ALEXANDER COPESTAKE

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Statement of Interest

I am very interested in the impact of new technologies on growth and labor markets, particularly in developing countries. With Katherine Stapleton and Ashley Pople, I am currently working on a paper on the impact of AI on wage growth in India, using novel data from India's largest job postings website (paper here; we have also submitted to the EoAI Conference). In the broader automation space, I am also working with researchers at the World Bank on a paper investigating the effects of industrial robotics on developing countries (abstract below). I attended the NBER Economics of Digitization Tutorial in March, and found it very helpful for understanding the research frontier in this area and for starting to get to know the community. Building on this I am very keen to also attend the Economics of AI Workshop to do the same in the more specific AI space.

Education:

BA Philosophy, Politics & Economics, Balliol College, University of Oxford 2015
MSc Economics for Development (with Distinction), University of Oxford 2017

DPhil candidate in Economics, University of Oxford, 2017 to present
Thesis title: "*China, AI and Liberalization: Essays in Applied Microeconomics*"
Fields: International Trade, Development Economics
Expected completion date: Summer 2021

References:

Professor Chris Woodruff
Queen Elizabeth House, University of Oxford
christopher.woodruff@qeh.ox.ac.uk

Professor Peter Neary
Economics Dept., University of Oxford
peter.neary@economics.ox.ac.uk

Professor Ian Goldin
Oxford Martin School, University of Oxford
ian.goldin@oxfordmartin.ox.ac.uk

Teaching Experience:

2020-21	International Trade – MSc Development Economics for Dr Jin Ho Kim
2019-21	Development Economics – Undergraduate Economics for Dr Sanjay Jain
2019-20	Econometrics – Ph.D. Continuing Education for Professor Jonathan Michie

Research Experience:

2/2021-present	Short Term Consultant, Development Research Group, World Bank
3-9/2020	Research Assistant, Professor Ian Goldin, University of Oxford
6-8/2019	Fund Internship Program, International Monetary Fund, Washington D.C.
8-9/2017	Research Assistant, Professor Christopher Woodruff, University of Oxford

Honors, Scholarships, Awards:

2020	CSAE Grant for purchase of data on Indian services firms
2019	CSAE Travel Grant for exploratory fieldwork in India
2019	Geoff Riddell Scholarship, Vincent's Club, Oxford
2017	Kellogg Progress Scholarship, Clarendon Fund, Oxford
2016	Harvard Business School Credential of Readiness

2015	First in year, Development Economics Finals, Oxford
2015	Second in year, Economics of the Environment Finals, Oxford
2015	Westerman Pathfinders Scholarship, Balliol College, Oxford
2014	NT Huxley Exhibition, Balliol College, Oxford

Presentations:

2021	Ruhr Graduate School in Economics, Oxford CSAE Conference, Royal Economics Society Symposium, University of Pretoria
2020	Oxford Trade Economics Workshop, Oxford Blavatnik School of Government, University of Warwick
2019	Queen Mary University of London, International Monetary Fund Fiscal Affairs Department

Research Papers in Progress:

"***AI, firms and wages: Evidence from India***"
(with Katherine Stapleton and Ashley Pople)
We examine the impact of artificial intelligence on hiring and wages in the service sector using a novel dataset of 15 million vacancy posts from India's largest jobs website. We first document a rapid rise in demand for AI skills since 2016, particularly in the IT, finance and professional services industries. Vacancies demanding AI skills list substantially higher wages, but require more education and are highly concentrated in the largest firms and a small number of high-tech clusters. Exploiting plausibly exogenous variation in exposure to advances in AI technologies, we then examine the impacts of establishment demand for AI skills as a proxy for AI adoption. We find that growth in AI demand has a direct negative impact on the growth of non-AI and total job posts, and reduces the growth of wage offers across the distribution.

"Robots and trade: Implications for developing countries"
(with Erhan Artuc, Paulo Bastos and Bob Rijkers)
We examine the effects of robotization on developing countries, extending the Ricardian model of Artuc, Bastos and Rijkers (2018) and drawing on new firm-level robotization data from eleven developing countries. We present four main results. First, robot adoption in advanced economies can ultimately benefit workers in developing countries through lower prices and increased demand for intermediate inputs – though there may be adverse effects in the short run, particularly for the least mobile workers. Second, continued Chinese subsidization of robots is likely to reduce China's trade with OECD countries, while increasing that with developing countries – as China's profile of comparative advantage increasing aligns with the former. Third, larger and more globally-connected firms in developing countries are more likely to adopt robots, aligning with findings in developed countries, as they can afford the fixed costs of upgrading, and value the resulting precision more highly. Fourth, these firms expand post-adoption, increasing the competitive pressure on the smaller, less international firms in which those workers most vulnerable to replacement by robots are also more likely to work.

Research Papers:

"***Multi-product firms, networks and quality-upgrading: Evidence from China in India***"
This paper exploits China's accession to the WTO to investigate the propagation of a supply shock across the Indian production network. Consistent with a model of multi-product manufacturers gaining access to higher-quality components, a fall in input tariffs raises revenue, quality and prices whilst lowering quality-adjusted prices and the probability of product exit. Upgrading persists for at least ten years; at the peak in 2010, products with a 10% higher pre-accession input tariff, and hence a larger post-accession fall in tariffs, have 5.3% higher quality. Broader input-output linkages then amplify this effect by up to 75%, with the first two links down the supply chain most significant. In contrast to existing literature focussed on negative demand effects of the 'China shock', these results highlight a potential beneficial impact in developing countries, namely supply-driven quality upgrading.

"***The Role of Market Structure and Timing in Determining VAT Pass-Through***"

(IMF Working Paper, with Matthieu Bellon)

"***How important is worker quality in total factor productivity dispersion? Evidence from manufacturing firms in Ghana***" *(MSc thesis, awarded Distinction)*

Personal Information:

Born: 19 June 1993
Citizenship: United Kingdom, Republic of Ireland
Software: Stata, Mata, SQL, Gephi