

THAT VERY BIG COMPUTER KNOWN  
AS HUMAN CIVILISATION

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Yuval Noah HARARI, *Homo Deus – A Brief History of Tomorrow*  
(Random House, London, 2017)

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Yuval Noah Harari's *Homo Deus* is in many ways a colossal work, standing on its own in a narrow genre of real academic popular science reading. It is also perhaps the most prominent universal history written since Arnold Toynbee's many volume project *A Study of History*, eventually published in 1947. Toynbee famously projected the downfall of Western civilization as previously known, based on the inherent destructive ethos of humanity. In words that could have been Harari's a century ago, Toynbee wrote, "Growth means that the growing personality or civilisation tends to become its own environment and its own challenger and its own field of action. In other words, the criterion of growth is progress toward self-determination, and progress toward self-determination is a prosaic formula for describing the miracle by which Life enters into its Kingdom" [Toynbee: 216].<sup>1</sup>

Toynbee's universal history was one in which Mankind left a stage of civilisation held together by strife and built within the premises of warring nation states in order to embrace a larger form of human being endowed by universal meaning. Toynbee, like Harari, thought that humanity stood at the brink of disaster. Unlike Harari, Toynbee thought that humanity could only be saved through the development of a new world civilisation, joined in its recognition of higher principles of meaning in a godly Civitas Dei. So Toynbee joined choir with a range of preachers after 1945 who thought that the Pandora's box of atomic technology could only be closed through a renewed commitment to God as the truly universal being. No such thing for Harari's *Homo Deus*, who is himself the only God left and who finds himself, in Harari's account, desperately lonely in an increasingly mechanistic universe. The likes of this universe are very familiar, we have seen it many times in the science fiction of the last century, from Nobel Prize laureate Harry Martinson's epos, *Aniara*, in which a super computer laments the end of humanity in 103 songs, to *Blade Runner 2049* (in which everything is an algorithm and the

<sup>1</sup> Arnold Toynbee, 1939, *A Study of History*, vol. III (London, Oxford University Press).

only organic objects left from carbon civilisation are priceless relics of the past).

Harari's projection of the end and demise of Western civilization is meanwhile much more slippery than Toynbee's. *Homo Deus* is a curious work, as utopian as it is dystopian and as techno-nerdy as it is catastrophist and somehow both fantasist and realist. Harari follows closely on the depictions of the future that have recently emerged from transhumanists and AI theoreticians (including Steve Pinker, Richard Dawkins, Max Tegmark or Nick Bostrom) who believe that humanity has passed a threshold through its cultivation of a new kind of technological organism—the Algorithm—and that this organism has now come to maturity in the sense of breaching in a fundamental way the distinction between life and technology, soul and machine. These theoreticians argue that humanity has stepped into a new era, not that of the hopelessly fossil dependent Anthropocene, but that of Humanity 3.0, the age of the Great Algorithm. The Great Algorithm, to most of these thinkers, is both the evolutionary organism once depicted by Austrian chemist Ludwig van Bartalanffy, the self-organising market and coordination mechanism envisioned by Friedrich von Hayek, and a Nietzschean *super mensch*. Harari is not very different from these theorists in his unhidden fascination for the new technology, be it in genetic modification, computer power, or evolutionary biology. Nor is he so different from them in his warning that Superman disguised as Algorithm might not turn out to be a benevolent being. Harari's warning to humanity is thus oddly uttered with two tongues: on the one hand, we are the only being in the universe to have been able to put technology to this God-like use of enhancing ourselves and pushing the physical and cognitive limits of our world, and on the other, we are also regretfully unable to think through the consequences of our creations: with the invention of self-learning AI we have finally let the evil genie out of the bottle. However, Harari himself, in the midst of this disastrous process, is mainly amused.

It is this mixed message of blessing and devil in disguise that is somehow confusing in Harari's work. Where his first work *Sapiens* was in many ways a breath-taking and impressive panorama of human evolution over the millenaries, *Homo Deus* engages in a problematic prophecy of time to come. Harari does not know very much of time to come. He is, for instance, completely uninterested in what is arguably the greatest threat to human civilisation for the foreseeable future, namely climate change. He stands rather in the company of those

nerds and geeks who, faced with such a real apocalypse, have preferred to turn their attention to the hidden futures of the human mind (where we might find the algorithmic device that will help us to not face the consequences of our actions), or to new science fiction archaeology (according to which human industrial civilisation might already have existed and perished, perhaps many times). Intellectual historians of future centuries, if their profession has not been rationalized by the Algorithm, will be perplexed by the fact that humanity's leading intellectuals, or at least those with the largest sales, turned their gaze from the actual problems of humankind to such great panoramas of what humankind is. Interestingly, Harari in this manner reproduces the great narcissism that he accuses humans of bearing; he re-projects the *Homo Deus* that he is himself enthralled with.

I myself do not recognize many people I know in Harari's *Homo Deus*, an essentially Western, white and utterly privileged person for whom enhancement is a constant opportunity. That the advent of new technologies leads to ensuing sociological, historical, or political representations of what kind of society will follow this technology is not a new thing. In the past, it has often led to intellectual traps. Manuel Castel's *The Information Age* downplayed the many paradoxes of the social and political effects of the microchip era, and did not provide the great social theory of the new technologically determined division of labour that post-Fordism brought, and that we are perhaps just starting to discern. *Homo Deus* similarly does not make a clear ontological distinction between its object of study, a new humanity in the making, and the theory or critique that could be pulled from these observations if some cognitive distance was applied. We therefore do not exactly know, at the end of an often meandering and also frequently banal argumentation, what it all means. Harari proposes that one of the profound changes of living in the new humanity will be that meaning is without importance. We will care not for meaning, but for the efficient decisions that algorithms make for us. As we ourselves move further and further towards the great fusion with the algorithm, we will likely lose the capacity to think that meaning even exists, and we will no longer seek it. As computers paint, compose, love, analyse and project better than ourselves, feelings become useless and may not even exist. A point where Harari makes the troublesome conflation between his observations and his analysis clear is when he states that recent scientific theories of evolutionary biology have proven that humanity is an algorithm, and therefore that it is highly questionable whether we have

a consciousness at all. As he correctly points out, no scientist has been able to prove the existence of consciousness—it cannot be weighed, excised, or simulated. In contrast, that we act as an algorithm is, he says, the great contemporary breakthrough of the life sciences.

Many people in the life sciences would object to this. But most dazzling are Harari's conclusions for social and political life. In one of Harari's more spectacular conclusions, humanism, the idea that human beings are superior because doted with consciousness, has to fall, and liberalism, with its idea that human freedom is therefore a supreme goal, is nothing but an illusion. Freedom, in any case, may not be important, as most people lead lives in which freedom and efficiency are mutually exchangeable principles. We care not what we feel, we care to find the right partner, make the right market decisions, and do what will make our genes competitive for the next generation. We are, for this reason, quite likely to give up lofty notions of free will and happily begin our adoration of the great Google god (which Harari rightly or wrongly compares to the gods of Sumerian civilisation), since Google now knows better than us what we in fact want.

I do not particularly believe that Humanity 3.0 will happen, or at least not in the way that Harari depicts or warns of. I believe that some of the AI theorists are more sophisticated than others. Some of them are involved in a massive feedback loop in which the invented representation of human behaviour, known as rational choice theory, is now the template for technologies in which behaviour is by definition rational and human choice reduced to choosing only the rational. The wiser theorists of the AI revolution are those who warn of what Humanity 3.0 or the Great Algorithm might in fact be capable of when unleashed. One of these, Max Tegmark, compares AI to the German rocket project during WWII. We cannot just invent rockets; we need to consider where rockets will land and ~~in~~ for what purpose they will be fired. These people are themselves today fairly convinced that there is no stopping the Algorithm as such, and that we have to start thinking very seriously about the ownership, regulation, redistribution and ethics of algorithmic intelligence. Struck by the discourses of some of their more eugenicist minded pairs, they have also warned of something that Harari disregards almost entirely, namely the fact that not all of humanity is likely to become upgraded, and certainly not at the same time. Humanity 3.0 is not likely to be one living enhanced organism. Rather, it will be a set of fractured humanities, living on different time scales and in much different histories. While some transhumanists such as Ted Fuller once saw

this as an opportunity of a divide between an enhanced elite and a non enhanced global *hoi polloi*, intelligent AI researchers today see it as the decisive issue for a world in which artificial intelligence becomes a central element of social life. Can we expect technology to solve this problem between the enhanced and the unenhanced? If we go as far as to declare humanism dead, and even equate it, as Harari does, with *Homo Deus* in the first place, then how can we even think to bridge such a divide?

Interestingly, as the nerd that Harari is, he is unaware of his own position in a great line of hopeful enthusiasts of the great future unification of human consciousness, from the Catholic palaeontologist Teilhard de Chardin to the pioneers of Silicon Valley. But they have been wrong. Humanity is not one living organism, and human societies still reflect the diversity which is explained by history, social struggle, class structures, and battles over meaning. There are truly profound questions here for many academic disciplines in terms of which kinds of meaning humans will ascribe to technologies that present them with a near human face, or that alter in profound ways what it is to be a human being. There are also real questions about the gradual return of eugenicist arguments and the identification across disciplines of humankind as first and foremost a species prone to future selection. Harari here comes with a final breath-taking statement, namely that we should save evolutionary biology from the obligatory image of Auschwitz. In my opinion, the return of eugenicist arguments in the historically familiar cloak of concern for human rationality should push the humanities into full attention mode. The idea that work will soon be fully automatized, at least in a privileged Western world, should lead the social sciences to revisit the foundations of the social conflicts unleashed by automation some four decades ago and left unsolved in the Western world as well as on the global level.

*Other literature read for this review:*

Sonja Amadae, 2019, "Humanity 2.0", in J. Andersson and S. Kemp, *Futures* (Oxford University Press, Oxford); Marie Laure Djelic, "Un nouveau biologisme version 3.0", *The Conversation* [<http://theconversation.com/un-nouveau-biologisme-version-3-0-93404>]; Marion Fourcade, "The will to progress and the twofold truth of capital", *MaxPo Discussion papers* [<http://sase.org/wp-content/uploads/2018/05/3-Fourcade-final.pdf>]; Harry Martinsson, 1956, *Aniara*

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(Albert Bonniers Förlag, Stockholm); Max Tegmark, 2017, *Life 3.0. Being human in the age of artificial intelligence* (London, Allen Lane).

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