
Course introduction

**Thu, Aug 25**  
An overview of Communication technology, industry players, and policy approaches

How Stuff Works ([http://communication.howstuffworks.com/](http://communication.howstuffworks.com/)). browse at least:

- How Telephones Work  
  ([http://communication.howstuffworks.com/telephone.htm](http://communication.howstuffworks.com/telephone.htm))
- How Television Works ([http://electronics.howstuffworks.com/tv.htm](http://electronics.howstuffworks.com/tv.htm))
- How does the Internet work?  

Read articles from three surveys of *The Economist*:

- A special report on managing information (data everywhere) – Feb 25 2010
- Survey of Telecommunications – April 26, 2007
- Survey of Convergence – October 12, 2006

Pick one social and one economic dimension that intrigues you and come prepared to present it in class (3 minutes)

I. From telephone to internet

**Week 2**

**Tue, Aug 30**  
the telephone – history, regulation


optional:

Thu, Sep 1   the telephone – social impact

Week 3

Tue, Sep 6   internet history
   • Sterling, B. 1993. A Short History of the Internet (http://w2.eff.org/Net_culture/internet_sterling.history.txt)

Thu, Sep 8   the internet – social impact

II. Today's internet / current policy issues, economic transformation

Week 4

Tue, Sep 13   End-to-end... and its future

Thu, Sep 15   The network neutrality debate

Week 5

Tue, Sep 20   Open source

Thu, Sep 22   diary presentations

Week 6

Tue, Sep 27   Peer Production
   • Benkler, the wealth of networks. chapters 3 and 4 (http://cyber.law.harvard.edu/wealth_of_networks/Main_Page)
Thu, Sep 29       *diary presentations*

III. Information Economics

Week 7

**Tue, Oct 4**       Information Pricing


**Thu, Oct 6**       Network Externalities


Week 8

**Tue, Oct 11**       ICTs and productivity


**Thu, Oct 13**       Network Marketplaces


Week 9

**Tue, Oct 18**       digital divide


**Thu, Oct 20**       ICTs and development

- ITU (2010) "Measuring the Information Society". Read the Executive Summary and Chapter 5 (pp. 79-89) from the report (you may want to skim the rest)
- Watch YouTube video (3min): Project to bridge the digital divide in rural areas

IV. Mobiles

Week 10

**Tue, Oct 25**       History of Radio. Economics of Spectrum, policy

• Network World (Sept 24, 2010): **FCC takes 'free love' approach to white spaces spectrum**
• FCC News Release (Sep 23, 2010): **FCC Frees Up Vacant TV Airwaves For "Super Wi-Fi" Technologies and Other Technologies.**

**Thu, Oct 27**

**current directions for spectrum management**

• Gregory Staple & Kevin Werbach, "**The End of Spectrum Scarcity: New technologies and regulatory reform will bring a bandwidth bonanza**", IEEE Spectrum, March 2004

**Week 11**

**Tue, Nov 1 and Thu, Nov 3**

**the mobile revolution**

• Read at least:
  ◦ for Tuesday Nov 1: Section 1 "Comparative Statistical Overview of Diffusion" pp. 1-39
  ◦ for Thursday Nov 3: Section 8: "Making Sense of Observation" pp. 237-249

**Week 12**

**Tue, Nov 8**

**Mobiles and development**

• Economist special report on telecoms in emerging markets (http://www.economist.com/node/14483896?story_id=14483896 )

**Make sure you read these six articles in the special report:**

1. Mobile marvels
2. Eureka moments
3. Up, up and Huawei
4. The mother of invention
5. Beyond voice
6. Finishing the job

**Thu, Nov 10**

**Technology Appropriation and Mobile money**


Week 13

Tue, Nov 15 Open spectrum, open platforms

Thu, Nov 17 Case study: iPhone vs Android

Presentations

Week 14

Tue, Nov 22 project presentations
Thu, Nov 24 No Class - Thanksgiving

Week 15

Tue, Nov 29 project presentations
Thu, Dec 1 project presentations