

DON'T FEAR THE ROBOTS... HONESTLY

Submitted by Yan-David Erlich on Wed, 06/21/2017

Just how committed are companies to Industry 4.0?

According to PWC's 2016 Global Industry 4.0 Survey, companies are planning to invest \$907 billion (5% of revenues) through 2020 in digital technologies, including sensors and connectivity devices as well as software and hardware to control and monitor work. As machines, robots, and Artificial Intelligence (AI) increasingly find their way to the factory floor, some believe that 'lights-out' manufacturing (where a factory is fully automated and human presence is not required) will soon be the norm.

Before we get ahead of ourselves, it's important to point out that humans continue to excel at decision-making, managing people, problem-solving, and reacting in unpredictable environments. It is predictable and repeatable work activities that are at risk for automation, not occupations.

The real world is full of situations that have little structure, incomplete information and unforeseen circumstances—in aerospace manufacturing, almost every aircraft is made to specifications unique to that order. We also underestimate the number of times things can go wrong and the complexity of the supply chain—an engine part is delayed because of an unexpected issue at a supplier, or a supply of cable wires are found to be too short. These one-time, unpredictable situations happen all too often and solving them will continue to require human involvement, as unstructured and undefined processes (such as issues-management) are hard to automate.

Additionally, parts of industrial work will always involve navigating difficult terrain, manipulating heavy tools, and making decisions when there isn't enough data or information. These situations require the dexterity, mental agility and creative problem-solving abilities in which humans excel.

We can expect AI, robots and machines to replace many existing industrial work activities—particularly the repetitive, low-skilled tasks. With Industry 4.0, humans will be spending more of their time performing higher-value-added tasks. According to BCG Perspectives' Man and Machine in Industry 4.0 report, to succeed workers will have to combine job-specific knowledge with newly acquired digital skills. Companies preparing their workforce for Industry 4.0 will need to take steps to retrain and equip employees to ensure they have the competencies, tools and skills for a digital age.

A 'lights-out' factory is also unrealistic based on demographic projections. According to the McKinsey Global Institute, the world's economy will actually need every erg of human labor (in addition to the robots) to overcome demographic aging trends in both developed and developing economies.

Smart industry



Industry 4.0 is an opportunity for manmachine collaboration to attain a whole new level of operational efficiency, productivity and safety. Industry 4.0 is an opportunity for man-machine collaboration to attain a whole new level of operational efficiency, productivity and safety. As such, the goal of expanding the cognitive abilities and capabilities of the industrial workforce must be a priority. We have to continue to find ways to give the industrial worker better access to knowledge, training and instructions in order to cultivate adaptability and support collaboration.

Today, it is not uncommon to find machines equipped with sophisticated sensors and AI, while the industrial personnel working alongside them are operating on an analog system of pens, Post-it notes and walkie-talkies. At an oil-and-gas company, field workers were spending most of their workday traveling to and from sites to inspect and manually collect data from equipment, despite the latter being Bluetooth enabled. When the company equipped their field workers with smartphone devices that could communicate with the equipment, they saw a dramatic improvement in productivity. Maintenance and repairs also happened faster, as field technicians now had access to videos and manuals, and could receive remote guidance from off-site experts.

There is also an opportunity for technology to support how industrial employees organize work and collaborate on issues. Problem-solving can be improved with better access to data on workflow inefficiencies, bottlenecks and hazards. Technology can lead to greater productivity with clearer job assignments and team communications. When a food-manufacturing plant used a mobile app to track and manage workflows, team collaboration and communications improved dramatically. The plant now reports fewer repeat cleanings and faster cycle times. Worker productivity also increased, as less time was spent on low-value-added tasks like manually filling out paper forms.

We will always need human workers to perform complicated tasks that keep critical industrial operations running smoothly. The winners of Industry 4.0 will be the companies that find ways to harness technology and machine intelligence to improve how humans work, lead and create.

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About Parsable

Parsable helps the world's largest industrial firms get jobs done right—every time. Most companies know that adhering to Standard Work processes produces the best results, but have trouble getting their teams to follow these processes resulting in lost productivity and poor quality. Parsable provides an Industry 4.0 Connected Worker platform so employees can collaborate together in paperless, mobile, and digital business processes. Teams know what work they need to do, and how and when they need to do it right on their mobile devices. Each step and action is measured and employees can raise issues and provide feedback so that every process is quickly analyzed and improved.

For more information on going fully digital and enabling the last mile of productivity, contact us at 1-888-681-2119 or www.parsable.com/contact.

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