## ARTIFICIAL INTELLIGENCE: DELIMITED BY LAW AND ETHICS (PEOPLE'S COMMENTARY)

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[The Chinese authorities and investors are putting much effort into the development of artificial intelligence, and this document demonstrates that the Chinese concerns about that technology are much the same as the concerns expressed elsewhere (although I have heard that those who actually work on artificial intelligence tend to be rather less impressed by its capabilities, potentials, and dangers than those who do not). The author's concern is that AI be deployed in a way to serve human and social needs, presumably not to make human beings redundant. There has always been the fear that new labor-saving technology would displace skilled human labor and render those displaced useless to others and without the means to earn a livelihood. In the past this has always proved a false alarm—in the end, the newer technology results both in greater social prosperity and increased employment. But there is a real fear that this time things will be different. On top of that, AI will not only replace highly-skilled labor, but will also increase the ease of political surveillance of the population, an issue as relevant in liberal democracies as in autocracies such as China. So everyone, Chinese and foreigners alike, have cause to think things through. The last paragraph speculates that the Wisdom of the East might serve to mitigate some of the more anti-humanist implications of AI, although just how this might be is not indicated.] There is a need for a penetrating exploration of the relationship between artificial intelligence and the law, ethics, and social issues, in order that there be legal, ethical, and

moral limitations on artificial intelligence, so that artificial intelligence is able to serve human society.

In the fields of the internet, big data, cloud computing, and others, China has made outstanding progress. Domestically, development of artificial intelligence is surging. On August 23 the World Robotics Conference was formally convened at the Beijing International Exhibition Center under the theme of "Innovation, Initiation, Creativity: Welcoming the Intelligent Society." In the predictable future, China's artificial intelligence industry will make major advances in automation, smart medicine, smart finance, robotics, and other fields.

From amusement, travel, to the way of settling payments, AI will bring quiet changes to the way we live. In July of this year the State Council published a "Plan for the Development of a New Generation of Artificial Intelligence," point out that AI will be a new source of friction in international competition and a new path to prosperity in economic development, bringing new opportunities for social development. At the same time AI can develop in undesirable ways nd brings new challenges. Among these new challenges, the one currently of most concern to the ordinary person is perhaps the implication for the relationship between man and machine: Is there the danger that we can lose control of high-level AI? In the future will machines be able to challenge the human social order, even gaining the capacity to build themselves and direct their own future potential? Given the day by day new developments in AI, lots of people have this worry.

Whether high-level AI poses brings benefits or challenges is a topic explored in a good many literary works, movies, and philosophic works. Broadcasts to a mass audience

over the past year on the topic of AI have tacitly increased people's concerns about the relationship of man and machine. Virtual reality produced through the source library and holographic projection technology can give the illusion singers on a stage; facial recognition technology and deep learning capacity challenge what can be mastered by human memory; the "Alpha Dog" is able to defeat the weiqi masters from all countries, exceeding human mastery in strategic games . . . Especially with certain "man versus machine" multi-media programs, there is a blurring of just what is meant by artificial intelligence, conjuring up a kind of tense oppositional atmosphere between man and machine. This is both unnecessary and unscientific.

In fact, existing artificial intelligence all falls below the standard of the Turing test.

Whether it is the flourishing of translation processes using calculations based on neural networks or models based upon quantum calculation, for a long time to come AI will remain a tool for humanity. The writer Han Shaogong has an interesting speculation about a "Conference of Robot Authors," explaining from a literary aspect his views of the opposition between man and machine. He believes that the concept of value is the ultimate characteristic and excellence of humanity. The development of artificial intelligence should promote people's deeper penetration and exploration into their own existing nature, confirming the value of humanity's existence in itself.

If this is the case, as we march into the era of artificial intelligence, we need carefully to demarcate the boundaries in the relationship between man and machine. In its plan the State Council points out, "In devising laws, regulations, moral norms, and a system of policy relevant to AI, we must make a system for assuring the critical assessment of and control over it." We must in the future make a more penetrating

exploration of laws, moral norms, and social issues relevant to AI, setting legal and moral demarcations to AI, so that it will serve human society. This is a world-wide consensus. Beginning this year, MIT's media lab and Harvard's Berkman-Klein Center for Internet and Social Research are cooperating in producing a plan for the study of AI ethics. Microsoft, Google, and other giants are also responding to the dangers of the development of artificial intelligence and have set up a Committee on AI Ethics. More and more specialists in robotics are echoing the need to establish a "moral limit" on robotic and automated systems in order to impose discipline on the decision-making ability and behavior of machines. People already understand that the development of artificial intelligence must have as its premise the stability and happiness of human society.

With China's fiercely rapid development of artificial intelligence, the construction of a framework for understanding the relationship between man and machine should also display the excellent features of the Chinese tradition. In the face of highly developed artificial intelligence there is a need for regulations through law and policy and also for civilizational and moral contributions to give these openness and flexibility. In this regard, I believe that the traditions of Chinese civilization will provide greater room for maneuver than western civilization, which has a bias toward logic and empirical testing. "Chinese wisdom" should prove helpful in opening the way for the reconciliation of science and the humanities.