Staffing and Morale in the Age of Robotics and AI Adoption

Nathalie PIERCE

Background

Developments in technology have increasingly affected people, businesses, and the economy. Specifically, advancements in "cobots" (robot coworkers) and increased use of artificial intelligence applications will continue reinventing and redefining the workplace. With these developments, come opportunities for companies to help guide employees through inevitable changes.

The Rise of Robotics and the Advent of Artificial Intelligence: Another Industrial Revolution

The Agricultural Revolution resulted in increased labor and land productivity, catalyzing population growth and decreasing the agricultural portion of the labor force. What resulted was an urban workforce, paving the way for the Industrial Revolution. Moving from hand production methods to machine tools and factories, rapid industrialization led to increases in average incomes for workers. The Industrial Revolution created the modern-day labor market model. A third revolution came about in the mid-twentieth century, coined the “Digital Revolution.” It heralded computerization and electronic technology. Today, we are experiencing the Fourth Industrial Revolution, which focuses on artificial intelligence (AI), robotics, and various combinations of technologies. This revolution is characterized by a fusion of many technologies and is evolving exponentially faster than past revolutions. While some are apprehensive about the impact the Fourth Industrial Revolution may have on businesses, jobs, and the economy, many see this revolution as an opportunity to shape our future for the better.

Big Picture: How Will Implementation of Robotics Affect the Workforce?

A lot of media attention has focused on the destruction of jobs due to automation. However, technology and automation positively affect the workplace. While job destruction is a real effect of automation, historically, efficiency and productivity gains from automation helped create jobs and we see the same phenomenon with the Fourth Industrial Revolution.

Job Displacement, Not Job Destruction

Humans fear the unknown. However, once the unknown reveals itself, people discover what they feared was not so scary. While losing jobs to automation may appear ominous, the financial services company Accenture has proven that automation and job loss need not be synonymous. Accenture automated 17,000 back office jobs, terminating no workers. After 18 months of planning and training, the company retrained staff in order to reskill and reposition their employees. While Accenture realizes that technology will always disrupt the workforce, their experience shows that if companies retrain their staff now, retention will be much higher.

Accenture’s lead and create a transparent business model that prioritizes automation and retraining of employees where possible. The skills gap is already proving to be an issue that many companies struggle with, so businesses must manage the inevitable disruption of the Fourth Industrial Revolution through open communications and collaborations with staff. While this new revolution appears to be formidable, realistically it will only destroy demand for specific tasks, not the demand for work.

Managing Morale

Many companies are preparing for AI and robotics in the workplace, with many already using those technologies today. However, only a small percentage of businesses feel that their Human Resources Departments are prepared for the new way of working that AI and robotics bring. Companies agree that using robots will not replace human labor. Instead, the transition

Leaders must agree on timelines, employee communications, what resources will be used, and the main goals of automation.

Amazon is another company that has successfully integrated AI and robotics into the workplace. It has automated some of its warehouses with robotic arms and movable pallets, allowing its employees to engage in more mentally stimulating work. Instead of doing monotonous, heavy lifting, employees now work with computers to determine where to allocate certain products. This warehouse transition has not eliminated jobs, but rather reduced physical demands on employees and increased efficiency. Amazon jobs have more than quadrupled in the last five years.

Rather than keeping workers in the dark and making their future employment a scary “unknown,” businesses can follow

will be much more nuanced. Businesses should not think of jobs holistically; instead, they should break down the tasks within each job. Whatever tasks can be automated should and will be automated.

Planning Ahead

For employers to understand what tasks should be automated, they must first look to each position and uncover work variation and realize what business process complexity are present in each task. One way of doing this is to evaluate each task as either routine or non-routine. “Routine” tasks are those with minimal deviation, which produce simple rule-based output and can be performed in isolation
without social interaction. Tasks such as scheduling calendar invites, customer support communications, and calculating numbers lend themselves to being enhanced by automation because of their routine nature. For example, AI can help free up HR representatives' time by quickly screening through thousands of resumes or streamline a doctor's tasks by scanning through many radiology images to detect illnesses more efficiently. "Non-routine" tasks are those involving significant people management and problem-solving ability, such as interacting with people, thinking over long time lines, developing strategies, and managing complicated work scenarios. These tasks are less likely to be automated.

Even though people's jobs will be changed greatly through rapid automation, it is still commonly thought of as something that will happen to other's jobs, and not their own. Between businesses not knowing how to integrate robots into the workplace and workers not thinking that their own jobs will be affected, the general population appears ill-prepared for a rapidly approaching future. Having clear leadership alignment at the top is crucial for success. Leaders must agree on timelines, employee communications, what resources will be used, and the main goals of automation.

Next, businesses should identify people at the top that will be the 'face' of the transformation. These leaders will communicate important messages to staff to be transparent about changes being implemented. A key aspect of this communication is explaining how automation will become an integral part of the corporate structure. Clarifying how automation will create a better user interface for customers, while simultaneously benefitting workers and cutting bottom-line cost, will help staff become excited for this change.

Lastly, businesses must decide whether they will be workforce reductions. People, unlike robots, have strong feelings. If staff numbers must be cut, or if full-time workers must have their hours reduced to part-time, employees will be concerned about the security and benefits they will lose. To reduce stress stemming from either unemployment or underemployment, companies can implement flexible unemployment and part-time benefits. For example, companies such as REI, Costco, Starbucks, UPS, and Whole Foods provide benefits for part-time workers. REI offers a Flex Plan that allows employees working at least 20 hours a week to choose a medical plan that works best for them. Starbucks also offers a specifically tailored benefits package to fit part-time employees' personal needs. Employees might also be eligible for comprehensive healthcare coverage, discounted stock purchase options, 401(k) with match, educational savings, or a time-off program. The economy is moving towards a more flexible labor force, and it is up to companies to reflect that flexibility in their benefits packages.

Communicating with Employees

It is an employer's job to effectively communicate change in the workplace to staff. As Accenture has shown, jobs will likely be altered rather than destroyed. Instead of robots taking over entire positions, they will take over repetitive tasks that employees dread doing. Businesses must communicate to employees how this transition is an opportunity for them to focus on more creative tasks they did not previously have time for before robots were introduced to the workplace.

For example, Creator, a robot-based burger restaurant in San Francisco, is paying its employees to spend five percent of their shift reading educational books of their choice. The company also plans to offer a book-shopping budget and free Coursera classes. Creator founder Alexandros Vardakostas said his company's robot could save a fast-food restaurant around $90,000 a year in training, wages, and overhead costs. This savings allows for unique educational programs to prosper. Because the robot can make 130 burgers in an hour that are prepped, cooked, and assembled with no human help, it gives employees more time to spend reading books or completing online degree programs. While Vardakostas once said this robot would "completely obviate" fast-food workers, he is now effectively communicating to his staff that the robot cannot work without help from its human coworkers. Instead, working with the robot will allow staff more time to be creative and social at work. And because of the online learning program offered by Creator, there will be more opportunities for front-of-house staff to move into higher paying positions where they perform maintenance and repairs on the robot. Creator's business model shows the potential that robots can bring to improving employees' everyday work. Employers should prioritize explaining to employees the positive implications and opportunities that having a "cobot" will provide.

Retraining and Repositioning

Today, we are living in a time of constant relearning and reskilling. Every industry will be disrupted by AI, robotics, and automation. However, some staff may feel uncomfortable with retraining. The best way to deal with this is to have strong management create an office culture that embraces change. One way to go about this is to actively support workers during the transition. Instead of rushing through hours of training in a short time period, management should be patient and creative. They must understand that the training process is an important part of humans becoming comfortable with their "cobots" and AI assistance. Preparing workers for different, non-routine jobs they will not be used to, and with new technology, will be overwhelming for some. Businesses should view this as an opportunity to build a solid foundation for staff to work with all types of rapidly innovating technology.

The Nanodegree program is just one example of how a company can implement a comprehensive retraining program. With over 10,000 users enrolling in this program, including more than 1,000 AT&T employees, both current and potential AT&T employees are learning entry-level industry-relevant software skills. Additionally, the program offers more than just helping employees do better at their job. The courses are also designed to prepare employees to enter new positions. The program is accessible online, completed in less than a year, and affordable at around $200 a month. It is programs like this that reinforce the notion of lifelong learning in the workplace. Applications like retraining through teaching algorithms and augmented reality allow employers to customize the retraining experience to fit learners' needs.
Preparing Employees for the Introduction of Robotics

Technical training to help employees incorporate AI into their work responsibilities is also crucial. Encouraging people to hone their “human” skills such as empathy and persuasion will also help the transition into automation. Inspiring people to stay in touch with their emotions and celebrating people skills will create a strong company culture that embraces advancement in technology. People may initially be apprehensive about interacting with robots and how their job tasks will change. Having a clear training plan that explains these roles and transitions at the individual, department, and company levels, as well as the big picture, should help alleviate confusion.

Assuring Workers’ Privacy Concerns

Workers may have concerns about their privacy in the workplace. Because robots, predictive analytics, and biometric devices, such as wearable wristbands, mobile applications for employee surveillance, and even exoskeleton suits, can collect and transmit data, privacy can be violated absent proper notice and consent.

The requirements of such notice and consent will vary by state and by country. Many jurisdictions do not allow recording communication with others without consent. If robots employee surveillance or telepresent devices are recording communication between employees, it is important that corporations work with their IT department or third-party robotics provider to ensure that the sensitive information is not being stored improperly. Despite lower expectations of privacy in the workplace than the home, getting heavily informed consent from staff is the best way to reduce liability. Employers should provide notice regarding how the technology works, how it will enhance the employee’s overall job experience, what type of information is collected, to whom it will be disclosed, how it will be safeguarded, how it will be used, and how long it will be retained. Once collected, employers and/or their agents should retain the data for the shortest possible time, on an as-needed basis, and should try to aggregate and anonymize that data in order to apply analytics and derive conclusions, while at the same time, protecting individuals’ information.

Preparing for Change

Identify Tasks Workers Need to Perform

Strategic planning is always important to businesses, but workforce planning is just as important when implementing workplace robotics and AI applications. Understanding where the industry is going, how and why it is changing, what is causing those changes, and how those changes will affect the workforce is crucial to developing a strategic plan for robotics implementation. AI can assist with this assessment. Once a problem potentially hindering workplace efficiency and productivity is identified, using predictive analytics can help extract data from communications and apply it to work products to assess the aptitude of the workforce to work with the automation solution. Because organizations must properly comprehend its future talent requirements, this process must be made a central priority. A company cannot train staff if it does not understand its own needs or does not understand the skills staff must master.

Besides considering whether “cobots” and AI applications can help improve workplace productivity, employers should look to other possible forms of enhancing workers’ skill and abilities. For example, exoskeletons, wearable mobile machines, give workers extra limb strength. Besides reducing incidents of workplace injuries, including repetitive use injuries, this technology creates opportunities for staff with existing injuries or disabilities that could not otherwise perform certain tasks. This technology can take many forms but is generally affixed to workers’ bodies and used by the workers to supplement actions usually performed by their muscles. It can assist the forward-bent posture of the body used when lifting heavy items and also have power units that exert torque at each joint. Additionally, employers may use wearable technology as a reasonable accommodation for employees with disabilities. Exoskeletons assisted workers can today be found handling baggage at airports, building cars and skips, and in fulfillment centers.

Even though the era of automation and the Fourth Industrial Revolution appears daunting, it is helpful to know that the United States has actively and successfully transitioned its workforce.

Assess Whether Workers Have Those Skills

After identifying skills workers need to succeed following automation, companies will likely find that many workers lack those requisite skills. Because not all companies’ workforces will have the skills required for new tasks, it is imperative that businesses consider hiring freelancers to assist with transition. Having a contingent workforce to fill interim positions can make the entire automation process much smoother. Instead of disrupting everyday work by recruiting for a highly skilled full-time hire for months, companies should consider other non-traditional possibilities. Even though training the workforce is a high priority, positions will inevitably be created which staff cannot fill. Hiring contingent workers can relieve some of the stress that months of recruiting can put on a company.

Look for Means of Growing Future Skills Base

Though many workforces lack the requisite skills to work side-by-side with robots today, training future generations to hone these skills will benefit both businesses and society. Many countries have implemented successful training programs. For example, Germany has an apprenticeship program that prepares around half a million young people for industrial work. This program succeeds because it pairs young people directly with companies to gain real-life risk. Moreover, the possibility of injury must be weighed against the opportunity for workers to partner with human enhancement tools designed to greatly improve productivity, develop new skills capabilities, and ultimately reduce incidents of muscle and joint-related injuries.
skills they learn by doing. Another reason this program has had many successes is because of its social prestige. High-level management at large German corporations oftentimes did not attend a university, but instead achieved the "meister" title. Greater cultural acceptance of alternative educational paths to fill talent needs can bridge existing skills gaps.

Some companies have created technical programs to produce a pipeline of talent in the United States. For example, Bavarian Motor Works (BMW) has a program geared towards teaching the skills required to become "equipment service associates." One BMW plant in Greenwood, South Carolina has over 2,000 robots and the company needs people with the skills to keep the robots working at full efficiency. Because of this need, BMW is expanding its program to include this location. The Scholars Program helps BMW develop and maintain a pool of talent that will succeed in the highly innovative and increasingly automated automotive industry.

Programs like these in America are rare, though. There is a social stigma surrounding "trade" type career paths. Many more young Americans are enrolling in college and formal graduate school. This increase in enrollment has not created the labor force that many companies need. Instead of having a general, theoretical background that a formal college education provides, employers are seeking people with technical skills that generally come from on-the-job learning. Because many companies have not adequately developed their own training programs, the gaps in the formal education system have been hindering young people's career advancement. This gap will continue to widen until formal training, whether in school or on the job, bridges it.

American companies are reluctant to implement programs similar to Germany's apprenticeship program because of the high cost of training. However, as Germany has shown, apprenticeship programs are a good investment. At the end of the second year, apprentices are doing over half of a full workload, and by the end of three years, companies have a highly-skilled worker. Private-sector spending ensures that the apprenticeship programs are in line with labor market demands, too.

However, American businesses are worried that they will train their workforce and then lose their investment when their employees leave to work for a competitor. Conversely, if an employer needs employees with different skill sets, it can generally fire the employees it has and hire new employees with the requisite skill sets. This is because the United States operates under an at-will employment regime, whereas most other countries have indefinite employment. The at-will nature of work in the U.S. disincentsivizes businesses' need to invest in retraining and reskilling workers. Other countries' employers have an incentive to retrain and reskill workers because they can only fire employees based on good cause. However, an incentive exists for American employers to do what they do not necessarily have to do. Keeping employees around helps protect a company's investment and can improve morale and cut down on costs generally associated with hiring and orientation, particularly where the requisite skill sets to manage use of transformative technologies remain scarce.

Recognizing and addressing skills realities would not be the first time the U.S. has dealt with its workforce needing a major skill-set overhaul. The U.S. High School Movement (1910-1940) made attending high school a norm for children. The GI Bill, passed in 1941, also enabled many war veterans to attend college for a discounted price. It helped de-stigmatize college as being only for the elite. These movements helped increase human capital, which resulted in the rise in middle-class incomes over many decades. Even though the era of automation and the Fourth Industrial Revolution appears daunting, it is helpful to know that the United States has actively and successfully transitioned its workforce.

Conclusion

The advancement of technology is inevitable. Creating a plan to implement robotics in the workplace may feel futuristic to some, but in reality, it is already here. Introduction of transformative technologies in the workplace will displace, rather than destroy, jobs. Workers fear the unknown, so it is crucial that companies are transparent in communicating with employees about their plans. Businesses know there will be a lot of change, but if they communicate this change effectively and efficiently to workers, staff morale can remain stable or even improve. It is imperative that private businesses invest in training staff and even students to ensure a qualified talent pool. The skills for working alongside robots and enhancing skills through AI are teachable, but need to be prioritized.

The best way employers can manage employee morale is by being open with their staff about why the robots are being brought in, what the roles are, and if there are no plans to lay off workers, explaining to staff how the new system will actually enhance their work experience. Staff will be more productive and have higher morale when they know the "cobots" they are working with will not jeopardize their jobs. Navigating the robotic revolution and its effects on the workplace will be challenging, but planning ahead and being in-tune with the needs of employees will make the inevitable transition much smoother.

Nathalie PIERCE
Littler Mendelson, P.C.
San Francisco, CA, United States
npierce@littler.com

3 Business Insider, This Robot-Powered Burger Restaurant Says it's Paying Employees $16 an Hour to Read Educational Books While the Bot Does the Work, RED LION TRADER (June 22, 2018), https://redliontrader.com/this-robot-powered-burger-restaurant-says-its-paying-employees-16-an-hour-to-read-educational-books-while-the-bot-does-the-work/.