

When Product Markets Become Collective Traps: The Case of Social Media

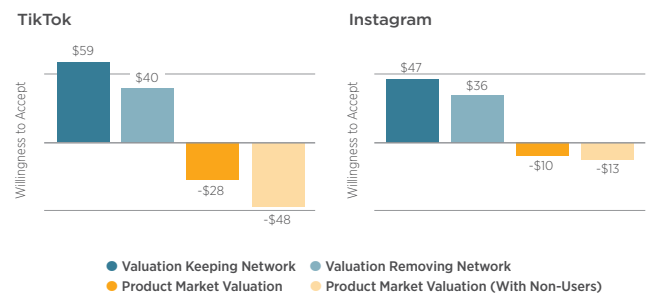
Based on BFI Working Paper 2023-131, "[When Product Markets Become Collective Traps: The Case of Social Media](#)," by Leonardo Bursztyn, UChicago; Benjamin Handel, UC Berkeley; Rafael Jiménez-Durán, Bocconi University; and Christopher Roth, University of Cologne

Large shares of consumers use Instagram and TikTok out of a fear of missing out rather than genuine interest and, as a result, are worse off than if the platforms did not exist in the first place.

In many contexts, the individual value from consuming a product or service increases as more people consume it. The more of your peers who join TikTok, for example, the more value you probably see in joining yourself. Building on this logic, it's possible that products like social media not only offer greater utility to users as their market share grows, but greater *disutility* to *non-users* as well. Just imagine being the sole holdout during the TikTok craze. With each friend who joins, you likely feel increasingly left out. In this paper, the authors test for these spillovers and paint a more accurate picture of how social media impacts consumers.

To study this question, the authors design a large-scale, online experiment aimed at measuring consumer welfare in the presence of both network effects—the phenomenon wherein the value of joining vs. not joining increases with the number of consumers—and consumption spillovers to non-users—for example, fear of missing out on the latest TikTok trend. Their survey-based

Figure 1 • Consumer Surplus across Welfare Measures



Note: This figure presents average valuations for different consumer welfare measures, for both TikTok and Instagram. The dark blue bar shows the individual consumer surplus that users experience from each platform when other users remain as-is, and the light blue bar shows the individual consumer surplus when other users are not on each platform. The red bar shows the authors' measure of consumer welfare which accounts for spillovers to non-consumers, and the pink bar shows the same when other users are not on the platform.

experiment focuses on TikTok and Instagram and is administered to 1,000 college students.

The authors begin by measuring the amount of money that users would accept to deactivate their accounts for four weeks, while keeping constant others' social media use. They next measure how

much users value their accounts when other students at their university are asked to deactivate *their* accounts as well. Finally, the authors measure users' preferences over the deactivation of accounts of *all* participating students, including themselves. They find the following:

- Users would need to be paid \$59 to deactivate TikTok and \$47 to deactivate Instagram if others in their network were to continue using their accounts.
- Users would be willing to pay \$28 and \$10 to have others, including themselves, deactivate TikTok and Instagram, respectively. Accounting for consumption spillovers to non-users reveals that 64% of active TikTok users and 48% of active Instagram users experience negative welfare from the products' existence. Participants who do not have accounts would be willing to pay \$67 and \$39 to have others deactivate their TikTok and Instagram accounts, respectively.
- Taken together, these results imply the existence of a "social media trap" for a large share of consumers, whose utility from the platforms is negative but would have been even more negative if they didn't use social media.
- The authors use these results to quantify the role of network effects on social media, or the extent to which users value social media platforms more when their peers use them. They find positive and quantitatively significant network effects: users value TikTok and Instagram 33% and 24% more, respectively, when their peers are on the sites compared to when they are not.

Building on these results, the authors explore whether product market traps exist in other domains as well. They field online surveys with consumers concerning their opinions on luxury goods and technology, where similar spillover effects are a plausible driver of consumption. They find the following:

- Among respondents who own luxury brands that they themselves bought (e.g., Gucci, Versace, Rolex), 44% prefer to live in a world without any of those brands altogether. Among respondents not owning such brands, the fraction preferring to live in a world without them is 69%.
- Among iPhone owners, a striking 91% of respondents indicate that they would prefer Apple to release the iPhone every other year rather than every year. Among respondents not owning the iPhone, this fraction is even larger, at 94%.

This research challenges the standard argument that the mere existence of a product implies positive welfare for its users. This could help reconcile the seemingly contradictory findings in the social media literature of a large consumer surplus coexisting with negative effects on wellbeing. It also suggests a heightened need for regulators to assess whether different products create traps for consumers and whether they generate positive welfare. For instance, large tech companies commonly use tools that might decrease non-consumer surplus, such as increasing the salience of being a non-consumer or tying together messaging apps and social media platforms and thus increasing the cost of not being a user.

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NO. 2023-131 · OCTOBER 2023

When Product Markets Become Collective Traps: The Case of Social Media

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