

Measuring Markets for Network Goods – Referee Report 6

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This paper conducted two experiments to explore substitution patterns in social media usage under different interventions.

The first experiment leveraged the uncertainty surrounding TikTok’s potential ban in January 2025 in the United States. Researchers recruited 900 active TikTok users aged 18-27 through the Prolific survey platform, focusing on iPhone users to facilitate compliance verification via screenshots. Participants were exposed to three scenarios to measure their willingness to accept compensation for app deactivation: (1) TikTok remains available (status quo), (2) individual TikTok deactivation, and (3) a nationwide TikTok ban. The experiment revealed differences in substitution patterns depending on whether the intervention was individual or collective. Under the TikTok ban scenario, participants demonstrated higher substitution rates toward other social apps, such as Instagram and YouTube, influenced by network effects. Conversely, individual deactivation resulted in weaker substitution to social media but stronger shifts toward non-social activities like meditation or gaming.

The second experiment focused on a collective social media time-limit challenge at the University of Chicago during October and November 2024. NOMO, a technology startup, implemented a two-week initiative targeting TikTok and Instagram usage, restricting daily app usage to 60 minutes. Participants (N=106) provided app usage screenshots to verify compliance. The study found that participants reduced their TikTok and Instagram usage significantly, but much of this reduction was offset by increased use of other social platforms.

Both experiments highlighted the importance of network effects in shaping substitution behaviours. While the collective challenge demonstrated substantial substitution toward other social apps—86% of reduced TikTok and Instagram usage was offset—the TikTok ban experiment emphasised the role of coordination in driving these shifts. The findings suggest that collective interventions magnify the substitutability of social apps while minimising shifts to non-digital activities. Limitations include the self-selected nature of participants and the absence of randomised control group for the second experiment, which restrict causal inference and generalisability.

GENERAL ASSESSMENT

This paper offers valuable insights into the dynamics of social media consumption under collective and individual interventions, highlighting the critical role of network effects in shaping substitution behaviours. The findings suggest that coordinated policies, such as collective time limits or platform bans, can significantly influence digital habits but often lead to high substitution rates to other social media apps. This underscores the need for policymakers to consider broader ecosystem-level strategies, rather than targeting individual platforms, when designing interventions for digital wellbeing. By addressing substitution effects and leveraging social dynamics, policymakers can craft more effective measures to reduce excessive screen time and promote healthier online behaviours. However, the study’s limitations (no control group for the second experiment and

self-selection of participants to both) highlight the need for further research to strengthen causal evidence and refine policy recommendations.

COMMENTS

The paper is well written, and very clear on what it does and does not do. I do not have any major comments. My only suggestion is that I think it would be interesting to see a heterogeneity analysis of the Tik Tok ban based on the engagement level of the users before the intervention. For example, I would like to see whether reported WTA differs depending on:

- Intensity of use: for example, how many minutes did participants spend on TikTok before the experiment?
- Did they just consume or produce content (upload) as well?
- Is it just personal consumption or their friends are also on TikTok? How many?