An Experimental Study of the Effectiveness of Crowd Signals in Online Fundraising

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Crowdfunding is the practice of funding a project by raising small amounts of money from a large number of people, typically via an online platform. Recently, crowdfunding has attracted significant research attention as many civic and international organizations are increasingly turning to online fundraising in their COVID-19 response efforts. Extensive observational research has investigated the factors that are associated with higher probabilities of successful fundraising. Most prior studies have attempted to predict crowdfunding success based on various attributes of the projects, project creators' interaction with the crowd, characteristics of the creators, and their networks [1, 3] — factors that are confounded by ad-hoc changes in crowdfunding platform design. However, *past work has not investigated extensively the effect of the crowd that contributes capital, especially not in controlled experimental settings*.

To fill this important gap in existing literature, we create a mock crowdfunding setting to experimentally validate the effectiveness of crowd signals related to the behavior of funders rather than the characteristics of project creators or projects in predicting successful fundraising. The crowd signals are computed using the coefficient of variation of (1) contribution amounts (*variation*) and (2) inter-contribution times (*momentum*). The presented approach is based on the simple intuition that the timing and amount of funders' contributions have an effect on fundraising outcome and is backed by evidence from prior empirical work by us and others using observational data to demonstrate the effectiveness of crowd signals in predicting fundraising success [2]. *The main research question of this study is whether high values of*

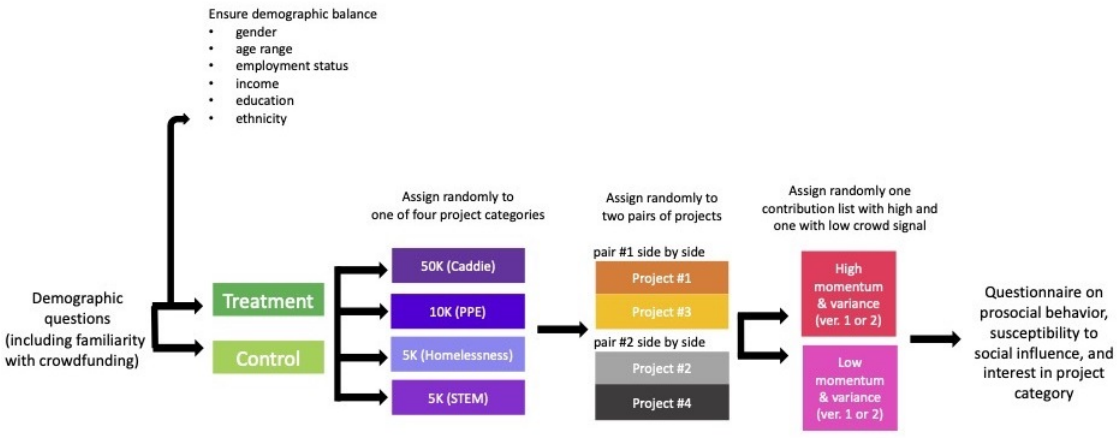

Figure 1: Overview of our online experiment conducted via Mechanical Turk.

the crowd signals momentum and variation of contributions are making people more likely to contribute to a crowdfunding project.

To conduct experiments, we recruit US-based participants ($N = 1,200$) through Amazon Mechanical Turk (MTurk). As illustrated in Figure 1, participants are split into a treatment and control condition. Then, they are simultaneously shown descriptions of two mock crowdfunding projects. The project descriptions are inspired by real crowdfunding listings from the platform GoFundMe.com. They have been selected and altered to be similar in terms of the topic (e.g., 3D printing PPE for essential workers and attending a Robotics competition), target amount, and details about project execution. For the treatment group, these descriptions contain additional information on the funding timeline and prior contributions (with either high or low crowd signals as the experiment's main intervention). Participants are then asked to choose which one of the two projects they would like to contribute to. We repeat this process so that each participant sees two pairs of projects in total.

Our results show that that when the same projects are assigned high as opposed to low variance and momentum, participants systematically choose projects with high crowd signals. To further explore the link between the crowd signals and participants' prosocial behaviors, we collect participants' responses to a set of questions related to their interest in project topic, altruism and susceptibility to social influence (SSI). For instance, we ask whether participants often consult other people to help choose the best alternative available or whether they try to behave in a manner that make them fit in in social situations. Our ongoing work examines the association between participants' preference in the experiments for projects with high crowd momentum and variation and their self-reported SSI. Our preliminary findings show that the above findings are robust to participants' measures of altruism, susceptibility to social influence and interest in crowdfunding project category. *Our results improve our understanding of peoples' preference for certain crowdfunding projects over others, in particular where differences in support cannot be explained by the quality of projects. With this, our findings provide novel insights into an essential issue in online capital allocation, but also an open problem in understanding the link between mechanisms of social influence and success on online platforms.*

References

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