Dictionary of Contemporary Worlds Famous Humanities Scholars

CHEN Fan's Academic Thoughts for Philosophy of Science and Technology

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Important Theory Put Forward by CHEN Fan: Socialization of Technology-A theory of Technology Philosophy Sinicization

In the early 1990s, Chinese scholars began to study Technology Philosophy Sinicization and achieved important results. In this trend, Professor Chen put forward the theory named Socialization of Technology, which is an important breakthrough in the construction of interaction mode between technology and society in the Philosophy of Technology Sinicization process. In jishu shehui hua yinlun, Professor Chen systematically discussed various aspects of technology socialization included its essence, function, social role, process, social integration, social adaptation, and other basic concepts and theories. Professor Chen Changshu, founder of Chinese Philosophy of technology, believes that this book is of great significance to the formation and development of technology philosophy as well as sociology of technology, as he put in the preface of this book "(it) constitutes a quite complete system about the socialization of technology" and "can become a monograph of sociology of technology for Chinese people"(1995).

According to Professor Chen, the essence of technology socialization is the process of making technology accepted and recognized by public through social integration of technology and public psychology adjustment. Specifically speaking, on the one hand, under the integration of social location, technology can meet and adapt to the requirements of social norms; On the other hand, the public can form a positive social attitude towards technology through adjusting social psychology. In this process, technology will become into a socially compatible technology, that is, the socialization of technology. The acquisition and improvement of social attributes of technology and the formation and development of social role of technology constitute the basic content of technology socialization. Technology socialization is the way of acquiring and perfecting social attributes of technology, forming and realizing the social role of technology.

The realization mechanism of technology socialization lies in the social integration and social adjustment of technology. The social integration of technology not only refers to a process and state of maintaining order among various elements within the technology system, but also, more importantly, refers to how technology system as a result of social differentiation, forms the adaptation and coordination with various heterogeneous elements of the external social system through certain ways and approaches, that is, the process of forming technology compatible with society and realizing the socialization of technology. Therefore, the process of social integration of technology should include social construction, selection, debugging, control, and so on. Accordingly, the social integration view of technology should also include the social constructivism of technology, the social selection theory of technology, the social shaping theory of technology, the social cybernetics of technology and other basic theories of technological sociology.

Social adjustment of technology mainly refers to the adjustment of social psychology for technology. In the process of technological development, people usually show certain psychological orientations, that is to say, form some social psychological processes and psychological phenomena and behaviors related to technology, such as social cognition, social emotion, social motivation, and social attitude towards technology, all these above is called social technological psychology. In the process of technology socialization, the psychological adjustment of social technology is mainly carried out through public opinion media and legal norms. Proper psychological adjustment of social technology will not only enhance the public's awareness of science and technology, and balance the public's emotional response to technology, but also form the social driving force of technology development, and realize social acceptance and recognition of technology, which is very beneficial.

The theory of technology socialization is an important breakthrough in the Sinicization of technology philosophy at the turn of the century and a reflection on the interaction between technology and society on the basis of the integration of philosophy and sociology. It emphasizes the integration of natural, political, economic and cultural location and technology, as well as the adjustment to society by means of public opinion, media and legal norms. Philosophers only interpret the world in different ways. The problem is the way to change it. This is the main purpose that technology socialization theory analyzes the practical problems such as the socialization of technology subjects, traditional technology and its socialization, high technology and its socialization, etc. combined with the current situation of China's technology development at the turn of the century.

As Professor Chen pointed out, the most urgent and important task we are facing so far is as follows: How we carry out technology philosophy research adhering to Marxism tradition while analyzing and learning from aboard? How to root technology philosophy study in Chinese traditional culture? How to carry out technology philosophy research based on the practical situation in China and how to focus on China's problems and gradually form a theoretical system of technological philosophy with China's characteristics, style, and context?

For Professor Chen, the choice of path for the Sinicization of technology philosophy should first be based on localization, which is the practical foundation of the Sinicization of technology philosophy. The second is to face internationalization, which is the theoretical perspective of the Chinese philosophy of technology; The third is to realize the Sinicization, which is the future direction of the Sinicization of technology philosophy. As long as we consciously face the background of science and technology globalization, based on China's science and technology practice, toward technological innovation of enterprises, enhance the ability of scientific and technological self-reliance and self-innovation, and serve the construction of an innovation-oriented country and Chinese-style modernization, The research of technology philosophy in China will gradually form an academic community with basic research paradigm, clear research program and scientific research methods. We should adhere to the principle of "prominent position with characteristics, display level with research, seek future with application, promote development with openness" (2016). I truly believe that the school of technology philosophy with Chinese characteristics will play an important role in the international academic circle if we persist in this faith.

Representative Works

Jishu zhexue sixiang shi (2019) begins with Chinese traditional culture and technology philosophy thinking: from technology to Tao. It discusses technology philosophy in different periods based on each historical stage of Western philosophy. In this book, the western modern philosophy of technology starts from the traditions of engineering philosophy of technology and humanism philosophy of technology formed since Karp. Professor Chen discusses various technological philosophical thoughts such as techno-anarchism, techno-optimism and techno-determinism in this book. In the process of sorting out the western philosophy of technology thought, Professor Chen analyzes different schools in each philosophy of technology era, and then show different aspects of the whole western philosophy of technology thought development process. The selection of research ideas and contents is helpful to enrich the research content of philosophy of technology and broaden the boundary of philosophy of technology. All of these theoretical breakthroughs embodied in the innovation of research content, theoretical viewpoints and research methods.

The innovation of the research content is reflected in the following aspects: first, Professor Chen puts forward a new idea to construct the philosophy of technology, and takes it into Chinese traditional culture at the beginning of the book; The second is to construct the research system of Marxism philosophy of technology. Through classic Marxism thought, Frankfurt School and contemporary China philosophy of technology tradition, a complete research framework of Marxism philosophy of technology is constructed. The third is to open up a new field of research, the Russian philosophy of technology and the Spanish countries' philosophy of technology in-depth research.

The breakthrough of the theoretical viewpoint is reflected in putting forward many innovative viewpoints, including the ancient Chinese philosophy of technology through the "relationship between Tao and technology" to construct a philosophy of technology frame system mainly oriented by the traditional Chinese "mind analysis" way; Starting from the understanding of the concept of technology in ancient Greece, this paper comprehensively combs the philosophy of technology from Socrates to Hegel. The forming process of Marx's philosophy of technology is divided into three stages: the birth period of humanistic technology criticism, the development period of practical materialism criticism and the maturity period of engineering traditional criticism. The main line of social constructionism is summarized as "society-technology" perspective and so on.

The innovation of research methods is reflected in the following aspects: first, the overall approach takes the Chinese traditional philosophy of technology with modern thought together, and runs through the development of the history of the development

of the western philosophy of technology, reflecting the integration of Chinese and Western philosophy of technology; Second, the method of unification of logic and history runs through the research method, and the theoretical logic of the philosophy of technology is discussed together with the historical logic produced by the theory, and the contemporary practical value of the theory is further explored.

Resume

CHEN Fan(1954-), Full Professor and doctoral supervisor at Northeastern University(NEU), Director of Research Center for Science Technology and Society of NEU. Professor Chen's disciplinary background is in philosophy, with an emphasis in philosophy of technology, science technology and society. He has published over 300 research papers on Social Sciences in China, Philosophical Research, Studies in Philosophy of Science and Technology and other top publications in Chinese social sciences.

Professor Chen has edited dozens of monograph books such as jishu shehui hua yinlun (Introduction to The Socialization of Technology), jishu zhexue sixiang shi (History of philosophy of technology) etc. He has presided over 2 major projects, 6 key projects and 6 general projects (Granted by The National Social Science Fund of China), 6 major projects and special funds of the Humanities and Social Science Research (Granted by China Education Ministration), 3 major projects of Soft Science Fund (Granted by the Ministry of Science and Technology of China), and dozens of provincial and municipal projects.

Because of his excellent work and contribution to The philosophy of Technology, he was awarded the National Outstanding scientific and Technological Worker, the government allowance of The State Council. Also, he won the second Prize for "Excellent Achievements in Humanities and Social Sciences" twice (Granted by the Ministry of Education), "Excellent Teaching Achievements" by the Ministry of Metallurgy, and "Scientific and Technological Progress" of Liaoning Province, the first "Social Science Achievement Award" of Liaoning Province, first prizes of "Excellent achievements in Social Sciences" of Liaoning Province, and first prizes of teaching achievements of Liaoning Province. Leading talents of Liaoning Province (excellent experts), undergraduate teachers of ordinary institutions of higher learning in Liaoning Province and many other awards.

As one of the most influential researchers in philosophy of technology and STS in China. Professor Chen holds other responsibilities such as Member of Philosophy Evaluation Group in China's Academic Degrees Committee of the State Council; Vice-Chairman of Chinese Society for Dialectics of Nature/Philosophy of Nature, Science and Technology (CSDN/PNST); Chairman of Chinese Society of Technology Philosophy Committee (CSPT); and Chairman of Chinese Science, Technology and Society Committee (CSTS); Member of the Fifth and Seventh Philosophical Discipline Evaluation Group for Academic Degrees Committee of State Council; Judge of China Science and Technology Awards (Popularization of Science Group); Deputy Director of the Ideological and Political Theory Teaching Steering Committee for Graduate Students of the Ministry of Education and the Academic Committee of the Research Base of Humanities and Social Sciences (Science and Technology Philosophy) of the Ministry of Education; Member of Academic Committee of Tsinghua University Technology Innovation Research Center, etc.

Acknowledgement

Conflict of Interest

No conflict of interest.