Emma Wiles (née van Inwegen)

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Academic Position & Affiliations

Assistant Professor, Boston University	2024-
Information Systems, Questrom School of Business	
Digital Fellow, Initiative on the Digital Economy, Massachusetts Institute of Technology	2024-
Faculty Fellow, Digital Business Institute, Boston University	2025-

Education

PhD Management Science, Massachusetts Institute of Technology	2019-2024
Dissertation title: *Artificial Intelligence in Labor Market Matching*	
Committee members: *John Horton, Catherine Tucker, Dean Eckles*	
MS Management Research, Massachusetts Institute of Technology	2019-2022
BA Mathematics, Economics, University of Washington	2011-2015

Teaching Experience

15.818 MBA Level Pricing (TA)	Fall 2023
15.567 MBA Level Economics of Information: Strategy, Structure and Pricing (TA)	Spring 2023
15.575 PhD Level Economics of Information and Information Technology (TA)	Spring 2022
15.572 Analytics Lab: Action Learning Seminar on Analytics, Machine Learning and the Digital Economy (Mentor)	Fall 2021

Professional Service

Conference on Digital Experimentation, Technical Committee	2020, 2021, 2024

Served as referee for:
Management Science, Information Systems Research, International Conference on Information Systems, Journal of Public Economics, Economics of Education Review, Journal of Human Resources

Fellowships, Honors, and Awards

PhD Thesis Award in Artificial Intelligence in Entrepreneurship and Management (AIEM) *University of Padova* (€5,000)	2024
Microsoft Research Grant for *AI and the Future of Work* ($50,000)	2023
Zenon S. Zannetos Memorial Fellowship (MIT)	2020-2023
MIT Graduate Student Fellowship	2019-2020

Job Market Paper

[Algorithmic Writing Assistance on Jobseekers' Resumes Increases Hires](#) (with Zanele Munyikwa and John Horton), 2025
Published in Management Science

- Media coverage: MarketWatch, Business Insider, Yahoo News

There is a strong association between the quality of the writing in a resume for new labor market entrants and whether those entrants are ultimately hired. We show that this relationship is, at least partially, causal: a field experiment in an online labor market was conducted with nearly half a million jobseekers in which a treated

group received algorithmic writing assistance. Treated jobseekers experienced an 8% increase in the probability of getting hired. Contrary to concerns that the assistance is taking away a valuable signal, we find no evidence that employers were less satisfied. We present a model in which better writing is not a signal of ability but helps employers ascertain ability, which rationalizes our findings.

Publications

[Minimum Wage Increases and Low-Wage Employment: Evidence from Seattle](#) (with Ekaterina Jardim, Mark Long, Robert Plotnick, Jacob Vigdor, Hilary Wething) 2022. *Published in American Economic Journal: Economic Policy*

- Media coverage: The Economist, FiveThirtyEight, Los Angeles Times, New York Times, New York Times (The Upshot), Seattle Times, Washington Post

[Boundary Discontinuity Methods in the Presence of Policy Spillovers](#) (with Ekaterina Jardim, Mark Long, Robert Plotnick, Jacob Vigdor) 2022. *Published in the Journal of Public Economics*

Research in Progress

[Generative AI and Labor Market Matching Efficiency](#) (with John Horton), 2025.

Reductions in private search costs due to advances in information technology can theoretically improve market efficiency. However, this improvement is not guaranteed-changes in private search costs can have unclear welfare implications if they lead to negative externalities. We consider the market efficiency effects of the introduction of an AI tool into a labor market, which lowered employers' search costs by randomly offering them AI-written first drafts of their job post. The assistance was widely accepted and treated employers were 19% more likely to post a job; those posting spent 44% less time writing. Despite the substantial increase in job posts, there was no discernible increase in matches. The lack of match formation was mostly due to marginal jobs being posted by employers with lower hiring intent, while up to a fifth of missing matches resulted from lowered hiring probability among inframarginal jobs. We provide evidence that the treated job posts were were more generic and less informative to jobseekers. This combination of increased job post volume and reduced informativeness diluted signals of employer seriousness, wasting jobseeker time and leading to welfare losses per job post that were six times greater for jobseekers than the time savings benefit for employers. These negative efficiency effects persisted even after widespread adoption, demonstrating that in this context, reducing private search costs harmed market efficiency.

[Generative AI as a Temporary Exoskeleton for Reskilling Knowledge Workers](#) (with Lisa Krayer, Mohamed Abbadi, Urvi Awasthi, Ryan Kennedy, Cristian Arnolds, Pamela Mishkin, Francois Candelon, Daniel Sack), 2024.

Reskilling often refers to the process by which workers acquire new skills, enabling them to move jobs or industries as the demands of the market changes. This paper demonstrates that while generative artificial intelligence (GenAI) can act as a temporary "exoskeleton," enhancing workers' capabilities while they attempt new skills, these gains are dependent on the continued use of the technology. We run a randomized controlled trial on reskilling with GenAI by providing Boston Consulting Group (BCG) consultants with access and training in using ChatGPT to solve data science tasks outside their skill sets, which cannot be independently solved by ChatGPT. Treated workers score 49, 20, and 17 percentage points higher than those in the control group on the three tasks, but we can reject the hypothesis that they performed as well as the data scientists. We find no evidence that treated workers are better at answering technical questions without the use of ChatGPT post-experiment, suggesting their demonstrated newfound technical capabilities do not imply knowledge acquisition. Moreover, after the experiment treated workers exhibited overconfidence in ChatGPT's abilities, and were worse at judging what types of problems ChatGPT is able to solve.

Workers Responses to Price Uncompetitiveness: Evidence from a Field Experiment (with Apostolos Filippas and John Horton)

If and how to regulate online marketplaces is an open question important to both platform designers and policy makers. Using a large field experiment in an online labor market, we analyze the effects of a platform minimum wage. Workers were randomly assigned individual price floors which prevented treated workers from bidding hourly rates below their floor. Workers for whom the floor was likely binding—those historically bidding below the floor—suffered a decline in job-finding probability(30%), but higher wages conditional upon being hired(9%). Treated workers made lower earnings overall, but higher earnings conditional on working at least one hour on the platform. Despite a job being "worth more" if hired, affected workers lowered their search intensity. They did not move to the "uncovered sector"—jobs with a fixed price rather than an hourly wage, nor did they direct their search to better fitting jobs. They were also more likely to exit the platform. After the conclusion of the experiment, the platform rolled out the $3 per hour minimum wage platform wide, allowing us to observe the the employment outcomes and job search behavior in equilibrium.

Make-or-buy for recruiting?: Experimental Evidence on Helping Firms Hire, *Masters Thesis*

In a randomized control trial, a large online labor market randomly provided hiring assistance to employers. This hiring assistance could take the form of (a) expanding the firm's choice set by attracting more applicants or (b) helping them choose among that choice set, based on the determination of the helper. Broadly speaking, job openings with few applicants were given recruiting help, while openings with many applicants were given selection help. All were given general advice on the hiring process. We find that while treated employers increased their search efforts and received more applications, they were no more likely to make a hire than job posts in the control group. We find evidence that treated employers demand less labor from their hires—suggesting that employers know their own preferences better than third party assistance.

[Payroll, revenue, and labor demand effects of the minimum wage](#) (with Ekaterina Jardim) 2019.
Upjohn Institute of Employment Research Working Paper. 19-298

We study the effects of a large increase in Seattle's minimum wage on business churn, hours, and revenue using Washington State administrative data. We find the minimum wage affected businesses both at the intensive and extensive margins. At the intensive margin, surviving businesses increased labor costs without decreasing hours and saw no reductions in revenue. At the extensive margin, businesses experienced higher rates of exit and newly opened businesses became less labor-intensive. We find the total effect of the minimum wage to low-wage employment, defined as jobs paying 130% of the minimum wage or less, came from changes to the composition of businesses.

Understanding the Effects of AI-coders on Skill Evolution & Job Trajectories in an Online Labor Market
(with Apostolos Filippas and John Horton)
Funded by Microsoft Research Grant for *AI and the Future of Work*

Invited presentations

Columbia's Management, Analytics, and Data Conference	2024
National Association for Business Economics Tech Economic Conference Lightning Talk	2023
Wharton, Conference on Business & AI Presentation	2023
NBER Summer Institute Digital Economics and AI Lighting Round Talk	2023
Conference on the Economics of Information & Communication Technologies Presentation	2023
ASSA/AEA, Labor and Employment Relations Association Presentation	2023
NBER Digitization Tutorial	2022
NBER Economics of Privacy Conference	2022
INFORMS, Platforms Presentation	2022
Workshop on Information Systems (WISE) & Economics, Platforms Presentation	2022
Conference on Digital Experimentation, Presentation	2020

Personal Details

Language: English (Native)
Citizenship: USA