

EDITORIAL

Beyond automation

BY THE EDITORIAL BOARD

Machines are coming for many LI jobs, but leaders can act now to protect employees, employers and the economy

Change is coming — soon.

But will Long Island be ready?

Over the next decade or two, the region's employment picture will undergo a significant transformation. Some jobs will disappear. Others will require very different skill sets. And there will be positions and industries that are only toddling now or are yet to be imagined.

The Island has seen seismic shifts in its business landscape before. Too often, the region plays catch-up, confronting the fallout of a disappearing sector, like aerospace and defense, as it's fading, or courting an industry, like biotech, years after it has sunk roots elsewhere.

This time, Long Island knows what's coming — and has a chance to prepare for it.

At the heart of what's next is automation. As robots and computers take on tasks once performed by humans, the impact on the economy, job market and development will reverberate through many of our region's key industries.

The numbers, although just estimates, are impressive.

More than 180,000 jobs on Long Island — nearly 14 percent of the region's total — have a high likelihood of being automated, according to a recent study by the Center for an Urban Future, a Manhattan-based think tank. For nearly 773,000 of the region's jobs, at least 30 percent of the tasks involved can be automated. That's almost 60 percent of the workforce. At risk: \$26.1 billion in annual wages.

This isn't a forecast to fear, but it's not one to ignore, either. A more automated Long Island economy brings with it concerns, but also opportunity.

There will be jobs lost, but also jobs created. The region can build a more diverse workforce if it reaches into all communities to train and retrain workers. Employees could have the potential for higher earnings as they gain the skills employers need. That could lead more of our graduates to stay here, if the right jobs await them.

Not long ago, Long Island boasted dozens of large manufacturing, electronics and technology companies. Each year, Newsday listed the top 100 publicly traded companies and had plenty of firms that didn't make the cut.

Now, there are no longer 100 publicly traded companies based on Long Island, and only two of the top 10 from 1998 are still headquartered here.

Many factors, from high taxes and the cost of living, to acquisitions and upheaval in real estate and finance, are responsible for that. And Long Island has found itself trying just to keep up.

It's time to focus on the future.

Automation will affect office and administrative jobs like bookkeeping and clerking, and service jobs like preparation and check-out of fast food. In San Francisco cafes, for in-

stance, robot baristas can take orders and make coffee.

But the shift will go beyond those industries. Nearly every job description will change. Valuable skills will be those that are especially human — such as critical thinking, communication, and social and emotional understanding — and those that are specialized in technology, medicine, future-looking industries like clean energy and artificial intelligence, and more.

So, preparing the region will start with education. This fall's kindergarten students will graduate when automation is in full swing, so early education is key. But it's up to higher education, including four-year colleges and,

most especially, our community colleges, to lead the way. Suffolk County Community College, for instance, has job training and certificate programs in areas like automotive technology, and must be ready to improve and add to those programs as technology advances. Attention also must be paid to those now in the workforce, employees who will need what the Center for an Urban Future calls "upskilling" — professional development or continuing education to teach them to work differently.

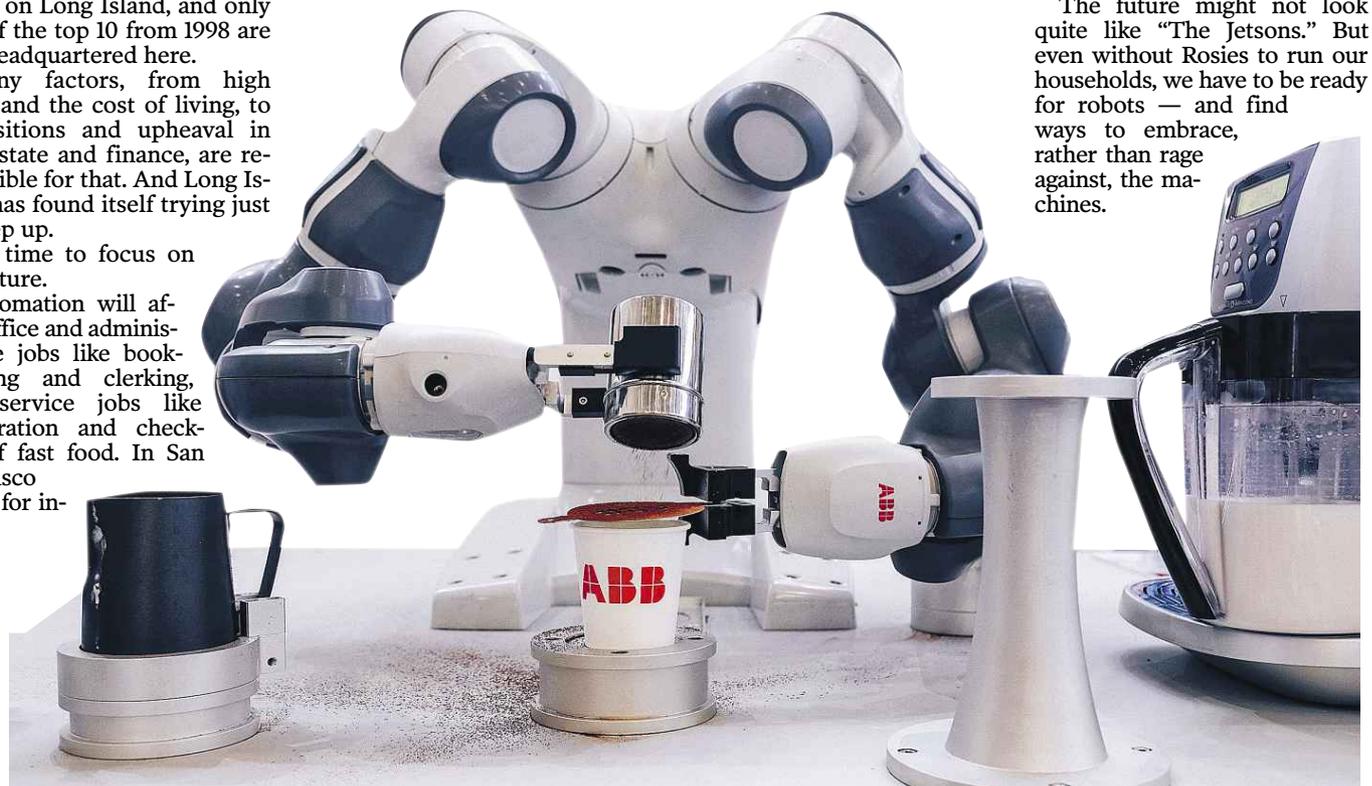
But colleges and universities can't do that in a vacuum. Business leaders must communicate what they'll need.

Long Island needs a region-wide movement so advocates, academics and chief executives can tackle this together. There are roles for organizations like the Long Island Association, and for state and local of-

icials. Consider, for example, using a state-run regional economic development council competition to focus entirely on how to face the automated future.

And there must be concrete planning and strong partnerships to address big questions: Which classes, degrees and certificates must be created, and how can it become easier to start them? How do we create pathways to careers, perhaps through co-op programs, like the one at Hofstra's School of Engineering and Applied Science that allows students to spend a semester or longer working at companies in their fields? How do we train faculty or get employers to provide adjuncts with up-to-date expertise? What new industries should the region focus on? Among the options are artificial intelligence, medical technology and renewable energy. Wind power alone could generate 5,000 jobs statewide.

The future might not look quite like "The Jetsons." But even without Rosies to run our households, we have to be ready for robots — and find ways to embrace, rather than rage against, the machines.



A robot prepares coffee at the Industrial Automation and Robotics Show in China in June.