Market Systems as a Source of Individual Contributive Social Capital Scores

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- Online communication: Is my conversation partner competent, telling the truth, interested in helping me?
- Reputation / feedback systems can improve transparency
- Reputation is closely related to Social Capital: “values obtained by being part of a social network”, “the sum of social resources” (N. Lin, 2001)

User Study
- 165 participants on a custom social platform + social capital market system for 9 weeks
- 100 units of Social Capital Currency (SCC) per user / week
- A transfer of SCC is associated with one of five categories. Receiving SCC increases the Contributive Social Capital Weight (CSCW) in that category.

Simulation Experiment
- 1000 agents exchange SCC; interaction frequency derived from human communication frequency (Miritello et al., 2013)
- Among all agents with true CSCW above the n-th percentile, an agent is “correctly assessed” if its predicted CSCW is also above the n-th percentile.

- Contributive Social Capital: Instead of asking about the resources someone can obtain, ask what resources that person contributes to the network.
- Hypothesis: A notion of Contributive Social Capital can be derived from the value of an individual on a virtual social capital market.

- Increase is proportional to sender’s CSCW (reputation) and amount of SCC.
- Ground truth: Users rated others on a numeric scale in each category.
- Statistically significant correlation between ground truth and CSCW supports our hypothesis.

Results of the exit survey (n = 115)

Simulation Experiment
- After two years: > 90% of agents assessed correctly
- Inequality of SCC within the population grows quickly: Gini coefficient ~ 0.6
- Noticeable inflation, evidenced by continually increasing mean transaction size.