

Authors

Guy Grossman University of Pennsylvania

Jonathan Rodden Stanford University

Melina Platas Izama New York University Abu Dhabi

Peer effects and externalities in technology adoption: Evidence from community reporting in Uganda $^{\circ}$

Romain Ferrali [†] Guy Grossman [‡] Melina Platas [§] Jonathan Rodden [§] January 23, 2018

Abstract

Do social networks matter for the adoption of new political communication technologies? We collect complete social network data for sistem Ugnodan villages where an innovative reporting mobile platiform was recently introduced, and show robust evidence of poor effects on technology adoption. However, poor effects near not observed in all networks. We develop a formal model showing that while peer effects facilitate adoption of technologies with minimal enterandities (the agricultural practices), it can be more difficult for innovations with significant positive enterandities to speaced through a network. Early adopters might engagerate benefits, leading others to discount information about the technology's value. Thus, peer effects are alloy to energe only where informal institutions support truthful communication. We show that the observable implications of our model are borne out in the data. These impediments to social diffusion might bein explain the slow and varied uptake of new political communication technologies around the world:

"We gastefully achieved by the support and cooperation of sensiters of the Arm district bond procramment, a such on RT, GAPP, UNCRET Equants, UNABLY gastes, and the USABD Center of Executions on Dominions, Blights, and Governance, without whom this study would not have been possible. We thank Innovations for Powert Action Cigarda for careful successful analysis and data collection. Join Hellers, Manimillian Semili, Aream Bar and Zashay Tamasonich provided subsible sensoria anisticane and varies at space of the posject. We received height fordinals from USADI Uganda, DFID Uganda, GAPP, and district officials at a stateholder morting in Assa in lat 2016, as well as from participants at seminors in Brigham Vanng Ustrementy, the University of Pownsylmain and Princeton University. We are thought to SEED at the Stanford GSB for financial support. Finally, we are grateful is the thousands of Arm residents who no generously should their time with a cover multiple periods of data collection. We kept our findings can serve to make programs such as U-Bright successful in improving communication on aditionable service delivery in Arm and beyond.

Department of Political Science, Princeton University. Berndi Optimenton ada Department of Political Science, University of Person bank & ECAP, provides more rela-

*Enportment of Political Science, University of Pennsylvania & EGAP agree-theo-*Division of Social Science, New York University Abs Dhabi, asplatas/inyu.edu

Department of Political Science, Steaford University, goodden/intraferd.edu

Peer Effects and Externalities in Technology Adoption: Evidence from Community Reporting in Uganda

Do social networks matter for the adoption of new political communication technologies? We collect complete social network data for sixteen Ugandan villages where an innovative reporting mobile platform was recently introduced, and show robust evidence of peer effects on technology adoption. However, peer effects were not observed in all networks. We develop a formal model showing that while peer effects facilitate adoption of technologies



with minimal externalities (like agricultural practices), it can be more difficult for innovations with significant positive externalities to spread through a network. Early adopters might exaggerate benefits, leading others to discount information about the technology's value. Thus, peer effects are likely to emerge only where informal institutions support truthful communication. We show that the observable implications of our model are borne out in the data. These impediments to social diffusion might help explain the slow and varied uptake of new political communication technologies around the world.

January 23, 2018