

COMM 620 — Research Projects on the Business Models of Communication

Lian Jian
ljian@usc.edu
Office: ASC 227A
Office tel: 213 740 0439

Class meets: 2:00-4:50pm Tuesday @ ASC G38
Office hours: by appointment

Introduction

The media and communication industries are experiencing rapid transitions both in their technological platforms and in their business models. These changes offer new opportunities and challenges for business managers, policy makers, and the consumers of the media industry. Critically examining various business models is important for both business managers (to improve profits) and policy makers (to ensure efficient production of high quality content for consumers).

In this course, you will participate in a research project about the business models of the communication industry. You will join a research project either proposed by me (as described below) or of your own choice (but subject to the instructor's approval). For each project, we aim to produce a preliminary draft of a publishable paper by the end of the semester.

The class meets every week. Every other week we will discuss in class the progress of each project, and critically examine the research design of each project. Through out the semester, we will have biweekly discussions on high quality cutting-edge research papers on the economics of media, with a primary focus on Internet-based media. Examples of topics include the long tail, crowd-sourcing, the attention economy, sponsored search and online advertising, and community-funded journalism.

There is no economics prerequisite for this course.

Requirements and Evaluation

Everyone is expected to be prepared for each class. Each of you will pick a paper from the readings (marked with a star), and lead a discussion based on that paper. Evaluation will be on the following basis:

Research paper	80%
Discussion leadership	10%
Participation	10%

Your research paper is to be 25 pages max (double-space). It is due by **8am PST on May 4**.

Project options

Below I describe a few projects that I have in mind for this class. You can choose to join one of these projects, or propose your own (subject to my approval). During the first two weeks of the semester you will have one-on-one meetings with me to discuss your research interests and choose a project.

Project A: The quality of crowd-sourcing in product innovation

Crowd-sourcing — outsourcing tasks to a large number of people typically via an open Internet-based platform — is a promising innovation in business and labor market in recent years. The sheer number of diverse participants in the crowds gives them advantages over a small number of highly trained professionals, especially on performing creative tasks [Howe, 2008]. Crowds on the Internet-based crowd-sourcing platforms, e.g., Innocentive, 99Designs, Idea Bounty, and Crowd Spring, have performed tasks in various domains such as product improvement, graphic design, programming, translation etc. Anecdotal evidence shows that well-designed crowd-sourcing platforms can help solve difficult problems efficiently (e.g., the DARPA network challenge).

However, systematic comparisons between the quality of the products generated by the crowds and the professionals trained for producing the same type of products, is yet to begin. When a manager makes a decision on whether to hire trained professionals or the crowds to perform a task, what guidelines should she follow in making her decision?

This project aims at using field experiments to compare the quality of the work produced by crowd-sourcing platforms and by the trained professionals. We will focus on two types of tasks: consumer product innovation and graphic design for company logos. Project A focuses on product improvement. We will enlist companies that have real needs of improving their products, and assign the same product improvement task to both a crowd-sourcing platform and a professional design team either in-house or external to the company. Such procedures will be repeated to collect a sufficient number of data points.

Project B: The quality of crowd-sourcing in creative tasks

This project is similar to Project A, except that the task will be graphic design. See the description of Project A for details.

Project C: Community funded reporting: why do you donate to a story?

The traditional newspaper industry is facing unprecedented challenges and opportunities, partially due to the rapid development of information technology. Except the Wall Street Journal, the top 25 newspapers posted declines in circulation in 2009 [Arango, 2009]. Similar trends continued into 2010 with a lower speed [Vanacore, 2010]. As a result, some estimate that about eight hundred thousand fewer stories are produced each year in the United States, many of which would be of great importance to society [Doctor, 2010].

In the meantime, alternative funding models for news production are being experimented. Spot.Us is a website dedicated to community-funded reporting, on which a reporter with an idea of a story posts a proposal (called a “pitch”) on Spot.Us, and receives donations from the community members to support her reporting. All the stories funded by the community members are published on Spot.Us, unless some news organizations decide to purchase the rights to publish them. What is unique about Spot.Us, is that it lets the community at large collectively decide which stories are produced by expressing their “votes” in monetary contribution.

This project aims at using interviews and surveys to examine the incentives of the individual donors on Spot.Us to support various stories. The stories on Spot.Us are categorized into thirteen topics, such as government and politics, science and business, public health, cultural diversity, and wealth and poverty. How do the individual members decide which stories to fund? What factors about the stories or about their own circumstances might affect their decisions? An in-depth exploration of the answers to these questions will help better design systems for community-funded reporting.

Project D: Community funded reporting: how to improve its timing

The model of community-funded reporting has the flexibility to respond to consumers’ demand, but it might lack the speediness of the editorial decisions made in the news rooms. For example, according to my own research, the average fundraising period of the stories on Spot.Us is more than two months. Such a long period of fundraising imposes delays and uncertainties on the reporter’s reporting activities, perhaps sometimes resulting in the story missing its best timing for readership.

This project aims at designing and testing mechanisms for community-funded reporting to reduce its fundraising delays and uncertainties, drawing on the literature in economics on public goods provision. Many mechanisms have been proposed in the past for public goods provision, such as the rebate mechanisms for threshold public goods, lottery-based mechanisms, and donation-matching mechanisms. *Pending approving of the site manager of Spot.Us*, we will use field experiments to evaluate the effectiveness of these mechanisms in speeding up donations.

Project E: Managing your own reporting: reporting with community funding

Traditionally, journalists conduct their reporting as part of a news organization. Their work is organized via processes and routines within these organizations. While working with the model of community-funded reporting, journalists might face different forces that shape their reporting work. For example, they might enjoy the freedom in choosing the topics of their reporting, they might also need to have a strategy to manage the uncertainty in their paycheck.

This project aims at exploring the challenges and opportunities faced by the reporters working with Spot.Us. By conducting semi-structured interviews, we will examine a broad set of research questions including why the reporters chose to work with community-funded reporting, how reporting for Spot.Us fits into their overall career plan, how they manage the uncertainties in funding, what strategies they use to attract support for their stories etc.

Project F: Online video sharing in the US and China

Internet users are good sources of great talent in producing various types of content, including video. An online video sharing platform, YouTube, has become a popular site for various types of content, e.g., entertainment, do-it-yourself videos, video blogs, and news. Similar types of video sharing websites are also springing up in other countries. Tudou.com is a popular Chinese video sharing website just like YouTube. Both websites are based on the business model of providing platforms for content producers and consumers, in the hope of monetizing the content in some form, mainly advertising. However, as the user bases of these video sharing sites have different cultural backgrounds and different ways of thinking, the types of videos they produce might be quite different. Understanding these differences can help us better design video sharing sites and the business models on top of them.

This project aims at investigating and comparing the types of video shared on YouTube and TuDou. [I already have an excellent research assistant who speaks fluent Chinese to work on this project.] The next step is to come up with meaningful comparison metrics and collect data on the types of videos on these two sites.

Schedule

[Week 1, Jan 11, 2011] Research Lab: Introduction

1. Introduction — 30 minutes
2. Overall plan of the class — 20 minutes
3. Discuss the project options — 30 minutes

[Week 2, Jan 18, 2011] Seminar: Business models of journalism

[Reminder:] Let me know which paper you choose for leading a discussion.

1. Robert Darnton. Writing news and telling stories. *Daedalus*, Jan 1975.
2. Steve Buttry. Entrepreneurial journalists should pursue several revenue streams. *The Buttry Diary*, Oct 2010. URL <http://stevebuttry.wordpress.com/2010/10/31/entrepreneurial-journalists-should-pursue-several-revenue-st>
3. Pew Project For Excellence In Journalism. Community journalism. *The State of the News Media 2010*, 2010. URL http://www.stateofthemedial.org/2010/specialreports_community_journalism.php.
4. Chapter 9. What the crowd funds. Jeff Howe. *Crowdsourcing: Why the power of the crowd is driving the future of business*. Three Rivers Press, New York, NY, 2008.
5. Listen to the NPR story on Spot.us: <http://www.npr.org/templates/story/story.php?storyId=100057055>
6. Jen Shang and Rachel Croson. A field experiment in charitable contribution: The impact of social information on the voluntary provision of public goods. *The Economic Journal*, 119(540):1422–1439, 2009.

[Week 3, Jan 25, 2011] Research Lab: Project plans

1. Each of you will have 25 minutes to present and discuss about your research plan
2. You will present for 10 minutes and then have 15 minutes of lab discussion.

[Week 4, Feb 1, 2011] Seminar: Crowd-sourcing

[Reminder:] Next week we will learn MySQL. You will need to bring your laptop. If you need me to provide one for you, please inform me as soon as possible.

1. * Jiang Yang, Lada A Adamic, and Mark S Ackerman. Competing to share expertise: the Taskcn knowledge sharing community. In *Proceedings of the International Conference on Weblogs and Social Media*, March 2008.
2. * Yan Chen, Teck-Hua Ho, and Yong-Mi Kim. Knowledge market design: A field experiment at google answers. *Journal of Public Economic Theory*, 12(4), Jan 2010.
3. John A. List and David H. Reiley. *Field Experiments*. Palgrave Macmillan Publishing, New York, NY, USA, Forthcoming.

[Week 5, Feb 8, 2011] Research Lab: Technical workshop

[Reminder:] Please bring your laptop.

1. Project updates — 30 minutes
2. Introduction to MySQL — 2 hours

[Week 6, Feb 15, 2011] Seminar: The long tail or the wrong tail?

1. Chris Anderson. *The Long Tail: Why the Future of Business Is Selling Less of More*. Hyperion, New York, 2006 [Chp 1,2,and 8].
2. Tim Wu. The wrong tail. *Slate*, 21, July 2006. [**Note:** Wu writes a news article clarifying the long tail phenomenon and the limitations of this concept. An easy and fun read.]
3. Anita Elberse. Blockbuster or bust: Why struggling publishers will keep placing outrageous bids on new books. *The Wall Street Journal*, January 3 2009. [**Note:** An easy and fun read.]
4. * Anita Elberse. A taste for obscurity: An individual-level examination of 'long tail' consumption. Working paper, Jan 2007. [**This is not an easy read so plan your time accordingly.**]
5. Erik Brynjolfsson, Yu Jeffrey Hu, and Michael D. Smith. From niches to riches: The anatomy of the long tail. *MIT Sloan Management Review*, 47(4):67–71, 2006. [**Note:** This paper contains two parts: a theoretical analysis and an empirical study. Quickly skim through the theoretical part to get an idea of the main results, and then spend most of time on the empirical part. **This is not an easy read so plan your time accordingly.**]

[Week 7, Feb 22, 2011] Research Lab: Technical workshop
[**Reminder:**] please bring your laptop.

1. Project updates — 30 minutes
2. Advanced MySQL — 2 hours

[Week 8, Mar 1, 2011] Seminar: Online advertising and sponsored search

1. David S Evans. The economics of the online advertising industry. *Review of Network Economics*, 7(3), Jan 2008 [**Note:** This is an overview paper. Spend less than two hours to get the big picture of the online ads industry.]
2. Eric Clemons. Why advertising is failing on the internet. *TechCrunch.com*, Mar 22 2009 [**Note:** A short news article. A 10-minute read.]
3. * David Reiley, Sai-Ming Li, and Randall Lewis. Northern exposure: a field experiment measuring externalities between search advertisements. In *EC '10: Proceedings of the 11th ACM conference on Electronic commerce*, New York, NY, USA, Jun 2010. ACM
4. * Animesh Animesh, Sivakumar Viswanathan, and Ritu Agarwal. Online sponsored search advertising as a quality signal and its impact on consumer behavior. In *Proceedings of the International Conference on Information Systems (ICIS) 2007*, 2007

[Week 9, Mar 8, 2011] Research Lab: Project updates

1. Each of you will have 25 minutes to present and discuss the progress of your project

[Week 10, Mar 22, 2011] Seminar: Attention economy and information asymmetry

1. Luis M. B. Cabral. *Introduction to Industrial Organization*. Massachusetts Institute of Technology Press, Cambridge, Massachusetts, 2000. Page 223-224.
2. Marshall W. Van Alstyne. Curing spam: Rights, signals & screens. *Economists' Voice*, 2007.
3. George A Akerlof. The market for lemons: Quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, Jan 1970.
4. * Gary Hsieh, Robert Kraut, Scott E Hudson, and Roberto Weber. Can markets help?: Applying market mechanisms to improve synchronous communication. In *Proceedings of the ACM Conference on Computer Supported Cooperative Work (CSCW) 2008*, New York, NY, 2008. ACM.

[Week 11, Mar 29, 2011] Research Lab: Technical workshop

1. Project updates — 30 minutes
2. Introduction to web scraping (e.g., HTML, XML, Perl) — 1 hour
3. Introduction to Application programming interface (API) — 1 hour

[Week 12, Apr 5, 2011] Seminar: Pricing of information, bundling, unbundling, and then what?

1. Carl Shapiro and Hal Varian. Information rules: A strategic guide to the network economy. Harvard Business School Press, Boston, Massachusetts, 1999. Page 73-78.
2. * Anita Elberse. Bye-bye bundles: the unbundling of music in digital channels. *Journal of Marketing*, 74:107–123, Jan 2010. [**Note: This is not an easy read. Plan your time accordingly.**]
3. Yannis Bakos and Erik Brynjolfsson. Bundling information goods: Pricing, profits, and efficiency. *Management Science*, 45(12):1613–1630, Dec 1999. [**Note: This paper is optional.** It is included because it is a classic, in case you want to skim through it. The insights are included in the Shapiro and Varian piece.]

[Week 13, Apr 12, 2011] Research Lab: Technical workshop

1. Project updates — 30 minutes
2. Statistical analysis (e.g., logit, probit, fixed effects and random effects, or multi-level analysis)

[Week 14, Apr 19, 2011] Seminar: Recommender/rating systems' impacts on diversity in consumers' tastes

1. * Daniel Fleder, Kartik Hosanagar, and Andreas Buja. Recommender systems and their effects on consumers: The fragmentation debate. Working paper, 2010. **[Note: This is an empirical paper examining the impact of recommender systems on consumers' diversity in taste. This is not an easy read. Plan your time accordingly.]**
2. * Sean A Munson, Daniel Xiaodan Zhou, and Paul Resnick. Sidelines: An algorithm for increasing diversity in news and opinion aggregators. In *Proceedings of ICWSM09 Conference on Weblogs and Social Media*, Jan 2009.

[Week 15, Apr 26, 2011] Research Lab: Presentation of research papers

1. Each of you will have 25 minutes (including Q & A)
2. We will give you suggestions on your presentation.

Policy on Original Work

IMPORTANT Final group papers will be uploaded to "Turnitin," which is proprietary plagiarism detection software. This software will compare your paper with other papers in their database, published articles, and text from websites. Any paper that receives a high plagiarism score will receive a failing grade of 0.

It is the policy of the School of Communication to report all violations of the academic integrity to the University Student Judicial Affairs office (SJACS) and to the USC Annenberg School for Communication Deans Office on Student Affairs. These offices may decide to take additional action. Any serious violation or pattern of violations will result in the students expulsion from the Communication degree program.

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. See section 11 of Scampus and the relevant sections of the Student Judicial Affairs and Community Standards at <http://www.usc.edu/student-affairs/SJACS/students.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 Lian Jian 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>.

References

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- Anita Elberse. Bye-bye bundles:the unbundling of music in digital channels. *Journal of Marketing*, 74:107–123, Jan 2010.
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