

We are presently experiencing the exponential growth of Artificial Intelligence and robotics and those in the know seem to be equally divided on whether these technologies are job creators or job destroyers. I find myself in the latter camp. So far they have probably already replaced more jobs than they have created. The slow recovery of the U.S. economy is closely tied to worker productivity, which, in turn, is related to our use of technology. We are only at the cusp of this new industrial revolution, and I suspect it will become far more obvious and pronounced during the next 10 years.

I read an article a few months back hailing the return of a garment manufacturer to the Southern US. What hit me was the fact that when the industry left for cheap labor in China, 1400 jobs were lost but on its return only 140 jobs were created and productivity was up.

I think we all understand that the business of America is business and the business of business is profit. The biggest cost for business is people so moving labor where it is cheapest makes sense, as does quickly replacing those same people as fast as possible with robots and automation. Anything and everything that can be automated to replace humans will be done. I don't think there's any reason to believe that firms would behave in any other way and social forces, like unions, that might limit these actions, don't have the strength to prevent these changes.

During the 20<sup>th</sup> Century our economy was based primarily on labor. The Industrial Revolution displaced labor from agriculture to the city—but the labor existed. Where there was work to be done, humans were the best

“machines” to do the job. As production became more efficient, labor continued but moved into non-essential vocations (essential being food production and housing). What used to be the foundation of our economy—labor—is now being severely eroded by computer power, robots and Artificial Intelligence. Soon humans will not be the best “machines” to get work done.

It’s a given that computers will get more powerful and be able to perform more and more intelligent tasks. What we are beginning to see today are vast increases in income inequality, masses of people who are effectively unemployable and the possibility of breakdowns in the social order.

This new Industrial Revolution is different from the last. The changes are more rapid, and are going to impact people and professions that have thus far been insulated from automation. And yet education systems in the US and much of the rest of the world are still sitting students in rows and columns, teaching them to keep quiet and memorize ----- preparing them for life in a 20th century factory.