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EDUCATION

Ph.D., Economics, Boston University, Boston MA, May 2025 (expected)
  Dissertation Title: *Essays in Digital Marketing and Partial Identification*
  Main advisor: Hiroaki Kaido
  Dissertation Committee: Hiroaki Kaido, Marc Rysman, Andrey Simonov

M.A. Econometrics and Mathematical Economics, LSE, London, UK, 2019

M.A. Quantitative Methods in the Social Sciences, Columbia University, New York, USA 2018

B.A., International Politics, Fudan University, Shanghai, China, 2016

FIELDS OF INTEREST

Quantitative Marketing, Applied Econometrics, Applied Microeconomics

WORKING PAPERS

"The Impact of Banning Online Gambling Livestreams: Evidence from Twitch.tv," (with Jasmine Yang and Andrey Simonov), October 2024. Job market paper
"Collaboration Among Content Creators," (with Jasmine Yang and Kinshuk Jerath), July 2023.
"Impulse Response Inferences With Existence of Repeated Roots," July 2024

WORK IN PROGRESS

"Partial Identification Under Multiple Nest Structures"
"Optimal Achievement System Design on Video Game Platforms"

PRESENTATIONS

Interactive Marketing Research Conference, Boston, MA, 2024
China India Insights Conference, Stanford, CA, 2023

FELLOWSHIPS AND AWARDS

Dean's Fellowship, Boston University, 2019-2024
Excellent Student Cadre, Fudan University, 2014
Student Scholarship, Fudan University, 2014-2015

WORK EXPERIENCE

Research Assistant for Prof. Hiroaki Kaido, Boston University, Spring 2022, Spring 2023
Research Assistant for Prof. Jose Montiel Olea, Columbia University, Summer 2017, Winter 2019
Marketing Intern, Harvard Center Shanghai, Shanghai, China, Spring 2015

TEACHING EXPERIENCE

Teaching Fellow, Statistics for Economists, Department of Economics, Boston University, Fall 2023-Fall 2024

Teaching Fellow, Empirical Economic Analysis 2, Department of Economics, Boston University, Fall 2022

Teaching Assistant, Environmental Economics, Department of Economics, Boston University, Fall 2022

Teaching Fellow, Introductory Macroeconomic Analysis, Department of Economics, Boston University, Fall 2020-Fall 2021

COMPUTER SKILLS: R, Python, MATLAB, STATA, LaTeX

CITIZENSHIP/VISA STATUS: China/F1

REFERENCES [Format references in two or three columns to use up extra space as available. 3 or 4 refs are allowed. List references in order of *contribution*, not alphabetically.]

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QIFAN HAN

The Impact of Banning Online Gambling Livestreams: Evidence from Twitch.tv (Job Market Paper, *with Jasmine Yang and Andrey Simonov*)

The necessity of content regulation on digital platforms, particularly concerning misinformation and harmful content, has sparked a growing debate. While many platforms have increasingly relied on self-regulation to address these issues, the effectiveness of such measures remains uncertain, as platforms may prioritize profits over consumer protection, potentially leading to misaligned incentives with regulators. We investigate the effectiveness and market outcomes of content self-regulation by studying Twitch's ban on online gambling livestreams in October 2022, using a novel high-frequency panel dataset covering the top 6,000 Twitch streamers. To identify banned content and streamers affected by the policy, we leverage video analysis on historical video clips, high-frequency stream titles, and in-stream chat analysis. To tackle key identification challenges, we use three causal estimators: two-way fixed effects DiD, Synthetic DiD, and the doubly-robust estimator of group-time average treatment effects, and propose a network analysis to construct valid treated and control groups. On the supply side, we find that the policy caused a reduction in weekly gambling streams by 63.2% for streamers whose content was banned and 12.2% for streamers whose content was not banned. However, the policy also decreased non-gambling streams as an unintended cost for the platform, resulting in an overall reduction in content production and diversity. Additionally, the more popular streamers experienced a higher content reduction, driven by two underlying mechanisms: lower reliance on gambling content and concerns for reputation. On the demand side, we find that the policy only reduced total viewership and low-tier subscriptions, with revenue from loyal viewers unaffected. We discuss the implications of Twitch's policy ban and the broader practices of content self-regulation on platforms in general.

Collaboration Among Content Creators (*with Jasmine Yang and Kinshuk Jerath*)

We study content collaboration in the creator economy, in which competing creators mutually agree to collaborate on joint content and negotiate on content production and revenue sharing. Using a game theory model with creators competing for consumers on a Hotelling line, we show that collaboration allows creators to use the jointly-produced content to moderate competition, while using their individual content to expand into new audiences. This increases content diversity but also leads to increased monetizability of content. In general, collaboration among creators has an effect of increasing the profits of creators while reducing consumer surplus. When creators create content with heterogeneous entertainment values, the creator producing content of lower entertainment value has an incentive to free ride on the collaborative content. This free riding may increase surplus for consumers (who without collaboration would watch content of low entertainment value), thereby improving creators' profits as well as consumer surplus. Our results provide guidance to content creators, to platforms designing tools to facilitate collaborations, and to policy makers.

Impulse Response Inferences With Existence of Repeated Roots

Vector Autoregression (VAR) and Local Projection (LP) are two popular methods of estimating the impulse response functions (IRFs) and conducting inferences in macroeconomic studies. However, it remains unclear which one should be a better choice in empirical practices. This paper extends existing works on the comparison between Vector Autoregression and Local

Projection methods, by considering inferences when the data generating processes involve repeated roots. I show that the autoregressive estimation of impulse response functions will converge to a special type of real-valued random variable, resulting in conservativeness of the widely-used bootstrap Efron confidence interval, even when the roots are away from the unit circle. This property of conservativeness becomes even more severe in the following cases: 1) when the time series is highly persistent; and 2) when the researcher is interested in impulse response functions at intermediate or long horizons. The theoretical results are supported by Monte Carlo simulations with different values of roots in a variety of model specifications, including AR(2), AR(3) and VAR(1).