Evaluating The Impacts Of Artificial Intelligence And Robotics On The Unemployment Crisis

Introduction

For the last two hundred years, we have constantly debated the implication on technological advances on our lives. Just as jobs in factories opened when farm work declined, and then jobs in offices and services grew as factory work declined, many believe the future is no different. The key question is whether emerging technologies, especially the exponentially declining cost of information technology, robotics, and automation, will make next couple of decades fundamentally different than the previous two centuries.

We have been through huge technological changes before however, this time is different. Technology, specifically artificial intelligence and robotics are evolving at an alarming rate and will pushing us toward an inflection point where the historical correlation between technological progress and broad-based prosperity is likely to break down. Automation appears to increasingly be changing the relative profitability of investments in capital versus labor. Furthermore, I believe given the seriousness of the issue, we are not prepared to handle the crisis ahead of us. Drastic societal change, everything from policies such as universal basic income to a change in our educational system is needed to any chance to deal with impending calamity head-on. Unless we dramatically change how society function, Artificial Intelligence and Robotics will increasingly diminish the job market.

Discussion of Source Material

The view of automation in factories being giant, custom-built, expensive, efficient but dumb robots are of the past. Baxter is an example of the new form of automation. As opposed to traditional robots that require which require skilled operators and technicians and hundreds of thousands of dollars to build and program, Baxter has vision and can learn by simply moving its hand to perform a task. Computers too were once a highly custom and expensive technology, but when general-purpose computers appeared, demand spiked, dropping their price and they quickly became crucial to everything. Ever since the end of the second world war, factory automation has pushed the proportion of people in the US who are working in manufacturing has declined steadily, from nearly 40% during the war to less than 10% today, and for the reasons above, general purpose robotics will drastically push that number sharply down. Robots are very good at performing repetitive predictable task but in past have struggle at complex tasks. However, any complex task can be further broken down into simpler more predictable

task and cutting edge of innovation is bots that teach themselves how to perform task. For example, the bulk of lawyering can be broken down to predicting the impact and the likely outcome of lawsuits, drafting legal documents, and discovery.

Discovery is already not a human job as research bots can accurately examine millions of documents in hours instead of weeks. Saving time and money. IBMs Watson is programmed to understand what people say and give back accurate diagnoses. Human doctors are limited in coping with a one's complicated medical records and are incapable of understanding every drug and its interaction with every other drug. This is quickly turning into bot work, especially owing to the fact that there are research robots whose job it is to test thousands of these new drugs at a time. Doctor bots can track of all its patients world-wide, making correlations that would otherwise impossible to discover. In the examples above all doctors and lawyers do not have to go but when such technologies are available as far away as your phone, the need for these professions will decrease.

Unless we dramatically change how society function, Artificial Intelligence and Robotics will increasingly diminish the job market.

I. The introduction of general-purpose robotics will further push the proportion of people working in manufactory down. a. The introduction of general-purpose robotics will further push the proportion of people working in manufactory down. b. Self-driving cars are not the future, they already work and will outcompete humans at transporting jobs across all industries. c. Technological progress stems from last decade's stuff getting cheaper and faster and this exponential progress will allow artificial intelligence and robotics to outcompete us.

II. New jobs are not created as fast as jobs being destroyed. a. New innovations in old industries does not create significantly many new jobs. b. Even if jobs are not being destroyed, society still needs to keep adding thousands of jobs to society each year to keep up with population growth c. Falsehood in the notion that as mechanical muscles allowed us to specialize further and move into thinking jobs, in the same way mechanical minds will allow us all to move into creative work.

III. White collar work is at greater risk than factory work as it is easier to program hard complex task than it is train artificial intelligence to do simple task. a. As already seen robots are very good at performing repetitive predictable task, however, any complex task can be further broken down into simpler more predictable task and cutting edge of innovation is bots that teach themselves how to perform task. i. The bulk of lawyering can be broken down to predicting the impact and the likely outcome of lawsuits, drafting legal documents, and discovery, which is already not a human job as research bots can accurately examine millions of documents in hours instead of weeks; saving time and money. b. In the examples above all forms of doctors

and lawyers would not disappear, but when such technologies are available as far away as your phone, the need for these professions will decrease.