What to Consider as the Automation Economy Transforms Business Today

Artificial intelligence is shaping the job market, customer expectations and the bottom line.

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Whether we are already living in the "Automation Economy" is a matter of debate, but it won't be for much longer. The current wave of artificial intelligence (AI) technologies is transforming the business landscape, with machine learning, natural language processing, robotic process automation (RPA) and other advancements allowing companies to automate an increasing number of routine tasks once performed by humans. As they do, they are causing what observers describe as seismic shifts in the world economy.

Much as the Industrial Revolution touched every aspect of society, so too is automation as it expands across industries. In fact, the World Economic Forum has dubbed these new innovations the Fourth Industrial Revolution.

"The speed of current breakthroughs has no historical precedent," says WEF founder and executive chairman Klaus Schwab. "Moreover, it is disrupting almost every industry in every country. And the breadth and depth of these changes herald the transformation of entire systems of production, management and governance."

The reality today is that forward-thinking companies are capitalizing on the benefits of automation in increasing numbers, with far-reaching uses that range from high-tech robotic arms in manufacturing to sophisticated customer service chatbots in retail.

As they do, they are raising questions as to what the business — and employment — landscape will look like over the next decade. Soon, those who haven't deployed automation will be in the minority, and by the time these laggards begin a pilot automation program, it might very well be too late — their competitors will have institutionalized this competitive advantage.

Economies of scale

The economics of automation are compelling. The McKinsey Global Institute (MGI) estimates that automation could raise productivity growth globally by 0.8 to 1.4 percent annually as improvements in robotic technologies allow robots to match or even outperform their human counterparts in certain tasks.

MGI further posits that about half of all the activities people are employed to do worldwide could potentially be automated, at least in part, by adapting currently demonstrated technologies, amounting to almost $15 trillion in wages. In many verticals — insurance, health care, financial services and business process outsourcing, to name a few – competitive pressures have made automation a mandate, rather than a nice-to-have.

Assume, for the sake of argument, that a robot can do the work of five people in an automation-ready environment: a process-driven organization that needs 600 full-time employees to hit its business goals. In this organization, the fully burdened cost of a robot is $25,000, compared to $50,000 for a human. In this scenario, 100 robots would cost $2.5 million, and 100 people would cost $5 million;

> "Technical innovation has been expanding the American economy since the country's founding," according to the December 2016 White House report on Artificial Intelligence, Automation, and the Economy. "These transformations have not always been comfortable, but in the long run […] they have provided great benefits. The current wave of AI-driven automation may not be so different."

running the same organization without robotic automation – people only – would total $30 million. This doesn't even take into account the savings associated with reduced mistakes; people are, after all, only human, and they are prone to errors.

It's not all doom and gloom, however, with the world reduced to a "Terminator"-style transformation. The type of robotic process automation we're talking about involves augmenting human employees by automating routine processes. Consider a bank, where granting a mortgage loan is a complicated, multi-step process including identity verification, credit checks and information gathering from the customer. Throughout this process, agents have to input data into multiple systems, which is a tedious process that can result in duplicate information and human error. By automating routine information entry and communication, banks can reduce the turnaround time for mortgage approvals, allowing them to serve more customers, and free employees to perform more value-added tasks. Rather than requiring these processes to be carried out by humans sitting in front of a computer performing the same "copy-paste" function over and over, automation acts as a "digital workforce," freeing human employees to do their best work: the activities that require a human touch.

Robotic process automation technology offers benefits to many businesses through reduced costs and by enabling them to scale rapidly. Some processes are fully automatable (unattended automation), meaning they don't require any human intervention or management. These processes can take place on a virtual server, away from supervision. Other processes may still require parts of them to be performed by a person (attended automation); in these cases, automation takes place on the employee's computer – a prompt, for example, that helps a contact center worker decide how to respond to a caller's concern. Robots can:

- Automate manual tasks (data entry, filing, routine communication)
- Handle routine analytics (forecasting, making calculations)
- Compile reports (productivity, sales, etc.)
- Analyze big data (especially traditionally difficult-to-process data, like call center transcripts)

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Companies that have implemented robotic automation are already reaping the benefits of savings in time and resources. Banca Popolare Di Sondrio was able to automate how it gathers client data from different platforms, reducing the time it takes to create a financial statement letter from one hour to 10 minutes. Telefonica Spain automated many manual management services, reducing the number of errors and handle time and resulting in a total cost saving of €3M within 24 months, and HelpLine automated many repetitive, low-value tasks in its fraud prevention process, reducing handle time by 79 percent.

Whether the new Automation Economy is here today, tomorrow or a year from now, companies that want to thrive will need to think ahead to understand how automation will shape their ability to attract and retain talent, the expectations of their customers and the bottom line.

The effect on talent acquisition

There's no way around it – the automation of routine tasks will have a real impact on human jobs. Entry-level data entry jobs will become less common, and other professions will be affected in surprising ways — financial planners, cab drivers and more. Deloitte estimates that 39 percent of jobs in the legal sector could be automated over the next decade, and other researchers postulate that accountants have a 95 percent chance of losing their jobs to automation in the future.

What we can expect to see in their place will be a new class of jobs, with roles that include:

- Automation specialist: building and programming robots
- Automation developer: building complex automations and integrations
- Automation solution engineer: designing automations to meet specific problems
- Automation sales consultant: helping clients meet their automation solution needs
- VP of automation: an emerging job that is already drawing talent from other roles in organizations
- Automation CoE: governing automation for an organization and helping prioritize automation projects based on value to the company
- Automation business analyst: helping bring all this to fruition in your environment

Haven't heard of these jobs? All it takes is a quick visit to an online job board to realize that these positions are already in demand. As more organizations embrace automation, competition for talent in these areas will become even fiercer. Organizations that will succeed in the automation economy are the ones who are already looking at how to train current talent and reconfigure existing teams to give them the automation competencies they'll need tomorrow and in years to come.

In addition to technical skills, observers also expect an increasing emphasis on the "soft skills" and qualities that differentiate humans from robots, such as creativity, adaptability and the ability to develop (and sustain) personal relationships. Professions that rely on these skills, from doctors, nurses and dentists to hairstylists, personal trainers and psychologists, have little to fear from automation, experts believe.

The effect on customer expectations

As customers become used to increasingly seamless automation, their expectations of businesses will continue to grow —regardless of whether those industries have embraced automation. They'll expect faster response times, more sophisticated self-service options and to be able to avoid repeating information multiple times during a single phone call.

When routine processes are automated, customer service agents can focus their full attention on solving problems for their customers, rather than on filling in forms. This leads to a more natural interaction and improved customer satisfaction. Automation also allows organizations to personalize upsells and cross-sells based on analytics and big data, boosting the bottom line.

As AI and automation technologies progress, there will be a natural shift – from using automation to solve customers' existing problems to offering solutions customers weren't even aware they needed. Machine learning, for example, can spot patterns in a customer's account activity that signify the customer is having a problem and can alert a human agent to proactively contact the customer to help them solve the issue.

The effect on business costs

These technological advances don't come for free. Costs are coming down rapidly as technology evolves and companies compete on the supply side to deliver better value, quality, speed and prices. To make the most of robotic process automation, your company will need to invest in more modern, more powerful hardware – plan for it. Super high-speed connectivity will also become more prevalent – your robots, after all, may be located halfway around the world.

These additional costs will be offset by the ability of robotic automation to improve productivity and free up money currently spent on payroll. Other financial benefits will come in the form of increased customer satisfaction and an organization's ability to scale up or down when demand does, without needing to add or reduce staff.

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Make automation part of your future

Purchasing an automation system or integrating automation technology is only the first step. To succeed in this new environment, you need to understand not only the benefits of automation but also its inherent limitations. Yes, automation has begun to displace human workers, but the effects go far beyond replacement – the Automation Economy offers the opportunity to innovate and advance far beyond the expectations of today. Robotic process automation technology can give your business a competitive advantage as our economy shifts — but only when combined with great people, innovative ideas and well-thought-out processes.

Is the Automation Economy taking hold? Yes, most definitely. Do we know where it's headed? Probably – most definitely – not. History is littered with examples of businesses that didn't see the internet coming twenty years ago, with leaders who underestimated the impact of the iPhone a decade ago. Given the rapid pace of disruption in the modern business landscape, what we can advise is this: Be a leader who recognizes the Automation Economy now, as it is today, and work to actively determine how you can use automation to drive the future of your organization well into the future.

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