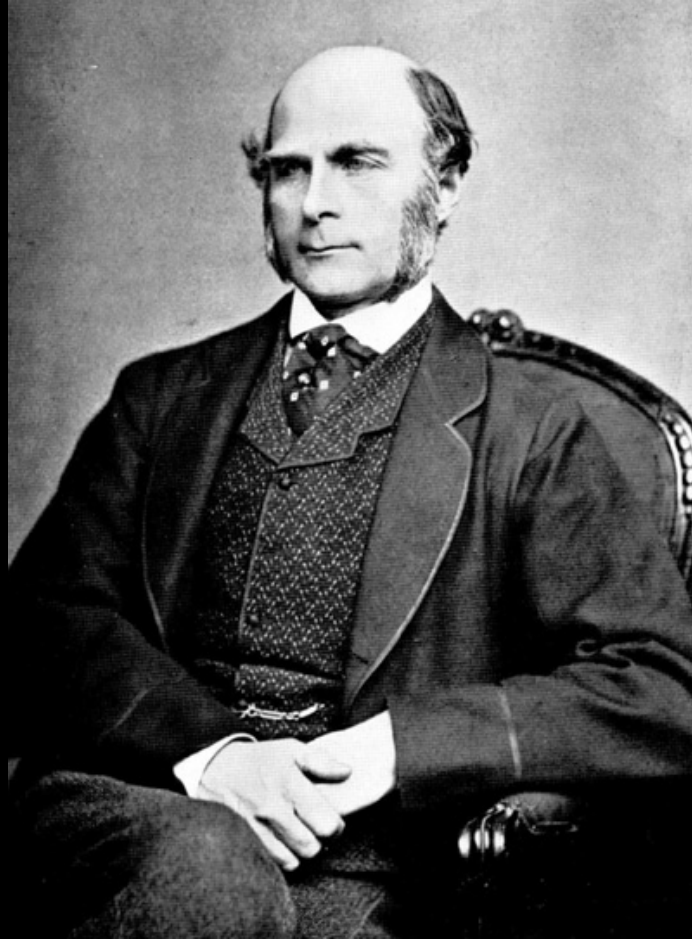# Exploring the Wisdom of Crowds

Sharad Goel
Stanford University

February 13, 2015

Francis Galton

1906 Plymouth County Fair
What is the weight of the ox?

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800 guesses
median guess was 1207 lbs.

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What is the weight of the ox?

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median guess was 1207 lbs.

actual weight was 1198 lbs.

Francis Galton

Nature, 1907

"The result is, I think, more creditable to the trustworthiness of a democratic judgment than might have been expected."

"As entertaining and thought-provoking as *The Tipping Point* by
Malcolm Gladwell. . . . *The Wisdom of Crowds* ranges far and wide."
—*The Boston Globe*

THE WISDOM
OF CROWDS

JAMES
SUROWIECKI

WITH A NEW AFTERWORD BY THE AUTHOR

Wisdom of the crowd

The collective opinion of a crowd
can outperform the judgments
of any one individual

Madness of crowds
Charles Mackay

riots
economic bubbles
mass hysteria
herding

Research question

When are crowds "wise"?

Research question

How best to aggregate opinions?
How big a crowd do you need?
What is the effect of social influence?

Research question

What is the underlying mechanism?

Experimental design

1. Systematically construct thousands of tasks

2. Recruit a crowd to complete the tasks

3. Analyze the responses

Studying crowds, with crowds

A mini-experiment
in "collective intelligence"

http://goo.gl/forms/WG1kWgYjke

Give your best guess
Do not look up the answer
Do not talk to anyone

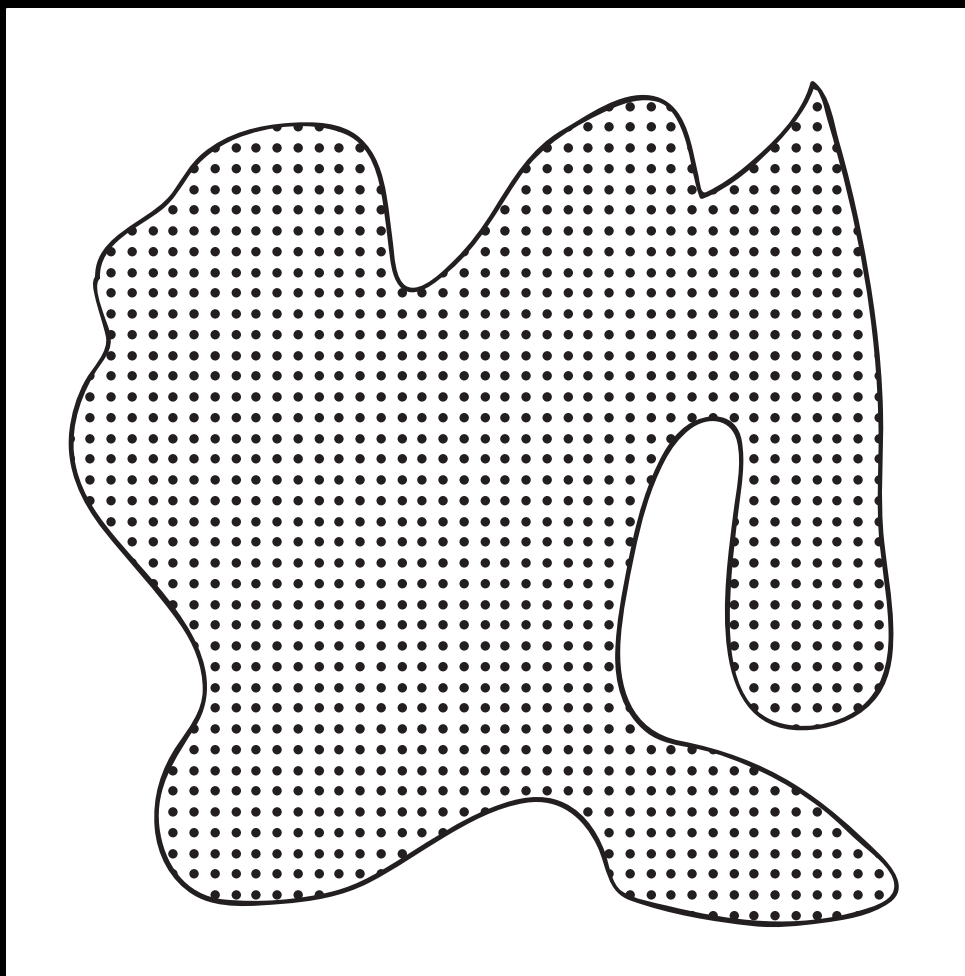Don't worry if you don't know the answers!

What is the total area of India? (km²)

In what year was this painting made?

How many dots are in the figure?

India vs. Pakistan
Cricket World Cup, Game 4

How many runs do you think
each team will score?

Assignment
literature review

Document past studies
on the wisdom of crowds

Assignment

brainstorm tasks

be creative, but realistic

Assignment [optional]
apply to design experiment platform

teams should have experience with
HTML, CSS, PHP, JavaScript, and MySQL

Course materials

Piazza, GitHub

Course Staff

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