

CS-103 Road Map

- Today
 - Coordination Externalities; Quiz
- Mon Dec 4
 - What happens when epidemic models meet externalities: Six Degrees pp 220-239
- Wed Dec 6
 - The difference between individual and collective success: Intro to Game Theory
- Fri Dec 8: No Lecture
- Mon Dec 11: Review for final

CS-103 Announcements

- HW10 due 9pm Fri Dec 1
- Lab project in two parts
 - JavaScript libraries, due Mon Dec 4
 - JavaScript coding, due Mon Dec 11
- Lab project is 10% of course grade

Six Degrees Ch 7: Externalities

- Whenever a person's economic decisions are affected by anything outside of the transaction itself, economists call it an ***externality***
- We looked at four kinds of externalities
 - ***Information***
 - ***Coercive***
 - ***Market***
 - ***Coordination***

“Do the right thing” vs “Look out for #1”

When there is no coercion forcing us to do the right thing, our decision is influenced by

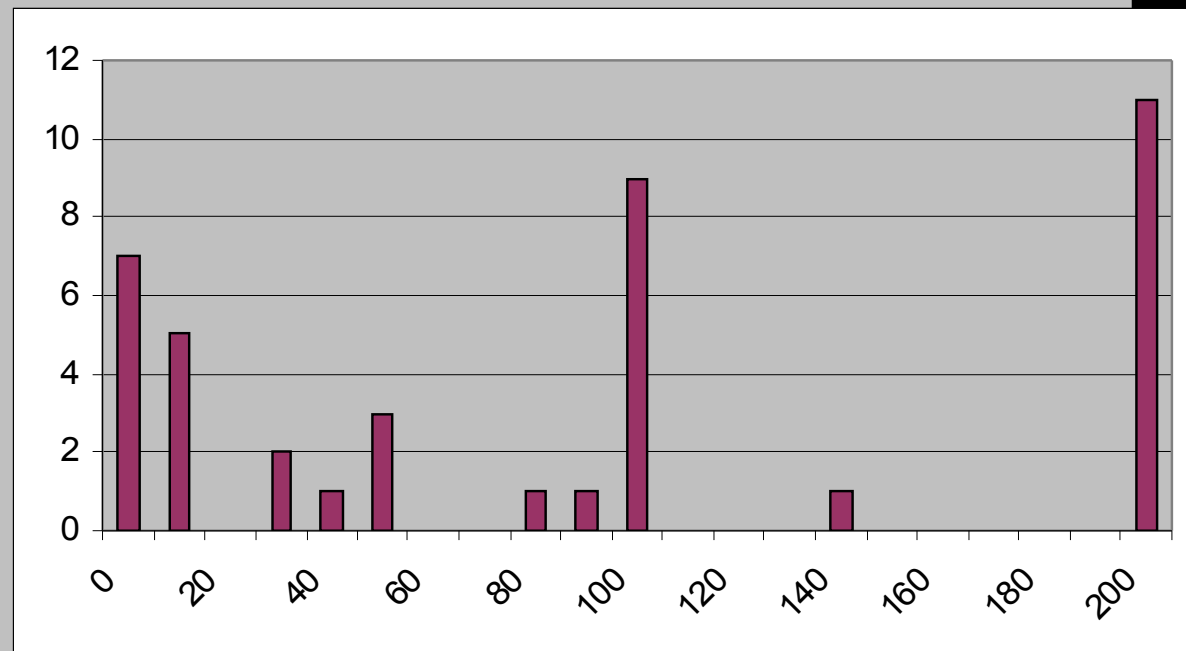
- How much do I care about future?
- How much do my actions affect decisions of others?
- ...

**Coordination Externalities =
factors such as these that persuade us to work
for collective benefit before individual benefit**

HW10 Grade Growth Fund

How did externalities impact the fund?

- Information
- Coercion
- Market
- Coordination



Alternative Scenarios of Externalities

- **HW10 Grade Growth Fund:**
 - One collective fund; *one* round of *confidential* bids
- **Alternative collective fund:**
 - One collective fund; *multiple* rounds of *public* bids

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 - One collective fund; *one* round of *confidential* bids
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- **Monday's game of bid & bluff:**
 - 12 different rounds of pairings with 12 different strangers

Comparing Scenarios of Externalities

- **HW10 Grade Growth Fund:**
 - One collective fund; *one* round of *confidential* bids
- **Alternative collective fund:**
 - One collective fund; *multiple* rounds of *public* bids
- **Monday's game of bid & bluff:**
 - 12 different rounds of pairings with 12 different strangers
- **Alternative 1 game of bid & bluff:**
 - 12 different rounds: 6 times with one person, 6 times with another person, where bluffs are revealed each round
- **Alternative 2 game of bid & bluff:**
 - 12 different times: 6 times with one person, 6 times with another person, where bluffs are not revealed until end

HW11: Due Mon Dec 11

- Part One: Blog recommendations

Boston University CAS CS-103 | HW11

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Which blogs are recommended by each of the students in CS-103? See below. This list is initially nothing but a list of "Last_Name recommends...". For HW11 it is your job to add **at least three** of your classmate's blogs to your (initially empty) list of recommendations. In order to do this, you must first register on PBWiki.

When you add a blog to your list of recommendations, please follow these steps:

1. Edit this very wiki page
2. Go to the row with your name at the start
3. At the end of your row, add a link to the URL of the blog you are recommending. (Order within your row does not matter; and your list may grow longer than can fit in one line of the screen.)
4. The label of the link (text appearing on screen) should be the last name of the author of the blog you are recommending

Please **Do not edit anyone's recommendation list but your own** and **Do not recommend any blogs other than CS-103 blogs**. Note that all the CS-103 blogs and last names of students are already provided for you in the initial content of this page.

On Monday Dec 11 in lecture, we will see whose blog has the most *incoming* recommendations. That person will be awarded a free homework drop. Ties will be broken by maximum number of *outgoing* recommendations.

[Aleksi](#) recommends
[Amin](#) recommends
[Baranski](#) recommends
[Barber](#) recommends
[Bizarro](#) recommends
[Bliss](#) recommends
[Chin](#) recommends
[Cicarella](#) recommends

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HW11: Due Mon Dec 11

- Part One: Blog recommendations
- Part Two:

Consider “social epidemics” as we explored them in HW9 (also called “information cascades” in *Six Degrees*).

Use of the Internet is one of the most explosive social epidemics in American history—second only to color TV in the speed with which American homes adopted it.

Do you think that America’s use of the Internet makes it (1) easier, or (2) harder, for new social epidemics to occur in this country, in comparison to before the Internet was popular?

Choose a position and write a short essay supporting your position. Your essay will be graded based on having:

1. A clear and well-founded argument, including acknowledgement of possible arguments for the opposing viewpoint and rationale for your choice in the face of these counter-arguments
2. Concepts from our class lectures and discussions about the **social web**, **epidemics**, and **externalities**

Quiz Two

- One short essay
- One extra credit essay
- 5% of course grade

- Please write your first & last name at top of clean sheet of paper...

Essay Questions

- Discuss how epidemics behave differently depending on whether a population is connected in a period lattice or small world network. Include a specific example of an infection (biological or social) and example networks that illustrate the difference between period lattices and small world networks.
- Extra Credit: Explain why percolation theory is a good way to model computer viruses