

SETH G. BENZELL

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EDUCATION

- Ph.D., Economics, Boston University, Boston MA, May 2017
Dissertation Title: *Essays in the Economics of Automation and Networks*
Main advisor: Laurence Kotlikoff
- B.A., Economics, minor in Political Science (*Magna Cum Laude*), Tulane University, New Orleans LA, May 2012
- B.S., Physics and Mathematics, Tulane University, New Orleans LA, May 2012

FIELDS OF INTEREST

Economics of Digitization, Public Economics

PUBLICATIONS

- “A Network of Thrones: Kinship and Conflict in Europe, 1495 – 1918,” (with Kevin Cooke), July 2019, *Accepted at AEJ: Applied Economics*
- “Macroeconomic Effects of Reducing OASI to Payable Benefits: A Comparison of Seven Overlapping Generations Models” (with convening authors Jaeger Nelson and Kerk Phillips, others contributing), *Forthcoming at National Tax Journal, December 2019*
- “Can Russia Survive Economic Sanctions?” (with Guillermo Lagarda), *Asian Economic Papers*, Volume 16, Issue 3, Fall 2017

WORKING PAPERS

- “Multi-Sided Platform Strategy, Taxation, and Regulation: A Quantitative Model and Application to Facebook” (with Avinash Collis) – Job Market Paper
- “Digital Abundance and Scarce Genius: Implications for Interest Rates, Wages, and Growth” (with Erik Brynjolfsson), February 2019
- “The Paradox of Openness: Exposure vs. Efficiency of APIs,” (with Jonathan Hersh Guillermo Lagarda and Marshall Van Alstyne), July 2019, *Reject and Resubmit at Management Science*
- “Do Labor Demand Changes Occur Within Firms or Across Them: Non-Routine Biased Technological Change, 2000-2016” (with Guillermo Lagarda and Daniel Rock), July 2019
- “Robots Are Us: Some Economics of Human Automation” (with Laurence Kotlikoff, Guillermo Lagarda and Jeffrey Sachs), May 2019
- “Robots: Curse or Blessing? A Basic Framework” (with Jeffrey Sachs and Guillermo Lagarda), January 2019
- “70 Years of US Corporate Profits” (with Simcha Barkai), April 2018
- “Identifying the Multiple Skills in Skill Biased Technical Change” (with Erik Brynjolfsson, Francis MacCrory, and George Westerman), July 2019
- “Simulating Business Cash Flow Taxation: An Illustration Based on the 'Better Way' Corporate Tax Reform” (with Laurence Kotlikoff and Guillermo Lagarda), August 2017.
- “Simulating the Republican "United Framework" Tax Reform Plan” (with Laurence Kotlikoff and Guillermo Lagarda), October 2017.

BOOK CHAPTERS

- “A One Sector Model of Robot Immiseration” (with Jeffrey Sachs and Guillermo Lagarda). *Digitized Labor: The Impact of Internet on Employment*. Edited by Lorenzo Pupillo, Eli Noam and Leonard Waverman. 2018.

PRESENTATIONS

- 2020:** AEA Annual Meeting, *discussant*, Atlanta (scheduled)

December 2019

2019: Workshop on Information Systems and Economics, Munich (scheduled); INFORMS, Seattle; Conference on Information Systems and Technology, Seattle; Bank of Canada Annual Research Conference, *discussant*, Ottawa; Wharton People and Organization Conference, Philadelphia; NBER Economics of AI Conference, Toronto; BU Platform Strategy Research Symposium; World Bank Seminar on “The Future of Firms in the Digital Economy,” Washington DC; National Tax Association Spring Symposium, Washington DC; Boston College Digital Innovation Workshop; Digital Taxation Forum, Prague; Tulane Freeman School of Business; Tulane Department of Economics; Inter-American Development Bank Consultation with Caribbean Governors and Development Bank, *panelist*, Washington DC; AEA Annual Meeting, *discussant*, Atlanta

2018: Congressional Budget Office OLG Modeling Symposium Washington DC; Centro Singular de Investigación en Tecnologías de Información Santiago, Spain; AFI International Conference on “Will Robots Pay for Our Pensions?” Madrid; 14th Joint ECB/CEPR Labour Market Workshop Frankfurt; CEPR Macro and Growth Meeting, Manchester UK; Chicago Fed-Notre Dame Conference on Labor Market Dynamism, Chicago; 15th European Network on the Economics of the Firm (ENEF) Meeting on “Firm Automation in the Era of Artificial Intelligence” Brighton UK; Symposium on Statistical Challenges in Electronic Commerce Research, Rotterdam; MIT IDE Annual Conference; CFE Tax Advisors Forum on the Fair Taxation of the Digital Economy, Brussels; IE Business School, Madrid; Universidad Autónoma de Madrid, Madrid, Spain; Camara Madrid (Madrid Chamber of Commerce) Spain; Circulo de Economia, Barcelona; Barcelona Graduate School of Economics; Tulane University Economics Department

2017: MIT Sloan Organizational Economics; Southern Economic Association Annual Conference, Tampa; MIT Conference on Digital Experimentation, *poster*; BU Platform Strategy Research Symposium, *discussant*; NBER Productivity Lunch Seminar, Cambridge MA; Conference on the Economics of Intellectual Property, Software and the Internet, Toulouse

2016: Workshop on Information Systems and Economics, Dublin; EHA Annual Conference, Boulder CO; BU Platform Strategy Symposium; Economic History and Cliometrics Conference, Universidad Católica de Chile; Henan University; Chinese Economists Society Annual Meeting, Shenzhen

2015: Brown University HCRI Societal Impact of Robotics Symposium, *panelist*, Providence; Gaidar Forum, Russian Presidential Academy of National Economy and Public Administration, Moscow

FELLOWSHIPS, AWARDS AND GRANTS

Co-Principal Investigator, Sloan Foundation Grant for “Studying AI’s Potential Macroeconomic Impacts and its Ability to Guide Microeconomic Choice.” \$250,000, 2020-2022

Research Fellowship, Boston University, Fall 2013 – Spring 2017

Tulane ‘TREUAMPE’ Research Fellowship, Spring 2010 – Spring 2012

Presidential Scholarship, Tulane University

ACADEMIC WORK EXPERIENCE

TA and Mentor for Analytics Lab (MIT Sloan Analytics Capstone), Fall 2017, 2018, 2019

Postdoctoral Associate, MIT Initiative on the Digital Economy, June 2017 – June 2020

Research Assistant for Laurence Kotlikoff, Boston University, Fall 2013 – Spring 2017

Research Assistant for Keith Finlay, Tulane University, Spring 2010 – Spring 2012

REFeree EXPERIENCE

Journal of the European Economic Association, European Economic Review, AEJ: Economic Policy, Oxford University Press, The Journal of Economic Inequality, Commitment to Equity Handbook, The B.E. Journal of Theoretical Economics, Economic Modelling, Economic Inquiry, Macroeconomic Dynamics, British Journal of Political Science, Production and Operations Management

REFERENCES

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Multi-Sided Platform Strategy, Taxation, and Regulation: A Quantitative Model and Application to Facebook (Job Market Paper)

Digital platforms, and those who would regulate or tax them, must take into account both heterogeneity in elasticity of demand as well as heterogeneous network effects provided by and to users on different sides of the market. We construct and illustrate a practical approach for calculating optimal monetization strategy, the social welfare implications of a change in regulatory policy, taxation, or market structure, and changes in platform value or participation after a demand shock. We parameterize our model using data from a survey of over 40,000 US internet users on their demand for Facebook. We simulate several proposed interventions, including mandated interoperability, break-up, and taxation of advertising revenues.

Robots Are Us: Some Economics of Human Automation

Will smart machines do to humans what the internal combustion engine did to horses—render them obsolete? If so, can putting people out of work or, at least, good work leave them unable to buy what smart machines produce? Our model's answer is yes. Over time and under the right conditions, today's supply reduces tomorrow's demand, leaving everyone worse off in the long-run. Carefully crafted redistribution policies can prevent such immiserating growth. But blunt policies, such as limiting intellectual property rights or restricting labor supply, can make matters worse

Digital Abundance and Scarce Genius: Implications for Wages, Interest Rates, and Growth

Digital labor and capital can be reproduced much more cheaply than its traditional forms. But if labor and capital are becoming more abundant, what is constraining growth? We posit a third factor, 'genius,' that cannot be duplicated by digital technologies. Our approach resolves several macroeconomic puzzles involving automation and secular stagnation. We show that when capital and labor are sufficiently complementary to genius, augmentation of either can lower their price and income shares in the short and long run. We consider microfoundations for genius as well as consequences for government policy.

A Network of Thrones: Kinship and Conflict in Europe, 1495 – 1918

We construct a database linking European royal kinship networks, monarchies, and wars to study the effect of family ties on conflict. To establish causality, we exploit decreases in connection caused by apolitical deaths of rulers' mutual relatives. These deaths are associated with substantial increases in the frequency and duration of war. We provide evidence that these deaths affect conflict only through changing the kinship network. Over our period of interest, the percentage of European monarchs with kinship ties increased threefold. Together, these findings help explain the well-documented decrease in European war frequency.