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Title Exploration of the nature of virtual practice

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Abstract: Modern revolution of information technology gave birth to a new kind of practical form - virtual practice. It has gradually penetrated into every corner of society, and profoundly changing the way of human existence. In this paper, the comparison between generation of virtual practice and traditional practice reveals the nature of virtual practice to improve human existence.

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The arrival of Information Age, further development of Information Technology and deep influence on society, especially the rapid development of Internet expands the space of the human living and make human being step into the cyber world. Corresponding to this, virtual practice came into being. The rise of virtual practice has become a major trend of social development, and it profoundly changes human existence. How to grasp the nature of virtual practice and obtain the wisdom from a new life has become an unavoidable significant practical problem of current philosophy.

1. Scientific and technological progress and further reflection gives birth to virtual practice.

Technology has played a significantly role in the promotion and support to update the practice form in human history. The relationship between technology and practice is always concrete and historical, and the demands for technology encourage the continuous rotation of practice pattern. Development and progress of information technology is the most important reason for the virtual practice.

In last 200 years, human beings had experienced three revolutions, which had a profound effect upon the ways we live, the ways we think and the ways we make the world. The three technological revolutions were based on how to use matter and energy. In these periods of time, steam engines, electric motors and other power tools are invented. The production practice actualized mechanization, electrification and automation. "According to the evolutionary logic of technology and production practice, based on development of information technology, the full development and use of information resources, the utilization of material, energy and information, the development of digitalized social practice will inevitably become the dominant trend of contemporary technologies development."¹

The revolution of modern information technology develops and changes in accordance with this logic, and accordingly gives birth to this new form of practice, virtual practice.

"Information technology is the name for the correlation technique about gaining information ,

¹ Zhang Ming cang "Virtual Practice" [M], Yunnan People's Publishing House, 2005, p.33

transaction of information , stored information , process information, display information, distribution information and so on by utilizing electronic computer and modern communications."¹

It is in the support of information technology to digitalize the practice tools and the virtual form. So information as an indirect existence carried by 0, 1 2 digital system, constructs and imitates the subject, the object, process and the results of practice. It gives rise to the virtual construction of a realistic three-dimensional world - a virtual space. This imitation is not a simple copy, but a kind of "creative virtual."

This kind of construction and imitation is not a simple copy, but a "creative virtual."

" The practice that digitalized symbols construct existence in the virtual space has surpassed the limitations of using 'real symbols'."²

In the support of information technology, information resources emerged. It breaks the shackles of original form, making hidden information inherent in energy and matter come into the stage.

With the emergence and development of computer virtual technology, it created a new kind of understanding, virtual understanding based on the perceptual and rational knowledge after the 1960's.

The deepening of human knowledge led to the digitizing of information carrier, it is another significant cause to promote generating virtual practice.

"Virtual Reorganization is people using computers as an extension of the human brain to receive information, process, handle, converse, store to understand the outside world. It is using '0', '1' coding, a more abstract digital form to reflect the outside world. Therefore, it is both abstract and specific. Compared with the rational knowledge, it is a new, more advanced form of understanding."³

This led to a new cycle process that further deepened the understanding process, developed starting with perceptual knowledge, then rose to rational knowledge, and further converted to virtual understanding.

Specifically, first, the information existing itself goes up to be the created information through the subjective perceptual system, and is grasped by the subject in

human practical activity. Meanwhile, the information existing itself intermediated as concrete symbols, formed the perceptual image, such as sensation, consciousness, impression and so on in the human brain, then transformed the created information into regeneration information through the human brain's "orientation" and "suppression", and conceptualized the acquired perceptual image intermediating as digitization symbols or image symbols, generalized, judged and reasoned in the physical space. With the further deepening of understanding, virtual knowledge will further digitizing the visualization and conceptualization content (that is reconstructed as reference formation symbol, a combination of "0" and "1"), generate a perceived three-dimensional graphics data processed by computer in the virtual space. Reference formation symbol is the result from cognitive ability of people to further enhance.

Information carrier developed into binary system symbol , from "material" to "reference" and provided the support for establishment and development of virtual practice.

2. Virtual Practice is different from the traditional practice patterns.

Virtual practice as a new form of human practice is a practice subject as man-machine system reforming activity to information resources by using the medium of digitization according to certain purposes.

Virtual Practice is different from the traditional practice patterns. Specifically, first is practice elements.

Compare with the subject of traditional practice, the subject of virtual practice is apparently different.

The subject of traditional practice is the human "body" man, and the subject of virtual practice is the main man - machine system.

Interaction of Virtual practice made human - machine achieve an unprecedented integration, and human-machine system has the characteristics of both man and machine, this system composed of man and machine has also played a 1 + 1 > 2 role under the conditions of collaboration..

"This information system structure of man-machine integration inside effects the man's nervous system, stimulates people's cognitive capability and innovative capability enhances the subject's capability to absorb information, and outside impacts on human civilization achievements with the form of symbolic information and network information and thereby promotes the development of human civilization ."¹

¹ Tang Kai Editor. "Modern Information Technology Essentials" [M], China WaterPower Press, 2007, p. 4.

² Zhou Zhen Wu, Yu Jieping. On the practice of the virtual nature of the Differentiation and Unity [J]. Journal of Liaoning Normal University(Social Sciences Edition), 2005 (5).

³ Peng Lie Han. Virtual reality: the third form of knowledge [J] The Theory Monthly, 2003 (2) .

¹ LI Yin-rong WANG Qi. Virtual Practice Mode [J]. Studies in Dialectics of Nature, 2006 22(3) .

Compared with the medium of traditional practice, Virtual practice with information technology and information tools for its intermediary system is more intelligent.

The subject of virtual practices increases the production knowledge and technology content and timely provides convenience condition for innovative and high technology to convert into actual productive forces by means of intelligent and networking working tools.

Meanwhile, in the process a human-computer interaction and human-computer symbiosis are formed, and generates an object of virtual practice.

The object of traditional practice is a collection of objects. It is characterized by objective reality.

The difference, however, between the virtual practice and traditional practice is virtual nature. With the change of computer technology and information technology, virtual practice can make productivity containing in the division of labor and collaboration to become more effective.

Second is the practice field.

The major changes of virtual practice upon the practice of human communication appear in innovation of communication tools by utilizing computer technology, information technology and network technology. It actualizes the digital realization of human communication, virtualization and globalization to create new social relations and new way of communication.

Specifically, from exchanges model of people, the traditional direct "subject-to-subject" model alters into indirect "subject-intermediary-subject" model exchange interaction.

Second, from exchange spaces, traditional "face to face", which is "physical presence" way, transform into application of symbols being as means of communication. It covers or disguises the whole or part of real world identity. It also grants freedom to choose how to present them, which determines the virtual subject must reconstruct their roles in the virtual community.

Again, take a look on the means of exchanges. The traditional exchanges are mainly through human speech, body movement, etc. to transmit and process information and to communicate. The virtual practice uses computer technology, and network technology to change the means of communication through the network build their own identity to reproduce the language and role so that every one even the globe

can simultaneously target multiple roles and multiple contacts, which makes the relationship is more latitude and non-centralized with characteristics of loose, variability and diversity.

Finally, take a look on the results of exchanges. Through the traditional communication practice, people create the kinship, relationships with neighbors and business partners. In the virtual Association, people establish a new type of social relations - network proximity. Network proximity is using virtual technology to establish the relationship between the original and its essence to break the limitations of social relations, such as social identity, status, economic status, etc., to establish effective information exchange and emotional means of communication to achieve a free and equal exchange.

Third is time-space outlook of practice.

Traditional practical activity linked closely to time and space. People confirmed corresponding specific time and made time spatialize by reference to a series of symbol variation of the practice objects in space.

"Yet, time separated from space by the formation of unified time in the virtual society. Space is always directly equivalent to place and site in traditional society, it is marked by 'direct existence' of spatial dimension in social activity, while three-dimensional represented information makes time separate from actual place and site in the virtual society and bring about the fact that social interaction activities can not be removed determined gradually with far from the current present interaction scene, location, place and site. It is thus clear that not only time and space but also space and place come about mutual separation in the process of the virtual practical activity. Although the result of separation does not abolish the existence of time, space and place, it gives new meaning and function to time, space and place etc."¹

Time and space of virtual practice enable an objective object to be present as if be absent, that is to say, the "absent" things carry in "present" by means of virtual technology, and make "present" be "absent", that is, make the "object" break away from the objective current time and space, in this way bring us a brand new "world" - the virtual world.

Things in the "world", not just "presentation - phenomenon", showing in certain aspects or stages of things, but down-to-earth "essence - existence" of things, the "object" before our eyes shows its existence as the existence of "thing itself".

¹ LI Yin-rong WANG Qi. Virtual Practice Mode [J]. Studies in Dialectics of Nature, 2006 22(3) .

With comparison with the traditional practice, virtual practice is different from not only in different form, but there are differences in all aspects. The traditional practice always is always in sight giving direct feeling; virtual practice always makes its presence felt real, but it is not touchable making it unpredictable and undetermined. It is neither friendly nor aloof.

3. The nature of virtual practice is the new development of information practice.

It is not difficult to find that all activities of virtual practice are launched around "information" by analyzing the genesis of virtual practice, and comparing with traditional practice. Therefore, "Information" understanding will be the key to reach the essence of virtual practice.

Defines to "information" concept have always been bone of contention among scientists and philosophers. Scientists and philosophers all give a definition of it at different levels and different angles from their personal subject background and cognitive paradigms etc.

Among them, Wiener proposed "information is information, it is not material nor energy". His famous remark implied that in order to reveal the essence of information, it needs not only exceeding the understanding of specific scientific information to information, but also even more important traditional view or way of thinking understanding the world as "substances" and "energy" beyond the philosophy.

Therefore, to clarify information essence by philosophy, it needs not only to remove all sorts of limits brought about by the specific science explaining information, and to realize "philosophical criticism to specific science," but also to make philosophy "surpass the threshold of the old system of traditional philosophy, and achieve" self-critical philosophy "¹.

On the basis of dual critical to specific science and traditional philosophy, Wu Kun eventually summarized "information" essence as: "Information is a philosophical category marking the indirect existence, it is itself display of material (direct presence) existence and status. "² In other words, "material" is a philosophical category marking the direct existence, and "information" is a philosophical category marking the indirect existence.

Wu Kun's summarization of information essence actually opened up a brand new path to practice, to understand and reflect on human existence. People is

the dual existences as material and information, the existence of material and the existence of information are two sides of the same process of human existence.

Practice as a human existence has materiality and informativity as well, and simultaneity has material practice and information practice. The "material practice" mainly refers to the material aspects of practice, that is, practical aspect evolving around "direct presence" of things, and it mainly shows as material production activities that alive and kicking people in the reality proceed directly for survival and development. Therefore, before the advent of the information age, the essence of traditional practice is material practice, it is a side of practice based on the dimensions of the material world. For this time, although the human information activities have already existed, they have not known, understood, and grasped for various reasons. It resulted in the fact that information as dependency has been attached to material, and practical information has closed over by "material practice" for long-term.

The "information practice" mainly refers to the information aspects of practice, that is, practical aspect evolving around "indirect presence" of things. Information practice as a side of the same practical activity always follows up like a shadow with material practice. According to Marx, the traditional practice forms include four forms: material production, personal production of human beings, spiritual production, and social contact etc. It traced to the essence of four forms of human production activities from information: material production is a combination of the structure information of natural objects and the objective information of labor subjective covers the structure information of material object production; personal production of human beings is integrated and development of human genetic information and social and cultural information; spiritual production is to copy, change and create the concept information of human; and social contact is a "trace" information between people. Therefore, in this sense, the essence of these four forms is also information practice.

The rapid development of information science technology promotes an arrival of the information age, at the time, practice process displays more importantly on people with information science technology, inflicting oneself and practice objects on processing and transferring, and bases on this kind of processing and transferring opening up own practice. In fact, information practice is gradually becoming the dominant aspects of human practice with extensive penetration of information science technology. So its involved scope is ceaselessly expanding, and for now it has been

¹ Wu Kun, "The philosophy of information - theory, system, method," [M], Beijing, The Commercial Press, 2005 edition, p. 44.

² Wu Kun, "The philosophy of information - theory, system, method," [M], Beijing, The Commercial Press, 2005 edition, p. 44-45.

involved primarily in the development, use and transfer of information itself, in the development, use and dissemination of information science technology and in the inflicting former human practice and achievement on practice aspects, informatization survey and transformation etc.

Thus it can be seen, "virtual practice" is practice subject as man-machine system, and transformed activity to information resources using digital medium means in the virtual space according certain purposes. The essence of virtual practice is information practice, a new form of information practice development. "Virtual practice" highlighted primely the virtual elements of information practice as a new form of information practice development. It is a kind of information practice form exists on the condition that people use the computer system as a tool and medium, and its target ("digital" as an intermediary) as well. Meanwhile, virtual practice also highlights its brand new side.

First of all, from the view of the subject aspect of virtual practice, based on the ability of people, especially the contradictions between limited intellectual capacity and infinite information resources, increase of contemporary machine precision and intelligence, or more realistic personification, the machine has not only an extension of limbs, but also an extension of the human brain, making man-machine into a real organism in its true sense, thus effectively solve this contradiction, in this sense, human machine system become the subject of virtual practice; Second, from the view of the object aspect of virtual practice, practice is a kind of objectivity activity and objectivity activity of virtual practice is the transmission of information resources, processing and handling, the object of virtual practice is information resources; Again, from the view of the tools aspect of virtual practice, the computer and network etc. are the necessary tools systems to carry out virtual

practical activity, the information carrier of subject and object converts figures, pictures, entities to reference digital symbols as 0,1 and it is given to digitized identity and status by these tools systems. Finally, from the view of activity field of virtual practice, the Internet and virtual technology enables human activity field from the real world to the network and the network of cyber space (i.e. space of "indirect existence "), to construct a digital living space for human beings.

Information practice is the essence of virtual practice, the emergence and development of virtual practice is an inevitable result from technology development and human's ceaseless self-transcendence. At the same time, the exploration to the essence of virtual practice, information practice makes a brand new path for human to exceed the trammel of "material" and "energy", to break the perspective of single, linear physical dimension. In the contemporary era, virtual practice is profoundly changing our lives and our world. It offers seemingly limitless opportunities to our survival and development, and brings us a lot of challenges and problems as well. We should have cautious and critical attitude toward these integrity significant changes of human existence way. However, we can neither deny the existence of the digital age, nor avoid or stop the progress of the digital age. The development of contemporary virtual practice provides us with freedom and variety choices of the future, each of us can make a reasonable choice and successful realize self-transcendence in a particular situation that we can truly understand the changes and characteristics of age, grasp the development tendency and seize the opportunity.

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