



December 21, 2017

Dear Professor Knoblock-Westerwick, Professor Gibbs, and the editorial team,

I am writing on behalf of myself and my colleague Aaron Shaw, Assistant Professor of Communication Studies at Northwestern University. We are submitting the attached manuscript, "The Hidden Costs of Requiring Accounts: Quasi-Experimental Evidence from Peer Production," to be considered for publication in *Communication Research*.

Our manuscript engages with two major themes of communication research related to the Internet, information systems, and organizational communication: decreased transaction costs and the decreased identifiability of the individuals communicating. The first theme emerges from theoretical work suggesting that decreased transaction costs of new technology enhance collaboration in technologically-mediated information systems engaged in the production of both public goods like Wikipedia and communal information goods like knowledge-bases within organizations. The second theme emerges from research showing how computer-mediated communication can reduce individuation and identification in ways that lead to non-normative behavior and a host of problems. This second body of work points to stable identifiers (such as user accounts in online communities and networks) as a critical tool for overcoming these problems.

Our work begins with the observation that the requirement to create a stable identifier within a communication system is itself a transaction cost for would-be contributors. Should interactive online communication systems require these identifiers? Prior scholarship in Communication and related fields points in divergent directions and real information systems seem divided on the issue as well. For example, despite massive vandalism from users without accounts, Wikipedia refuses to require participants to log in. In contrast, Yelp imposes exactly this requirement on would-be contributors. Is Yelp missing potential quality contributions? How much would Wikipedia benefit from changing its policy? Prior work has neither teased out the theoretical contradictions at the heart of this question nor has it attempted to provide causal evidence of the effect of requiring persistent identities on participation real interactive communication systems.

In our attached manuscript, we elaborate this theoretical problem and present an empirical analysis of 136 natural experiments in online communities, each of which instituted a new requirement that all participants create and log into an account before contributing. We develop a novel theoretical contribution to this topic by articulating a set of tradeoffs we expect to observe around account requirements. We then use a massive longitudinal dataset and a quasi-experimental econometric technique called regression discontinuity to estimate the effect of the account requirement within each community. We find causal evidence in support of the tradeoffs theory. As we hypothesize, the requirement to create accounts leads to a small increase in the number of new account registrations and to very large decrease in low quality participation. That said, it leads to a decrease in high quality contributions as well. The decrease even holds among contributors who had created



accounts prior to the requirement, suggesting that unregistered contributions stimulate activity by more experienced contributors. This previously untheorized tradeoff of stable identifiers should be of interest to scholars of public information goods, organizational communication, and information systems, communication technology, as well as “big data” researchers and computational methodologists.

There are several individuals that we believe could serve as reviewers and who have not read drafts of our paper. These include the following three people (all three are currently Assistant Professors of Communication):

- Seth Frey (UC Davis): sfrey@ucdavis.edu
- Drew Margolin (Cornell): dm658@cornell.edu
- Cindy Shen (UC Davis): cuishen@ucdavis.edu

Please do not hesitate to contact us if you have any additional questions.

Regards,

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