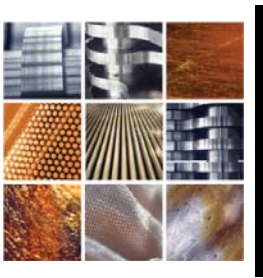


11.17.07

Haas Inside Innovation 2007 Conference

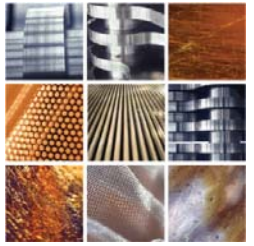
# New Product Blockbusters: The Magic & Science of Prediction Markets

Teck-Hua Ho  
Kay-Yut Chen



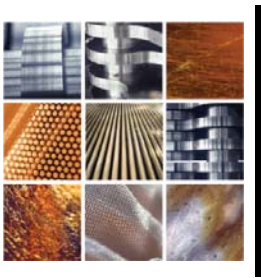
# Wisdom of the Crowds

- Large groups of individual outperform experts
- One Example: 1906 Fat Stock & poultry Exhibition
  - Contest guessing weight of an ox
  - 800 participants
  - Average guess 1197 lbs vs. real 1198 lbs



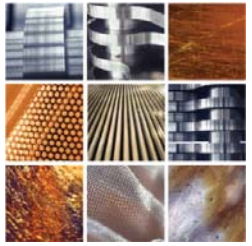
# The Five Principles

- Incentive
- Indicator
- Improvement
- Independence
- Crowd



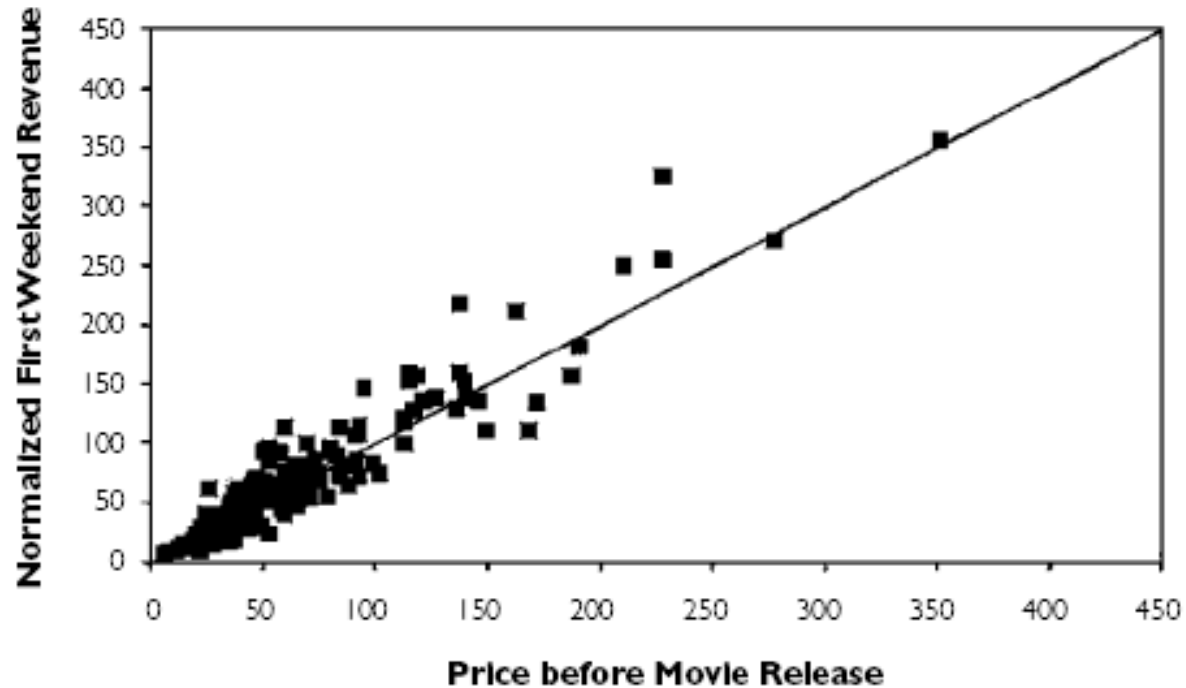
# An Example of Prediction Market

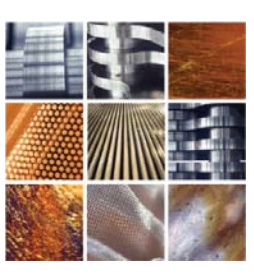
- Goal: sales forecasting
- Sales amount (unit/revenue) divided into (8-10) finite intervals
- Contingent state asset (i.e. winning ticket pays \$1, others \$0)
- Web-based real time double-auction
- 15-20 min phone training for EVERY subject
- Market open for one week at restricted time (typically lunch and after hours)
- Market size: 10-25 people



# Hollywood Stock Exchange

**FIGURE I**





# Issues and Resolutions

- Limitations
  - small groups, low participation
  - lack of information in the group
  - ability to change the outcomes
- Related Methods
  - scoring rules
  - two-stage pari-mutual market
  - combinatorial markets