

# L&S 39G

Health, Human Behavior, and Data

Prof. Ryan Edwards

Class 1

September 1, 2015

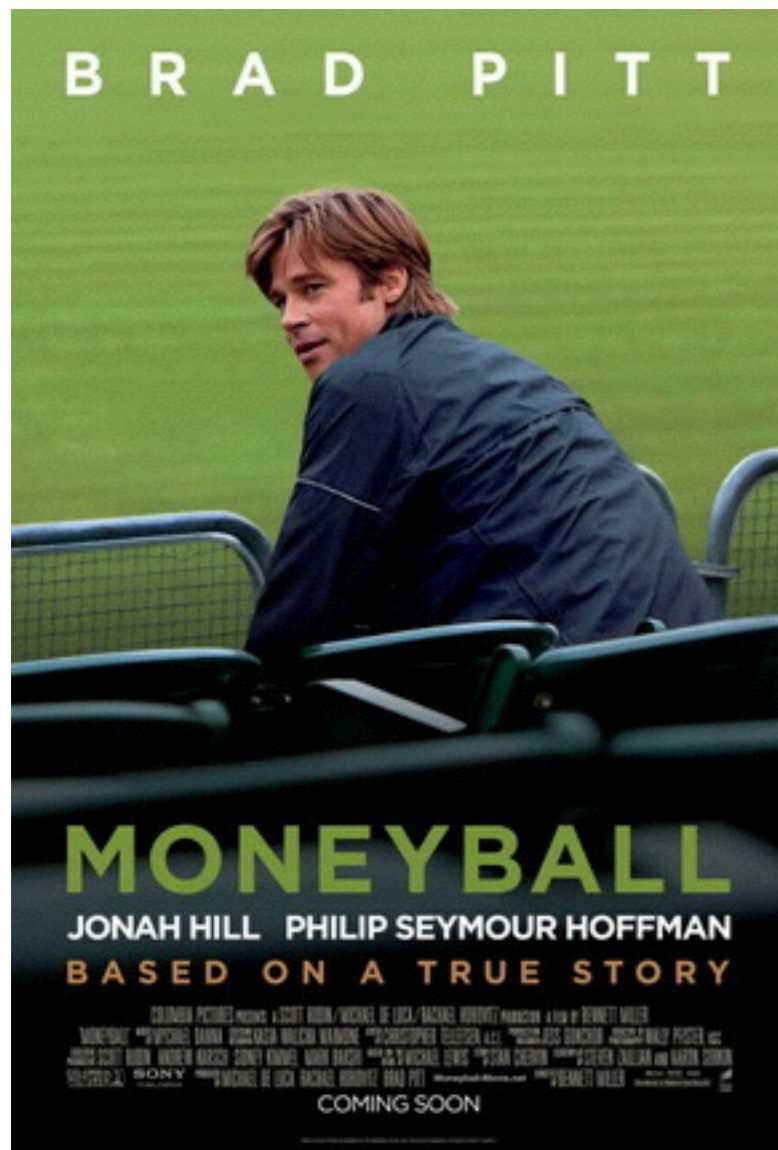
# Prof. Ryan D. Edwards

Visiting from Queens College, City University of New York

**[ryanedw@berkeley.edu](mailto:ryanedw@berkeley.edu)**

Twitter: @RyanDEdwards

# Data-driven mad?



2010:	81-81	(2nd)
2011:	74-88	(3rd)
2012:	94-68	(1st)
2013:	96-66	(1st)
2014:	88-74	(2nd)
2015:	57-74	(nth)



# The Giants actually play more Moneyball than you think

**2010: 92-70 (1st)**  
2011: 86-76 (2nd)  
**2012: 94-68 (1st)**  
2013: 76-86 (4th)  
**2014: 88-74 (2nd)**  
2015: 69-61 (winth)



# Today's agenda

- First some nuts and bolts about the logistics of the class, requirements, etc.
- Then let's introduce each other
- I'll work on name placards for you & I'll ask you to bring them to class to help out me and my stupid brain
- If there's time, some opening perspectives on  
Data Science and Health Economics

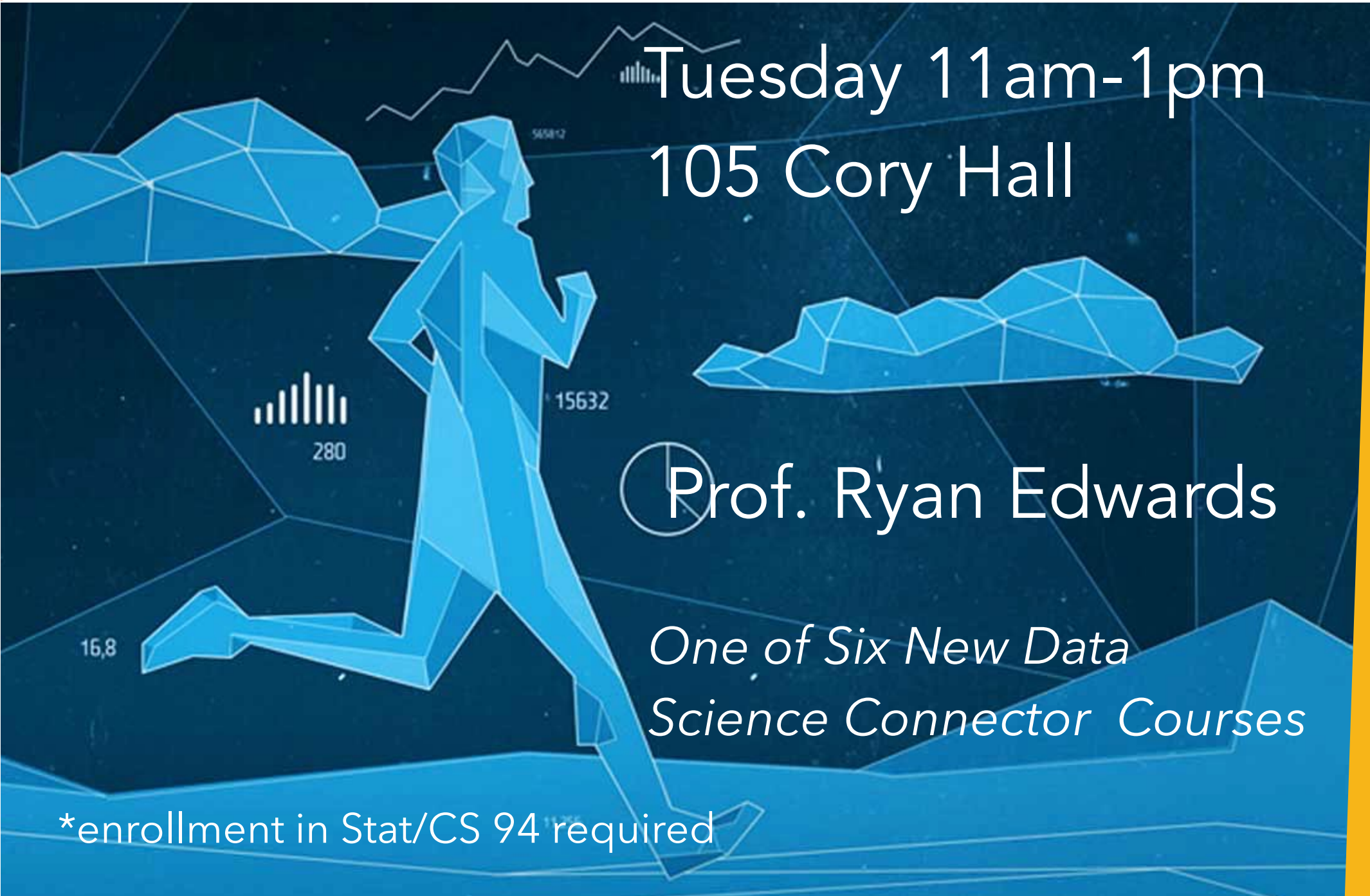
# Current events

- On Monday, August 31, UC Berkeley confirmed reports from the city that a student had been diagnosed with **measles**
- SFGate reported that the student took AC Transit bus 25A on August 24
- UC has probably contacted folks in that student's classes(?)
- Measles symptoms can begin one to three weeks after exposure and can include high fever, runny nose, coughing and watery red eyes. A rash develops on the face and neck two to three days after the fever begins, and spreads down the body. The rash usually lasts five or six days. An infected person is contagious for several days before and after the rash appears.

# Health, Human Behavior, and Data

## L&S 39G

FALL 2015



Tuesday 11am-1pm  
105 Cory Hall

Prof. Ryan Edwards

*One of Six New Data  
Science Connector Courses*

\*enrollment in Stat/CS 94 required

# Why study health and behavior?

- For the cold, hard CASH and job security
  - The health sector is about 17% of our national income
  - One of the few not hit hard by the Great Recession
  - Health and behavior are increasingly part of Big Data initiatives





What kinds of questions do health economists answer?



+



?



+



?

The data are what they are.

Your mission in L&S 39G ...

... is to think about separating

**observation** from **causality**

# L&S 39G complements STAT/CS 94

- The main goal is the same —
  - We're motivating and teaching you some basic tools in statistics and data analysis
- But the specific tools and stories will be different
- L&S 39G is a classic freshman seminar: broad, fun

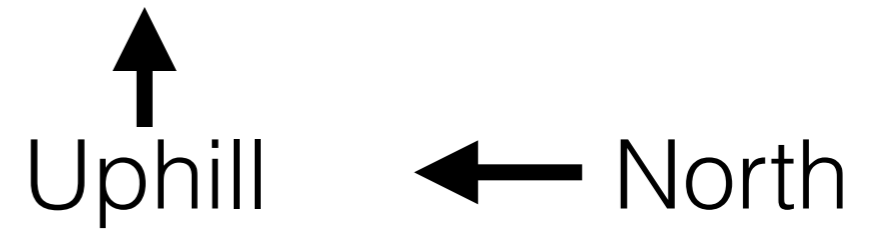
# Office hours

Let's set up a weekly time, and you can also set up ad hoc meetings if these times don't work for you

- A. Tuesday mornings
- B. Tuesday afternoons
- C. Wednesday mornings
- D. Wednesday afternoons
- E. Thursday mornings
- F. Thursday afternoons

We can also figure this out later online

# Office location

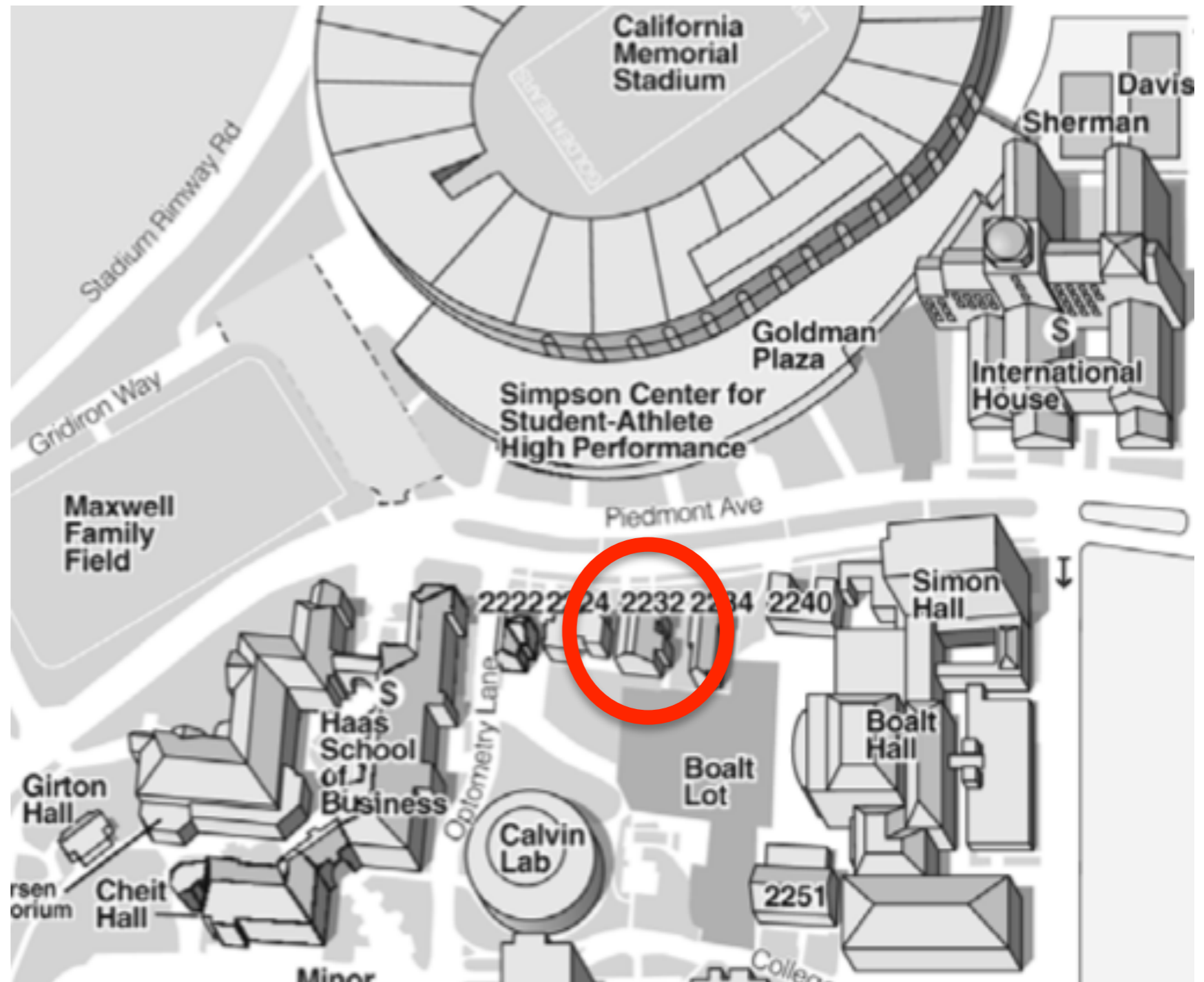


2232 Piedmont Ave

The UC Berkeley  
Demography Dept.

Enter on Piedmont,  
walk inside,  
go upstairs

**Room 202**  
on your left



# Introductions

- What's your name?
- Where did you go to high school?
- What are your interests? Academic or otherwise? Hobbies? "Guilty pleasures" like celebrity gossip?
- What's your favorite social media or other platform?
- What are your majoring/minoring plans at Cal?



# Exams. None.

- This is a classic freshman seminar with a term paper and lots of interaction
- Your overall course grade will consist of
  - 40% weekly class participation:
    - i>clickers and some “book report” discussion of readings
  - 20% term paper draft around midterm
  - 40% term paper final version toward the end of term

# Readings

- Will be available online via [bCourses.berkeley.edu](https://bCourses.berkeley.edu)
- They're not there yet
- I'll send out a notification when they are
- You'll need to read them before class, and several times during the term, you'll prepare something to say about them
- This can include "I don't know what to say"

# Term papers

- Like Stat/CS 94, L&S 39G is a course about **data**
- In the term paper, you'll **write** about a topic using inferences that you draw from **data analysis**
- You need to acquire the data and analyze it yourself, not just reference somebody else's analysis
- Final product is “short and sweet,” 5 pages of text
- You can include a bunch of figures or tables *that you produce yourself*

# Due dates

- Procrastination is the biggest challenge that pretty much all of us face
- At midterm, you need to submit a page or more on your topic and data source
- The final term paper is due toward the end of the term
- We'll set specific due dates that fit your schedules in Stat/CS 94 and etc.

# Obtaining i>clickers

- The Cal student store should have some in stock
- You can also buy through the Internet, from Amazon, etc., or from a friend
- They are about \$40, you can resell them
- Any model will work as long as it is an **i>clicker**
- But **DON'T** use the smartphone app, called “i>clicker GO”  
It doesn't work well. Sorry in advance



# Registering your i>clicker

1. Navigate to <http://iclicker.com/registration>
2. Enter the following data:
  - A) Your first and last name
  - B) Your Cal Student ID number  
(***NOT*** your social security number!)
  - C) The 8-character Remote ID on the back of your i>clicker  
(These only use letters A-F and numbers 0-9)
3. If you make a mistake, just follow these steps again and do it over

If you bought an i>clicker from a friend, also just follow these steps; it will register the i>clicker to you

# i>clickers and your privacy

- iclicker.com need to know your student ID so that I can link your i>clicker responses to you
- In their database, your student ID is only linked to your name and Remote ID
- The information contained in your actual responses gets stored on my laptop and nowhere else
  - I will only present this information in aggregated tabulations without any identifiers, to preserve your privacy
  - I will only use this information for the purposes of your instruction and not for any other purpose
  - I will dispose of all the individual-level data once the term is concluded.
- If you are uncomfortable with any aspect of this, please see me

# i>clickers & measuring participation

- Participation credit is 40% of your overall course grade
- You'll participate with i>clickers and with occasional reports on readings
- Participation means “there are no wrong answers”
- At least one registered i>clicker answer in a class means you participated during the class
- Bottom line: Don't fret too much about each response registering with the system. Just attend and use your i>clicker, and don't worry



# How to use your i>clicker

1. Make sure it's turned on. Remove the plastic tab in the battery door if you haven't already
2. Wait for me to show you a question with up to five multiple-choice answers A through E
3. Talk it over with your friends if you like
4. Then just press the button for your answer
  - If you see a green light flash next to the button, your answer was recorded
  - (If you see a red light flashing, something is wrong. You can raise your hand and ask)
5. If you change your mind, just press the new button for your new answer
6. When class is done, turn it off



# An exercise in data :)

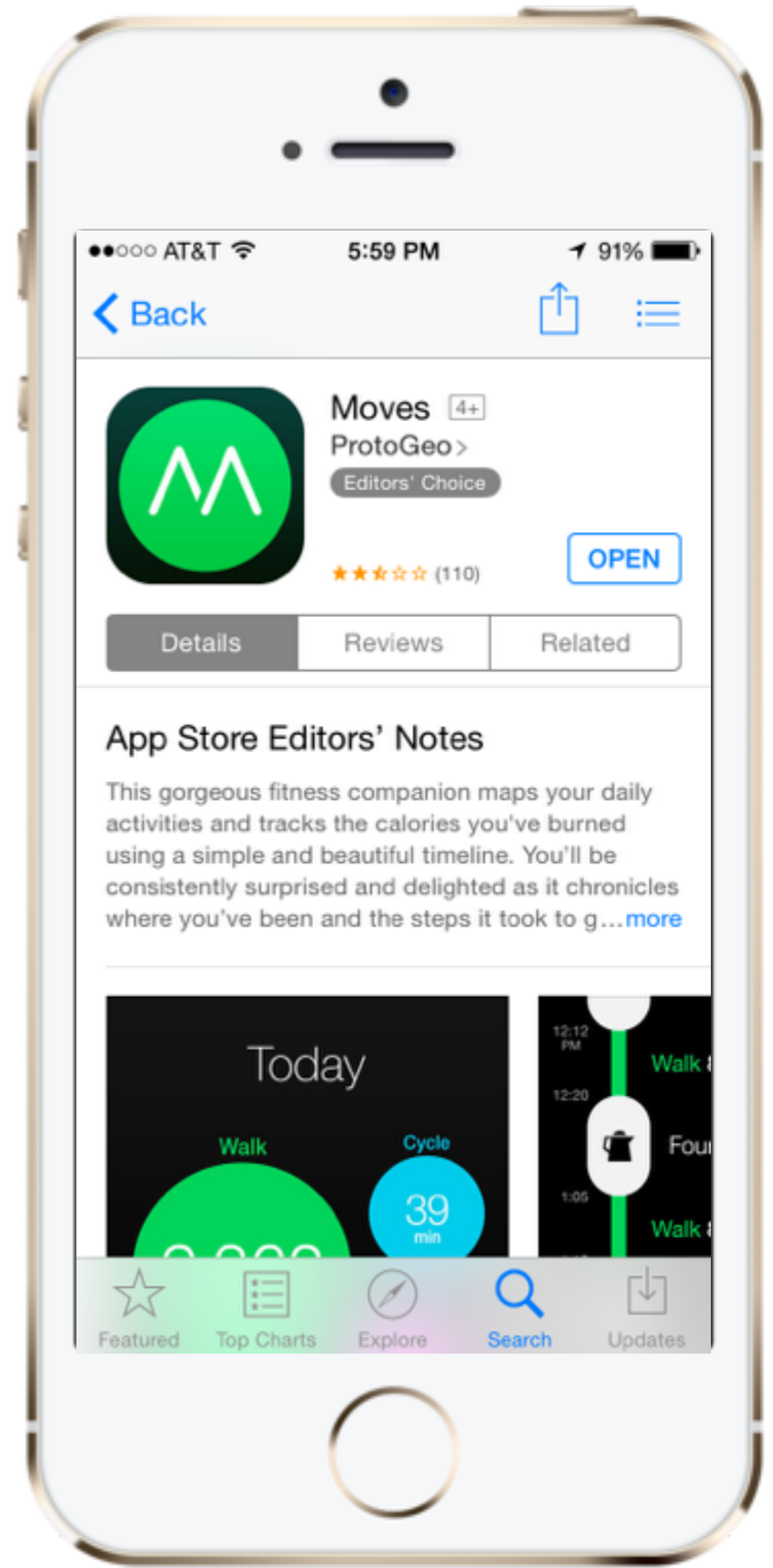
- I'd like all of us who are able to participate in a class-wide data gathering experiment
- I'd like you to download and use the free "Moves" app on iOS or Android
- If you don't have the hardware, or wish to opt out, no worries

Your grade won't suffer

- But I'd like us to use this chance to generate and examine our own real data

# The Moves app

- It's free
- Why?
- The rule of thumb is that if it's free, *you're the product*
- Moves and ProtoGeo Oy were bought by Facebook in spring 2014



# If you use Moves, Facebook can use you

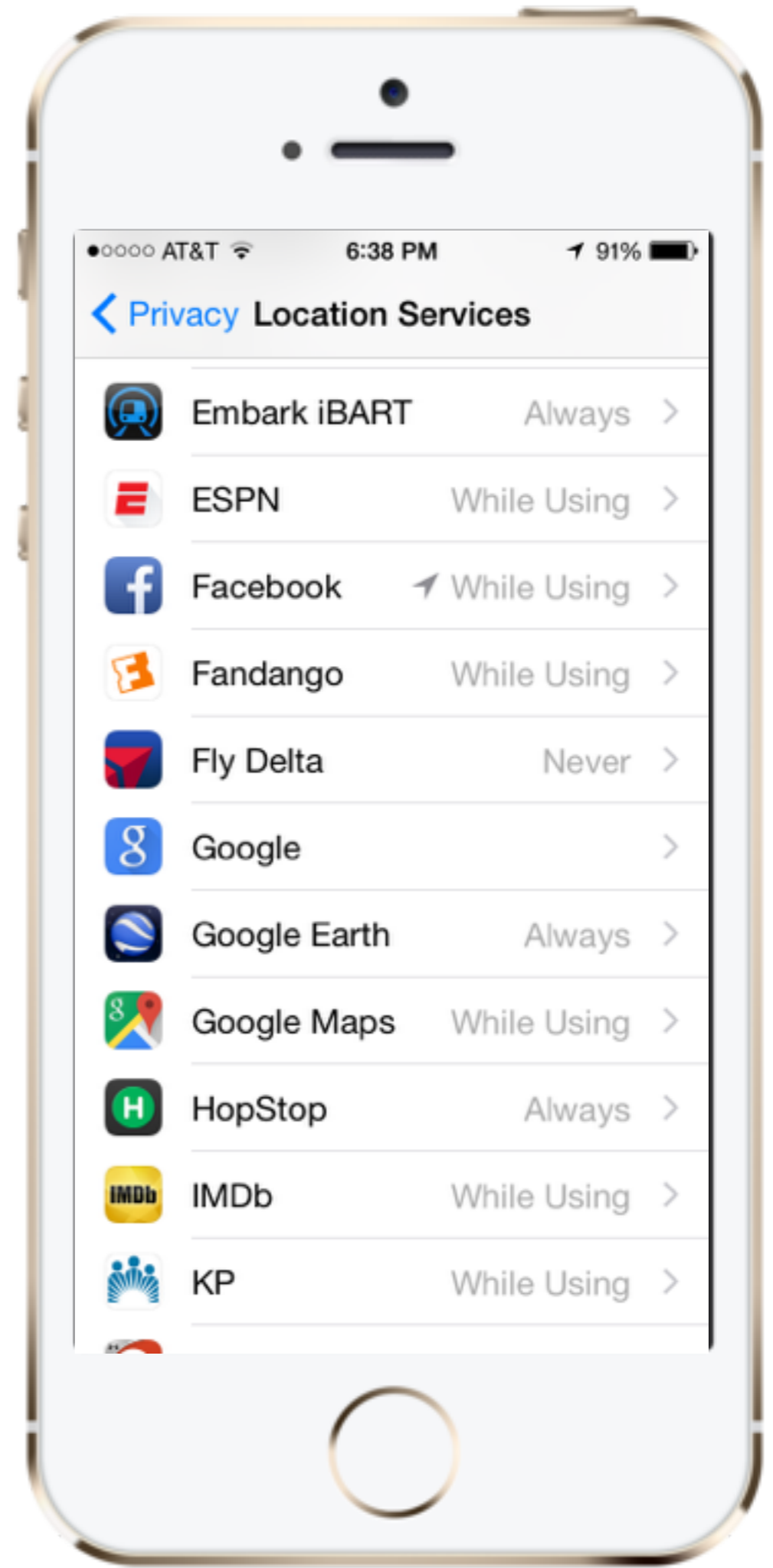
- It's not like this is some big revelation
- It's not even like this is abnormal for smartphone apps
- But we're heading into a world where *our data* — even what we think is private — may not be private
- “On the Internet, nobody knows you're a hacker”



*"On the Internet, nobody knows you're a dog."*

# Think about Location Services

- You can let Facebook know your location all the time,
- While you're using it,
- Or never



# Divvying up the reading list

- Everybody needs to select 3 of the next 13 weeks
- Let's talk through the reading list
- Then if I can have 2 volunteers to prepare some remarks about next week's (Sep 8) reading
- We can set up choices for the rest of the material either now or later online