TECHNOLOGY POLICY INSTITUTE

Research Roundup

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***DISCLAIMER**: Not all authors are affiliated with TPI. We do not necessarily agree with everything, or even anything, in these papers, but find them interesting.*

TPI's Research Roundup is our semi-regular compilation of recent outside research of interest to tech policy nerds. If you've read a paper you think might be interesting to include in the next Roundup, feel free to send it to nlovin@techpolicyinstitute.org.

Experimental Evidence on the Productivity Effects of Generative Artificial Intelligence
Shakked Noy and Whitney Zhang

Their question: How does ChatGPT affect productivity and output quality of college-educated professionals work?

Their answer: Compared to a control group that did not use ChatGPT who used ChatGPT spent less time on tasks and their quality of work increased . The outcome was true for all skill levels, but particularly evident for lower skill workers. Additionally, workers that used ChatGPT reported increased overall job satisfaction and a mild increase in self-efficacy relative to the group that did not use it.

Why does it matter? A key policy debate is how generative large language model AIs are likely to affect workers. This paper finds that at least some impacts are likely to be positive.

Exploring the Surveillance State via Trade in AI
Martin Beraja, Andrew Kao, David Y. Yang, Noam Yuchtman

Their question: Per the abstract, What are the international ramifications of Chinas emergent leadership in facial recognition AI?

Their answer: China holds a comparative advantage in facial recognition AI technology. Autocracies and weak democracies are more likely to import this technology from China.

Why does it matter? Highlights the complexities of how policy should think about AI. China's exports to autocracies and countries facing civil unrest shows its use for antidemocratic purposes. But at the same time, it shows the importance of U.S. innovation to prevent falling further behind in the technology and because U.S. exports of relevant technologies are much less likely to flow to autocracies. .

Algorithmic Writing Assistance on Job Seekers' Resumes Increases Hires
Emma Van Inwegen, Zanele T. Munyikwa, John J. Horton

Their question: Do job seekers who use algorithmic writing assistance on their resume have higher hiring rates and wages?

Their answer: Jobseekers who used machine learning based writing help were 8% more likely to be hired. Additionally, it does not appear that this sent false signals of quality to employers, as there was no decrease in employer satisfaction with the hire.

Why does it matter? The study shows another example in which AI can help both employers and job seekers.

The Potential Impact of Artificial Intelligence on Healthcare Spending
Nikhil R. Sahni, George Stein, Rodney Zemmel, and David Cutler

Their question: What is the potential impact of artificial intelligence on healthcare spending in the U.S.?

Their answer: AI implementation can unlock efficiencies across almost all aspects of healthcare, leading to cost reductions of 5-10% ($200-$360 billion annually).

Why does it matter? Healthcare is a significant cost for families, businesses and the government. By helping providers scale their AI capabilities, additional lives can be saved and additional discretionary funds can be freed up.
