

Demand for Digital Attention: Evidence from a Social Media Experiment*

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Abstract

I conduct an experiment where I comprehensively monitor how participants spend their time on digital services. I restrict access to Instagram or YouTube on their mobile phones and investigate how participants substitute their time allocations during and after the restrictions. The restrictions resulted in dispersed time substitution across a wide range of alternatives from different product categories to non-digital activities. Participants with a two week restriction on Instagram had their average daily Instagram usage decline even after the restrictions are lifted. Participants with the YouTube restriction spent more time on applications installed during the restriction period both during and after the restriction period. Motivated by these results, I estimate a discrete-choice model of time demand with inertia and find that inertia explains a substantial portion of the usage on these applications. I apply the resulting model estimates to conduct merger evaluation between prominent social media applications using a modified Upward Pricing Pressure Test for attention markets. I consider mergers with and without inertia and find that with inertia more mergers ought to be blocked, especially between the largest and smallest applications. Overall, my results highlight the broad competition for time between free, advertising-supported digital services and the usefulness of digital product unavailability experiments in merger analysis.

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