

The Second Beginning and a Co-philosophy – The Realization of a New Relationship between Technology and Ethics¹

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Abstract. The research on the relationship between the technical domain and ethics is not only an important content of the philosophy of technology, but also an important topic of the ethics of technology. The finitude of technology mainly refers to the highest level that technology can be presented in a specific stage of human activities, and also reflects the highest technological ability and the highest degree in a certain period. The finitude of technology in the context of traditional philosophy shows what technology is and what it should do. However, when super artificial intelligence continues to break through the finitude of technology, the traditional concept of the finitude of technology have challenged. For this reason, this article proposes technology breakthrough finitude oneself continuously based on ‘*the second beginning*’ of common philosophy. It will eventually break through the earth’s bearing, so reinterpretation the finitude of technology and the precedence of ethics is of great significance for humans to be.

Keywords: Finitude of Technology; Artificial Intelligence; Precedence of Ethics; Second beginning; Common Philosophy.

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Резюме. Исследование взаимосвязи между технической областью и этикой является не только важным содержанием философии техники, но и важной темой этики техники. Конечность техники в основном относится к высшему уровню, который техника может представлять на определенном этапе человеческой деятельности, а также отражает высшую технологическую способность и высшую степень в определенный период. Конечность технологии в контексте традиционной философии показывает, что такое технология и что она должна делать. Однако, когда сверхъестественный искусственный интеллект продолжает прорываться через конечность технологии, традиционные представления о конечности технологии подвергаются сомнению. По этой причине в данной статье предлагается прорыв самой технологией своей конечности постепенным путем на основе предлагаемого 'второго начинания' общей философии. В конце концов, этот путь пробьет земную несущую поверхность; в этой связи современное переосмысление конечности технологии и приоритета этики имеет огромное значение для человека.

Ключевые слова: Конечность технологии; Искусственный интеллект; Приоритет этики; Второе начинание; Общая философия.

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Заключение

Introduction. With the influence of artificial intelligence technology in various fields of society, from driverless cars to the use of big data cloud computing, to the construction of smart cities, digital finance construction and even the maintenance of national security, artificial intelligence technology continues to break through the finitude of technology. Dietrich, the representative of super artificial intelligence, believed that AI could have the perception, cognition, thinking, reasoning, calculation

and other abilities of human beings^[3]. Sharkey proposed that artificial intelligence could surpass human intelligence^[4]. In this regard, scholars represented by Stewart Clegg and others believe that if we regard the ultimate goal of the development of artificial intelligence as creating a kind of Homo sapiens, we not only forget that real robots are highly specialized and limited machines, but also face the ethical risks of anthropomorphizing robots^[5]. When super artificial intelligence continuously breaks through the finitude of technology, it is difficult for us to use traditional ethical concepts to deal with the ethical dilemma of technology. The co-philosophy based on the second beginning emphasizes that technology continues to break through its own finitude and will eventually break through the carrying capacity of the Earth. Therefore, this article puts forward that technological development needs ethical guidance, which is of great significance to the sustainable survival of human beings.

1. Traditional interpretation of technology finitude

The finitude of technology mainly refers to the highest level that technology can present in a specific period of human activities, and also reflects the highest technological ability that human beings have. In traditional philosophy, there are three main views on technology **finitude**. One is that “technology is an imitation of nature”; Second, “the emergence of technology comes from human beings”; Third, “Technology is governed by the dualism of ontological and phenomenological boundaries”.

First, technology has finitude because “technology is an imitation of nature”. In the classical Greek period, “technology originated from the learning and imitation of nature”^[6]. In Democritus, “house-building and weaving were originally invented by imitating swallows and spiders in building nests and weaving webs, respectively”^[7]. Heraclitus proposed that “the exemplary role of nature is the original source of technology”.^[4] Plato proposes that the thing that is real is an imitation of the thing that is an idea. To create an object, a craftsman needs to have the idea of the object in his mind. Since

³ Dietrich, E. Homo sapiens 2.0: Why we should build the better robots of our nature[J]. *Journal of Experimental & Theoretical Artificial Intelligence*, 13(4), 2001: 323–328.

⁴ Sharkey, A. (2017). Can robots be responsible moral agents? And why should we care? *Connection Science*, 2017, 29(3): 210–21.

⁵ Clegg S., Berti M., Simpson A.V., Cunha M.P. *Artificial Intelligence and the Future of Practical Wisdom in Business Management*. In: Schwartz B., Bernacchio C., González-Cantón C., Robson A. (eds) *Handbook of Practical Wisdom in Business and Management*. International Handbooks in Business Ethics. Springer, Cham, 2020.

⁶ Plato, *Laws*, M. Schofield (ed.), T. Griffith (tr.), Cambridge: Cambridge University Press, X 899a ff. 2016.

⁷ Franssen, Maarten, Lokhorst, Gert-Jan and van de Poel, Ibo, “*Philosophy of Technology*”, The Stanford Encyclopedia of Philosophy. Edward N. Zalta (ed.), URL : [=<https://plato.stanford.edu/archives/fall2018/entries/technology/>](https://plato.stanford.edu/archives/fall2018/entries/technology/), 2018.

technology, and all sentient and created things, are regarded by Plato as the imitation of the highest paradigm of nature, “for Plato the true craftsman is the Creator, and the true artifact is the form, it lies outside of time and space, even from the most exquisite contingency of experience... Forms exist independently. They are the transcendent reality, the cause of the perceived (*aistheta*).”^[8] In early Greek philosophy, the finitude of technology is determined by human's highest ability to learn and imitate nature, and the finitude of humans determine the finitude of technology and its dependence on the ethical concept of good.

Secondly, the finitude of technology is τεχνη “the emergence of technology comes from human beings”. For Aristotle, technology was understood as an artefact distinct from nature. Aristotle makes an ontological distinction between natural things and artefacts. According to Aristotle, natural things have their own internal laws of generation. For example, plants and animals grow and reproduce through natural movements and natural purposes. Technology as an artifact is generated by human goals. Aristotle pointed out that “technology accomplishes what nature cannot in some cases and in others imitates nature” [4]. Although there are differences between the craftsmanship in the Aristotelian context and modern Technology, the subject matter they deal with is in common, that is, what Technology deals with is the thing with variable origin and can be generated, and its purpose is to seek some external product based on production, creation and labor. Since technological activity depends on the tools and materials it uses, it can only show certain controllable objects in this changing world, and it cannot pretend to dominate the whole world of existence. Although people want to use technology to control the world, humans cannot control those whose beginning is not in their own things because the beginning of the world is not in humans.

Finally, the domain limits of technology are defined by the dualism between ontology and phenomenon. In Kant's view, technology is understood as “the means that people need to achieve a certain end or intention” ^[9]. Technical activities are different from practical activities (serving the pursuit of happiness) and moral activities (aiming at unconditional goodness). Technical activities are placed in the field of phenomena and regarded as activities that transform nature and the world, which is in contrast to moral activities that are placed in the ontological world. To transform nature and the world in the service of unconditional good, technology is regulated by “unconditional good”.

⁸ Larry A·Hickman. *John Dewey's Pragmatic Technology* [M]. Bloomington/Indianapolis: Indiana University Press,1990:116–126.

⁹ Kant,I. *Groundwork for the Metaphysics of Moral* [M].Allen W.Translated. New Haven and London:Yale University Press, 2002, pp.32–35.

Since Kant regards moral ontology as the highest being, the goodness of technology needs to be influenced by the dualism of ontology and phenomenon.

We need to note that Heidegger no longer understands technology in terms of the separation of noumenon and phenomenon. Although, influenced by the idea of causality in ancient Greek philosophy, he believed that the two traditional views of technology, “one is that technology is a tool for a purpose and another is that technology is human behavior”^[10], which is correct but not true. Because, these two views of technology do not disentangle the nature of technology. We should explore the impact of technology on human existence. From mountains and rivers are our home, to mountains and rivers are mined and exploited. When our understanding of mountains and rivers from the survival theory to the tool theory, mountains and rivers become a kind of technical objectified existence. When mountains and rivers are seen as available “sustenance”^[11], all beings (including humans and nature) are seen as resources and energy for technology to use. When technology continues to break through its own finitude, how to rethink the relationship between humans and technology, how to arouse human’s care for nature rather than invasion, ethical guidance of technological development becomes necessary.

In a word, in traditional philosophy, whether “technology is the imitation of nature” or “the origin of technology lies in man”, technology is mainly to make up for the systematic structural defects of human body by lengthening human organs. Such as the excavation capacity of human hands is low, so there are excavators and shield tunneling machines. Human vision is extremely limited, hence the Hubble Space Telescope, etc.”^[12] However, when a natural person’s body, brain, cognition and executive power become “substitutable” objects, technology moves from “agent” to “surrogate”. While technology breaks through its own domain, it also brings various challenges to people's survival.

2. The challenge of artificial intelligence technology to the traditional concept of technology finitude

Artificial intelligence usually refers to those technologies that are independent of human intelligence or intelligence level. It is a kind of structured, artificial or machine intelligence, which makes it

¹⁰ Sun Zhouxing, *Selected Works of Heidegger*, Vol. 2, Shanghai: Sanlian Bookstore, 1996, p. 925.

¹¹ Heidegger M. *The Question Concerning Technology*, and Other Essays [M]. New York: Garland Pub, 1977:15.

¹² Li He: from technology as agent to technology as substitute: human obsolescence [J]. *Chinese Social Sciences*. 2020(10): 116–140.

different from human natural intelligence^[13]. According to its application in various fields, artificial intelligence is classified into three major types. The first is narrow artificial intelligence, which is designed to perform specific tasks^[14]. The second is general artificial intelligence, which has broad human cognitive abilities. Its level of intelligence is similar to that of humans. When faced with unfamiliar tasks, it can find solutions without human intervention, and can engage in mental work in a human way and like a human^[15]. The third is super artificial intelligence which is smarter than individual humans in all aspects of intelligence. From the perspective of “technology is the imitation of nature” or “the origin of technology lies in man”, narrow artificial intelligence and general artificial intelligence still retain the traditional understanding of technology finitude. However, super AI poses a major challenge to the traditional concept of technological finitude. This is a challenge to the traditional concept of technology finitude. Representatives of super artificial intelligence claim that robots can not only think and act like humans, but also perceive the environment, process language, learn deeply, adjust goals, and make moral reasoning and moral decisions like humans. This is a challenge to the traditional technology domain view.

First of all, the representative of super artificial intelligence challenges the traditional view of technology finitude from the aspects of artificial intelligence technology can automatically identify the environment and make decisions independently. Guruduth Banavar argued from an evolutionary perspective that humans can reach their current level of power and can control over the world because of intelligence... “AI is augmented intelligence, which goes beyond the notion that technology is an imitation of nature”^{[16](Conn 2017a)}. However, scholars represented by Angwin believe that even if super artificial intelligence can overturn the concept of “technology is the imitation of nature”, technological development still needs ethical guidance.

Second, narrow artificial intelligence is mainly used to perform specific tasks, its function and application originated from human beings, and human beings can manage and control it. However, Super AI has powerfully transformed our choices, values, and sources of interest^{[17]13}. Today, the

¹³ Mark Ryan. In *AI We Trust: Ethics, Artificial Intelligence, and Reliability*. *Science and Engineering Ethics*. <https://doi.org/10.1007/s11948-020-00228-y>.2-19.2020.

¹⁴ Macnish, K., Ryan, M., & Stahl, B. Understanding ethics and human rights in smart information systems. *ORBIT Journal*. <https://doi.org/10.29297/orbit.v2i1.102>.2019.

¹⁵ UK House of Lords. (2018). *AI in the UK: Ready, willing and able? – Artificial intelligence committee*. UK House of Lords Select Committee on Artificial Intelligence, Report of Sessions 2017–2019.

¹⁶ Conn A (2017a) Guruduth Banavar interview. Future of Life Institute. <https://futureoflife.org/2017/01/18/guruduth-banavar-interview/>. 2017.

¹⁷ Paula Boddington. *Towards a Code of Ethics for Artificial Intelligence* [M]. Switzerland: Springer International Publishing AG, 2017:13–62.

warnings from Bill Gates, Elon Musk, Stephen Hawking and Bill Joy about autonomous AI technology are the fear that AI will change and even shape our world in ways that are hard to detect, understand and control. When many persons are confused about what they should believe and what they should do is good or right, the essence of it is that the ideas of co-values or the co-ethics are distorted. In this regard, the traditional theories of technology ethics and the corresponding ethical constraints are facing the challenge.

Finally, super artificial intelligence transcends the separation of ontology and phenomenon. By simulating “human brain intelligence”, super artificial intelligence can perform complex tasks that can be accomplished by natural human intelligence. It can also deeply learn, predict and analyze behavior schemes to react to changing specific situations. Artificial intelligence technology raises fundamental questions about computation, perception, reasoning, learning, language, action, communication, consciousness, and makes significant contributions to the answers to these questions ^[18] (Muller 2012). The characteristic of artificial intelligence is not only that it expands or enhances human reasoning ability, but also that it can enhance or replace human behavior and perception and simulate human emotions ^{[15]29}. Through the enhancement of human initiative and reasoning and computing ability, so as to perform complex tasks that humans cannot complete without human assistance.

In general, creators of artificial intelligence need to know not only how a machine works, but whether it works ethically. Adhering to an ethical orientation in the development of technology helps to prevent humans from being manipulated by powerful machines or powerful intelligence. In general, creators of artificial intelligence need to know not only how a machine works, but whether it works ethically. Adhering to an ethical orientation in the development of technology helps to prevent humans from being manipulated by powerful machines or powerful intelligence. Professor Liu Xiaoting has pointed out that “although human beings have invested a huge amount of money in the development of high technology, modern technology can completely solve the problem of poverty alleviation on earth, but it has not been able to achieve, because the fundamental reason for human beings' continuous technological innovation is to seek capital appreciation”^{[19]80-93}. But when technology becomes capital and is continuously used for infinite appreciation, the result must be to endanger the survival of man and the planet.

¹⁸ Müller, VC. Introduction: philosophy and theory of artificial intelligence. 2012, *Minds and Machines* Vol. 22: 67–69.

¹⁹ Liu XiaoTing. Creating Co-philosophy Based on Biodiversity [J]. *Academic Frontiers*, 2022(2): 80-93.

3. The development of technology needs ethics first

According to traditional philosophers, “The essence of technology is to be created. The essence of human beings is self-growth”. However, when super-artificial intelligence is no longer dependent on human beings and realizes its own growth, and is not controlled by human beings, how to avoid the possible crisis of human existence caused by super-artificial intelligence? This is an important reason why the development of technology needs ethics first. How to insist on the precedence of ethics in the technological development is difficult for the traditional mainstream ethical theories to answer. We can introduce the idea of co-philosophy proposed by Professor Liu Xiaoting. The co-philosophy based on the second beginning can provide a possible way of thinking for the ethical precedence of technological development. Because “the fundamental cause of the common difficulty of human society is the tension between the whole and the individual, the disconnection between thinking and doing. One of the strategies to get out of this dilemma is to move beyond the opposition of whole philosophy and individual philosophy to a co-philosophy. Accordingly, we develop a third philosophical thought different from ancient and modern times, and reconstruct the philosophical paradigm of new civilization as the second beginning”^{[17]80-93}, which is helpful to deal with the ethical dilemma of emerging technology.

The co-philosophy of the second beginning holds that “the world is one, everything is interlinked, and everything is co-existing in the vast universe”^{[17]80-93}, which aims to eliminate the opposition between individual and group, self and others, get rid of existing state of “class construction” of individual sense, individual mind and individual view, and point to the “co-construction and co-existence state of co-person, co-heart and community”. It goes beyond the physical, data and representational understanding of people and technology, and walks out of the systemic structural defects of natural persons. Professor Zhang Shiying also put forward a similar explanation from the three stages of individual spiritual development and national cultural development. He believes that the early concept of human beings is “the original unity of man and nature”, which is a kind of pre-subject-object relationship between man and nature. In this stage, human beings lack independent self-consciousness. The second stage is the structure of the “subject-object” relationship, in which man highlights his subjectivity. The third stage is such a structure, which includes the 'subject-object' relationship, but goes beyond the 'subject-object' relationship, which is a 'higher unity of nature and man'. This is a structure of the unity of nature and man in the relationship of “post-subject-object”. In this stage, a man not only realizes himself, but also transcends himself and merges into one with

others”^[20]. The co-philosophy of the second beginning is to explore what technology should do from the perspective of the intercommunion and coexistence of all things.

First of all, based on the perspective of co-philosophy of the second beginning, it is proposed that technology development needs ethics first, emphasizing that all technology-relevant person should have the sense of “co-responsibility” (shared responsibility) in addition to technology creators and users. In the traditional view, technical artifacts are created and used by people, and the moral responsibility falls on those who develop and use them^[21]. However, in AI technology, the attribution of moral responsibility requires consideration of all stakeholders. From a co-philosophy perspective, all those who develop, create, use and even evaluate AI have a responsibility to develop and create AI, and to judge carefully the risks that the technology may cause to others and society.

In view of the technical finitude, from the international academic research institutions put forward The Montreal Declaration on the Responsible Development of Artificial Intelligence.^[22] Non-profit social organizations have also proposed the Asilomar Principles of the Future of Life Institute^[23]. The government department of the European Commission has proposed a Code of Ethics for Trusted Artificial Intelligence^[24]. These documents all propose that AI technology is a tool, not an end, and that the development and use of AI should consider the growth of the well-being of all sentient beings and should aim at improving human well-being and freedom.

The more powerful AI is, the more it needs ethical guidance. When AI is endowed with autonomous judgments, decisions, and actions, its autonomous agents must be moral agents. Otherwise, an autonomous missile could set a target more accurately than a bullet. However, if the launch of an autonomous missile is out of human control, the disaster it will bring is devastating. We adhere to ethical guidance in technological development. If we absorb the co-philosophy of the second beginning, we will undertake our common responsibilities as members of the family community, the organization community, the regional community, the human community, the Earth community and even the universal community.

²⁰ Zhang Shiyong. The Philosophy of Connecting Everything [J]. *Foreign Philosophy*, 2021(6): 28-39.

²¹ Himma, K. E. Artificial agency, consciousness, and the criteria for moral agency: What properties must an artificial agent have to be a moral agent? *Ethics and Information Technology*, 2009, 11(1): 19–29.

²² MDRDAI. 2018b. Montréal declaration for a responsible development of artificial intelligence. <https://www.montrealdeclaration-responsibleai.com/> Accessed 30 September 2019.

²³ Future of Life. 2017b. AAIP: Asilomar AI Principles. 2017b. <https://futureoflife.org/ai-principles/>. Accessed 30 September 2019.

²⁴ European Commission (EC). EGTAI: the ethics guidelines for trustworthy artificial intelligence. <https://ec.europa.eu/futurium/en/ai-alliance-consultation>. Accessed 30 September 2019.

Secondly, technological development requires ethics first, not only because of the uncertainty it brings, but also because technology changes our symbiotic relationship with others and the world around us. As Professor Liu Xiaoting points out, “New technologies, especially the Internet and the metaverse, have highlighted 'common' problems in unique ways... The well-ordered structure of 'co-existence' faces a chaotic situation”^{[17]80-93}. The appearance of babies edited by gene technology has changed the way of the natural evolution of human beings, and human beings have gradually become biological beings intervened by technology rather than natural persons. This makes a person, as an independent individual, able to live independently without considering how to coexist with others, which brings about the disappearance or confusion of traditional family ethical relations such as the relationship between husband and wife. Another example is that in order to seek profit maximization, businessmen use technology to develop and abuse natural resources, which constantly destroy the ecological environment and threaten the survival of endangered species. How to solve these problems, Professor Liu Xiaoting's philosophy of the second beginning can provide some ideas. This is to get out of the state of interdependence due to the lack of living materials, and out of the state of independence due to material abundance, so as to step into a new form of human civilization, that is, the full realization of human freedom in the material abundance mentioned by Marx. This turning of civilization is the transformation from outward expansion to inward self-restraint and from external freedom to internal self-discipline^{[25]102-110}. This internal self-discipline is the fulcrum of ethics and an important foundation of co-ethics.

The development of technology will consider ethics first based on the common philosophy of the second beginning, because “the philosophy of the first beginning started from the natural philosophy of understanding nature and laws, and finally achieved brilliant natural scientific achievements in modern times, and then constructed a modern scientific knowledge mansion based on physics along the original way. The philosophy of the second beginning is the philosophy of responding to the call of nature. The person of the second beginning is the person who responds to the call of existence, who is civilized, humanoid and full, and who explores hope and self-salvation. It emphasizes the transformation from the philosophy of nature to the philosophy of practice and from the philosophy of law to the philosophy of rules”^{[23]102-110}. The philosophy of the second beginning emphasizes the ethical concept of symbiosis and co-existence, which helps to cope with the one-sided prosperity of material civilization brought about by technological innovation and globalization after the Second World War, and helps mankind to get out of the blind optimism of technology. The sustainable

²⁵ Liu XiaoTing. The Crisis of Civilization and the Philosophy of the Second Beginning [J]. *Theoretical discussion*, 2021(6):102–110.

existence and development of human beings depend not only on human cognition or intelligence, but also on human coexistence consciousness and symbiotic power. Technology and even artificial intelligence technology can replicate human intelligence, but how to conduct interpersonal/man-machine cooperation in a way of harmonious coexistence still depends on the co-philosophy, co-practice, co-ethics and co-responsibility of the second beginning.

Finally, the development of technology needs the precedence of ethics. The reason is that although technology, such as intelligent robots, can replace human beings to do hard work, it is difficult to solve the problem of the loss of people's sense of value and meaning. Today, technological development has indeed changed the way humans live and work. In some fields, intelligent robots have replaced humans to do heavy, tedious, time-consuming and dangerous work, reducing what Morris called “useless work and useless toil”^[26]. If intelligent robots can do all the work instead of human beings, and can meet all the needs of ourselves and our families, they can also compile War and Peace, even they can compile better than human construction. We start to think about what we're living for. When we ask about the ultimate meaning and mission of life^[27], we will realize that the meaning of life is to communicate, cooperate and share, not to share a pasture and food like animals.

Conclusion. In general, technology, especially artificial intelligence technology, has crossed the boundaries of countries and cultures. We need to develop an ethical concept of symbiosis, coexistence and common responsibility based on the common philosophy of the second beginning to deal with technical ethical issues, instead of simply choosing a single theory in line with certain cultures and values. In terms of the function and structure of the human brain, we have different goals just like computers, and can achieve them by completing complex programs through computation. However, even if we are able to construct a moral robot, they can be like humans who have moral executive ability, even if they have the self-awareness, to assess the situation, automatic decisions and actions, they are hard to with the conception of co-philosophy, with the symbiosis, the co-responsibility, to make a sustainable, coexistence of ethical decision making.

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²⁷ Wajcman J. Life in the fast lane? Towards a sociology of technology and time [J]. *Br J Sociol* 2008, 59(1):59–77.

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