Michael Webb

NBER PhD Workshop on the Economics of Artificial Intelligence

Application for travel support

Contact information, including email address.

Email: mww@stanford.edu

Phone: (+1) 415-972-9560

Address: 610 Bowdoin Lane, Apt 403D
Stanford
CA 94305
USA

Website: https://www.michaelwebb.co

A one page CV, including key coursework, major (and minor if applicable) focus of study.

See next page.

A maximum 300 word summary of their interest in AI.

I'm a fifth-year Ph.D. student in Economics at Stanford. The central theme of my research is the impact of artificial intelligence on the labor market. In my Job Market Paper, a version of which I have submitted to the main conference, I (1) construct a new measure of the exposure of occupations to automation by quantifying the overlap between the text of patents and the text of job descriptions; (2) show that this exposure measure successfully predicts the labor market effects of previous episodes of technological change such as software and industrial robots; and (3) calibrate a model of technology adoption and the labor market using these historical episodes, which I then project forwards to predict the impact of AI using the many AI patents that have been filed to date.

I previously worked at Google DeepMind, where I led internal research on the expected short- and long-run trajectories of DeepMind's AI systems. I also served on DeepMind's commercial strategy committee and collaborated with its multiagent reinforcement learning research group.

I have advised a number of groups about AI, including many venture-backed Silicon Valley CEOs, the United States House of Representatives, Her Majesty's Treasury, and the Vatican.

Michael Webb — Revised: 05-15-2019

CONTACT INFORMATION

Department of Economics, Stanford University
579 Serra Mall, Stanford, CA 94305, USA

Tel: +1 415-972-9560
E-mail: mww@stanford.edu

EDUCATION

Stanford University, Stanford, CA, USA — **9/2014 – present**

PhD Candidate Economics

Massachusetts Institute of Technology, Cambridge, MA, USA — **8/2012 – 8/2013**

SM Political Science (with Economics and Mathematics)

Balliol College, University of Oxford, Oxford, UK — **9/2008 – 6/2012**

BA Hons (Double First Class, top in year), Philosophy, Politics, and Economics

RESEARCH INTERESTS

Primary fields: economics of artificial intelligence, labor economics, economic growth

Secondary fields: econometrics, public finance, economic history

Key coursework: Stanford Economics PhD core, labor, macro, public, and computational sequences; Machine Learning Summer School (2015), graphical models, convex optimization, machine learning and causal inference, deep learning (audited), NLP with deep learning (audited)

FELLOWSHIPS, HONORS, AND AWARDS

Stanford Human-Centered Artificial Intelligence Seed Grant, 2019

George P. Shultz Graduate Student Fellowship in Economic Policy, 2016, 2017

Stanford Europe Center Grant, 2016, 2017

Future of Life Institute Research Fellowship, 2015

Fulbright Scholarship (declined), 2014

ESRC Doctoral Studentship (4 years, UK equivalent of NSF GRF, declined), 2014

American Heart Association Stamler Research Award for New Investigators Finalist, 2014

Hicks and Webb Medley Prize (best economics undergraduate at Oxford), 2012

John Hicks Foundation Prize (best econometrics undergraduate at Oxford), 2012

MEDIA COVERAGE

Wall Street Journal, The Economist, Forbes, Fortune, The Times, Washington Post

RESEARCH PAPERS

"Are Ideas Getting Harder to Find?" (with Nicholas Bloom, Charles I. Jones, and John Van Reenen), Revise & Resubmit at *American Economic Review*, 2019.

"Some Facts of High-Tech Patenting" (with Nicholas Short, Nick Bloom, and Josh Lerner), *NBER Working Paper*, 2018.

"A Cross-Country Comparison of Dynamics in the Large Firm Wage Premium" (with Emanuele Colonnelli, Joacim Tg, and Stefanie Wolter), *AEA Papers and Proceedings*, 2018.

"Population Strategies to Decrease Sodium Intake: A Global Cost-Effectiveness Analysis" (with Saman Fahimi, Gitanjali M Singh, Shahab Khatibzadeh, Renata Micha, John Powles, and Dariush Mozaffarian), *British Medical Journal* 356: i6699, 2017.

Book Chapter: **Effectiveness of Dietary Policies to Reduce Noncommunicable Diseases**, *Disease Control Priorities in Developing Countries*, Third Edition, Washington, DC: World Bank, 2017.

RESEARCH IN PROGRESS

"The Impact of Artificial Intelligence on the Labor Market"

"How Does Automation Destroy Jobs? The 'Mother Machine' in British Manufacturing, 2000-2015" (with Daniel Chandler)

"On-the-job Training and Human Capital: An Equilibrium Search Model of Wage Dynamics" (with Richard Blundell, Monica Costa Dias, and Costas Meghir)