

MISQ Archivist

Trust and the Strength of Ties in Online Social Networks: An Exploratory Field Experiment

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Abstract

We conduct an exploratory study using a customized Facebook application to understand how social ties are linked to economic measure of trust. We employ the Investment Game, a well-established economic game designed to generate a quantifiable trust measure. We consider the relationship between observed trust and three “revealed preference” tie strength measures: (1) the degree of interaction between friends on their walls; (2) embeddedness, a metric related to the number of mutual friends shared; and (3) being tagged together in a photograph, indicative of a physical-world interaction. We identify latent heterogeneity among our subjects, establishing that for users with a large number of Facebook friends, the only measure associated with trust is whether the dyad was tagged in a photo together. In contrast, for users that are more selective and have fewer Facebook friends, all three aforementioned tie strength measures correlate with trust. Our findings are preliminary evidence that traditional measures of dyadic trust like embeddedness which are used widely in physical-world social networks may not always be effective predictors of digital trust, because not all online social ties are created equal. Methodologically, our study contributes to an emerging body of research that showcases how to leverage the large-scale online social graph to better understand fundamental constructs of economic behavior.

Keywords: Investment game, trust, switching regression, field study