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REFERENCES

Professor **Andrew Foster**
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Professor **Peter Hull**
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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
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EDUCATION

Brown University Ph.D. Candidate in Economics	Providence, RI, USA 2025 (<i>expected</i>)
Delhi School of Economics M.A. Economics	New Delhi, India 2017
Lady Shri Ram College, University of Delhi B.A. (Honors) Economics Exchange: National University of Singapore	New Delhi, India 2015

TEACHING AND RESEARCH FIELDS

Development Economics, Political Economy, and Economics of Digital Platforms and AI

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, Harvard Grad PE Seminar, 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*

How do profit-driven personalization algorithms compete with user preferences in radicalizing social media users? I conduct an individually randomized experiment with 5 million people replacing feed-ranking algorithms with random content delivery of a prominent TikTok-like platform in India. I find a trade-off: random post recommendation lowers exposure to anti-minority (“toxic”) content by 27%, but at a substantial cost to the platform, as overall platform usage falls by 35%. However, the impact of the policy was blunted as the proportion of toxic posts shared per toxic post viewed increased by 18%. This effect is driven by users with a higher interest in toxic content at baseline, as they sought out posts that the algorithm did not show them. I rationalize these results with a model of an engagement-maximizing algorithm that faces heterogeneous users who choose what social media posts to consume, according to their preferences. Estimated model parameters reveal that user behavior is relatively immalleable, with a 0.16 elasticity of sharing with respect to exposure to toxic posts. This results in limited effectiveness of regulatory measures that target algorithms.

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 Colloquium 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)

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)

WORK EXPERIENCE

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

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

Ranchi University and IIT-Delhi Jharkhand/ New Delhi, India
Field Investigator for Professors Jean Drèze and Reetika Khera 2013–2018

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 Science Foundation 2023
- Weiss Fund for Research in Development Economics 2023
- 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 Analysis for MPA (*Professors Jesse Bruhn, Bryce Steinberg, Neil Thakral, Alex Poterack*) 2022
- Game Theory and Application to Economics (*Professor Roberto Serrano*) 2020
- Intermediate Microeconomics (*Professor Fahri Uhusoy*) 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 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)

OTHER

- **Service:** Co-founder, *Bahujan Economists*
- **Referee:** Journal of Development Economics, PLOS One, ACM Journal of Computing and Sustainable Societies
- **Organization:** Fair February 2022, Data Science Initiative, Brown University; Women in Data Science Datathon 2023, Brown University
- **Affiliations:** Populations Studies and Training Center at Brown, Watson Institute of International and Public Affairs, Saxena Center for Contemporary South Asia
- **Languages:** English (fluent), Hindi (native), Punjabi (advanced), Urdu (elementary)