Business And Society

Algorithms Are Making Economic Inequality Worse

by Mike Walsh

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Summary. There is a code ceiling that prevents career advancement — irrespective of gender or race — because, in an AI-powered organization, junior employees and freelancers rarely interact with other human co-workers. Instead, they are managed by... **more**

The risks of algorithmic discrimination and bias have received much attention and scrutiny, and rightly so. Yet there is another more insidious side-effect of our increasingly AI-powered society — the systematic inequality created by the changing nature of work itself. We fear a future where robots take our jobs, but what happens when a significant portion of the workforce ends up in algorithmically managed jobs with little future and few possibilities for advancement?

One of the classic tropes of self-made success is the leader who comes from humble beginnings, working their way up from the mailroom, the cash register, or the factory floor. And while doing that is considerably tougher than Hollywood might suggest, bottom-up mobility was at least possible in traditional organizations. Charlie Bell, former CEO of McDonalds, started as a crew member flipping burgers. Mary Barra, chairman and CEO of General Motors, started on the assembly line. Doug McMillon, CEO of Walmart, started in a distribution center.

By comparison, how many Uber drivers do you think will ever have the chance to attain a managerial position at the company, let alone run the ride-sharing giant? How many future top Amazon executives will start their careers by delivering packages or stacking shelves? The billionaire founder and CEO of Instacart

may have personally delivered the company's first order, but how many others will follow in his footsteps?

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Here's the problem: There's a "code ceiling" that prevents career advancement — irrespective of gender or race — because, in an AI-powered organization, junior employees and freelancers rarely interact with other human co-workers. Instead, they are managed by algorithms.

In this new era of digitally mediated work, there is typically a hierarchical information flow, in which the company decides the information they choose to share with you. Unlike driving a taxi, where there is open radio communication between drivers and the dispatch operator, and among the drivers themselves, when you work for Uber or Lyft, the content of your interactions is the output of an optimization function designed to maximize efficiency and profit.

To be managed algorithmically is to be subject to constant monitoring and surveillance. If you are one of the millions of food

delivery workers in China working for Meituan or Ele.me, an algorithm determines how long it should take you to drop off an order, reducing your pay if you fail to meet your deadline. Similarly, employees in Amazon distribution centers are also carefully tracked by algorithms; they must work at "Amazon pace" — described as "somewhere between walking and jogging."

When you are a gig economy worker, it is not only your AI bosses that should concern you; your co-workers are often also your competition. For example, Chicago residents who live near Amazon's distribution points and Whole Foods stores reported the strange appearance of smartphones hanging from trees. The reason? Contract delivery drivers were desperate to trump their rivals for job assignments. They believed that hanging their devices near delivery stations would help them game the work allocation algorithm; a smartphone perched in a tree could be the key to getting a $15 delivery route mere seconds before someone else.

Work has been changing over the last few decades. The labor market has grown increasingly polarized, with middle-skill jobs being eroded relative to entry-level, low-skill work, and high-level employment that requires greater skill levels. The Covid-19 crisis has likely accelerated the process. Since 1990, every U.S. recession has been followed by a jobless recovery. This time, as AI, algorithms, and automation reshape the workforce, we may end

up with something worse: a K-shaped recovery — where the prospects of those at the top soar, and everyone else sees their fortunes dive.

The new digital divide is a widening gap between workers with access to higher education, leadership mentoring, and job experience — and those without. In my recent book, *The Algorithmic Leader*, I explore one particularly dire scenario: a class-based divide between the masses who work for algorithms, a privileged professional class who have the skills and capabilities to design and train algorithmic systems, and a small, ultra-wealthy aristocracy, who own the algorithmic platforms that run the world.

A global, low-paid, algorithmic workforce is already emerging. In Latin America, one of the fastest-growing startups is Rappi, a mix of Uber Eats, Instacart, and TaskRabbit. Customers in cities like Bogotá and Mexico City pay about $1 an order or a flat $7 a month. In return, they can access a vast on-demand network of couriers who deliver food, groceries, and just about anything else you want. Amazon has an informal network of delivery people, called Amazon Flex, ready to drop packages right to your door — and soon even hand them to you in the street, place them in your car trunk, or open the door to your house and store your groceries in your fridge.

In his 1930 lecture Economic Possibilities for Our Grandchildren, John Maynard Keynes predicted that by around 2030, the production problem would be solved, and there would be enough of everything for everyone. The catch, however, is that machines would cause *technological unemployment*. The scenario that Keynes didn't fully anticipate was our present case of high technological employment, with an accompanying degree of high inequality.

The workforce is changing; so too is the workplace. You will increasingly find a gap between top executives and an outer fringe of transient workers, even within organizations. Whether in retail or financial services, logistics or manufacturing, AI-powered organizations are run by a small cohort of highly paid employees, supported by sophisticated automation and potentially millions of algorithmically managed, low-paid freelancers at the periphery.

Job polarization is only part of the problem. What we should really fear is the algorithmic inequality trap that results from feedback loops. Once you are a gig economy worker reliant on assignments meted out by your smartphone, not only are there few opportunities for promotion or development, but other algorithms may further compound your situation. Think of it as a digital poorhouse. With their earnings and work assignments held hostage by market fluctuations, the new AI underclass may be

penalized by automated systems that determine access to welfare, lending, insurance, or health care, or that set custodial sentences.

Nevertheless, it is dangerous to seek quick fixes for a problem that has yet to fully manifest, especially if it means grafting 20th-century worker protections onto 21st-century business models. Already, governments and regulators supported by populist platforms are focused on attacking global digital giants. They seek to prevent them from avoiding tax liabilities and are working to regulate their freelance workforce's labor conditions, to apply restrictions on their collection of data, and even to tax their robots. Some of these ideas have merit. Others are premature, or worse, just political theater.

The longer-term solution to algorithmic inequality will not lie in just taxation and regulation, but rather in our ability to provide an adequate education system for the 21st century. Rebooting education will not be easy. Rather than looking for ways to use AI in teaching, the real question is: How do we teach people to harness machine intelligence in their careers? And how do we teach people to be prepared for a lifetime of constant learning and retraining?

Business leaders have a crucial role to play. Not only should they carve out channels of communication, feedback, and advancement for freelancers at the edge of their organizations,

they need to get serious about retraining and community engagement. For example, AT&T is retraining half of its workforce, while Cisco, IBM, Caterpillar, McKinsey, and JPMorgan are offering internships to high school students and are working with local schools to upgrade their teaching curriculums. These are all good initiatives, but more will be needed — not just for social cohesion, but also to ensure the diversity and agility of tomorrow's workforce.

We need a better plan for the future. Without one, the algorithmic inequality trap will be a story told not in statistics and wealth ratios, but in distress signals — smartphones hanging from trees, tent cities for the homeless, and human couriers scanning the skies for the delivery drones that spell their impending end.

Mike Walsh is the author of *The Algorithmic Leader: How to Be Smart When Machines Are Smarter Than You*. Walsh is the CEO of Tomorrow, a global consultancy on designing companies for the 21st century.

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