RURU (JUAN RU) HOONG

ruruhoong@g.harvard.edu
Cell +1(617)682-2668
ruruhoong.com

HARVARD UNIVERSITY

Littauer Center 315
1805 Cambridge St
Cambridge MA 02138

Placement Director: Myrto Kalouptsidi myrto@fas.harvard.edu 617-495-2144
Placement Director: Oleg Itskhoki itskhoki@fas.harvard.edu 617-495-2144
Administrative Director: Brenda Piquet bpiquet@harvard.edu 617-495-8927

Education

Harvard University
Ph.D. Business Economics, 2020 to 2026 (expected)

Stanford University
B.A. Economics with Honors and Distinction, 2019
Phi Beta Kappa, Firestone Medal

Fields

Digital Economics & AI, Behavioral, Labor

References

Jesse Shapiro (chair)
jesse.m.shapiro@gmail.com

Katie Coffman
katie.b.coffman@gmail.com

Shane Greenstein
sgreenstein@hbs.edu

David Yang
davidyang908@gmail.com

Affiliations

Institute for Quantitative Social Science, Stanford Impact Labs, D^3 Data Science & AI Ops

Teaching

Economic Analysis I and Economic Analysis II, Stanford University, 2017-2018
The Political Economy of Modern China, Harvard University, 2022

Employment

Boston Consulting Group, Associate, London, 2019-2020
Boston Consulting Group, Summer Associate, Boston, 2018
World Bank, Intern, Washington DC, 2018
Government of Singapore Investment Corporation, Summer analyst, Singapore, 2017
Ministry of Finance, Social Programmes Research Intern, Singapore, 2015
Ministry of Education, School Planning and Placement Intern, Singapore, 2015

Research Assistantships

Stanford Institute for Economic Policy Research (SIEPR),
Muriel Niederle, Matthew Gentzkow, and Paul Oyer, 2017-2019

Job Market Paper

Calibrated Coarsening: Designing Information for AI-Assisted Decisions, *with Bnaya Dreyfuss*

Artificial intelligence (AI) is increasingly used to aid human decision-making across critical applications, but errors in human probabilistic reasoning (e.g., cognitive biases) often undermine its effectiveness. This raises the central design question of how to provide AI input to humans in a way that improves decision-making outcomes. We propose calibrated coarsening—partitioning the signal space into fewer cells at chosen thresholds—as a way to do so that (i) ensures humans retain final decision authority, (ii) modifies signals without deception, and (iii) adapts flexibly to diverse biases and contexts. Within an information disclosure framework, we derive an approximately optimal universal coarsened policy when the designer does not observe the decision-maker's information. We then empirically demonstrate in a randomised experiment with professional loan specialists that coarsening AI signals at the theory-derived threshold significantly improves decision-making outcomes, over both the human-only (based solely on the loan application) and uncoarsened AI (assisted with continuous AI risk-score) benchmarks. We uncover substantial decision heterogeneity amongst loan officers and estimate a Bayesian hierarchical model to personalise coarsening policies, which we then test in a two-stage experiment.

Publications

Self Control and Smartphone Use: An Experimental Study of Soft Commitment Devices, *European Economic Review*, Vol 140, November 2021.

Case Studies

Riiid: Scaling AI Educational Services Globally, Harvard Business School Case 324-030, *with John Jong-Hyun Kim and Nancy Dai*

Working Papers

Encouraging Digital Wellness at Scale: Experimental Evidence from 13 Million Social Media Users, *with Peter Hickman & Yulu Tang*

Equitable Resource Allocation in AI-Driven Education (Draft available upon request), *with Hyunbin Loh, Yejin Han, Chanyou Hwang & Younghoan Cho*

Papers in Progress

Uneven Organizational Gains: GenAI's Impact on Worker Specialization and Task Complexity

AI and Wellbeing, *with Emanuel Schertz*

Optimal Unstructured VoiceAI, *with Pellumb Reshidi, Luca Henkel and Brian Jabarian*

Screen Time Limits and Youth Mental Health: Evidence from a Randomized Experiment, *with Luca Bragheiri, Sarah Eichmeyer, Matthew Gentzkow and Angela Yuson Lee*

Privacy Preferences around the World, *with Andrew Kao and David Yang*

Unreliable Electricity, *with David Lagakos and Francesco Nuzzi*

Seminars & Conferences

2025
Production and Operations Management Society
Columbia Business School Management, Analytics, Data Science Conference
Wharton AI & Future of Work Conference
Behavioral Operations Conference
ZEW Conference on Economics of Information and Communication Technologies
Academy of Management Annual Meeting
National University of Singapore Business School
Singapore Management University
University of Chicago Machine Learning in Economics Summer Conference
Stanford Institute for Theoretical Economics, Experimental Economics
Chinese University of Hong Kong Business School
Hong Kong University Business School
University of Chicago AI in Social Science Conference
Massachusetts Institute of Technology Initiative on the Digital Economy
University of Chicago Booth School of Business
Northwestern University Kellogg School of Management
Massachusetts Institute of Technology Sloan School of Management
CIST (Best Conference Paper, Runner-Up)
INFORMs
[*Scheduled*] Stanford GSB, UCL School of Management, Conference on Digital Experimentation
MIT, Bocconi School of Management, UCSB Economics, CBS AI/ML Conference

Academic Service

Referee for: *American Economic Review, American Economic Review: Insights, Review of Economics and Statistics, Review of Law and Economics*

Research Grants

Social Science Research Council Graduate Research Fellowship
NUS Development Grant
Harvard Business School and Harvard Economics Student Grants
Institute for Quantitative Social Science Research Grant

Languages

English (Native), Mandarin (Professional), French (Basic)