

## **HARMON ON BPM November 2021**

### **AI, Automation and Jobs**

The October 2021 issue of *IEEE Spectrum* is devoted to Artificial Intelligence (AI) and has a series of excellent articles that you should read if you get the chance. One, surveying progress on robots, has the following quote: “Many of the things we most fervently want AI to do — drive cars and trucks, work in nursing homes, clean up after disasters, perform basic household chores, build houses, sow, nurture and harvest crops—could be accomplished only by robots...”

Reread that list a second time: drive cars, nurse, perform household chores, build houses, and nurture crops.... Think about the number of human jobs that entail such tasks! Really think about it! This article contemplates building robots to automate about 50% of the jobs, worldwide, that humans currently perform.

Think for a moment about firing every other employee who is now working. Wait, you say, you don't know any people that nurse, or drive cars or trucks for a living, do housework, are in home construction or in farming. Maybe you don't. You work in technology or insurance or management. Well, let me assure you, the job groups I just named include a large part of the population — virtually the whole population in some countries. They happen to make up a large part of the population in lower income jobs who are frightened of losing those jobs. They may think it's immigrants who are taking their jobs today, but they will figure it out soon enough when the shiny new robots begin to arrive on construction sites, on farms, and in nursing centers while they are being laid off.

Automation has, of course, been going on since the beginning of the Industrial Revolution in 1775. Throughout most of that time, studies have consistently shown that new jobs have always surpassed the jobs eliminated by automation. Auto factories hired more people than were formerly employed in horse carriage and wagon factories and, moreover, paid them

much better wages. It's still just possible that new industries will blossom that will employ farmers and nurses displaced by robots, but I rather doubt it. I'm afraid that this latest AI-driven transition is going to be qualitatively different and that we are going to produce way more unemployed people than any new jobs will that are created can employ.

I have been working in business process improvement for several decades and I am among the first to acknowledge that business process work involves streamlining and automating business processes. Salaries always cost a business more, in the long run, than the cost of machines or software programs that can perform the same work. Therefore, automation reduces the cost of producing goods and services. Cheaper products and services mean consumers (all of us) can acquire desired goods for a smaller part of our income, meaning we have the savings to buy other goods or to recreate or save. In other words, automation is a good thing for consumers – it generates cheaper products and improves our overall standard of living.

Automation also causes disruption as people lose jobs and need to retrain and move to get new jobs. So far, as I've suggested, alternative jobs have become available, but this round of automation may bring an end to that long trend. This round of automation may lead to a growing body of people without jobs.

We have made such a fetish of work, and associated jobs with human dignity for such a long time, that some people can't imagine a life separate from a job. When I went to college, some teachers tried to convince us that there were lots of things that human beings could do with their lives, and most of them did not involve employment. I have lived in communities where people worked together to put on a music festival, organized a little league season, published a small poetry magazine, or organized a picnic for seniors and found it exciting and fulfilling. I believe all human beings are capable of fulfilling themselves in many ways. The only requirement is that we break out of attitudes and the conventional patterns of wealth distribution that are designed to keep us tied to our jobs. This is one of the goals of those who propose a minimum income for everyone. In effect we could distribute income so that no one really needs to work. If we supplemented this with free higher education and a good public healthcare system, as most advanced democracies already do, we could begin to make a transition to a new type of society possible. It would require a change in attitude on the part of those who currently associate their worth with their work, but the wealthy and many bohemians have already shown that it's possible – its just a matter of selling this idea to the middle and lower classes.

When I started working in process improvement, way back in the 60s and 70s, there were a number of books published by intellectuals and economists about the boredom, not to say the horrors, of lots of menial jobs. A good society, the authors argued, should not require human beings to work at repetitive, soul-killing, back-breaking jobs under difficult conditions. I've

always believed that and still do. I'm convinced that automation can free-up human beings to do more interesting things with their lives while making the benefits of modern society available to more people at less cost.

I'm hardly unaware of the problems that accompany transitions from one job to another, not to mention changing social attitudes about work. I have always felt strongly that companies that benefit from automation and societies, in general, have an obligation to help individuals cope with changes that disrupt their lives. With that qualification, I'm for pushing ahead with automation. And I still would be, even if AI applications and robots automate millions of jobs. I can't believe that we, as a society, are bright and flexible enough to find other ways for millions of people to fulfill themselves, without requiring them to spend 8-10 hours each day emptying bedpans, plowing fields, or standing on a production line assembling automobiles.

Obviously a transition to a highly automated world will not occur overnight. And any transition will be painful and frustrating. People resist change and are slow to adopt new ways of thinking. Still, I'm confident we can make it occur. In the meantime I still feel happy that I am able to work in business process improvement, helping organizations automate the work processes that generate goods and services. I believe that the more we automate, the cheaper valued goods and services become, and the sooner we can create better societies for all of us.

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I wish to thank Fred Goldsmith for suggestions that made me think more clearly about some of the issues in this column.

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