

CS-234

Technologies for societal
self-organization

Week 12

Mechanism design - collaborative mechanisms to be incentive-compatible

- Adam Smith, ...
- Auctions - 2nd price auction
- Prediction markets
- Crowdfunding
- Quadratic voting

Crowd Funding

- Kickstarter ...

- Basic idea: proposer "advertise" project directly to population of small investors

- upside: "it works" (at least in some case)

- upside: small contributions → more representative, more "democratic"

- downside: outcomes may be low quality

- limited accountability for promises

- money is paid in advance, usually non-refundable

- low individual contributions → low incentive for legal action

- upside: low individual investment (not losing much)

limited accountability, bureaucracy/procedure → creativity, innovation

- downside: limited by marketing/advertising (perception)

(asymmetric information in markets, "lemon market")

- downside: over-popular → can't keep up

- issues: "ownership" of results? good or bad for inequality? government?

Prediction markets

- predict the future, "put money where your mouth is"
 - not "gambling": presumes there is "objective truth"
 - objective is to discover that truth (prob. of winning)
 - community has collective information about this truth
 - information sought might be a "public good"
 - (gambling: arguably no public good in info)
- upside: works well? if "truth" is widespread but diffuse
- downside: won't work if there is no evidence to discover
- downside: won't work if info is concentrated among few experts
 - incentive to collude, deceive public, profit

Quadratic voting

- Basic idea: anyone can "buy" votes (for/against)

- pay the square of # of votes

cast	1	vote	→	pay	1	(CHF, virtual currency)
cast	2	votes	→	pay	4	
	4	votes	→	pay	16	

- more votes cast → more cost/vote
incentive to reveal the true strength of interest
- rich seem to care more
- might reward extremism? (upside: protect minority)
- not fair/equal
- risk of "black market" dealing / vote buying (illegal)