Research Statement

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1. Overview

My research examines how government regulations and digital technologies influence youth behavior, family decisions, and human capital formation in emerging economies, with a focus on China. I combine quasi-experimental methods—such as difference-in-differences, regression kink, and event-study designs—with advanced data and computational tools, including automated data collection, large-scale data processing in Python, and causal inference in Stata. In addition to empirical analysis, my training includes theoretical and structural modeling, which I use to interpret behavioral mechanisms and policy design. Broadly, my work lies at the intersection of development, education, and digital economics, integrating data-intensive empirical work with economic modeling to better understand how regulation and institutions shape welfare and inequality.

2. Job Market Paper

"Restricting Video Games in China: Effects on Time Use, Educational Achievement, and Health."

This paper, currently under *major revision* at the *Journal of Development Economics*, studies one of the world's most stringent digital regulations: China's 2021 restriction that limits minors' online gaming to one hour per day on weekends. The policy aimed to curb gaming addiction and improve youth development, yet it also raised concerns about enforcement, evasion, and welfare consequences. I use nationally representative panel data from the China Family Panel Studies (CFPS, 2012–2022) to quantify how the curfew reshaped minors' time use, academic outcomes, and well-being. To identify causal effects, I combine a difference-in-differences framework exploiting the age-based treatment cutoff with a complementary regression kink design that leverages variation in policy exposure intensity across academic settings.

The results show that the restriction sharply curtailed gaming and total Internet use among minors, but produced no measurable gains in study time, academic performance, or health indicators. Instead, self-reported well-being declined slightly, suggesting that reduced leisure was not offset by productive reallocation. Evidence from the regression kink design using administrative exam data further reveals that only in highly competitive, academically intensive environments—such as academic-track high schools—did reduced gaming translate into modest test-score improvements. These findings clarify when and why strict behavioral regulations can alter digital engagement without necessarily improving human capital, contributing to broader debates on policy design, compliance incentives, and youth welfare in the digital economy.

The paper contributes to three strands of literature. First, it advances the growing empirical research on digital regulation and behavioral policy by providing large-scale, micro-level evidence from a natural setting where compliance is mandatory and enforcement is algorithmic. Unlike

previous studies focusing on voluntary screen-time interventions or parental controls, this analysis evaluates a nationwide, externally imposed restriction that affects millions of minors simultaneously. Second, it adds to the human capital and time-use literature by documenting how policy-induced reductions in leisure do—or do not—translate into academic or health benefits. The results highlight that behavioral substitution is often incomplete: adolescents curtailed gaming but did not reallocate time toward productive or restorative activities. Third, the study complements emerging work on market and institutional responses to digital regulation, showing that schools, parents, and game companies all play a role in mediating the policy's ultimate effects.

From a policy perspective, the findings underscore both the power and the limits of state-led behavioral regulation in the digital era. Strict enforcement can successfully curtail screen exposure, but its effectiveness in improving human capital depends critically on the surrounding institutional environment and the availability of complementary supports—such as academic guidance, recreational alternatives, and mental-health resources—that help adolescents channel freed time productively. More broadly, the study illustrates how quasi-experimental evaluation can inform the design of digital governance policies, offering lessons for other countries grappling with similar concerns over youth well-being, technology use, and education in an increasingly connected world.

3. Second Paper: Working Paper

Restricting Minors' Online Gaming: Compliance, Evasion, and Market Responses in China. This paper complements my job market research by examining the same 2021 gaming restriction from a market and industry perspective. Using large-scale mobile application data that I collected through automated web scraping and Python-based processing, I construct a novel database covering historical downloads, revenues, and user activity for thousands of games before and after the policy. Event-study and difference-in-differences analyses show that the regulation sharply reduced activity in youth-oriented games, while effects on adult games were smaller and often offset by strategic adjustments such as shifting content or targeting adult users. Gaming activity declined on weekdays but concentrated on permitted weekends, reflecting behavioral adaptation under tight constraints. The results reveal heterogeneous behavioral and market responses to digital regulation in a developing economy and demonstrate how automation and big-data methods can expand empirical research on technology policy.

4. Third Paper: Research in Progress

Property Rights and Family Formation: Evidence from China's 2011 Marriage Law Interpretation. This paper investigates how legal clarification of premarital property rights affected marriage and fertility decisions in China. Using the one-percent population census microdata—which cover tens of millions of individuals nationwide—I exploit the 2011 judicial interpretation of the Marriage Law as a quasi-experimental shock that strengthened the separation of premarital assets between spouses. The results show that the reform reduced marriage rates and delayed childbirth, especially among urban and higher-educated women, consistent with increased perceived financial risks of marriage. These findings contribute to understanding the ongoing de-

cline in marriage and fertility rates in China and highlight how property-rights institutions influence family formation, gender dynamics, and long-term demographic change in developing economies.

5. Future Research Agenda

Building on my current projects, I plan to extend my research on digital governance, family behavior, and human capital formation along several complementary dimensions. First, I aim to examine the longer-term impacts of China's 2021 gaming restriction as new survey and administrative data become available, linking early behavioral changes to later educational, psychological, and labor-market outcomes. Second, I plan to expand the second chapter—which currently focuses on policy evaluation—toward a more structural and industrial-organization perspective, modeling firms' strategic adaptation and the welfare implications of regulatory design. Third, I will complete and extend my ongoing work using one-percent population census data on marriage and fertility, continuing to explore how legal and institutional reforms shape demographic dynamics in China.

In parallel, a new project investigates the effects of China's "monetized shantytown redevelopment" program on housing markets and fertility decisions, providing another perspective on how large-scale policy interventions reshape household behavior and intergenerational welfare. More broadly, my future research will integrate administrative and web-scraped big data with causal inference and structural modeling to study how state interventions and market forces jointly influence well-being in the digital and urbanizing economy.

6. Concluding Remarks

Together, these projects build a unified research agenda on how digital regulation and institutional design shape individual behavior, family decisions, and human capital formation in emerging economies. By combining quasi-experimental methods, large-scale data, and policy-relevant questions, my work seeks to advance both the empirical foundations of development economics and the practical design of effective, evidence-based regulation in the digital era.

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