## Aarushi Kalra

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#### References

Professor Andrew Foster
Department of Economics
Brown University
Providence, Rhode Island 02912
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Professor Brian Knight
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Professor Daniel Björkegren School of International and Public Affairs Columbia University New York, New York 10027 dan.bjork@columbia.edu Professor Peter Hull
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Professor Stelios Michalopoulos
Department of Economics
Brown University
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## EDUCATION

Brown University
Ph.D. Candidate in Economics

Providence, RI, USA
2025 (expected)

Delhi School of EconomicsNew Delhi, IndiaM.A. Economics2017

Lady Shri Ram College, University of Delhi
B.A. (Honors) Economics

New Delhi, India
2015

Exchange: National University of Singapore

## TEACHING AND RESEARCH FIELDS

Development Economics, Digital Economies and Political Economy

## Job Market Paper

#### Social Media Algorithms versus Preferences in a Large-scale RCT

Presented at (\* upcoming): Summer Meetings of the Econometric Society 2024 (Nashville), Brown Applied Microeconomics Seminar 2024, North Eastern Universities Development Consortium (NEUDC) 2024\*, ETH Zürich Workshop in AI + Economics 2024\*, NBER Conference on Information and Competition in the Digital Economy 2024\*

Is engagement with harmful social media content driven by algorithmically curated feeds or user tastes? I conduct an RCT replacing personalization algorithms with random content delivery for over one million users of a prominent TikTok-like platform in India. I find a trade-off: random post recommendation lowers exposure to anti-minority ('toxic') content on average by 8.7%, but also lowers platform usage. The intervention's impact on socially undesirable behaviors was blunted as users greatly valued posts that the recommendation algorithm did not show them. Strikingly, the proportion of toxic posts shared increased by 7.8%. An economic model incorporating heterogeneous user preferences, endogenous social media activity, and an engagement maximizing algorithm, rationalizes these results and quantifies malleability in user behavior. Estimated behavioral parameters reveal that the influence of exposure to diversified feeds is low, but users are not entirely mechanical in sharing the content they are fed. This points towards limited effectiveness of regulatory measures targeting algorithms. Although over three-quarters of the treatment effects are driven by change in overall platform usage, policy counterfactuals demonstrate that combinations of randomized and algorithmic feeds can check dissemination of toxic content, without substantial costs to the platform.

### Working Papers

## A 'Ghetto' of One's Own: Communal Violence, Residential Segregation, and Group Education Outcomes in India

Awards: Winner, Spatial Structures in the Social Sciences Graduate Student Paper Prize (2022)

Presented at: Summer Meetings Econometric Society 2023 (UCLA), Asian Meetings of the Econometric Society 2023 (IIT-Bombay), NEUDC 2022 (Yale), Population Association of America Conference 2022 (Atlanta), Indus Action (New Delhi), Spatial Structures in Social Science Colloquim 2022 (Brown), Annual Conference on Economic Growth and Development 2021 (ISI-Delhi), Brown-MIT Graduate Development Workshop 2021, Brown Applied Microeconomics Graduate Seminar 2020

#### Elections, Leader Identity, and Backlash

Presented at: NBER Conference on Entrepreneurship, Public Policy, and Economics Outcomes 2022 (ISB-Hyderabad), Machine Learning for Economics Summer Institute 2022 (UChicago), Data Science Institute 2022 (Brown), Young Economists' Symposium 2022 (Yale), Development Data Lab, Annual Conference on Economic Growth and Development 2022 (ISI-Delhi)

# Hate Thy Neighbor: Evidence on the Effects of Local News on Political Polarization from a Large-Scale RCT

Presented at: Brown University Applied Micro Lunch Seminar 2023

Internet Shutdowns: Causes and Consequences (with Ro'ee Levy and Martin Mattsson)

## FELLOWSHIPS AND AWARDS

Global Mobility Research Fellowship, Brown University	2023
• Merit Dissertation Fellowship, Brown University	2022
• Center for Contemporary South Asia Teaching Fellowship, Brown University	2021
• Graduate Student Fellowship, Brown University	2018
• Faculty Prize, Lady Shri Ram College, Delhi University	2015
• Exchange Scholarship, National University of Singapore	2014
Grants	
• NSF Dissertation Research Improvement Grant, National Sciene Foundation	2023
• Weiss Fund for Research in Development Economics	2023
$\bullet$ Saxena Center for Contemporary South Asia Summer Fellowship, Brown University	2022
• Orlando Bravo Center for Economic Research Funding, Brown University	2022, 2021
• Saxena Center for Contemporary South Asia Winter Fellowship, Brown University	2021
• Swearer Center Engaged Course Mini-Grant, Brown University	2021
• Graduate Program in Development Summer Funds, Watson Institute, Brown University	2021, 2020
• Stone Wealth and Income Inequality Fund, Brown University	2020
Teaching	
Instructor for Undergraduate Course at Brown University	
• Economic and Human Development in South Asia	2021
Teaching Assistant at Brown University	
• Machine Learning, Text Analysis, and Economics (Professor: Amy Handlan)	2024
• Statistical Methods and Economic Theory for MPA	2022
• Game Theory and Application to Economics (Professor: Roberto Serrano)	2020
• Intermediate Microeconomics (Professor: Fahri Ulusoy)	2020
• PhD Mathematics for Economists (Professor: Alex Poterack)	2019
Instructor for Training Indian Economic Service Officers (GoI) at the Institute for Economic Growth, New Delhi	
• Quantitative Methods in Economics with STATA	2021

## WORK EXPERIENCE

Brown University, Economics Department Research Assistant for Professor Alisa Tazhitdinova Providence, RI 2020

Center for Development Economics, Delhi School of Economics Research Assistant for Professor Mausumi Das New Delhi, India 2017–2018

Ranchi University and IIT-Delhi

Jharkhand/ New Delhi, India

Field Investigator for Professors Jean Drèze and Reetika Khera

2013-2018

## PEER REVIEWED PUBLICATIONS

Impacts of regional lockdown policies on COVID-19 transmission in India in 2020 (with Paul Novosad, *Economic and Political Weekly*, 2022)

Birth Pangs: Universal Maternity Entitlements in India (with Aditi Priya, Economic and Political Weekly, 2020)

## SELECTED WORKS IN PROGRESS

Impact of Personalization Algorithms on Mental Health Outcomes (with Juan Pereira)

Understanding Reporting of Intimate Partner Violence: Evidence from Victim-Level Data (with Marcela Mello and Mahima Vasishth)

#### OTHER

- Organizational Service: Co-founder, Bahujan Economists
- Referee Service: Journal of Development Economics, PLOS One, ACM Journal of Computing and Sustainable Societies
- Conference Organization: Fair February, Data Science Initiative, Brown University; Women in Data Science Datathon, Brown University
- Languages: English (fluent), Hindi (native), Punjabi (advanced), Urdu (elementary)