

Hussam Sultan



Reply |

Thu 08/09, 14:06

Dear all,

I received the below comments on the Planet of the Apps article. The comments are by Professor Jyotirmoy Dasgupta of the Institute for Technology and Management (ITM) in India. The comments were sent by Dr Shariq Nisar from whom I got the permission to circulate the commentary of Professor Dasgupta.

Hussam

From: Dr. Jyotirmoy Dasgupta (ITM - IFM Khr) [<mailto:jyotirmoyd@itm.edu>]
Sent: Wednesday, September 7, 2016 9:36 AM
To: Dr. Shariq Nisar <shariq@octaware.com>
Subject: Re: FW: Planet of the Apps

Thank you. I did not know about this author and it does appear that one should read his books.

Technologically speaking - we already have machines that are stronger, faster, more accurate, have more memory, can fly and see farther and in frequency ranges not possible for humans, hear more and the list can go on. Intelligence wise also, the rapid pace at which the field of artificial intelligence and machine learning (in fact I was listening to the video lectures on that subject yesterday when you came to my room) is progressing - many of the lower order capabilities of what we call intelligence would be done better by machines.

This is already paying dividends as autonomous and self learning robots like the mars rover etc. are helping Homo Sapiens to learn more at a faster rate than ever before.

As far as I know - technology has still not advanced to a stage where higher order human faculties such as consciousness, kindness, socially responsive behavior, out of the box thinking, etc. can be duplicated. Also - we do not understand the phenomena of birth and death. So it is some time before we can start claiming that we fully understand our immediate surroundings. And many more years before we start understanding the world say up to a few light years away.

But like we would be in awe of Aladin if he showed us what his djinn can do; humans born say 500 years ago would be in awe of modern humans if they could see us today.

So we are already super humans and shall become more powerful and at a faster rate than ever before.

To call such a species by another name is merely semantics. But perhaps wrong semantics as the concept of God in most philosophical schools of thought is different - for example satyam (eternal truth) shivam (eternally present) sundaram (and therefore the most beautiful).

Interesting read in any case.

Regards

On Tue, Sep 6, 2016 at 4:17 PM, Dr. Shariq Nisar <shariq@octaware.com> wrote:
Sir,

This is for your comments.

Shariq

From: Hussam Sultan [mailto:hussam_sultan@hotmail.com]

Sent: Sunday, September 4, 2016 2:04 PM

Subject: Planet of the Apps

Dear all,

Are we as humans losing our most powerful and important feature, our intelligence? This is the alarming message of the book, the subject of the book review below, *Homo Deus: A Brief History of Tomorrow*, by Yuval Noah Harari. As humans lose this superior quality to the machines, the future of mankind is now the subject of much debate and analysis.

Futurology or Future Studies is an actually subject taught at universities across the world as module in many courses and disciplines, I had a brief encounter with it myself, and there is a debate whether it is an art or a science. It is a module taught in economics, environmental studies, sociology, mathematics, philosophy and many other branches of knowledge. It combines studies of the past and the present using mathematical tools and other qualitative tool to arrive at "possible" future scenarios in various forms.

Going back to the book, the author argues that humans will now be upgraded from Home Sapiens to Homo Deus (super-man or god-man) having achieved in the past few decades what many would have considered miracles in the past. *“For the first time in history, more people die today from eating too much than from eating too little; more*

people die from old age than from infectious diseases; and more people commit suicide than are killed by soldiers, terrorists and criminals combined,” he writes. “The era when humankind stood helpless before natural epidemics is probably over,” he adds. “We will now aim to upgrade humans into gods, and turn Homo sapiens into Homo deus.”

Whether this is science or fiction, or as Al Pacino playing the devil said: "vanity is my favourite sin" and this is just the vanity of humans boasting their superiority, it remains an interesting and engaging topic and a good read for a Sunday afternoon.

Hussam

<http://www.ft.com/cms/s/0/5bfee114-69ea-11e6-a0b1-d87a9fea034f.html>

Planet of the apps — have we paved the way for our own extinction?



John Thornhill

Yuval Noah Harari’s new book imagines a future in which machines take charge



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A chart showing the progression of a robot ape evolving into a robot human.

Most books that try to predict the future turn out to be wrong — sometimes spectacularly so — given that history rarely moves in straight lines. Extrapolating current trends is often misleading.

We had better hope that [Yuval Noah Harari](#) also suffers from faulty foresight. The future world that the Israeli historian describes in *Homo Deus* is terrifying — even though he stresses that his scenarios should be understood as possibilities rather than prophecies. For 70,000 years *Homo sapiens* has been the smartest algorithm on the planet, as Harari puts it. But within centuries, if not decades, that will cease to be true as more efficient electronic algorithms outstrip our increasingly obsolete biochemical models. When that happens, we will discover that we are no longer at the apex of civilisation. Computers will know us better than we know ourselves and our continued usefulness will be jeopardised. “The yardsticks that we ourselves have enshrined will condemn us to join the mammoths and the Chinese river dolphins in oblivion. Looking back, humanity will turn out to be just a ripple within the cosmic data flow.”

[Yuval Noah Harari on big data, Google and the end of free will](#)

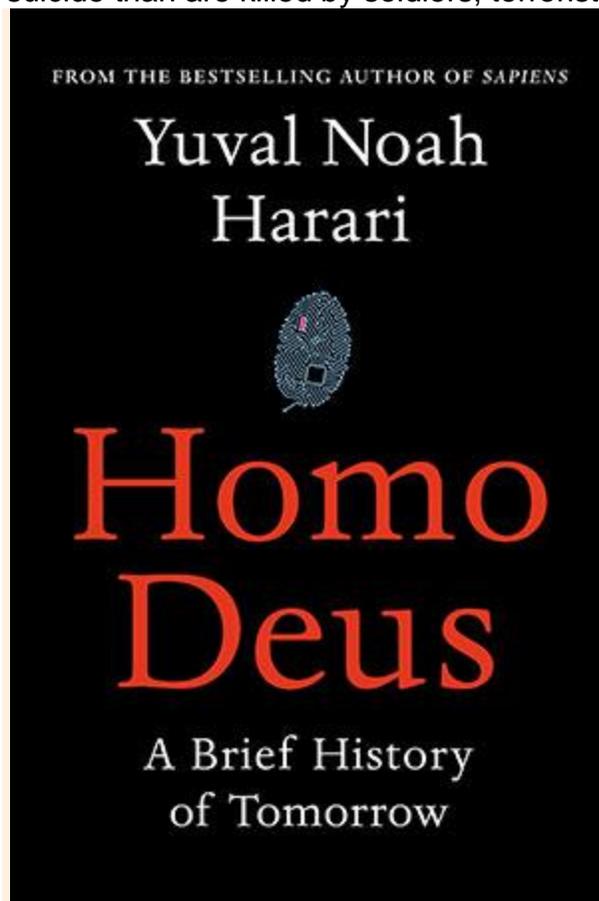


Forget about listening to ourselves. In the age of data, algorithms have the answer, writes the historian.

Few forecasters have the audacity to write like that. Fewer still have the intellectual firepower and literary skill to carry off such a monumental sweep of history, philosophy, religion, science and technology. Specialists will cavil at his somewhat cavalier treatment of their expertise. But it is thrilling to watch such a talented author trample so freely across so many disciplines. Harari’s skill lies in the way he tilts the prism in all these fields and looks at the world in different ways, providing fresh angles on what we thought we knew. No matter how scary and incomplete, the result is scintillating. In his previous bestselling book *Sapiens: A Brief History of Humankind*, Harari sped through millennia of history at breakneck pace. Many of the themes of his first book are reprised: the importance of the cognitive revolution and the power of collaboration in speeding the ascent of Man; the essential power of myths — such as religion and money — in sustaining our civilisations; and the inexcusable brutality with which our species treats other animals. But having run out of history to write about, Harari is forced to turn his face to the future.

His latest book opens with a celebration of mankind’s extraordinary ingenuity and the achievements of our times. For many thousands of years, our human agenda has been dominated by attempts to deal with famine, plague and war. But today, argues Harari, we can plausibly claim to have all these threats more or less under control. “For the first time in history, more people die today from eating too much than from eating too little;

more people die from old age than from infectious diseases; and more people commit suicide than are killed by soldiers, terrorists and criminals combined,” he writes.



Harari emphasises how quickly the world has changed. In 1974 the World Food Conference in Rome warned that China was heading towards catastrophe, as it would never be able to feed its population. In fact, China engineered an economic miracle and, for the first time in its history, the world’s most populous country is free of famine. This is not just true for China, he argues. We know how to stop famine and are capable of doing so — even if we sometimes lack the political will. Worldwide, obesity killed 3m people in 2010 whereas famine and malnutrition killed about 1m.

It is a similar story with plague. In the 14th century the Black Death wiped out more than a quarter of the population of Eurasia. The diseases carried by European explorers and settlers killed up to 90 per cent of the local populations in the Americas, Australia and the Pacific Islands. In 1520 Mexico counted some 22m people. The disease and exploitation brought by the Spanish *conquistadores* reduced the country’s population to less than 2m by 1580. The Spanish flu pandemic that swept the world in 1918 killed somewhere between 50m and 100m people. Yet now, suggests Harari, most diseases are rapidly identified and cured. “The era when humankind stood helpless before natural epidemics is probably over,” he writes.

Peace is also a modern invention. Although we understandably obsess about the horrors of the [Syrian civil war](#) and the dangers posed by terrorism, we have never lived in calmer times. In ancient agricultural societies, human violence accounted for about 15 per cent of all deaths. That had fallen to 5 per cent in the murderous 20th century and is currently running at about 1 per cent in this century. Of the 56m people who died in 2012, about 620,000 people were the victims of violence. To put that into perspective, some 1.5m died of diabetes. “Sugar is now more dangerous than gunpowder,” Harari concludes.

So far, so wonderful. Take a bow, fellow humans. Mankind has finally ceased to be God’s plaything and would appear to have seized control of his own destiny. Having risen above the beastly struggle for survival, it can set a new agenda, encapsulating a trinity of ambitions: immortality, happiness and divinity. “We will now aim to upgrade humans into gods, and turn *Homo sapiens* into *Homo deus*.”

Longer lifespans could lead to some sinister outcomes in politics. ‘Would you mind having Putin stick around for another ninety years?’ Harari asks

If life expectancy rose from 40 years to 70 in the 20th century, then why should it not rise to 150 in our century — with the prospect of immortality beckoning thereafter? That would change our whole perspective on raising children and lead to some sinister outcomes in politics. “Would you mind having Putin stick around for another ninety years?” Harari asks. “On second thoughts, if people lived to 150, then in 2016 Stalin would still be ruling in Moscow, going strong at 138.”

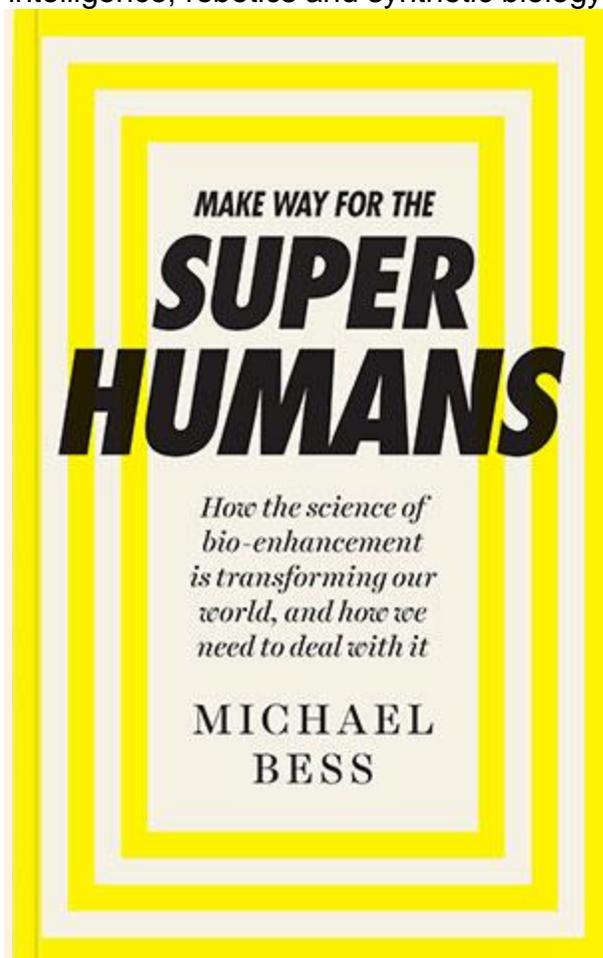
But it will be no use living that long if we cannot enjoy our extended lives. That, too, can be fixed: through popping ever more sophisticated — and personalised — pills or by using other means of souping up our wetware. “Forget economic growth, social reforms and political revolutions: in order to raise global happiness levels, we need to manipulate human biochemistry.”

Our increasing mastery of machinery will also give us the opportunity to merge with robots and computers, giving us the power of gods and the ability to create new forms of life. “After 4 billion years of wandering inside the kingdom of organic compounds, life will break out into the vastness of the inorganic realm, and will take shapes that we cannot envision even in our wildest dreams,” writes Harari.

Although this may all sound wonderful as we merrily upload our minds to computers and live forever, Harari explains how it might all go horribly wrong as we succumb to the new religion of Data-ism, as he calls it. One way of interpreting human history is to see it through the lens of information processing. *Homo sapiens* emerged as omnipotent because language and co-operation enabled us to process data more efficiently than all other animals. Capitalism defeated communism because distributed data processing proved more efficient than the centralised kind.

But what happens when computers become even more efficient than humans at processing all relevant data? Will they treat us tomorrow as we treat chickens today? Harari suggests that humans are in danger of becoming economically and militarily useless. We had better pray that Harari's provocative premise is false and that organisms amount to more than algorithms.

Michael Bess is another historian who has turned his gaze to the future. *Make Way for the Superhumans* also highlights the astonishing benefits and the hideous dangers that technology can bring. The professor from Vanderbilt University focuses more narrowly than Harari on the promise and perils of bio-enhancement. He does a neat job of explaining the latest developments in the fields of pharmaceuticals, bioelectronics and genetics — as well as what he calls the wild cards: nanotechnology, artificial intelligence, robotics and synthetic biology.



Such technologies promise spectacular breakthroughs in curing diseases and enhancing our human capabilities. One day it may be meaningless to worry about [Man vs Machine](#), he suggests, because we may well have merged. “Informatic and robotic technologies — particularly if they are developed on the nanoscale — will be directly

assimilated into our bodies, and eventually it will no longer be possible to draw a clear line between us and them.”

But Bess is also concerned about the misuse of such technology and the uneven distribution of its benefits. If you think that inequality is bad today, just wait until we have a “biologically based caste system” in which the rich will be able to guarantee their outperformance. No amount of luck, hard work and perseverance could render someone competitive against a stratum of people who have been engineered for vigorous health, better looks, augmented cognition and powerful bioelectronic connectedness with machines.

“The risks involved in these technologies are potentially catastrophic in nature: what is at stake is the integrity of our social order, and possibly our survival as a species. We simply cannot afford a hands-off approach, when the potential dangers are this profound,” Bess writes.

In their different ways, these two excellent, thought-provoking books highlight how our societies are totally unprepared to grapple with such complex issues. But Bess is the more optimistic and has the more practical suggestions. Although the technological train may have already left the station, he suggests we can help lay its future tracks.

He points to the success of the Montreal Protocol of 1987 as a great model of international co-operation and solidarity. This treaty, ratified by 197 countries, played a vital role in reducing the release of harmful ozone-depleting chlorofluorocarbons from aerosols and refrigeration systems. He also highlights the Asilomar conference of 1975, at which 140 scientists established ground rules for research into recombinant DNA technology as an inspiration for self-regulation. If necessary, though, informed individuals will have to start campaigning and force these issues on to the political agenda just as ecological activists in the 1960s raised the alarm about environmental degradation.

For the moment, the rise of populism, the rickety architecture of the European Union, the turmoil in the Middle East and the competing claims on the South China Sea will consume most politicians’ attention. But at some time soon, our societies will collectively need to learn far more about these fast-developing technologies and think far more deeply about their potential use. Playing God is a dangerous game.

Homo Deus: A Brief History of Tomorrow, by Yuval Noah Harari, *Harvill Secker*, RRP£25, 448 pages