Chapter 63
The Rise of Artificial Intelligence:
Its Impact on Labor Market and Beyond

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ABSTRACT

Our inventions defined the work we engaged in for centuries; created new industries and employment opportunities around them. They, however, had often unforeseen consequences that affected the way we lived, interacted with each other, and redefined our societal rules. The established narration portrays the impact of major technological leaps in civilization on employment as temporary disruptions: Many finds themselves without employment taken away from them by efficient, laborsaving inventions, but, in the long run, through gradual adaptations, improved education and gaining higher qualifications, everyone benefits. In this chapter, the authors explore the impact of the rapid expansion of artificial intelligence (AI) in relations to the labor market. The authors argue that this rather optimistic, even naïve scenario, collapses while confronted with the exponential growth of AI; in particular, with the potential arrival of syneoids – robotic forms of "strong AI" possessing, or even exceeding, the full range of human cognitive abilities.

FROM GALATEA AND GOLEMS TO FUTURE SYNEOIDS

We know that blind evolutionary processes can produce human-level general intelligence, since they have already done so at least once. Evolutionary processes with foresight—that is, genetic programs designed and guided by an intelligent human programmer—should be able to achieve a similar outcome with far greater efficiency. (Nick Bostrom, Superintelligence, Paths, Dangers, Strategies)

The unique urge to create an *artificial man* has a long tradition dating back to the dawn of Western intellectual history, "Hephaestus, the master craftsman, grants a human voice (…) to his golden mechanical handmaidens (Gera, 2003, p. 114)" and Jewish folklore includes many versions of golems –anthropomorphic beings created from clay. Myths, religions, and popular culture displayed this obsession with varying intensity thorough history. Pamela McCorduck (1979), who investigated this phenomenon, concludes that, as humans, we have been engaged in this peculiar form of self-reproduction by attempting to fulfill the urgent desire, bypassing the ordinary means, in order to recreate what is the essential to us. Contemporary incarnation of this ancient desire can be observed in robotics.

Currently, we are on the verge of an unprecedented technological revolution involving intelligent robots powered by artificial intelligence (AI). It is important to note that what we are experiencing at this stage – Google self-driving cars, Apple Siri, Google Photo Search, robots exhibiting behavior similar to human- are examples of so called "weak AI (WAI)." The concept asserts that machines could act *as if* they were intelligent. It is a sort of limited intelligence. To the contrary, "strong AI" (SAI) is the higher level of AI, often referred to as "artificial general intelligence" (AGI) –it entails the possibility of machines *actually* thinking (Russell & Norvig, 1995). According to this view SAI would possess the full range of human cognitive abilities. Such AI, would, as predicted, experience exponential growth, and quite swiftly reach a level exceeding human capacities – a point often referred to as "singularity." If we assume a physicalist position regarding the nature of human consciousness, we ought to also seriously consider the possibility that SAI would be, at some point, able to genuinely experience subjective mental states such as consciousness. The emergence of consciousness in SAI could be perhaps an incremental process, similar to varying degrees of mental capacities in animals. The terminology attempting to capture this phenomenon varies and it does not quite reflect its full nature and scope. For the purpose of our investigation, we will refer to it as the *syneoid* –a term derived from Greek *συνειδητός* (corresponding to English *conscious*) and the suffix *–oid* suggesting "likeness" or "form of" as well as bearing resemblance to android (human-like robot).

Throughout history, technological advancements have impacted how we worked, lived, and died. The canonical narration pertaining to the impact of major technological leaps in civilization on employment, particularly the paradigmatic Industrial Revolution, follows the familiar pattern: they lead to substantial shifts in types of jobs, affecting perhaps a large but limited area of employment. Certainly, the total number of jobs was not affected and, if anything, technological revolutions expanded employment opportunities by opening new areas of exploration. In a relatively short term, this was a messy process; many lost jobs taken away from them by efficient, laborsaving inventions, but, in the long run, through gradual adaptations, improved education and higher qualification, everyone benefited. Thus, in essence, a technological revolution has been typically painted, in spite of its shortcomings and damages, as a disruptor and the true engine of human progress.

The arrival of the syneoid, however, would have staggering consequences for the future of human employment and beyond. In this chapter, we intend to explore the impact of the rapid expansion of SAI in relation to the labor market. We argue that this rather optimistic, even naïve scenario, collapses while confronted with the explosion of SAI, as none of the historical extrapolations will apply to the processes that are currently shaping up. The history might have had repeated itself with several technological revolutionary cycles but, this time, we will be confronted with a radical new factor, for the arrival of which we are utterly unprepared, and as we are about to see, in principle, we cannot.

Interestingly, although the research on SAI is growing fast, it did not capture the interest of general public beyond some portrayals in science fiction. This does not translate, however, into a serious public debate on the speed and consequences of this technological revolution *in statu nascendi*. Popular imagi-

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