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Quasi-field Experiment to Examine the Effect of the Internet on Collective Action

Purpose: The purpose of this experiment is to test empirically how certain aspects of internet-based communication affect collective action decisions. Specifically, we want to examine the effect of providing internet users with real-time information about other people's participatory actions and preferences.

Hypothesis: Our hypothesis is that information about how many other people have undertaken a participatory activity (such as donating money to a cause or signing a petition) will affect people's decisions about whether to incur costs themselves in the pursuit of collective action. That is, if people know (for example) how many people have signed a petition, we hypothesise that it will affect their willingness to sign or to incur other costs in the pursuit of the issue that is being petitioned for.

We also hypothesise that information about different levels of other signatories will have differential effects. We have developed a number of competing hypotheses about the nature of the information effect, building on the work of (for example) Olson's *The Logic of Collective Action* (Harvard University Press, 1965) and Marwell and Oliver's The *Critical Mass in Collective Action* (Cambridge University Press, 1993). That is, where very low numbers of people have signed a petition, the information could have a negative impact on one individual's propensity to sign, as they will consider it a hopeless cause – or it could have a positive effect, as any one individual will feel that their action will make a significant difference. Where very high numbers of people have signed, the information could have a positive impact, generating excitement, social pressure and a feeling that they can be part of change – or it could act negatively, making people feel that so many other people are acting that their contribution would be insignificant.

Background: An initial pilot experiment conducted at OxLab, the University of Oxford's experimental facility (managed by the Oxford Internet Institute and the Said Business School) has shaped the design of this experiment. In this lab-based experiment, we identified one issue (out of six) where subjects were more likely to sign a petition or donate money to a cause if they received information that many other people had signed than if they received no information, providing some evidence that 'critical mass' where the information makes a difference is 1 million. We identified another issue where people were less likely to sign or donate money if they received information that very few other people had signed than they were if they received no information. Across the six petitions there was a positive correlation with the number of other people signing (when numbers were high) and the likelihood of an individual signing. But the numbers of subjects were too small to come to firm conclusions about the distribution of effects on people's likelihood to participate.

Experimental Set-up: In this larger study, we will test more fully the hypothesis, using a larger subject pool and four treatments. We will use around 700 subjects, contacted from OxLab's subject database who will participate in the experiment remotely, using their own internet connection. They will be presented with a screen which asks them to examine a number of issues and then asked to (a) express their willingness to sign a petition supporting the issue and (b) donate a small amount of their participation fee to supporting the issue. They will be divided into four equally sized groups which, for each petition, differ according to the information they receive:

- a control group, who receive no information about other people signing
- a group who are told that very large numbers of people (> 1 million) have signed the petitions
- a group who are told that medium numbers of people (>100, < 1 million) have signed the petitions
- a group who are told that very low numbers of people (< 100) have signed the petitions

Subjects will be incentivized via a small payment (£6-£8), which will be paid using Amazon vouchers automatically generated when the subject has satisfactorily completed the task. There will be a pre-experiment questionnaire to collect some demographic and attitudinal information. All subject information will be fully anonymised and no addresses will be collected. There is no deception in this experiment: subjects are provided with generic petitions and the number of signatories provided are actual numbers that have signed a similar petition on this issue.

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