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research highlights

SOCIAL NETWORKS

Inferring financial status

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Social ties and economic well-being go hand in hand: more, stronger, or more diverse social connections are associated with better job opportunities, social mobility, and economic development. However, it is still an open question whether social network metrics can be used to infer the financial status of individuals.

Research by Shaojun Luo and colleagues at City College of New York and Grandata Labs now leverages two massive datasets for the entire population of a Latin American country to show that there is a near-perfect correlation between social network position (measured through phone data) and financial status (measured via credit card limits). The top 1% and bottom 10% of individuals by wealth show very different communication patterns, which mimic economic inequality at the country level. The researchers identify a metric of network influence —'collective influence' — that captures the differences in network structure between the rich and the poor, and enables identification of individual financial status. They then use this metric to target individuals in a social marketing campaign. They find that individuals with high collective influence based on their phone data are much more likely to respond to a marketing campaign for a new credit card than individuals with low collective influence.

The ability to infer the financial status of individuals from their social network position provides an important tool for social intervention and marketing campaigns. Future research is needed to determine whether the findings apply beyond the specific population and to examine how the principle of collective influence emerges in the first place.

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