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Simulation Models of the Collective Consequences of Bounded Rationality in Opinion Formation in Networks

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Propositions

accompanying the dissertation

SIMULATION MODELS OF THE COLLECTIVE CONSEQUENCES OF BOUNDED RATIONALITY IN OPINION FORMATION IN NETWORKS CASES OF MARKET CONCENTRATION AND VACCINATION OPINION POLARIZATION

by

Teng Li

1. The world we live in has become an increasingly complex system. (This thesis)
2. Agent-based modeling is essential for understanding the complexity of social systems due to its ability to simulate and analyze individual and collective behaviors within these systems. (This thesis)
3. Homogeneous markets can experience high concentration or even monopoly due to consumers' limited attention and social influence. (Chapter 2)
4. A high market share can be self-reinforcing or self-undermining, depending on whether consumers are tolerant or picky. (Chapter 3)
5. The more conservative consumers are, the more concentrated and stable the market becomes, while risk-taking consumers create a more diverse and volatile market. (Chapter 3)
6. People can be happier in a polarized society because they get more confirmation from similar others. (Chapter 4)
7. Disagreements between authorities contribute to the polarization of opinions among individuals. (Chapter 4)
8. In collectivist societies, a strong decentralization of authorities can lead to high opinion polarization, particularly in settings of high power distance. (Chapter 5)
9. Conflicting authorities foster greater opinion polarization in individualist societies than in collectivist societies. (Chapter 5)
10. Dao (道) begets One, One begets Two, Two begets Three, Three begets all things. (*Dao De Jing* by Laozi)
11. "In the long run we are all dead." (J. M. Keynes)