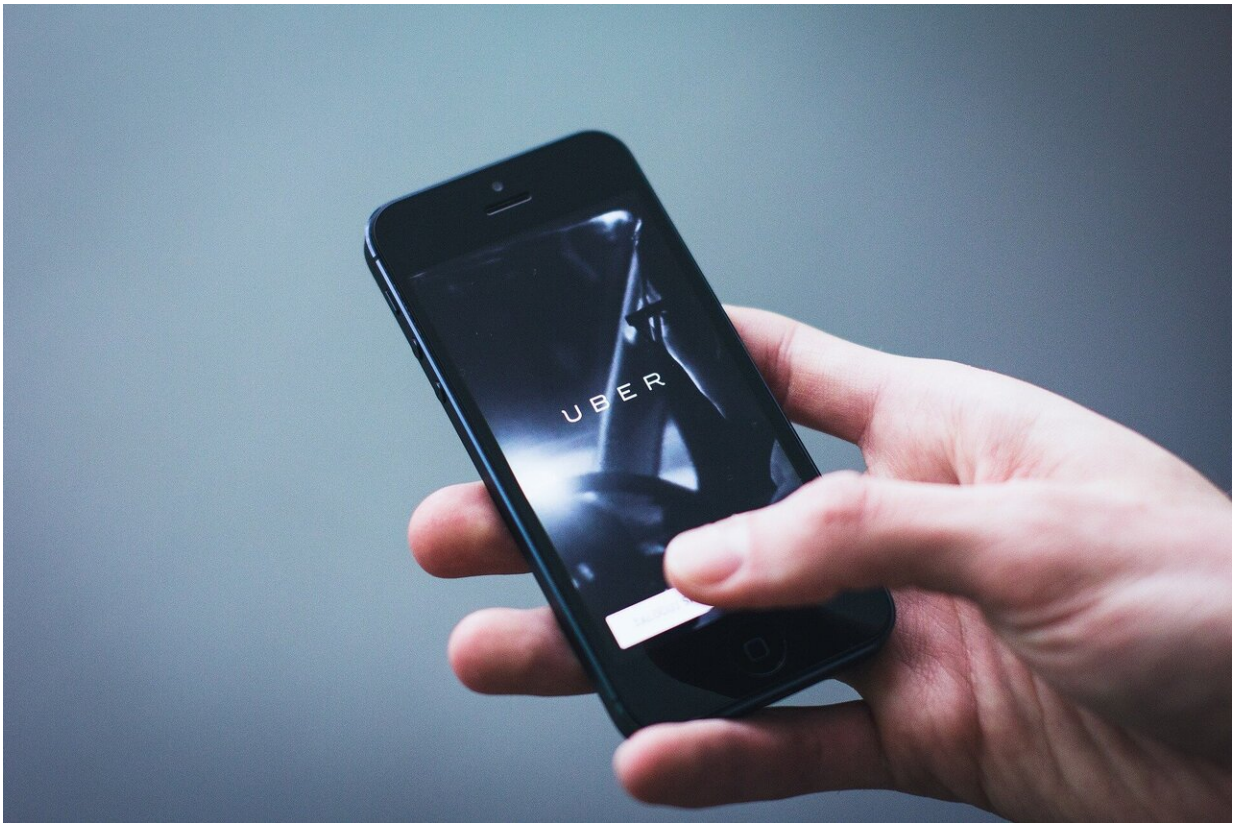


# AI-enhanced collective bargaining tools could help gig workers solve problems

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Researchers at Northeastern University have created artificial intelligence tools to help gig workers organize, collect their own job-related data, analyze their work problems and come up with a strategy to

implement solutions.

"Building solid AI-enhanced solutions to enable [gig workers' collective action](#) will pave the way for a fair and ethical gig economy—one with fair wages, humane working conditions and increased job security," says Saiph Savage, assistant professor and director of the Civic A.I. Lab at Northeastern's Khoury College of Computer Sciences.

Gig work is typically performed by a freelancer or independent contractor. It is used by rideshare apps such as Uber and Lyft, grocery-delivery services like Instacart, and Upwork, a marketplace that connects companies with temporary on-demand workers.

Gig work provides flexibility to workers and employers, Savage says, and offers economic opportunities to disadvantaged groups. But it also presents challenges for some gig workers, such as irregular schedules and unsteady income, lack of [job security](#), isolation and surveillance associated with online work.

The Massachusetts attorney general recently took Uber and Lyft to court over the employment status of its gig workers. The rideshare apps have threatened to leave markets if its drivers are converted from independent contractors to employees.

For Savage, it's all about giving gig workers the tools—in this case AI tools—to make the most-informed decisions with the greatest amount of data.

"At Northeastern, we have been developing a lot of AI tools that can support gig workers in their collective action to fight for better opportunities," Savage says.

[Tools recently released](#) by the Civic A.I. Lab include GigSousveillance,

GigSense and GigAction. Details were presented at the 17th ACM International Conference on Web Search and Data Mining.

The tools use large language models and social theories to create "intelligent assistants" that help gig workers understand their collective problems, propose solutions and take collective action. The tools strengthen gig workers' collective opinion and negotiation power, Savage says.

GigSousveillance allows workers to collect their own job-related data and use that data to measure how big a workplace problem has become.

GigSense equips workers with an online AI assistant that helps make sense of their workplace problems and strategically come up with solutions.

GigAction is an AI assistant that guides workers to implement the solutions.

The AI tools help reinforce gig workers' collective identity, potentially inspiring them to undertake actions that benefit them as a whole, Savage says.

As part of her research, Savage conducted interviews and collaborative design sessions with gig workers from Upwork, Amazon Mechanical Turk, an Amazon platform that allows businesses to connect with a global workforce, and Toloka, a crowdsourcing platform. Later, she analyzed their answers about using the new AI tools.

"We focus a lot on helping them to identify what are the key points that they should be aiming to negotiate," Savage says. "What are the main problems that they should be aiming to address collectively, as well as what things should they aim to bargain for with the companies."

Savage sees potential in attracting more gig workers through social media groups.

"From there, we move them into our platforms," she says.

**More information:** Saiph Savage, Unveiling AI-Driven Collective Action for a Worker-Centric Future, *Proceedings of the 17th ACM International Conference on Web Search and Data Mining* (2024). [DOI: 10.1145/3616855.3637633](https://doi.org/10.1145/3616855.3637633)

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