

Philosophical Anthropology of Information-Communication Technology: Taoist Consideration on Virtual Reality

Une anthropologie philosophique des technologies de l'information et de la communication : une réflexion taoïste sur la réalité virtuelle

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The post-modern culture of today, the culture of the so called "Information Society", consists widely of human activities and of their products which are based on the "Information-Communication Technology"(ICT). This has come into being, of course, due to the novel discovery and high-technical development in electronic engineering, called "digital revolution".

Now that the change this new technology has caused is an epoch-making one, it's a serious question to ask weather it's all the more desirable to develop this technology further as it has been undergone. Not a few considerations are being taken that its further development could be dangerous for human well-being in the future. In the centre of this question lies the Virtual Reality, the overwhelming impact of which is undeniable everywhere today. It is our concern to take consideration on this problematic from the viewpoint of philosophical anthropology and cultural philosophy.

We're now going to begin with an explication of the ontological foundation of the culture in general to prepare the base for our discussion(1). Then we'll take a review on the technological basis of the Information Culture(2) and explore some possible philosophical implications of the ICT(3). It will be the main part of our consideration to discuss the ontological problematic of the "virtual realty"(4) in order to give some critical opinion on it from the viewpoint of philosophical anthropology, whereby the performance of ICT will be examined in the mirror of the original role of technology(5). We'll try to review our critic in the light of the old Taoistic lessons on Nature and Human Activity in expectation of finding some clues for our problems(6).

1. On the Ontological Foundation of Culture

Culture, in its wide sense, consists of human spiritual activities and their products. The latter is more important, because the former is hardly to build the fundament of historical and social world because of its unstableness, fluidity, changeableness and the like, while the latter has relatively unchangeable stability to build the "objective" world of historicity and sociality. Culture is in this sense the human spirit which is "objectified", i.e. mediated by non-spiritual physical elements and settled as objective goods on the historical and social horizon.¹

We can call the results of this "objectification" of the spirit "common cultural goods", considering their concreteness and material character. These products of human spiritual activities are the inventory and at the same time the container of culture. The existential mode of this "objectified" spirit as well as the structural form of "objectification" are therefore the core subjects of ontological inquiry into the culture.

Material things containing the objectified spirit, the cultural goods, are not just simply material. They are also spiritual at the same time. They consist of in fact two totally different layers: the material layer in the front and the spiritual layer in the rearward of it.² The former, for example the carving of a stone monument, is to be perceived directly by our physical sensation, but the latter, for example the meaning of the phrase, is to be understood by our spiritual activity indirectly in so far as we can read and comprehend it. The former is subject-free independent real being, while the latter is subject-related dependent unreal being.

Problematic is here how these two heterogeneous layers are combined into one unity. More problematic is that here are lacking the middle layers, the biological and the psychological, not as in the living personal spirit. The rear spiritual layer, come into a "standstill" in the material, has no full reality. Only when a living personal spirit gets through the front material layer to reach it in the rear and understand it as spiritual contents, it can be revitalized as spiritual being and recover its full reality.³

Important is here the role of the third factor, the living acting spirit which can understand the objectified spirit and make this potential spirit real. It performs the

1. N. Hartmann, Das Problem des geistigen Seins, Berlin 1962, 44. Kap.

2. *ibid.* 46. Kap. d.

3. *ibid.* 52. Kap. e.

realization of the unreal spirit by complementing the lack between the material and the spiritual layer. Without this understanding living spirit there cannot be even the dual structure of the objectified spirit itself. In the foundation of culture, in which the cultural goods as products of spiritual activities are the substantial fundament, there are three elements: the material front, the spiritual rearward and the understanding living spirit. Only when these three interact among each other, there comes the culture into existence.⁴

2. Technological Basis of "Information Culture"

The astonishing development of the so-called information-communication technology (ICT) in the last decade has brought about an epoch-making change in cultural life, in human activities constructing the cultural goods as well as enjoying them. New cultural goods which are totally different in their structure and nature from the traditional have appeared and are now overwhelming in almost all areas of cultural life.

The new cultural goods which consists basically of "information" are to be produced by the technology of artificial intelligence on the one hand and exchanged by the technology of telecommunication on the other hand. The former is the technology which analyses, operates and manages the data in much higher degree than human intelligent competence. The latter is the technology which delivers them in large amount, in ultra high speed and over wide global range beyond the natural spatio-temporal limit. Most significant is that these two technologies have become converged into one, into the ICT.

As well known, the appearance of ICT, exactly speaking, the convergence of two independent technologies mentioned, was possible due to the dramatic innovative development in micro-electronic engineering, called "digital revolution". The so-called "digital" mode was invented due to the artificial (mathematical) language system consisting in "binary code".

In "analogue mode" the physical properties of sense-data, whether audial or visual, are to be transformed into electric or electronic quantities at first and recovered their original forms in reverse direction afterwards. It requires very complex and fine

4. *ibid.* 49. Kap. d.

technical operation and therefore can hardly avoid of defects in speed and exactness in transmitting the information in long distance communication.

On the contrary, the "digital" mode overcomes this kind of difficulties by articulating the informations of any kind into binary system, "binary digit"(=bit), 1 or 0 (ON or OFF), and transmitting these algebraic entities. It is decisively important here that all kinds of informations, despite their qualitative difference, can be calculated mathematically in the same way and therefore transmitted exactly, indifferent as to their surrounding conditions. This device of "digital encoding" has enabled the convergence of two technologies mentioned.

To sum up, "bit", the basic unit in the "digital technology", is just an electronic charge expressing 1 and 0. The digital information, contracted into this binary number system which has no material nature, can be operated by the computing process without any real restriction. The digital technology can therefore combine the informations and manipulate images without limit. The global expansion of it facilitates and promotes the overall circulation of all objects in form of "information". It gives birth to eventually the virtual reality in cyber space beyond the natural reality.

3. Philosophical Implications of ICT

The two different technologies, combined now into the ICT, are in fact the technology of artificial intelligence and that of artificial sensation respectively. One is the intensification of human faculty of "thinking" in the sense that it overcomes the organic restriction of the bodily influence within, the other is the expansion of human faculty of "feeling" in the sense that it overcomes the spatio-temporal restriction without. The two, having been developed independently in their origine, but now converged into one, have brought a revolutionary result: it makes the sense-data intelligible and the thought sensible.

The totally new feature of this new blended technology consists in its faculty of convergence of "noesis" and "aesthesia": the object of thinking(the logical mathematical unit) and that of feeling(sense-data) interconvert into one another.

The products of spiritual activities in ICT are fundamentally nothing but a kind of complex or accumulation of (mechanical, spatial) quantitative units, because they are

the result of operation of informations on the basis of mathematical computation. In other words, the "objectified" spirit in information culture is to be reduced to mathematical quantitative entities without any real qualitative properties. It makes a good contrast that the objectified spirit in traditional culture has proper contents with qualitative substances which cannot be comprehended but intuitively in sensation.

In our ordinary life-world, the fundamental mode of mental act is intuitive sense perception which has qualitative objects as its counterpart. But in the artificial world of ICT, the ultimate unit of the objects which we experience, so far as it is produced by the micro-electronic technology, is no more than physical or mathematical entities which cannot be perceived through sensation. For, all the contents of information are transformed into the physical-electrical structure and further into the mathematical logical structure.

In short, "informations" are ultimately the products of mathematical operation, and therefore can hardly contain the emotio-volitional elements of human activities. If what can be reduced to the mathematical-physical relations should be "objectified" and, as a result, the cultural goods should consist mainly of informations of this kind, the historicity and sociality of human being must be changed.

4. Ontological Problematic of "Virtual Realty"

The ICT, which intensifies and expands the human natural faculty of intelligence and sensation, has rendered an almost unlimited space where the informations can be produced freely beyond the natural restriction. It is the cyberspace in which the "virtual reality" is to be constructed beyond the natural reality.

The virtual reality in cyber space has two decisively important problematics concerning its "reality", as firm basement of culture. One lies in its own ontological status as "objectified" spirit; the other in its relation to the living personal spirit.

4.1 Cyber space as spiritual product is in fact no space in ordinary sense. For, there remains no extensionality more, no distance more. In cyber space the extensionality of the space loses its ontological weight, so that any "territorial fixation" of things becomes meaningless: one point can be occupied by multiple objects and many points can be occupied by one. There collapses the necessary order of a homogeneous space in which

spatial monopoly is to be kept firmly. This causes the so called "deterritorializaon".⁵ In this sense cyber space is "u-topia", which exists "no-where".

In the natural space the self-identity of a thing is fundamentally established and maintained by its exclusive monopoly of the physical space. But in cyber space it is no more the case. In cyber space things cannot hold their perfect identity secured by their limit. Things in cyber space are to be "de-substantialized" in this way and allow other things to intrude into themselves. The world in virtual reality comes into the state of "flowing" currency in which "hybrid breed" and "transmutation" become ordinary occurrence.⁶

Cyber space is therefore a kind of "hybrid space" where the identity and the difference, sameness and otherness, co-exists, so that no substantial thing resists against the other. Where the distance disappears there remains no time either. Temporal order, continuity and unity collapse into the simultaneity and immediateness in cyber space.

4.2 The objectified spirit must have subject-free independent "objectivity" to some extent so that it could be solid fundament for the construction of "objective" historicity and sociality. In traditional culture it is usually the case while the objectified spirit becomes independent of the objectifying living spirit. Though it leaves the producing subjective person and gets into the state of standstill on the one hand, it becomes "objective", self-reliant and independent to endure the changes in a long time-span on the other. In that way it becomes the fundament of society and history, two core elements of culture.

In cyber space it is hardly to expect that the objectified spirit get into self reliant independent state, free from the living and continuously acting spirit. The cultural goods in the form of virtual reality which lacks stable substantiality and identity, owes their ontological basis to the acting spirit continuously. Weather it has self supporting substantial reality or just an imaginary contents of the subjective mental act, there can scarcely be any distinctive demarcation in the virtual reality.

It is therefore very doubtful that the "objectified spirit" hold its ontological basis in or on the virtual reality so that the historicity and sociality could be built there. Where

5. Pierre Lévy, *Qu'est-ce que le virtuel?* Paris 1995, chap. 4

6. Representative examples of non-substantial being in cyber space are money, knowledge and sign.

there is neither history nor society, there is no culture. It means that human being as a species cannot survive at all, if he has to run his life only in or on the virtual reality. For it is inevitable for human being to build up culture as a second nest to complement his natural "milieu" within and without which lacks necessary equipments for securing his survival.⁷

5. On "Information Culture" from the viewpoint of Philosophical Anthropology

Besides the mentioned ontological problematics, there are some other points, on which we have to give negative critics concerning the ICT, virtual reality and information culture from the viewpoint of philosophical anthropology.

5.1 Deviation from natural experience

<Ubiquitous Communication>

One of the outstanding outcomes of the digital technology would be the realization of "ubiquitous communication". It is meant by "Ubiquitous Communication" that an intended communication is possible "at anytime, anywhere, for anyone, with any device, by any media," (and in the near future "in any language"). The digital technology has made it also possible to converge the technologies upon the base of this convergent ICT. This "digital convergence" has been realized step by step in several phases: at first between devices and services,⁸ then between devices,⁹ then between network and services,¹⁰ and (in the near future) between all the devices and services in networks, which implies just the "ubiquitous communication".

If there appears the "Ubiquitous World", in which the spatio-temporal and

7. A. Gehlen, *Anthropologische Forschung*, Hamburg 1961, p.64f

8. Digital technology has been developed and used in 60's for computer, in 70's for telecommunication, in 80's for audio systems(including CD), and in 90's for DVD and digital TV'.

9. Network being built at home, in office and in mobile apparatus respectively.

10. Network including home, office and mobile apparatus being built in unity; Distinction between communication network and broadcasting network be disappeared.

instrumental restriction disappears, it could be also a threat to the ordinary life-world of human being. For the spatio-temporal restriction has become the familiar condition for his life: restriction means also restricted support. His biological constitution within and without is the result of a long-time evolution, a process of adapting himself to the environment, in which the spatio-temporal structure is the constant basic element. We could say, in other words, the spatio-temporal restriction becomes a core part of his unchangeable "nature". Free from the spatio-temporal restriction, human being could loose the guiding principles of his normal life in security and stability.

That the disappearance of spatio-temporal restriction could be a threat for the secured life becomes more obviously in examining the impact of virtual reality occupying the life-world more and more.

<"Virtual reality" in "life-world" >

The scope, mode and capacity of human sense-perception is limited to the bodily condition in natural reality. On the contrary, the "digitally" manipulated data are to be "digitally" experienced beyond the natural limit in virtual reality. In other words, human being leaves his body, when he enters the cyber space, where all objects are to be "digitalized" in binary numbers. Transmigrating from the natural reality to the virtual reality, he frees himself from the material and the bodily restriction. The mystery of the material world including his body is now being eliminated and the world becomes simple object of operation and domination. It becomes, as a result, subject to the endless desire of human being.¹¹

The digital technology which goes beyond the temporal order of 'one-after-another' and the spatial monopoly. Along with the disappearance of distance and time interval the simultaneous and total satisfaction of desire has become an expectable thing. The so-called 'knowledge industry' give enormous efforts to develop the 'algorithms' which can meet this expectation. The convergence of technologies and further that of industries are the eloquent sign of it.

11. M. Heim explicates this phenomena through the disappearance of erotic, taking the story of W. Gibson as an example. M. Heim, *The metaphysics of virtual reality*, 1993 Oxford UP, pp 86ff

Concerning the spatio-temporal experience, for example, it is clearly to observe: ICT "compresses" the physical time and space drastically while it circulates the informations almost in the speed of light. It drives thereby the human activities under such pressure of endless "inflation" that goes beyond the capacity of human being as biological organism. The compression of time and space could accelerate the flow of life in natural rhythm up to the speed of light and could shorten the life-time.

Deviated far from the natural experience human being as a biological species could be lost in a new world of virtual reality, unprepared for the new environment.

5.2 Collapse of "Self"; Normadism in Community Life

Moreover, it's serious phenomena that the "self", natural as well as cultural, which renders human being the personal identity, is faced to the danger of dissolution due to the ontological structure of cyber space. "Our bodily existence stands at the forefront of our personal identity and individuality."¹² But computer network, ignoring our body, frees us from the restrictions imposed to our physical identity.

The limit of body being blurred or even deleted, the safe and solid haven, in which the person or self dwells, becomes lost, and the personal identity is missing. At first glance it seems that the hybrid structure of cyber space would widen the space of autonomous activities of an agent. But it demolish the agent itself, i.e. the personality and self, while it "digitalizes" various human experiences or activities into a neutral code. This digitalization conceals a danger that the subjectivity and the identity of a person can be destroyed and dispersed.

This brings about drastic change also in the inter-personal life. In the community formed in virtual reality "the quality of the human encounter narrows", while it "disrupts the familiar networks of direct association."¹³ It is true technology increasingly eliminate direct human interdependence. In the community formed in virtual reality, where no direct face-to-face personal contacts are to be found, The normative power of moral code outside as well as the consciousness of social responsibility inside become weak.

12. *ibid.*, p. 100

13. *ibid.*, p. 100

The modes of spatio-temporal experience and especially those of communication being changed, there comes accordingly also changes in social relation and in the way of community life. Above all, the mode of social organization and management is under change, wherein the features of 'nomadism' are to be seen. The so called 'Globalization' is one of them in the widest range.

5.3 Separatedness from Nature

The cultural activities of human being, especially those of the "objectified spirit", are to be mediated by non-spiritual physical elements. These are, as a matter of fact, the natural things. There is allowed no other way for human being to realize his spiritual work but than in and through the nature. So, generally speaking, culture in ordinary sense consists in the human spirit objectified in the **natural reality**. It remains within the boundary of human activities, which themselves cannot transcend the nature.

But concerning the "information culture", it's hardly to say it's all the same. The virtual reality seems to be an extremely artificial product which transcends the world of natural reality. The mediating linkage which holds the cultural with the natural remains a small chips which contains an integrated circuit. As described above, the principles of natural reality plays scarcely any role in building and manipulating the virtual reality.

Problematic is here that the human being, though producing this new world beyond the nature and living in it, remains still natural with his body. We are confronting here the basic problem of cultural philosophy and philosophy of technology concerning the 'digital technology' and 'information culture'. It can be formulated: Where should the borderline be drawn we should not trespass on for the human well-being?

It will be meaningful to examine some features of Digital Technology we regard as 'excessive' from this standpoint.

5.4 Excessiveness of Digital Technology; Original Role of Technology

Culture is, though being the product of human spiritual activities, in its fundament, transformation or variation of the nature. Culture is certainly something over the nature. But, separated from nature, it cannot come into existence at all. If we consider the

origin of technology, we come to the same opinion: Technology is a kind of device which strengthens the competency of survival by complementing the defects of biological condition of human being. It complements his biological unstableness 'culturally' by filling up the 'gap' which he has between his inner and outer nature. It is the assistance and extension of natural faculty of human being as a deficient animal. Human being, just as a natural animal, cannot survive at all without any additional cultural activity. Technology is the necessary step of it.

By the way, in the science of engineering the scientifically systematized world is generally regarded as more fundamental than the daily life-world. This new 'scientific' view of life likely to evoke new desires, which the new technology seems to be ready to satisfy them. Technology has even tendency to make the naive life subject to it. It is not a simple instrument for the purpose of human being, according to Heidegger, but a factor in the constitution of the world. It has really such a strong exclusive power that other horizons of world-construction are defeated by it. Life of human being is now, according to him, 'functionalized in uniformity' through technological engineering. Human being is now chased after by the engineering process and has even become components of machine.¹⁴

Comparing to heideggerian critics more than 40 years ago, the digital technology seems to be really 'excessive' in its impact on the contemporary culture. For, it is likely to change even the human nature itself.

6. Reconsideration in the light of Taoistic Lesson

How could be the critics above mentioned reviewed from the Taoistic view of nature and cultural life of human being? For the review of so up-to-date problem, it doesn't seem appropriate at all to refer to such old 'wisdom' with the totally different cultural background. But considering that the core of our problem concerns the relation of Nature and Culture, it's still meaningful to do it, because Laotze's position is very extreme and contrasting.

14. Heidegger, Die Technik und die Kehre, Tübingen 1962

6.1 Concerning Human Activities

The core point of Laotze's lesson is on "doing nothing for doing well". In Dao De Ging [De la Voie et de la Vertu], Chap. 37, he says:

"Le Tao pratique constamment le non-agir et (pourtant) il n'y a rien qu'il ne fasse." (道常無爲，而無不爲。)

It could be interpreted: In Cosmos nothing could exist and become without Tao. In this sense there's nothing that Tao does not do. But in the sense that Tao has no will and no purpose, it does nothing. The ultimate Being that lets All exist and move doesn't allow any determinations in a certain point of view, for it can also be another restriction. The ideal fulfillment can only be achieved without any prejudice, confined purpose, special intention, artificial project etc. And this is also valid in politics.

He says in chap. 3: "Il pratique le non-agir, et alors il n'y a rien qui ne soit bien gouverné." (爲無爲，則無不治。)

How are then the human activities of building the world of culture including technology to be justified?

It's actually very difficult to do this no-doing in reality.

He asks himself ironically in chap.10:

"S'il chérit le peuple et procure la paix au royaume, il pourra pratiquer le non-agir." (愛國治民，能無爲乎?) "Si ses lumières pénètrent en tous lieux, il pourra paraître ignorant?" (明白四達，能無知乎。)

The result must be good. But important is the impartial, sincere and truth-searching Moral attitude without any expectation of profit. In chap. 38 he writes:

"Les hommes d'une vertu supérieure la pratiquent sans y songer." (上德無爲而無以爲。)"Les hommes d'une vertu inférieure la pratiquent avec intention." (下德無爲而有以爲。)

6.2 Concerning Nature ("être en eux-mêmes")

No-doing doesn't mean doing nothing literally. It would mean "doing according to the Cosmos as it is, without any opposition, disobedience against it. Laotze named this Cosmoc Order Tao(Voie), or in other words "en eux-mêmes"(自然).

Therefore the concept Nature, "en eux-mêmes"(自然) is the precedent one to that of "no-doing". Nature(自然) is "être en eux-mêmes"(自然).

In chap. 51 of Dao De Ging is written:

"Personne n'a conféré au Tao sa dignité, ni à la Vertu sa noblesse: ils les possèdent éternellement en eux-mêmes." (道之尊, 德之貴, 夫莫之命 而常自然。)

And in chap. 25:

"L'homme imite la terre; la terre imite le ciel, le ciel imite le Tao; le Tao imite sa nature." (人法地, 地法天, 天法道, 道法自然。)

Virtual reality seems to be an extremely artificial product from the perspective of Laotze's lesson. He claimed that we should not add any artificial thing and let the things be as they are, in order to know the true reality of the world and to behave ourselves in right way.

Human nature is also not the result of human activities. It is in itself from the beginning. Any countermarch against it would be a threat to human well-being. In this sense the phenomena that the virtual reality occupies the natural life-world more and more could be a thing of serious concern for philosopher. It can be a "counter-march" against the human nature, so far as it changes the natural (biological) condition of human life. Nature in and out of human being must be kept as it is.

1. Concerning the Nature

Biological conditions of human life is the result of evolution of the Whole Nature in the last 100,000 years at least. Therefore the human life is relatively stable, in spite of considerable defects. All biological species have their own unique natural history of

evolution which contains the process of natural selection and adaptation. For human being, in spite of his intelligence, it cannot allow an exception. Because the intelligence itself must be regarded as a result of evolution.

It is dangerous to change the natural condition in the body without any reliable precognition of it. Especially in case that the digital technology in fusion with the biotechnology tries to "implant" the IC technical equipments in human body, it is clear that it violates the humanity in the sense of human nature and human identity. The so-called cyborg or similar things, though technologically possible, should be out of consideration.

2. Concerning No-Doing

I'd like to interpret the concept of "no-doing" here anew concerning the appearance of "New World" of virtual reality: Laotze's lesson of "no-doing" implies in effect "balance and harmony" among various viewpoints, among various 'worlds' for the sake of the whole, the World.

For human being as a finite being, the World as a whole is not a fact, but just an Idea. Not the World itself but various "worlds", aspects of the World can be given for us corresponding to our activities. Technology, as other human activities, constitutes, or exactly to say, reveals us a unique world, which has its own nature und characteristics. The ICT has given birth to a world of virtual reality, a new world which need not follow the principles of the ordinary natural world. Due to its "hyper-reality" it seems now to offer us a possible world and to expand the human residence without limit. It seems at first glance to be a progress in human civilization.

But it implies also a warning that the subjectivity and identity of a person can be destroyed and dispersed. For, in this world various human experiences or activities are to be "digitalized" into the neutral code in the cyber space.

The phenomenon that the cyber world, as one of the worlds, is now overwhelming other worlds of various human experiences is to be examined under critic. For, without a firm ontological basis, the cyber world is fragile and frail. It is all the more dangerous that it has made the demarcation obscure between actual world and just imaginary one.