

Yuval Harari: Future in the hands of algorithm masters

By Ouyang Chunyan

In 2014, Yuval Noah Harari, a young Israeli historian, published the legendary book *Sapiens: A Brief History of Humankind*, which is believed to have changed the way we view the history of humankind. Many opinion-shapers and trend setters like Bill Gates and Mark Zuckerberg included it on their annual book lists. *Changjiang Daily* interviewed Professor Yuval Noah Harari via email this past April when the Chinese version of his new book, *Homo Deus: A Brief History of Tomorrow*, was published.



Profile:

Yuval Noah Harari, 41 years old, Ph.D. in History at Oxford University, is a tenured professor in the Department of History at Hebrew University of Jerusalem. He is the author of the international bestseller *Sapiens: A Brief History of Humankind* (2014). In addition to history, he is also a professional in anthropology, ecology, and genetics. The video clips of his course based on *Sapiens: A Brief History of Humankind* have been uploaded to YouTube, earning him worldwide fame.

A *Brief History of Tomorrow* concerns future destiny of mankind

Different from *A Brief History of Humankind*, which is about where we come from, Yuval Noah Harari's newest book, *Homo Deus: A Brief History of Tomorrow*, published in 2016, is about where we will go in the future.

For the last thousands of years, human beings faced three major survival issues — famine, plague, and war. Harari said these are no

longer problems because he believes now wealth originates from knowledge rather than simply from natural resources like gold mines, cornfields, and oil wells. He puts forward a new issue for today: happiness. He believes the glass ceiling of happiness is held in place by two stout pillars, one psychological, the other biological. On the psychological level, people do not become satisfied by

leading a peaceful and prosperous existence. Rather, they become satisfied when reality matches their expectations. On the biological level, happiness is determined by people's biochemistry, rather than by their economic, social, or political status. The development of biological engineering technologies will make it possible for human beings to gain happiness forever.

Computers will make wiser decisions

Harari said experiments have revealed that the desire of humankind is not controlled by consciousness. The U.S. army's "attention helmet" is meant to help people focus on well-defined tasks and speed up their decision-making process.

In fact, computers know us better than we know ourselves. For instance, we always make mistakes while voting or shopping which can cause a detriment rather than create a benefit. However, computers can make better choices for us. So Harari predicts that most people will

be free of labor when artificial intelligence becomes more advanced, as intelligent machines will replace people in many jobs.

According to Harari, artificial intelligence will cause most human beings to give up decision-making. The relationship between computers and humankind will develop in three stages. The computer algorithms are like prophets. When we have a problem, we will ask "them," but we will still make the final decisions. During the second stage, computer algorithms, like agents, will give us

general directions and carry out our orders but make their own decisions about minor issues. In the final stage, human beings will put all the decision making in computers' hands.

However, Harari believes those who program algorithms will not be manipulated by computers. Algorithms cannot understand them. These people, sitting behind the computers, are the masters of the future world. In other words, ordinary people will follow computer algorithms, and they will program the algorithms.

Artificial intelligence and biotechnology do not only exist in science fiction

Many readers may feel *Homo Deus: A Brief Story of Tomorrow* is like a science fiction novel.

Harari said that he got inspiration from many science fiction books and movies. He also expressed his worries about some Hollywood science fiction films whose plots are always far from scientific reality. For example,

in such films, artificial intelligence often gains consciousness and manipulates or even terminates human beings. But, as a matter of fact, intelligence and consciousness are not the same thing, and there is still no evidence of artificial consciousness.

Harari also revealed that he wrote the book to inspire

people to have serious discussions about biotechnology and artificial intelligence. "The book should relate well to the young people in their twenties and teens who might live until 2080 or even 2100. For them, artificial intelligence and biotechnology will not seem like science fiction but a promising future or would-be reality."