

***A World without Work: Technology, automation, and how we should respond.* By Daniel Susskind. Pp. xii, 307. New York, N.Y., Metropolitan Books/Henry Holt & Company, 2020.**

In the 1930s, John Maynard Keynes had already noticed how machines can replace people in the workplace. He called it technological unemployment. In this book, Daniel Susskind examines the main economic arguments that have emerged on this issue since Keynes, in view of learning how to face the future. His considerations go beyond the normal horizons of economic theory. They address crucial questions about artificial intelligence, inequality, the politics of large technological companies, and our meaning in life. Machines will generate more prosperity, but their proliferation will have some alarming consequences, like higher income inequality, dangerous greed for power to control others, and a world in which people lose their sense of meaning in life for lack of work. Susskind examines these prospects and proposes some interesting solutions.

He starts with the context. In the course of history, what we call economic growth emerged relatively recently. David Ricardo in his 1817 book *Principles of Political Economy* dealt with machines in the workplace and argued that they constitute a threat. Such views were common all through the 19th and 20th centuries, but Susskind is convinced that they were the result of misplaced anxiety. To see why, we need to recall that machines do not merely substitute workers. They are also a complement. They not only make people better at what needs to be done but also create new demands for human work that did not exist before. The mechanical future, therefore, presents two rival forces. Technology is simultaneously both a threat and an opportunity. Referring to recent trends, Susskind shows that, up to now, the helpful complementing force has been, overall, more significant than the harmful substituting force. Will this continue, now that machines are becoming intelligent? Susskind says no. The simple assumption that routine tasks are for machines and non-routine ones are for humans will not hold any longer. During the first decades of AI, engineers worked by observing how humans do some specific tasks, and then emulating those operations step by step. This meant trying to reproduce both the material processes in the brain and the logical processes in thinking. The resulting collaboration between AI engineers, neuroscientists, and philosophers gave rise to a new discipline: cognitive science. By the 1980s, however, this project dried up and was abandoned. The second wave of AI conceded that we will never build a human brain. It focused rather on achieving the same results as human intelligence by taking any path whatsoever. We can for instance simulate human creativity and memory by using vast bodies of data, extremely high processing power, and very intricate algorithms. We know that human brains do not function this way, but this is irrelevant. Nowadays therefore, AI is not a branch of cognitive science any longer but of engineering. It serves companies like Google and Amazon that have access to vast amounts of data and want results. It thus promises to acquire intelligence skills that exceed what humans can ever hope to achieve on their own. Susskind concludes that the harmful substituting force of such new technology is now becoming a serious threat.

The second part of the book clarifies the nature of this threat. We will not be faced with a world without work but with one in which there is not enough work for everyone. The encroachment of machines will not happen at the same pace all over the world, but there is no way of avoiding technological unemployment. Since the few available jobs will be out of reach for most workers, unemployment will increase even if human labour becomes cheaper. What technology did to horses as regards transportation, it will do to humans. It will make them redundant. Moreover, the threat is compounded by the resulting rise in financial inequality. A world where machines take over the workplace is one in which few people will own vast amounts of capital while the rest will have relatively little or none at all.

What can we do? Susskind dedicates the third part of the book to solutions. Many philosophers are convinced that education will remain important, not only to ensure that future humans will compete successfully with machines but also to employ these very machines to enhance and globalize education itself. Susskind argues however that this solution will become increasingly ineffective. He therefore proposes what he calls a Big State with enough power to safeguard just distribution of wealth, sharing of ownership of companies, taxation of automation, and the curtailment of the growing political behaviour of mega-companies that endanger fundamental values like liberty, democracy, and justice. Economists have already contemplated how inequality can be resolved by introducing a Universal Basic Income for everyone, even the unemployed. Susskind however wants to avoid the obvious problem of the lazy living off the industrious. He argues that we need some carefully planned admission policy for such an income. Basic income should be available to those who engage in approved leisure activities. Education should ensure that people learn how to find meaning in leisure and how to appreciate life without being addicted to work as a kind of opium. The leisure policy of the Big State will indicate which leisure activities qualify a person for the basic income. These activities could include becoming involved in the arts, the sciences, political activities, and charitable outreach programmes. In this way, Susskind argues, people will rediscover the meaning of life. They will stop associating their value, their identity, and even their very essence with their job but rather with the creative self-expression allowed by leisure. For Susskind therefore, we need to stop seeing leisure merely as a means to enhance work. Leisure should become a priority concern, an issue of intrinsic rather than instrumental value. These measures are needed because technological unemployment will inevitably deprive people of one major source of the sense of purpose in their lives. The present centrality of the standard question, “What do you do for a living?” shows the extent to which work is now the basic ingredient of our identity, of our narrative, of the way we situate ourselves within social space. This must change. Society needs some serious soul-searching, not least to identify the kind of leisure-activities that should be deemed valuable and hence meritorious of the basic income. In this sense, politicians need to retrieve their role as moral leaders.

As can be seen from this short summary, Susskind deals with very important issues that often require an interdisciplinary approach. In a book of this kind, some inaccuracies are inevitable. For instance, on p. 222, Susskind claims that, in the Book of Genesis, work “makes an appearance” as a punishment. This is incorrect because, even before the Fall, humans had work to do. They had been entrusted with the care and control of God’s creation. The Biblical point is that work deteriorated from what God had intended it to be and became drudgery because of sin. Had Susskind been more attentive here, he could have found helpful support for his overall aim. Another point that a reader might find problematic is the very idea of a Big State. It sounds dangerously close to authoritarian or even totalitarian regimes. How could we ensure that the Big State does not curtail personal liberties? Susskind downplays the dangers here. He does mention taxation of automation, but he does not ask whether we should install intelligent machines in the workplace in the first place. Unchecked workplace automation may seem to respect freedom, but the freedom it respects is that of the few, the entrepreneurs. It neglects the freedom and wellbeing of the many. Should we not perhaps envisage policies of prevention rather than cure?

Susskind writes in excellent prose, offering a rich blend of information, deep philosophical questions, economic analysis, and humorous anecdotes, a blend that makes this book a pleasure to read. There is much to learn from it.