# Seminar in Sociology: The Sociology of Innovation

HTS 4015, Fall 2008 Wednesdays 3-5:30 303 DM Smith Amanda K. Damarin, Ph.D. amanda.damarin@hts.gatech.edu Weds. 12-1 & by appointment DM Smith 318

This seminar focuses on innovation, treating it as a social process amenable to theoretical understanding and empirical research. Using cases from science, technology, art, and popular culture, we will discuss and debate question such as: What is innovation? How has it been defined and identified in different fields? What kinds of activities, relationships, and resources are involved in creating innovative things and ideas? Why are some innovations recognized and adopted immediately, while others meet with resistance or languish in obscurity? What roles do markets, governments, and other institutions play in fostering or inhibiting innovation? Does everyone have a shot at being an innovator, or is success reserved for a select few? Course readings are drawn primarily from sociology but also include works in history, cultural studies, management, and other fields. Sociological theory, analysis, and research methods will guide the course and will be used in student research papers.

### **Expectations**

### **Participation**

Seminars, at their best, center on student-driven exchange of ideas and mutual learning; the instructor lays frameworks and moderates. This means that each student has a responsibility to attend class each week, to come prepared—having done the readings and thought about their relationships and implications—and to speak up. Thus, participation is a significant portion (20%) of your final grade. As class only meets 15 times, there are no excused absences except for unusual circumstances (e.g., family emergency).

To facilitate participation, each student will be responsible for serving as a discussant for the weekly readings twice during the term. This involves developing two or three comments, claims, or questions regarding each article or chapter, typing them up (in short paragraphs or bullet points), and posting them to the T-Square site (Forums: Reading Discussions) by 11:00 on the day of class (include your name and the title "discussant"). I will use this as a guidepost for my introductory comments, and you will have about 5-10 minutes to expand on your comments in class (depending on the readings, this may be all at once at the beginning, or as we move from one piece to the next). This will contribute to your participation grade. A list of "questions to think about while reading" is found at the end of this syllabus. These are intended as a jump-start to be used as needed; you are not required to address all of them in your discussion.

Others (non-discussants) are also welcome to post comments and questions on the readings to the T-Square site, either before or after the discussion. Doing so will bolster your participation grade, but will not make up for a lack of in-class verbal contributions. Finally, if reading and participation lag, I will institute quizzes as a last resort.

## The Research Paper

This seminar requires a significant paper grounded in original research. Your research topic and question should be relevant to innovation, but this leaves you much latitude. For instance, you could examine a particular innovation (such as a new technology or artistic genre), a group of people involved in creating innovations, the distribution or diffusion of an innovation, the reception of innovations by audiences or users, the role of government or other major institutions in fostering or limiting innovation, or how people define and identify innovation. Further, you can think broadly about what constitutes "innovation": in class we will focus on technology and culture, but there are also innovations in business, education, child-rearing strategies, sports, religious practice, social protest, and myriad other areas of human endeavor.

You have less latitude in how you write your paper. The basic specifications are as follows:

- Your paper should address a clearly stated question that is grounded in existing theory and research.
- The paper should attempt to answer this question (or make a start) by presenting findings from research you have conducted, either by collecting your own data (e.g., via survey, interviews, field observation, document analysis) or by analyzing data collected by others (e.g., census or other data available on the web). Data sources and analysis will be discussed in class and in individual meetings.
- The paper should cite at least six scholarly sources, such as journal articles, books, and book chapters. These sources may include prior research on your topic, and/or prior works that may not be on your topic but are of theoretical relevance to your research question. Use of readings assigned in the course is absolutely permissible and, depending on your topic and question, encouraged. (Note that Wikipedia, other encyclopedias, newspaper and magazine articles, and blogs are *not* scholarly sources, though they may be useful for other purposes.)
- The paper should include: a) an introduction indicating the topic and question, and why it is interesting/important, b) a review of relevant prior research and theories, leading to a more precise statement of the research question, c) a statement of the methods you have used in collecting and analyzing your data, d) a statement or summary of your research findings, and e) a concluding section in which you show how your findings answer your research question, discuss their significance for the prior studies and theories you reviewed, and highlight any interesting implications, such as for daily life, social policy, or future research.
- The final product should be approximately 25 pages, double-spaced, with one inch margins, in Times New Roman 12-point or a font of similar size. Citations should be in the author/date style, and a bibliography should be included at the end of the paper. For examples of author/date citations and bibliography entries for journal articles, books, and book chapters, see Ron Burt's "Structural Holes and Good Ideas," assigned for 9/10. See me if you need help with citations for other types of sources.

#### **Milestones**

We will devote in-class time to discussion of research and writing methods. In addition, there are several "milestone" assignments throughout the semester that are designed to encourage an early start and to help you write an excellent paper. Some milestones are activities which you should undertake during the week, but which do not result in a deliverable assignment. Others are to be handed in and will together constitute 30% of your grade. The latter are as follows:

### Due Assignment

- 9/3 One: List of potential paper topics
- 9/10 Two: Description of research questions and units of analysis for Burt and Whalley readings
- 9/24 Three: Research topic, question, and bibliography of at least 3 scholarly sources
- 10/8 Four: Research strategy description, including re-statement of research question
- 11/12 Five: Paper outline, including indication of research findings and bibliography of at least 6 scholarly sources
- 12/3 In class presentation on final paper
- 12/8 Final paper due by 4:30 pm in my mailbox in 110 DM Smith
- 12/10 No late work accepted after 4:30 pm

# Grading

- 20% class participation, including discussant session and online contributions
- 30% project milestone assignments
- 10% final presentation
- 40% final paper

## Other Issues

#### Honor Code

Students are expected to abide by the Georgia Tech Honor Code and avoid any instance of academic misconduct. This includes but is not limited to plagiarism, or submission of material that is wholly or substantially identical to that created or published by others without adequate credit notations indicating authorship, and false claims of performance or work. If you are uncertain how the code applies to assignments in this course, please consult with me in person or via email. Honor code violations could result in an "F" for the relevant assignment or in the course. The Honor Code can be found at http://www.deanofstudents.gatech.edu/Honor/.

### Digital Device Policy

As this is a seminar, I expect that the majority of your attention during class will be directed to the person speaking and the ideas under discussion. Phones should be silenced and stowed prior to class (barring unusual circumstances). Your laptop will get plenty of use outside the classroom as you research and write your paper. You do not need to bring it to class, but you may do so as long as you do not use it for activities which distract you or other students from the discussion. If you bring a laptop, I may ask you to close it at times in order to promote focused

concentration. In addition, I or other discussants may ask you to look up or display information relevant to discussion. Misuse of laptops will result in their being banned from the classroom. *Disabled Students* 

I am happy to work with the ADAPTS office to accommodate students requiring consideration due to disability, but please let me know as soon as possible. URL: www.adapts.gatech.edu.

## **Reading Assignments**

### Required Texts

Becker, Howard. 1984. Art Worlds. University of California Press. ISBN 0520052188

Bijker, Wiebe E. 1997. On Bicycles, Bakelites, and Bulbs: Toward a Theory of Sociotechnical Change. MIT Press. ISBN 0262522276

### Other Readings

Readings not found in the books above can be downloaded from the course T-Square site.

#### Schedule

8/20 **Introduction** Week 1

Readings: None Milestone: None

## 8/27 **Producing Innovation I: Technology**

Week 2

(& discussion of scholarly sources and library research)

Readings: Wiebe Bijker, Of Bicycles, Bakelites, and Bulbs (purchase), Chs 1-2 (100 pp.)

Milestone: Brainstorm possible final paper topics.

Read the syllabus in full.

# 9/3 **Producing Innovations II: Art**

Week 3

(& initial discussion of research strategies and data sources)

Readings: Howard Becker, *Art Worlds* (purchase), Chapters 1-4 (130 pp.)

Milestone: Assignment One due in class: list of potential paper topics.

#### 9/10 **Social Foundations for Innovation**

Week 4

Readings: Burt, Ronald S. 2004. "Structural Holes and Good Ideas."

Whalley, Peter. 1991. "The Social Practice of Independent Inventing." Gladwell, Malcolm. 2002. "Group Think: What Does Saturday Night Live

Have In Common With German Philosophy?"

(total 83 pp.)

Milestone: Assignment Two due in class: brief description of research questions and

units of analysis for Burt and Whalley readings.

Start library research on your potential paper topic(s).

# 9/17 Gatekeeping and Distribution

Week 5

Readings: Becker, Art Worlds (purchase), Ch. 5.

Coleman, James, Elihu Katz, and Herbert Menzel. 1957. "The Diffusion of an Innovation Among Physicians."

Lopes, Paul D. 1992. "Innovation and Diversity in the Popular Music

Industry, 1969-1990."

(total 68 pp.)

Recommended: Guetzkow, Joshua, Michele Lamont, and Gregoire Mallard. 2004. "What is Originality in the Humanities and the Social Sciences?"

Milestone: Find/read three scholarly sources relevant to your topic.

# 9/24 Reception, Resistance, Appropriation

Week 6

Readings: Novek, Joel. 2002. "IT, Gender, and Professional Practice: Or, Why an Automated Drug Distribution System Was Sent Back to the Manufacturer."

Fantasia, Rick. 1995. "Fast Food in France."

Von Hippel, Eric. 2001. "Innovation by User Communities: Learning from Open-Source Software."

(total 73 pp.)

Recommended: Bijker, On Bicycles, Bakelites, and Bulbs, Ch. 4.

Milestone: Assignment Three due in class: one paragraph on final paper topic and research question with bibliography of at least three scholarly sources.

# 10/1 Planning Your Research

Week 7

(& individual/class discussion of paper topics)

Readings: TBA

Milestone: Find/read additional scholarly sources and work on your research strategy.

#### 10/8 Movie: Who stole the electric car?

Week 8

Readings: None

Milestone: Assignment Four due in class: one paragraph to one page describing research

strategy, including re-statement of research question.

(October Break)

10/15 **No Class**: Meet individually to discuss paper, research strategy

Week 9

Readings: None

Milestone: Find/read methodological guides and data sources relevant to your research.

Also, continue to find/read scholarly sources on your topic.

## 10/22 **Organizing Innovation**

Week 10

Readings: Saxenian, AnnaLee. 2001. "Inside Out: Regional Networks and Industrial Adaptation in Silicon Valley and Route 128."

Grabher, Gernot. 2002. "The Project Ecologies of Advertising: Tasks, Talents, and Teams."

Brown, John Seely and Paul Duguid. 2001. "Creativity Versus Structure: A Useful Tension."

Ross, Andrew. 2003. "Jobs in Candyland: An Introduction."

(total 59 pp.)

Milestone: Start your research and data analysis.

### 10/29 Who Gets to be an Innovator?

Week 11

Readings: Merton, Robert K. 1968. "The Matthew Effect in Science."

Bielby, William T. and Denise D. Bielby. 1994. "'All Hits Are Flukes': Institutionalized Decision-Making and the Rhetoric of Network Prime-Time Program Development."

Fox, Mary Frank. 1991. "Gender, Environmental Milieu, and Productivity in Science."

Nochlin, Linda. 1988. "Why Have There Been No Great Women Artists?" Goonatilake, Susantha. 1992. "Modern Science and the Periphery: The Characteristics of Dependent Knowledge."

(total 66 pp.)

Recommended: Becker, Art Worlds, Ch. 8.

Milestone: Conduct your research and data analysis.

### 11/5 Government, Markets, and Innovation

Week 12

Readings: Boyle, James. 2002. "Fencing off Ideas: Enclosure and the Disappearance of the Public Domain."

Lessig, Lawrence. 2000. "Innovation, Regulation, and the Internet."

Vallas, Steven P. et al. 2004. "The Culture of Science in Industry and

Academia: How Biotechnologists View Science and the Public Good." Dubin, Steven C. 1986. "Artistic Production and Social Control."

(total 63 pp.)

Milestone: Conduct research and data analysis; finish finding/reading scholarly sources.

## 11/12 Social Consequence of Innovation: Power and Inequality

Week 13

Readings: Winner, Langdon. 1999. "Do Artifacts Have Politics?"

Noble, David. 1999. "Social Choice in Machine Design: The Case of Automatically Controlled Machine Tools."

Vallas, Steven. 1998. "Manufacturing Knowledge: Technology, Culture, and Social Inequality at Work."

Nakamura, Lisa. 2004. "Interrogating the Digital Divide: The Political Economy of Race and Commerce in New Media." (56 pp. total)

Milestone: Assignment Five due in class: paper outline, including indication of research findings and bibliography of at least 6 scholarly sources

## 11/19 Social Consequences II: Endless Novelty vs. Permanent Lock-in

Week 14

(& discussion of paper outlines)

Readings: David, Paul A. 1985. "Clio and the Economics of QWERTY."

Nixon, Sean. 2006. "The Pursuit of Newness: Advertising, Creativity, and the 'Narcissism of Minor Differences."

Djelic, Marie-Laure and Antti Ainamo, 2005. "The Telecom Industry as Cultural Industry? The Transposition of Fashion Logics into the Field of Mobile Telephony."

(60 pp. total)

Recommended: Garud, Raghu, Sanjay Jain, and Arun Kumaraswamy. 2002.

"Institutional Entrepreneurship in the Sponsorship of Common

Technological Standards: The Case of Sun Microsystems and Java."

Milestone: Write your paper!

### 11/26 **Happy Thanksgiving** – no class

## 12/3 **Student Presentations**

Week 15

Readings: None

Milestone: Due in class: presentations on final paper.

**Monday, December 8:** Final papers due in my mailbox in 110 DM Smith by 4:30 pm. Hardcopies, please.

Wednesday, December 10: No late work will be accepted after 4:30 pm today.

# **Questions to Think About When Reading**

What does the piece say?

What research question does the reading address? (Or, what theoretical question?)

What argument does the reading make?

Is the reading clear? Are there difficult or problematic points that we should address in class?

How does the piece support its claims?

Is the argument based on systematically collected data, personal experience, theory, criticism/appreciation of others' ideas, or something else?

If based on data: Does the data support the author's claims? How strongly? Are there gaps or weaknesses in the analysis?

If based on theory: What are the author's basic theoretical assumptions, e.g. about technology, art, human behavior, or the workings of organizations or other social groups? Are these assumptions plausible?

How does it compare to other works on similar subjects?

How are the author's claims similar to and/or different from those of other works we have read?

Who would this author agree with, and who would s/he disagree with? What would they agree/disagree about?

Who cares?

Does the piece have practical implications, e.g., does it tell us anything about how we ought to live our lives, organize our collective affairs, structure our major social institutions, etc.?

Does it yield theoretical insights, e.g. does it tell us anything about how people, society, innovation, etc. work *in general?* 

Does it include useful interpretations, e.g. does it cast familiar situations in fresh light or help us understand our experiences in new and perhaps better ways?

Does it make a methodological contribution, e.g. does it demonstrate new ways of collecting and analyzing data or weighing ideas that might be useful in examining other topics?

How broadly do these insights apply? Do they apply to every person (or every innovation, every audience, etc.) in the world always? Or only to a particular society? To a particular society at a given time? To only certain people in that society at that time? Does the author make any claims about how broadly his or her conclusions apply, and do you agree?

What do you think overall?

What do you like and dislike about this reading? Why?

Do you agree or disagree with the argument? Why?