RAN ZHUO

CONTACT INFORMATION

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PERSONAL INFORMATION

Nationality: Chinese
Gender: female

UNDERGRADUATE STUDIES

Dartmouth College, Hanover, NH August 2013 – June 2017
B.A., summa cum laude, Economics with High Honors and Mathematics with High Honors, class valedictorian

GRADUATE STUDIES

Harvard University, Cambridge, MA August 2017 – present
Ph.D. Candidate in Business Economics
Fields: Innovation, Industrial Organization

Reference:
Professor Shane Greenstein
Morgan Hall 439
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RESEARCH INTERESTS

My research interests are innovation and industrial organization, especially in the context of digitization. I strive to understand the catalysts for innovation and the welfare impact of new technologies. I am also interested in a range of new policy questions that emerge due to diffusion of new technologies.

WORKS IN PROGRESS

The Impact of Automation on Innovation: Evidence from Protein Research
Exploiting random successes of NIH-funded experiments that generate input data for AI tools used in protein research, I study the impact of employing these tools on the productivity of scientific research and commercial innovation on the protein level.

Firm Investment in Web Servers, with Raviv Murciano-Goroff and Shane Greenstein.
We investigate determinants of firms' choices between open source and proprietary web servers.

WORKING PAPERS

The Impact of the General Data Protection Regulation on Internet Interconnection, with Bradley Huffaker, kc claffy and Shane Greenstein.
We collaborate with the Center for Applied Internet Data Analysis (CAIDA) at UCSD and use novel Internet topology data to study the impact of the GDPR on the growth and interconnectedness of the Internet in Europe.

Sniff Tests in Economics: Aggregate Distribution of Their Probability Values and Implications for Publication Bias, with Christopher Snyder. NBER Working Paper No. 25058.
We collect a large sample of auxiliary tests (balance, placebo, etc.) from 60 economics journals. These tests offer a new window into publication bias since authors prefer them to be insignificant, the reverse of standard statistical tests. We provide the first estimate of their aggregate p-value distribution and find evidence consistent with bias against significant results.

An Evolutionary Game-Theoretical Model of Disease Transmission with Imperfect Vaccination in Social Networks, with Feng Fu.
We study the free-rider problem in vaccination decisions when vaccines are imperfect and individuals acquire information about vaccine effectiveness from their social networks. We find two separate equilibrium vaccination rates for high initial vaccination and low initial vaccination, providing evidence in support of funding vaccination campaigns to boost initial vaccination rates.

JOURNAL PUBLICATIONS

Do Low-Price Guarantees Guarantee Low Prices? Evidence from Competition between Amazon and Big-Box Stores, *Journal of Industrial Economics*, December 2017, vol. 65, no. 4, pp. 719–738.
Using novel price data from online price trackers, I examine prices of goods sold on Amazon before and after two big-box stores (Target and Best Buy) announced a guarantee to match Amazon's prices. I robustly estimate a positive causal effect of six percentage points. My results support anticompetitive theories which predict price increases for Amazon.

HONORS & GRANTS

2017–2022	Harvard Graduate Student Fellowship
2018	Jonathan B. Rintels Prize
2017	Lewis H. Haney Prize in Economics, Mina Warren Scholarship Prize, William H. Neukom 1964 Scholar Award, Dartmouth Economics Department Outstanding Achievement Award, Nelson A. Rockefeller Prize in Economics, James O. Freedman Presidential Scholar
2014–2017	Rufus Choate Scholar
2015–2016	Dartmouth Economics Research Scholar
2016	Charles G. & Alma Milham Grant, Phi Beta Kappa Early Inductee
2015	Dartmouth Book Arts Grand Prize, Sophomore Science Scholar, Research Grant from the Lucas Family Fund for Undergraduate Research, Neukom Travel Grant, Phi Beta Kappa Sophomore Prize
2013	Amy H. and James S. Regan 1964 Scholarship

PRESENTATIONS

2018	Berkeley Initiative for Transparency in the Social Sciences, UC Berkeley
2017	Department of Economics, Dartmouth College
	Department of Mathematics, Dartmouth College
2016	Columbia Business School
	Department of Mathematics Poster Session, Dartmouth College
2015	The Society for Mathematical Biology Annual Meeting, Atlanta, GA
	Department of Mathematics Poster Session, Dartmouth College
	Karen E. Wetterhahn Science Symposium, Dartmouth College

COMPUTER SKILLS

Stata, Python, Matlab, R, Java, LaTeX

OTHER PUBLICATIONS

Zhuo, Ran. 2015. "Ghost in the Shell," Hanover: Dartmouth College Library Collection; Dunedin: University of Otago, Special Collections. Letterpress print.

Zhuo, Ran. 2012. *John's Adventure in Englishland*. Hangzhou: Zhejiang Youth and Children's Publishing House.