Fighting poverty with AI

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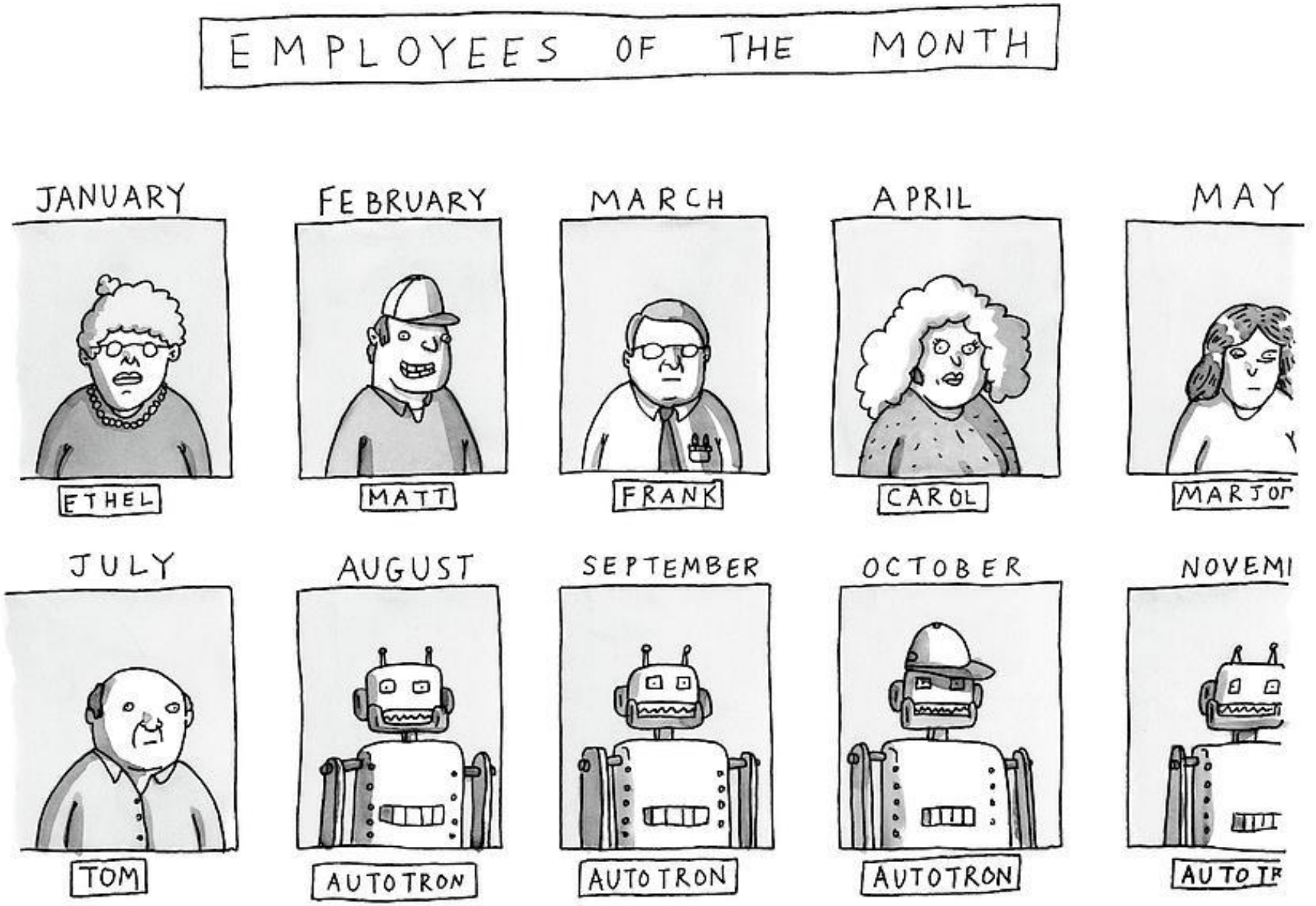
Joint work with Oeindrila Dube, Sendhil Mullainathan, Anuj Shah & Bec Weeks, University of Chicago



Autotron = Enemy of humanity, causer of mass layoffs & poverty

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Overview

Setting: Technical customer support chat

- One of the top use cases for modern AI tools

Technology: Conversational customer support assistant

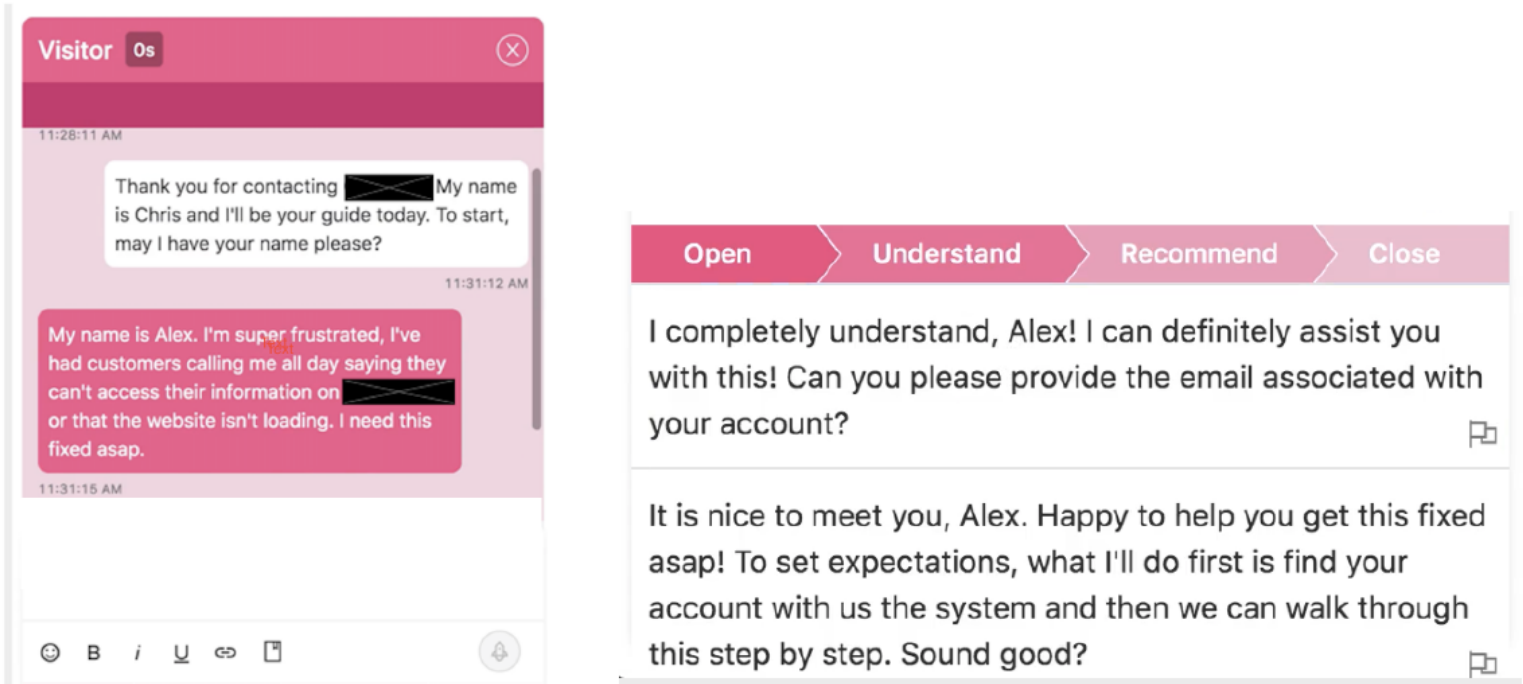
- Provides real-time recommendations for how to communicate

Empirical Design: Staggered roll-out in technical support for a large Fortune 500 software firm

- 3,000,000 conversations from 3,000 agents

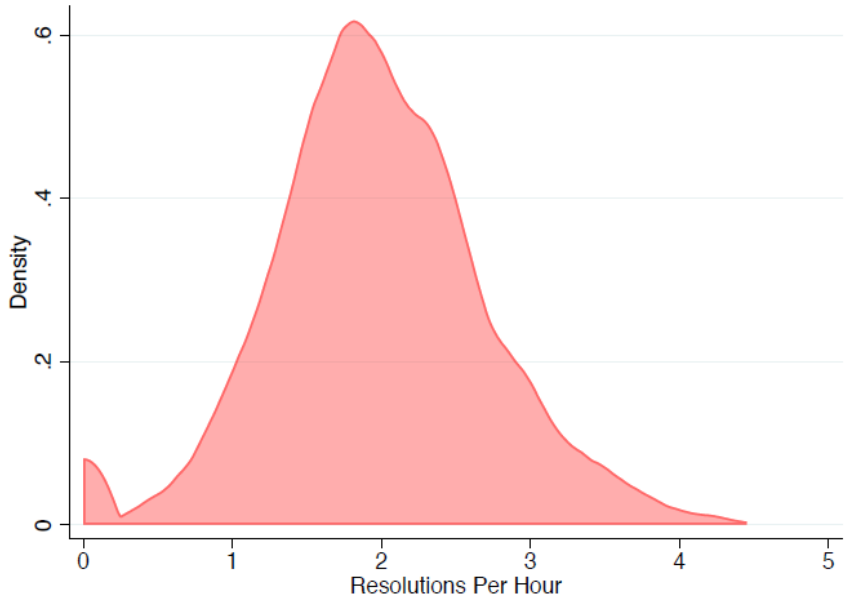
Source: Erik Brynjolfsson, Danielle Li, and Lindsey Raymond (2024) “Generative AI at work” (MIT working paper)

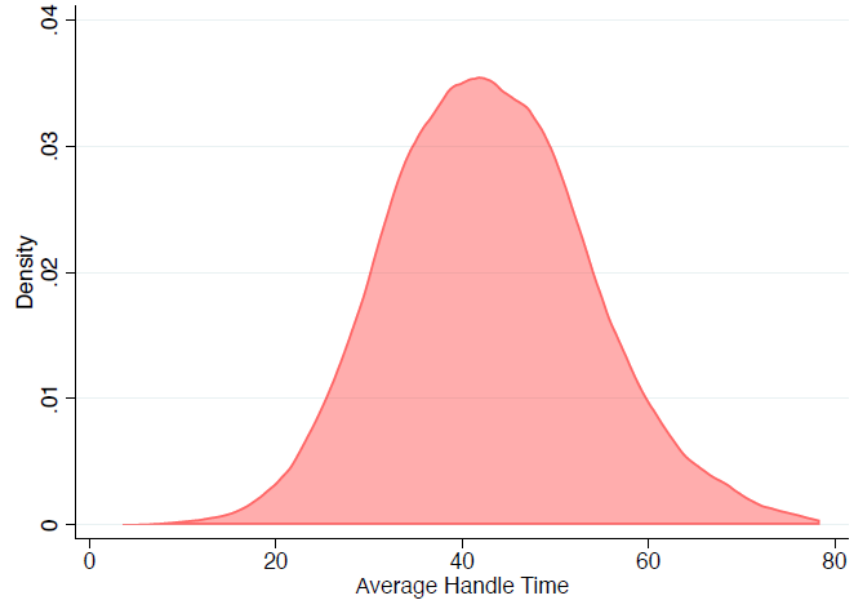
AI tool provides text suggestions that the agent can use or ignore

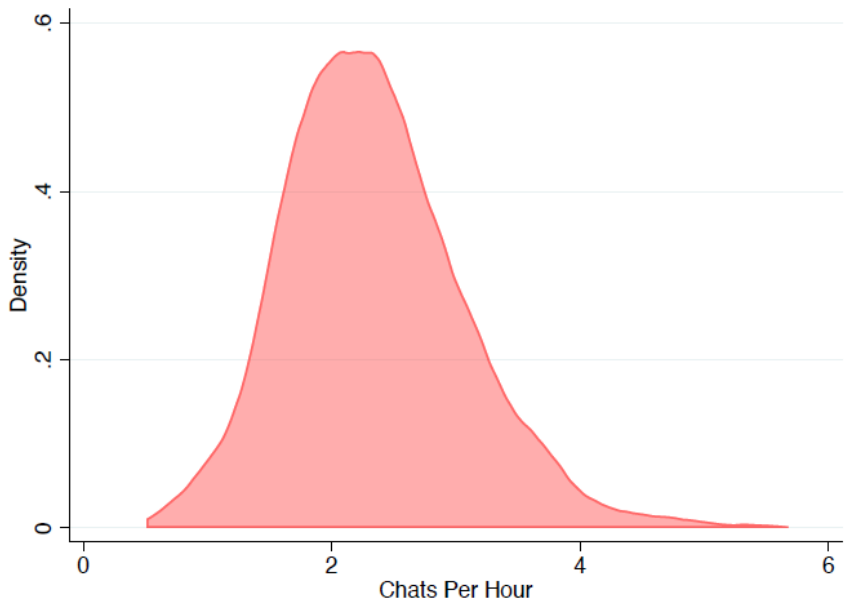


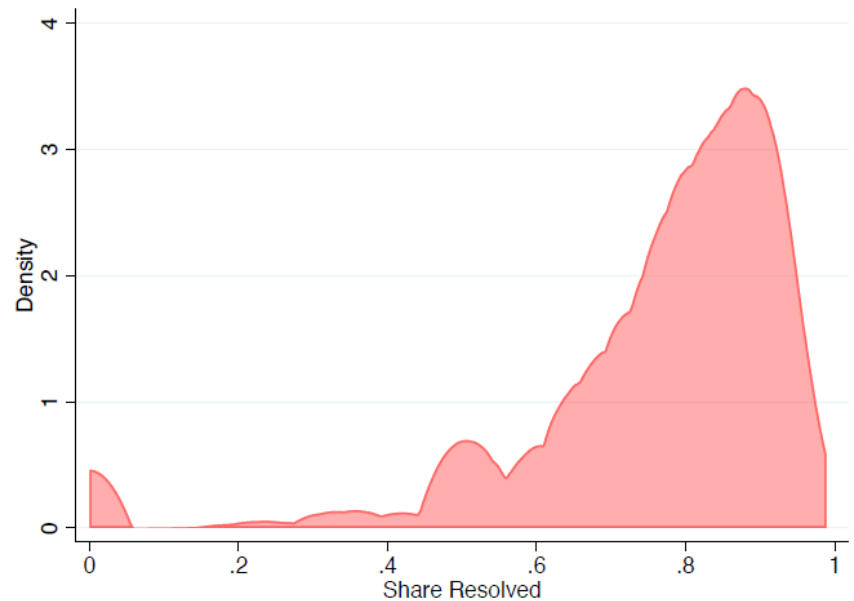
- Recommendations based on responses that are most correlated with successful outcomes
- In this case: establishing a friendly, reassuring rapport.

Gains are evident in the raw data









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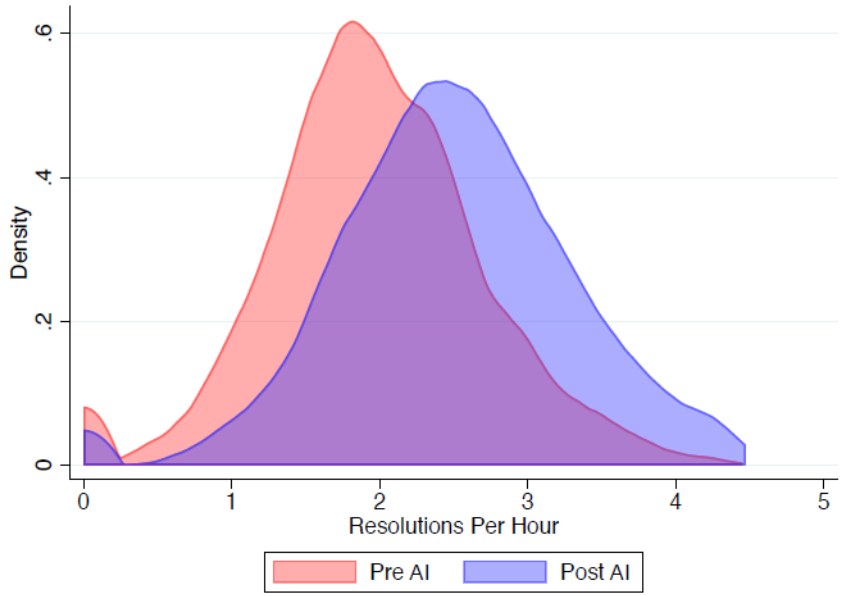
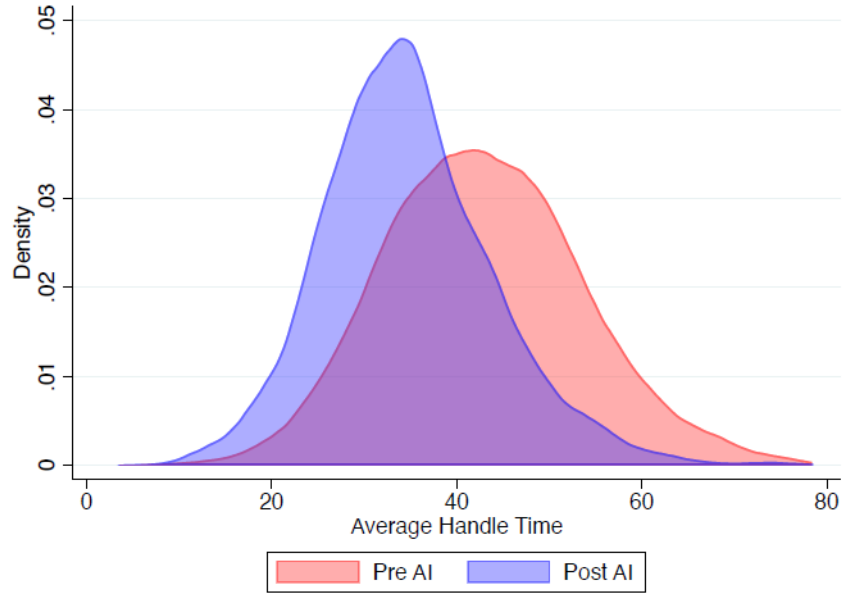
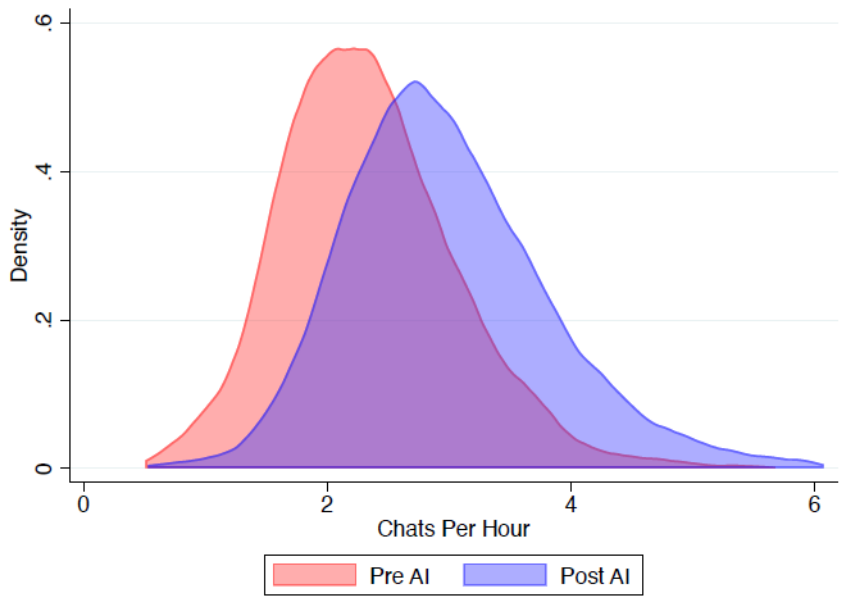
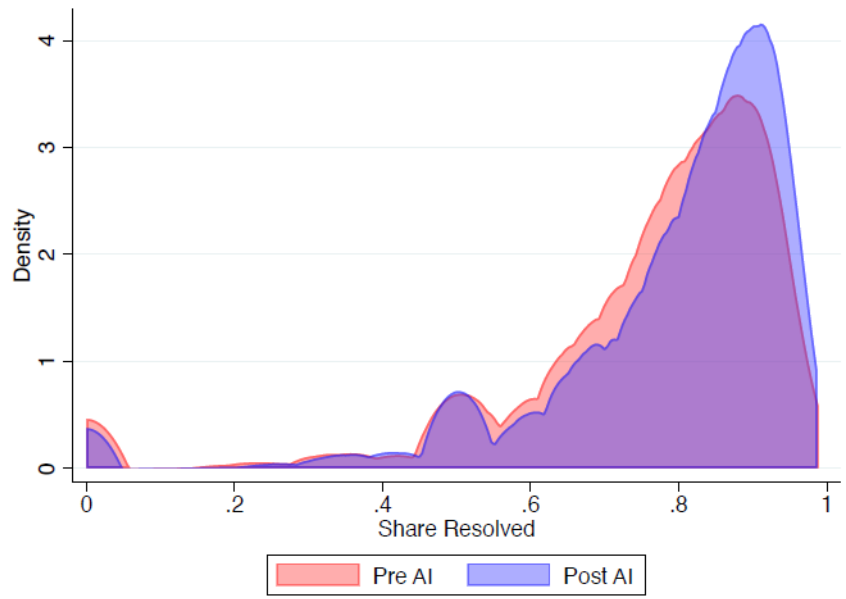
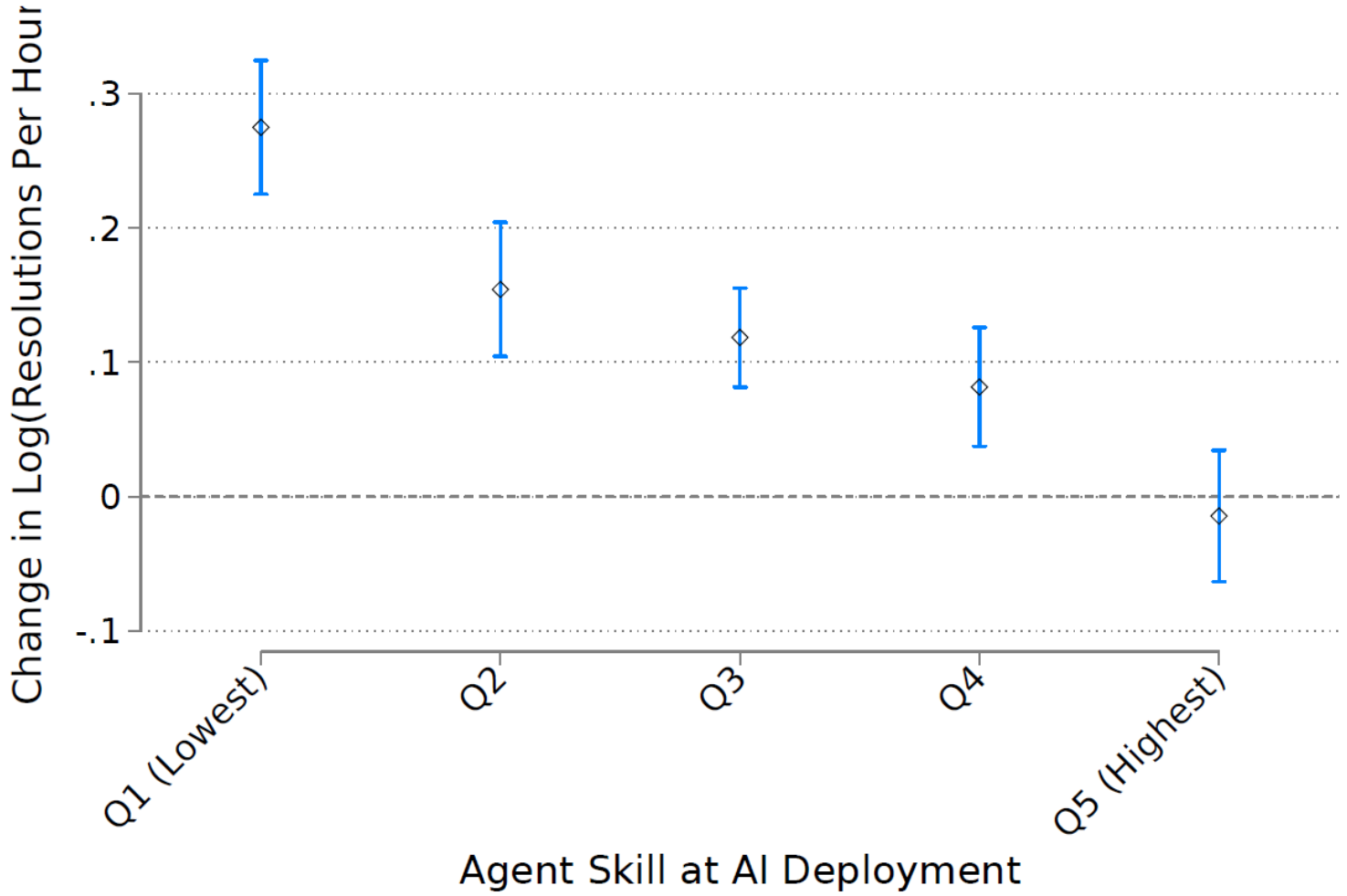








Highest returns for lowest skill agents



- **Pre-AI agent productivity:** pre-AI index of chats per hour, resolution rate, and customer satisfaction
- Conditional on agent tenure

Here’s what’s so interesting about this

- Workers weren’t just blindly copying the AI recommendations
- They were *learning*
- How do we know that?
  - The AI “conked out” for a while
  - The workers remained more productive

Now let me tell you about the second study

Another hard service-sector job: *Policing*

Training to 2,000 Chicago cops

"Tools of thought" to avoid common thinking errors dealing w/ hard interpersonal interactions

Source: Oeindrila Dube, Sandy Jo MacArthur and Anuj K Shah (2024)
"A cognitive view of policing," University of Chicago Working Paper.

What are the results of this police training?

Impacts evaluated by a randomized controlled trial

23% reduction in use of force

No detectable rise in crime
(cops don't just "go fetal")

Source: Oeindrila Dube, Sandy Jo MacArthur and Anuj K Shah (2024)
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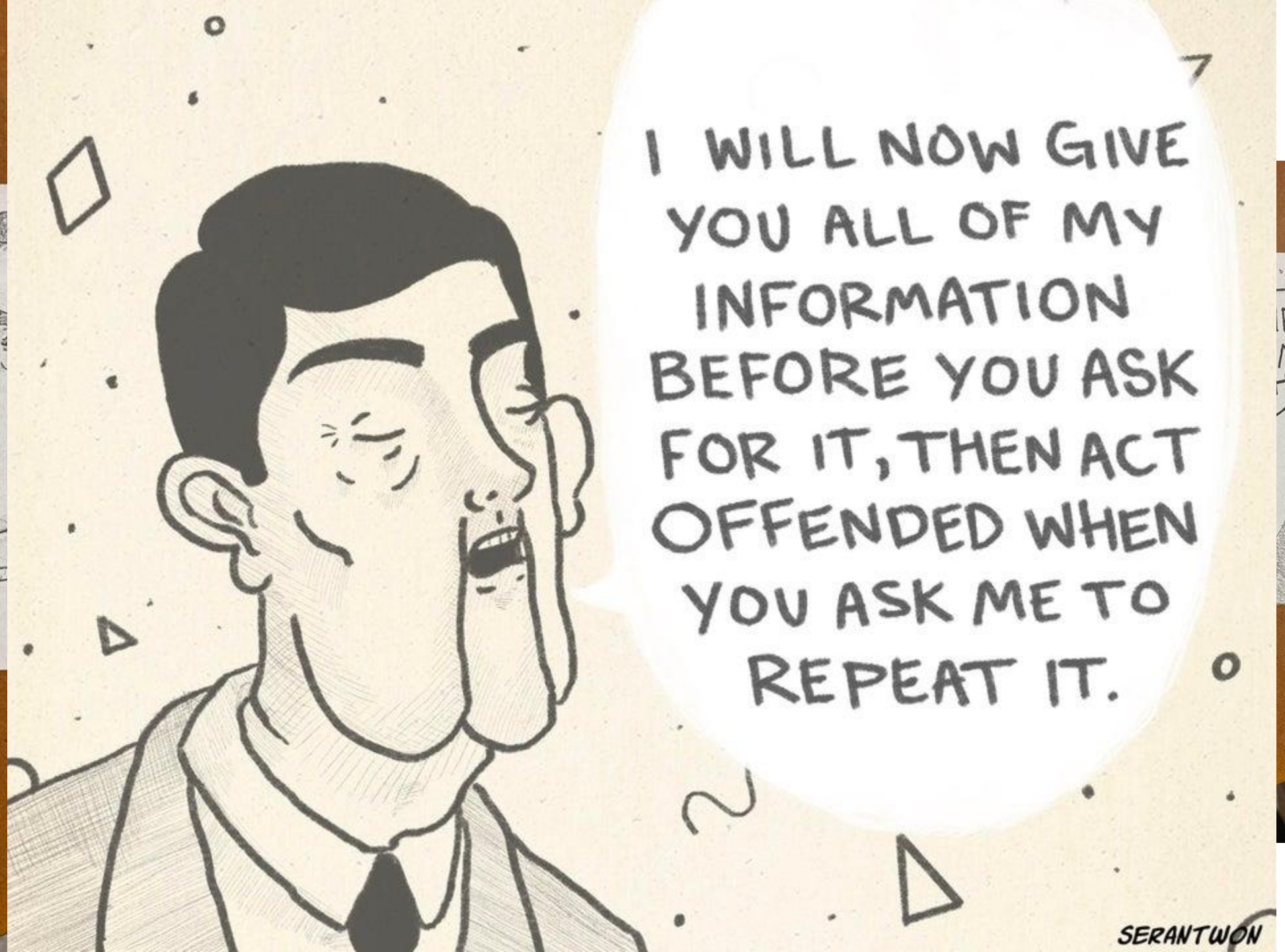
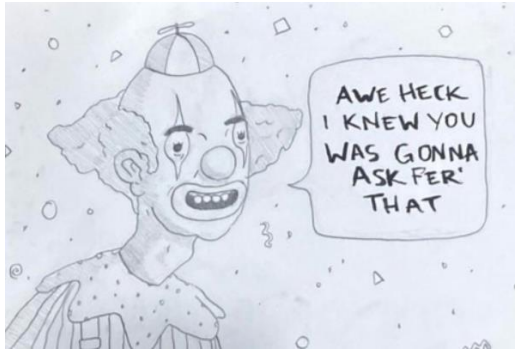
Here’s what these 2 studies tell me

- We’re overlooking role of AI to solve the biggest challenge in the social sector
- That challenge: socially impactful training at scale

Here’s how I have been using this myself

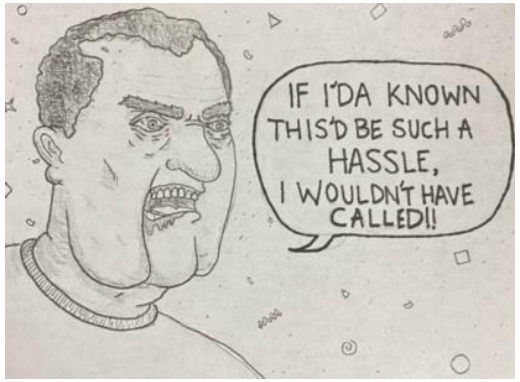

I WILL NOW GIVE YOU ALL OF MY INFORMATION BEFORE YOU ASK FOR IT, THEN ACT OFFENDED WHEN YOU ASK ME TO REPEAT IT.
SERANTWON

What skills needed for hardest (& least automatable) part of this job?



Useful *tool of thought*: "Don't catastrophize"

Mind makes negative events seem even more negative
Once you're aware of this you can anticipate & overcome it



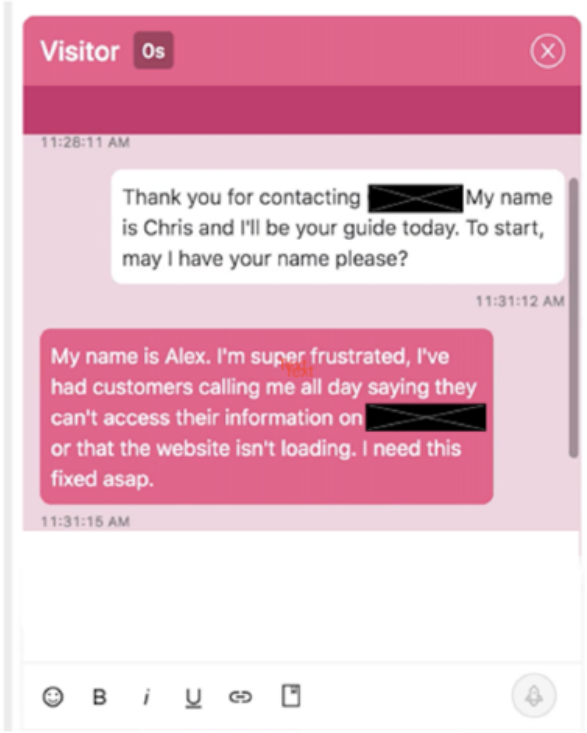
Useful *tool of thought*: "Don't personalize"

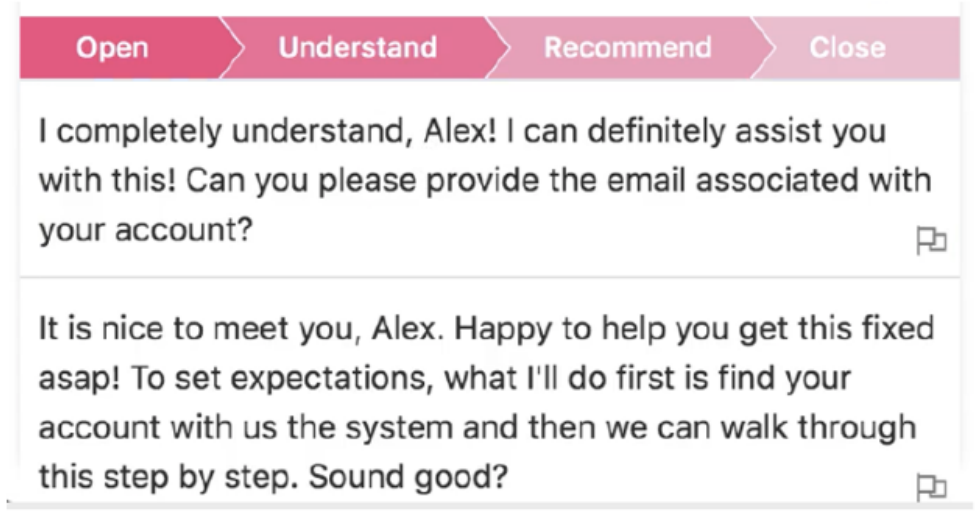
Mind prone to *egocentric bias* (he's mad at *me*)
Think to yourself instead: What else might be going on to make this guy act like an asshole?

Useful *tool of thought*: "Don't anchor"

Mind prone to anchor on initial impression of person
So pay extra attention to gathering evidence that disconfirms that anchor

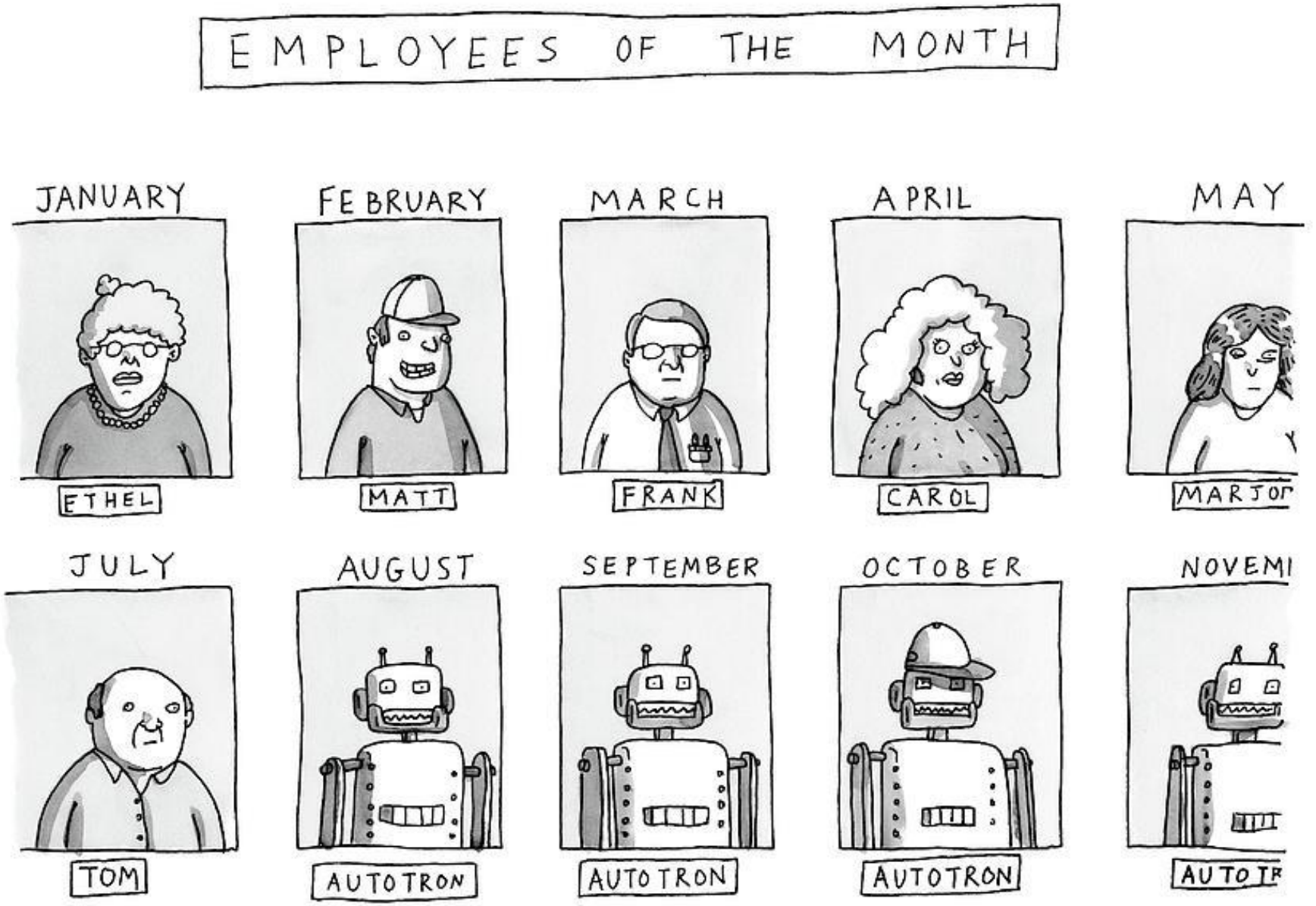
AI now provides call center equivalent of "force simulator" for police training





In the MIT study, call center workers probably learning so much (at super low marginal cost) b/c AI gives them a chance to learn through experience (like the force simulator does for cops)

DRUGS



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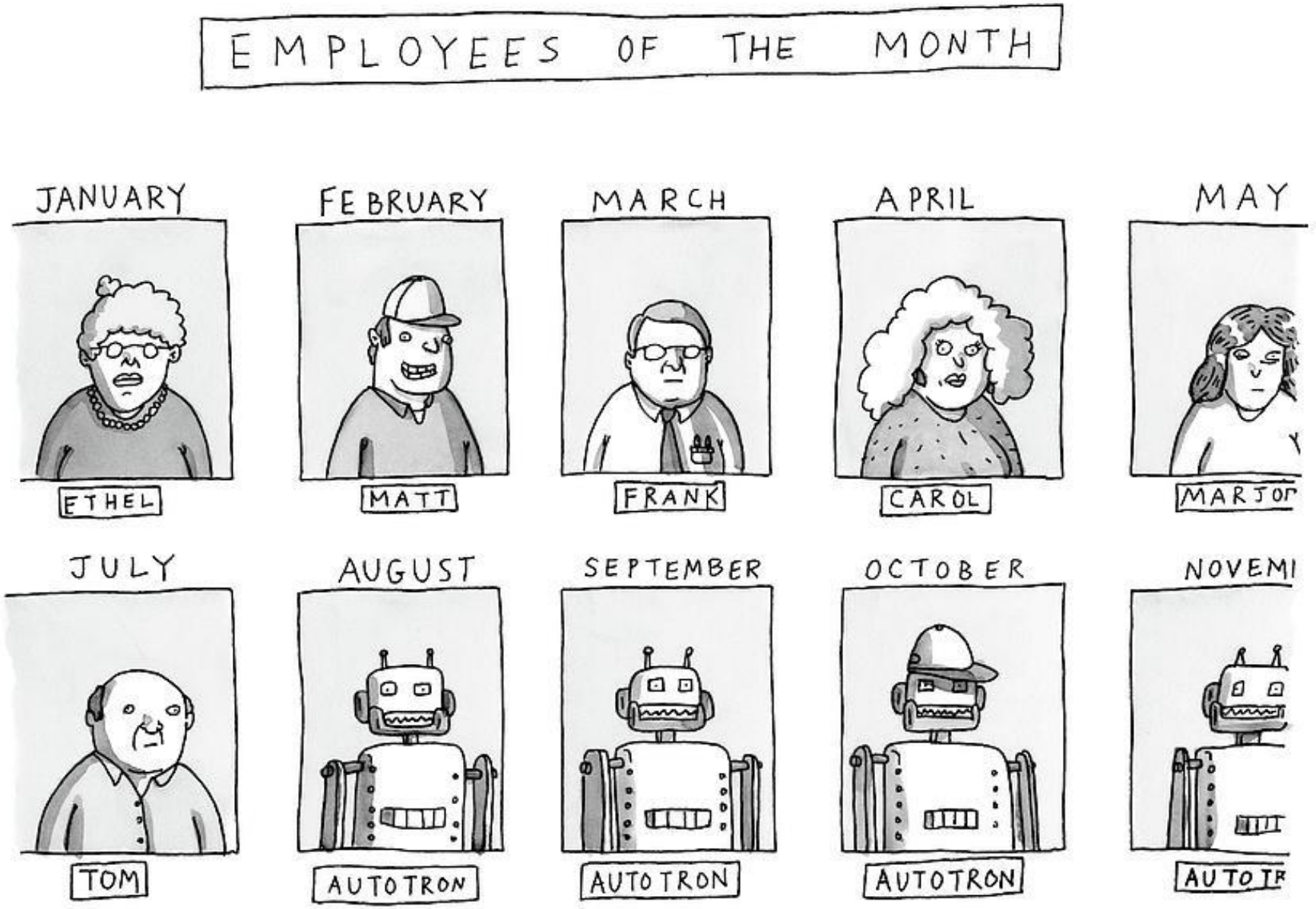
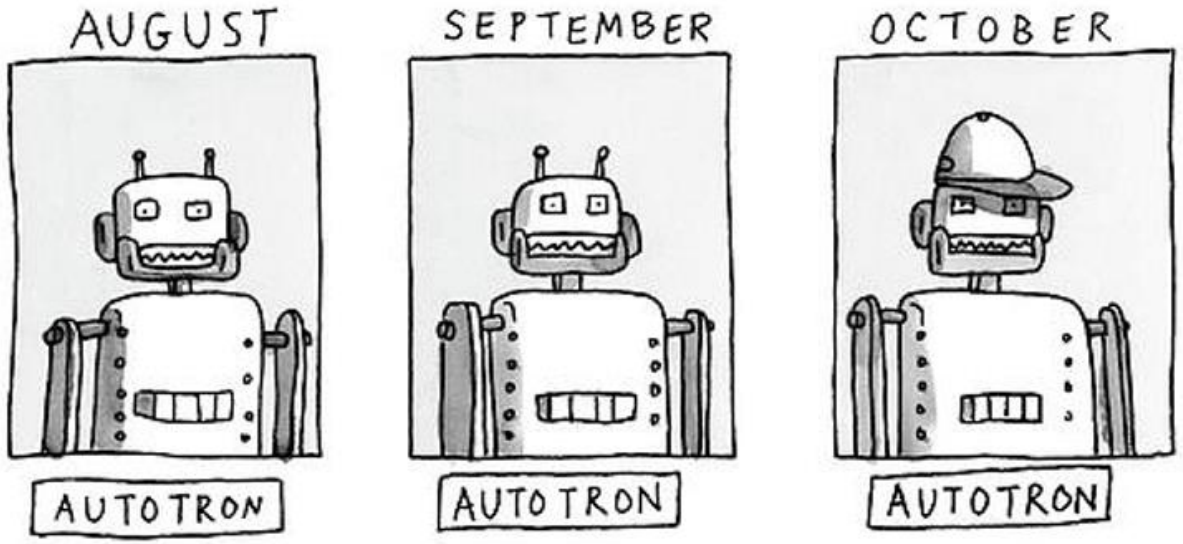


Autotron = Helper of humanity, solver of future poverty?



Every job has components that are *more* versus *less* automatable
The better humans are at the most *human* parts of these jobs, less appealing automation looks

AI can (counter-intuitively) help us teach people these most human parts of these jobs

Can create an anti-poverty "**double dividend**"

1. Solve the challenge of training people in the most important skills of the future
2. Make automating away these jobs look less and less appealing