

# **Society capable of coexisting with AI:**

## **from my research perspective**

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### **Summary**

For centuries, science and religion have fought but complemented each other. In the 20th century, with the significant breakthroughs of psychologies, quantum mechanics, and nuclear techniques, science had brought unprecedented belief crisis and spiritual anxiety to humanity. Facing these crises, Pierre Teilhard de Chardin, a visionary theologian and evolutionary theorist (Douglas, N.& Wykowski, T.,2017), worked to reconcile the contradiction between the spiritual world and the real world of modern people, tried to elucidate a whole set of Christ-centered theory of religious evolution, showing the people a path to God in modern civilization.

Nowadays, the research on AI (Artificial Intelligence) technology has continuously made breakthroughs and has been widely applied in many fields. The philosophical discussions of AI are also challenging God's realm, making the problem of human subjectivity prominent again. At this point, looking back at de Chardin's evolutionary thoughts and views on the reconciliation of science and religion could provide inspiration for the ontological challenge of AI, and also offer significant dual effects of deepening theory and responding to reality for the enhancement of the philosophical interpretation of scientific issues.

This article starts with a review of the intellectual history of human philosophy, explores the importance of philosophical guidance to the natural sciences as well as the intertemporal significance of de Chardin philosophy. By summarizing the development process and application practice of AI, the challenges that this scientific innovation faces in the ontological sense are comprehensively characterized. Furthermore, taking de Chardin's "Phenomena of Man" as the primary material, the main context of de Chardin's theory of religious evolution is combed, and it is pointed out that the essence of de Chardin's thought lies in reconciliation.

After incorporating AI problems into the analysis framework of de Chardin's theory of religious evolution, it was concluded through inductive analysis that AI is still essentially the objectification of the human brain, it will not cause the existential crisis of human beings, human-machine coexistence is an inevitable form of future society. We should adopt an open and inclusive mentality to deal with a human-machine coexistence society, avoid maliciousness, foster goodwill, getting the reconciliation of spiritual beliefs and scientific practices.

## Part. I Introduction

*"Humanity is still advancing; and it will probably continue to advance for hundreds of thousands of years more, always on condition that we know how to keep the same line of advance as our ancestors towards ever-greater consciousness and complexity."*

*"The Appearance of Man" (1965)*

All history is the history of thought. (R. G. Collingwood, 1943) For hundreds of years, an enduring topic in the history of thought is the entanglement of science and philosophy. In the 15th and 16th centuries, natural science grew out of natural philosophy, Copernicus's heliocentric theory and Newton's laws of motion laid the foundation for natural sciences. The emergence of Darwin's theory of evolution interpreted human existence as an inevitable stage of material evolution, faded the holiness of God's creation, threatened the lofty status of Catholic theology. From then on, the achievements in science almost always based on anti-religion and anti-belief, theology also tends to oppose scientific thinking to protect itself. However, in the 19th and 20th centuries, the further development of modern science questioned the status of science as absolute truth. Contemporary psychologies improved the theory of using cells and molecules to explain the nature of creatures. Einstein's theory of relativity and quantum mechanics queried the concepts of time and space and Newtonian mechanics. The massive killings of nuclear weapons made people lost faith in science. People began to realize that human-cognition always has boundaries, it is impossible to explain everything only by science. As the pride of natural science fades away, people began to re-recognize the world and try to promote reconciliation between reason and faith. One of the representative views is the concept of "The Two Cultures" by British scientist and novelist C. P. Snow (2013).

As a Catholic ideologist living in the paradoxical knowledge framework and historical background of two world wars, Pierre Teilhard de Chardin was suffering from the conflicts between reason and faith, and was thinking about the conflicts all through his life. In the endless search for reconciliation, he became a pioneer of thinking about the ultimate problems of human society. Combining extensive scientific knowledge, profound religious cognition, and serious value awareness, de Chardin tried hard to clarify our views on the self-consistency of Catholic theory. Using rigorous inferences on the theory of evolution, he explained that God exists in all aspects of the human spiritual world, rather than a distant paradise. His thoughts are so widely recognized that it indirectly contributed to the transformation of "*the most characteristic and ultimate purpose*" (Pope Paul VI, 1965) of Catholic on The Second Ecumenical Council of the Vatican. After his death, he was considered the most iconic of 20th-century theological theories, Former French President Mr. Mitterrand praised him "*Drew a blueprint for achieving universal ideals, made valuable contributions to religion, philosophy, and scientific thinking.*" (1981). Pope Benedict XVI praised him "*gave a new meaning to Christian worship*" (2000), although he got much hardship from the Holy See when he is alive, even more than Augustine of Hippo (354—430) and St. Thomas Aquinas (1225—1274).

Nowadays, with the development of science such as neuroscience and cognitive psychology, philosophy of mind seems to face many difficulties again on the metaphysical level. Many problems, such as the relationship between free will and determinism, are unable to be promoted purely philosophically. Experimental philosophy may become a new method that many scholars believe in influencing the direction of contemporary philosophy. They use cognitive science to study the fundamental problems of philosophy, providing new possibilities for the interaction of science and philosophy.

In this context, AI is like a cobblestone thrown into the peaceful pool of philosophy. Many AI questions complement each other with experimental philosophy, constantly challenge traditional moral philosophy. Philosophers and scientists are engaged in the discussion of AI almost spontaneously. As one of the representative groups, the Human Future Institute of Oxford<sup>1</sup> has made a lot of exploration.

Philosophy studies the value and norm of science, while scientific research provides facts and propositions for philosophy. Specific to AI, deconstructive thinking in philosophy level could demonstrate the self-consistency of philosophy theory, offer a clear definition of its basic concepts, evaluate the value choices of its different development paths, and seek the direction of future development beyond technical analogy method. Science and technology need the nourishment of philosophy. It is an unshirkable moral obligation of philosophers to solve the basic problems in science, to find the prospects for science, and to reconcile conflicts in the development of science.

Let's reflect on our society being changed by AI, take the process of Teilhard de Chardin finding the bonding point of reason and belief from evolution theory as a prototype, learn from his deep insight of intrinsic attribute of science-spirit conflicts, explore the possibility of human-machine coexistence, and the his enlightenment to today's human society.

## **Part. II Charming but scary: AI ontologically challenges Intelligent Being.**

*"Someday, after mastering the winds, the waves, the tides and gravity, we shall harness for God the energies of love, and then, for a second time in the history of the world, man will have discovered fire."*

*"The Evolution of Chastity" (1934)*

AI refers to the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages (The Oxford Dictionary, 1989). Proposed in 1956 by John McCarthy (1956), the concept of AI has been continuously improved based on the development of information technology. Since the 1980s, the technology of artificial neural networks (ANN) has been used for a series of problems such as machine vision and speech recognition. The most recent

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1. For more discussion on this topic, see Schneider, S. (2016). Science fiction and philosophy: from time travel to superintelligence. John Wiley & Sons.

breakthrough of AI lies in the “deep learning” technology invented in 2010. “Deep learning” trains AI using big data to optimize the decision-making process, so as to achieve accurate judgment of AI on specific logical targets. “Alpha Go” defeated the Go World Champion Ke Jie in 2017 is a landmark event in the development of deep learning technology.

In recent years, AI has been widely used in various fields. Take the financial industry where the author works as an example, the accuracy of decision-making is scientifically improved by applying intelligent algorithms to the process of transaction determination and credit approval. Some banks have developed intelligent risk control applications based on the “Enterprise AI Core System,” which increases the efficiency of anti-money laundering and anti-fraud inspection a hundredfold. Intelligent terminals are large-scale applied in the scenario of customer service. According to the report of *The Impact of Artificial Intelligence on the Labor Market in the Financial Industry* (BCG&CDRF, 2018), by 2027, 2.3 million positions of the financial industry will be replaced by AI only in China.

Irresistibly, AI was regarded as one of the three cutting-edge technologies of the 21st century (genetic engineering, nanotechnology, and artificial intelligence). Academics, industry, and the media have paid close attention to the benefits of AI to transportation, education, medical care, public safety, poverty alleviation, and environment protection. It is believed in the foreseeable future, AI will be able to create enormous wealth, liberty us from the heavy and monotonous work, and provide us with more time and freedom to do what we like. People talk about the coming of “technological singularity” (Vernor Vinge, 2007) enthusiastically, it is claimed that unprecedented change is on the verge, society will be subverted, and the old systems will collapse.

The process of change is always full of controversy. Under the carnival of AI technology advancement, people of insight have pointed out although AI would benefit humanity in various unexpected ways, the potential conflicts between humans and AI should not be overlooked. Stephen Hawking’s views are most often cited: “The development of full artificial intelligence could spell the end of the human race...It would take off on its own, and re-design itself at an ever-increasing rate.”(2014) There is no doubt that people should be aware that the development of AI poses challenges to the status of humans being the paragon of animals.

For fact judgment, the challenge comes from the insurmountable change caused by the popularity of AI to the existing structure of human society. For most people, these challenges could be at four levels. 1) Concerns about the safety of our survival, such as the worry about the loss of control of driverless cars. 2) Anxiety about the marginalization of human beings, such as the Fear of Deep Learning Eliminating Humans in Specific Employment Areas. 3) Inadequate adaptation to the society controlled by AI, such as the concern about personal privacy disclosure. 4) Changes in human culture, such as the fear of less interpersonal communication.

For value judgment, as the only intelligent beings, humans face an unprecedented threat of subversion from AI in the ontological significance, which is a "black and white" value doubt for humans. On the one hand, AI continuously simulates human's intelligent behavior, and may behave more and more like humans; on the other hand,

humans could use AI to strengthen our body functions and could be more and more close to AI. The further development of AI in these two ways will naturally challenge the uniqueness of human beings as intelligent beings: Is "human" a real entity or just a concept? Are humans essentially machines? These problems brought by AI are torturing intelligentsia.

Based on the above points, pessimism is becoming the mainstream view of a large part of modern society towards AI. Especially for theologians, intelligence is the embodiment of the soul, and the soul is the creation of God, it should not be artificially produced. Traditional theology believes that human nature is evil; humans are destined to create suspicion and contention. Many of AI's existing advances are invading the conventional field of God, and they will amplify these evils in the world and eventually lead to the doom of the world. The development of AI is undoubtedly to be a road of no return. As a result, in the discourse system of theology, many people conclude that AI will eventually rule the world and enslave humanity, and eventually lead to the demise of human beings.

In the face of such aggressive technological advances, how should we deal with the crisis of human faith? Maybe there are no ready-made solutions, but at least we can try to grasp the full meaning of the problems that confront us. Just as in the opening decades of the 20th century, the sages were seeking a deep insight into the inner contradictions of human society under prosperity.

### **Part.III De Chardin's Reconciliation: Trudge from Science to Philosophy**

*"We must accept what science tells us, that man was born from the earth. But, more logical than the scientists who lecture us, we must carry this lesson to its conclusion: that is to say, accept that man was born entirely from the world, not only his flesh and bones, but his incredible power of thought."*

*"Human Energy"(1969)*

The world is full of conflicts, Teilhard de Chardin, all through his life, had been exploring between reason and faith, material and spirit, space and consciousness, past and future, and especially, science and philosophy, to resolve these conflicts. De Chardin got an excellent reputation in China as a participator. Restricted by the Holy See, he has conducted paleogeology and paleontology research in China for more than 20 years. His scientific work enables de Chardin to address the gap between material and spirit in philosophy. During those times, he was inspired by the Creative Evolution (Henri Bergson, 1907), began to devote himself to deeply thinking about evolution.

Through a series of scientific arguments and bold inferences, de Chardin added a teleology factor to traditional evolution and integrated the reasons behind changes in the external environment. Although his theory of evolution was strictly limited to the observation of scientific phenomena, which he called "Scientific Phenomenology," his views are based on a much broader background than traditional evolution, which arises from the philosophical environment of Catholic theology and mysticism. He advocated, in order to eliminate the unprecedented anxiety and confusion brought

about by the emergence of nihilism, all activities and actions must have some kind of persistent value of evolution, this is the only way to resolve the mental self-conflicts of modern people.

"The Phenomenon of Man" is undoubtedly the most representative one of de Chardin's published books. ("*The Appearance of Man*" and some other books are more inclined to being research results in specific fields, "*Lettres de Voyage*" and "*La Messe sur le Monde*" and so on is more like literary works) The most critical view of this elusive but profound book is, evolution is not only biological but also social and psychological, it converges on the grand unification of the biosphere and noosphere. The whole world started from the original material, through evolution, it was transformed into a mutually interconnected aggregate. In this evolutionary process, the emergence of human beings caused qualitative changes, enabling a higher level of wisdom, the noosphere, to be formed, which refers to the "The Phenomenon of Man". From then on, the development of the world follows the "Law of Complexity and Consciousness". The basis of this law is the human spirit, which is the important reason to promote the development of the universe and to guide the internal energy of the evolutionary direction. The direction of evolution is not only irreversible but must be toward its ultimate goal, the hyperpersonal "Omega points", which could be considered as the God in the religious sense.

In this way, starting from the scientific evolution theory, de Chardin finally came up with a philosophy that serves religion. Although he insisted that he is a scientist, although he was widely praised for his outstanding achievements in the field of paleontology, although his book "The Phenomenon of Man" claimed to study the universe, life, human spirit, and other phenomena in a scientific way, he has never denied that his theory has the mission of reconciling science and religion philosophically, he wrote:

*"Religion and science are the two conjugated faces or phases of one and the same complete act of knowledge - the only one which can embrace the past and future of evolution so as to contemplate, measure and fulfill them. In the mutual reinforcement of these two still opposed powers, in the conjunction of the reason and mysticism, the human spirit is destined, by the very nature of its development, to find the uttermost degree of its penetration with the maximum of its vital force." (The Phenomenon of Man, 1959)*

The essence of Teilhard de Chardin's philosophy is reconciliation. At the root, reason and faith should be intertwined with each other because they are driven by the same kind of being. Regardless of the relationship between science and religion, from de Chardin's view, they are all philosophically indispensable tools for us to move into the future and are destined to be reconciled into the future of humanity.

Is there any reconcilable solution to the spiritual world of us? The father was tirelessly searching around, filled with worries about the future of humanity in his heart.

#### Part IV. The new normal of human society: “human-machine symbiosis”

*“The time has come to realise that an interpretation of the universe—even a positivist one—remains unsatisfying unless it covers the interior as well as the exterior of things; mind as well as matter. The true physics is that which will, one day, achieve the inclusion of man in his wholeness in a coherent picture of the world.”*

*“The Phenomenon of Man ” (1959)*

It is undeniable that many advances of AI are challenging the realm of God, which casts a chilly gray on the prosperity of AI study. However, should we stop? In history, no significant scientific change has brought humankind to perdition. Instead, the dissolution of faith and the degradation of spirit always led to the disintegration of civilizations. If the sages like de Chardin keep the ultimate thinking of the world, we will eventually get solutions that are in line with the fundamental and long-term interests of human beings.

Tracing back the origins, essence, and ultimate ideals of de Chardin's evolutionary ideas, the ontological AI is still not beyond the scope of de Chardin's discussion of evolution. Evolution is not only biological but also social and psychological. It converges on the grand unification of the biosphere and noosphere, as well as the technosphere. Artificial intelligence, no matter it is Weak AI, Strong AI, or Super Intelligence, is far from the scope discussed by de Chardin's hyperpersonal model. Even though artificial intelligence has caused discussion in both the value theory and ontology, we still have little comprehensive understanding of our own intelligence, too little to copy it, much less to create it.

“We are not human beings having a spiritual experience. We are spiritual beings having a human experience.” (1959) De Chardin's devotion to seeking faith reconciliation is a valuable development in modern theology. AI does not have the meaning of existence beyond the level of the noosphere. The inherent logic of AI still follows the “Law of Complexity And the Consciousness”, it cannot break the evolutionary continuity of matter to life to mind, its innovation is only a stage increasing human's consciousness with the ability to reflect upon ourselves. AI only simulates and strengthens some functions of the human brain. In essence, it is the objectification of the human mind, therefore it does not pose a substantial threat to human subjectivity. Just as revealed in the "The Chinese Room Argument." by John Rogers Searle(1980): AI has grammar but no semantics, has IQ but no EQ, has intelligence but no wisdom, it is impossible for computers to acquire cognitive abilities through programs.

De Chardin shows us by his example what our attitude should be to grasp the full meaning of the problems that confront us today. Facing some “existence worries” of AI to contemporary human society, we learn from him that a more generous and more open-minded way is the first and essential condition for our further development. Just as faith should not resist science, future human society should not resist the changes brought by AI. To Cultivate friendly factors, to evade mutual maliciousness, to seek coexistence with AI, and ultimately to serve humanity, this is the solutions that are consistent with the future of humanity. Under the guidance of such a theory,

“Human-machine coexistence” is bound to become the normal state of the future human social structure.

In a society where humans and AI coexist, human beings should cultivate the good interaction ability with AI, taking the “Three Laws of Robotics” as a rule (Isaac Asimov,1942), and on the premise of following the do-no-harm principle. AI should do what AI is good at, it serves human beings, obeys human instructions, and gets proper management on the humanitarian track. AI will help humans complete most repetitive tasks, although AI will replace some occupations in the future, technological advancements will also generate more new jobs for humans.

In a society where humans and AI coexist, mankind will have more freedom to explore the richness of their spiritual world, the humans' imagination, creativity, and spirituality will be freely exerted like never before, ideal personality such as freedom, reason, kindness, integrity, honesty, tolerance, and critical spirit will be highlighted with the help of AI. The brilliance of human nature will bridge the ideological gap from technological innovation.

In a society where humans and AI coexist, the spiritual beliefs and the scientific practices get reconciled, and ideology and material life get reconciled, humans and machines became a “mutually interconnected aggregate”. Artificial intelligence and human intelligence coexist and co-prosper in complementing each other, which is an omega point where the rational sun dispels the obscure fog. By that time, many sufferings of society today will be ended, the human species will be finally liberated!

Artificial intelligence is not a new Babel Tower, nor does it lead to the anger of God. Coexistence rather than division, integration rather than disintegration, reconciliation rather than hostility, is the only correct path when we face the challenges of scientific innovation to our faith.

*“Achieve the inclusion of man in his wholeness in a coherent picture of the world!”* The pale-faced Father Pierre Teilhard De Chardin was writing the oracles in the war-ravaged Peking City, with rumbles of guns of WW II echoed in his ears.



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