Nicholas Otis
PhD Candidate, Haas School of Business (Management of Organizations)

I use theory-driven field experiments to understand how new technologies like AI influence entrepreneurial inequality and performance, with a focus on how these technologies impact traditionally underserved populations. I am interested in attending the Entrepreneurship Research Boot Camp for three main reasons: (1) the opportunity to learn from the world's leading entrepreneurship scholars, (2) the chance to deeply engage with the research selected by these experts, and (3) the unique community-building aspect of an intimate boot camp with a scholarly community focused on topics I am passionate about. Below I provide an overview of my active research projects.

In my recent paper "The Uneven Impact of Generative AI on Entrepreneurial Performance," (with Rowan Clarke, Solne Delecourt, David Holtz, and Rembrand Koning), we conducted a five-month field experiment with 640 Kenyan SME entrepreneurs to evaluate the effects of a generative AI-based business "mentor" on business performance. Our study revealed no overall average treatment effect on performance (profits, revenue). However, initially high-performing entrepreneurs who were given access to AI access experienced about a 15% increase in performance, while initially low performers saw a decline of about 10%. This divergence was linked to the class of tasks low performers sought advice for, indicating that the impact of generative AI depends on the ability of entrepreneurs to identify tasks complementary to AI-generated advice.

I have two other ongoing solo-authored field experiments evaluating the effects of generative AI on entrepreneurial performance. The first of these experiments examines how AI access impacts entrepreneurs' "information environment"–the set of sources that entrepreneurs draw on to develop, evaluate, and implement new business strategies. In this experiment I cross-randomize AI access with access to a human mentor who can help to curate which questions to ask and which options to pursue. I gather detailed data on entrepreneurs' networking and information-gathering behaviors to assess whether entrepreneurs with AI access reduce their non-AI information gathering and networking (or conversely, whether human advice serves as critical complement to AI-generated advice).

The second field experiment evaluates the effects of generative AI on nascent Kenyan entrepreneurs. I randomize whether entrepreneurs are given access to an ideational AI tool prior to applying to a business plan competition. I will be able to test (a) how AI technologies effect entry into the competition; (b) how AI effects the distribution (differentiation) of businesses proposed by entrepreneurs; and (c) in the long run, the proportion of entrepreneurs who go on to start their businesses and corresponding measures of business performance.

Through this research agenda I hope to provide rigorous and theoretically grounded evidence on both (a) how the adoption of new technologies effect entrepreneurial performance, and (b) what strategies can help underserved entrepreneurs realize the potential for these new technologies to generate long-run competitive advantage.

NICHOLAS G. OTIS

University of California, Berkeley
Haas School of Business
Berkeley, CA 94720

Email: notis@berkeley.edu
Phone: (607) 261-2121
www.nicholasotis.com

Name of Recommending Faculty Member: Rembrand Koning

EDUCATION

University of California, Berkeley, Haas School of Business	PhD (Ongoing)
McGill University	BA (Honours), MA

RESEARCH

Publications (* denotes first author, ** denotes shared first author)

1. Toward a science of delivering aid with dignity: Experimental evidence and local forecasts from Kenya** ***Proceedings of the National Academy of Sciences*** (2020) – with Catherine Thomas**, Justin Abraham, Hazel Markus, and Gregory Walton
2. Forecasting the Results of Experiments: Piloting an Elicitation Strategy
   AEA Papers and Proceedings (2020) – with Stefano DellaVigna and Eva Vivalt

Ongoing

1. The Uneven Impact of Generative AI on Entrepreneurial Performance*
   (with Rowan Clarke, Solène Delecourt, David Holtz, Rembrand Koning)
2. Experimental Evidence on the Effects of Generative Artificial Intelligence on Diversity
   [In the field]

Working papers

1. Evaluating Managerial Expectations* – with Mathijs De Vaan
2. The Efficacy of Crowdsourced Nudges: Experimental Evidence
3. Policy Choice and the Wisdom of Crowds
4. Forecasting in the Field

FELLOWSHIPS AND AWARDS

- South Park Commons Social Impact Fellow
- Oxford Global Priorities Fellowship
- USAID Research and Innovation Fellowship
- Rocca Pre-dissertation Research Fellowship
- NIH/NIA Graduate Fellowship
- Social Sciences and Humanities Research Council Strategic Knowledge Cluster Competition Winner
- McGill Graduate Excellence Award

RESEARCH GRANTS

2023	The Agency Fund
2022	The Agency Fund – with Supreet Kaur and Aprajit Mahajan
2021	Facebook VCF – with Chaning Jang, Kelly Zhang, and Lily Tsai
2021	The Weiss Fund
2021	Innovations for Poverty Action
2019	Fetzer Franklin Fund
2019	Psychology and Economics of Poverty (PEP) research grant
2019	X-lab research grant
2018	Russell Sage Foundation Small Grant in Behavioral Economics
2018	The Weiss Fund
2018	GiveWell
(Pre-PhD)	The Economic Security Project – with Hazel Rose Markus and Catherine Thomas

TEACHING AND MENTORSHIP

- EWMBA 296 (2022): Data Analytics
  - Nominated for Outstanding Graduate Student Instructor Award
  - Co-designed course material, taught 1 hour if lecture per 3 hour class
  - Teaching reference: Matthew Grennan (mgrennan@berkeley.edu)
- Research Mentor (2022): East Africa Social Science Translation Collaborative
- UGIS 192 (2020, 2021): Undergraduate Research Mentor
  - Served as a research mentor to 9 undergraduate students who received undergraduate credit

PRESENTATIONS

2024	NBER Digital Economics and AI [Upcoming]; AI @Marshall Conference [Upcoming]; Wharton Management in Emerging Markets Conference [Upcoming]
2023	CFXS (HBS); Generative AI Workshop - Analytics at Wharton; CODE@MIT
2022	APPAM; Berkeley (BITSS annual meeting); Chicago (Advances with Field Experiments); CODE@MIT (poster); Oxford (Global Priorities Institute); INFORMS
2021	Berkeley (BITSS annual meeting); Oxford (CSAE annual meeting); Metascience 2021

REFEREEING

Management Science; AOM Annual Meetings; American Economic Review; Journal of Political Economy (Micro).

COMPLETED COURSES

Course Number	Course Name
ARESEC 212	Econometrics: Multiple Equation Estimation
ARESEC 213	Applied Econometrics
ECON 201A	Economic Theory
ECON 204	Mathematical Tools for Economics
ECON 240A	Econometrics
ECON C270A	Microeconomics of Development
ECON 270B	Development Economics
ECON 219A	Foundations of Psychology and Economics
ECON 219B	Applications of Psychology and Economics
ECON 299	Supervised Independent Study and Research
PHDBA 259A	Research in Micro-Organizational Behavior
PHDBA 259B	Research Seminar in Macro-Organizational Behavior
PHDBA 259S	Research Seminar in Management of Organizations

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REM KONING |
MARY V. AND MARK A. STEVENS ASSOCIATE PROFESSOR

February 7th, 2024

To whom it may concern,

I am writing this letter for Nick Otis, who is applying to the NBER entrepreneurship bootcamp this summer. I am going to keep this letter to a page, but if you want, I am happy to write more about Nick!

Nick has my strongest possible recommendation. Over my 8 years at HBS, I have worked with dozens of fantastic doctoral students. The students I have been lucky enough to advise formally have gone onto tenure track jobs at Toronto Rotman, Columbia Business School, NYU Stern, Stockholm School of Economics, and Oreogon Lundquist.

Nick is the most promising PhD student I have had the pleasure to work with. He is ambitious, puts in the hours, does amazing fieldwork, and has the technical chops needed for modern-day quantitative research. Most importantly, he is creative and clever. Nick tracked me down at the Academy of Management conference a few years back because he had read one of my papers and wanted to move his research into the entrepreneurship/strategy/management field. We immediately hit it off, and long story short, he ended up transferring from the ARE Econ PhD program at Berkeley to Haas's "Management of Organizations" PhD program a year or two back. He has completed management/entrepreneurship coursework and has a real foundation in development economics from his time at ARE. I kept chatting with Nick and we started a project in early 2023 together (more on that below). I also serve on his dissertation committee.

Nick is building a research agenda focused on Generative AI, Entrepreneurship, and Development. I am a co-author of a paper that Nick spearheaded: an RCT testing if a Generative AI "business mentor" can improve the performance of SMB entrepreneurs in Kenya. You can find the full paper here: https://osf.io/hdjpk. Building on this work, Nick has two follow-up sole authored RCTs in the field trying to shed light on how GenAI will impact entrepreneurial learning and decision-making. He has raised serious grant money on his own. He is always dreaming up awesome new research ideas.

That said, Nick is still a PhD student and needs to be pushed to refine and deepen his work. I think being part of the NBER bootcamp community would help him do exactly this. Not only will the community help Nick, but he will benefit the other attendees with his ideas and ambition

Best,

Rem Koning
Mary V. and Mark A. Stevens Associate Professor
Harvard Business School