

*Proceedings*

# Philosophical Analysis on the Nature and Forms of Information—From the Perspective of Marxist Philosophy <sup>†</sup>

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**Abstract:** The aim of this research essay attempt to reveal the nature of information form the perspective of Marxist Philosophy. The nature of Information is the first question that philosophy of information science and technology research must be answered, thus the problem is still debated. According to Marxist dialectical materialism method to the essence of information has made the analysis and argumentation, points out the essence of information between what is and its internal contact things, and this contact information is presented. Due to the connection between the protean and endless things, thus produce the endless, full of beautiful things in eyes, each are not identical information. To grasp the nature of information, must pay attention to and the specific form of information and information processing, the reorganization, transmission, storage, use and so on.

**Keywords:** information; nature; connection; philosophy of information

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## 1. Introduction

The development of information science and technology has sparked the nature of information exploration after World War II. The question that ‘What is the nature of information?’ is always unable to avoid in information science and philosophical technology research. Social information increased rapidly after the birth of information theory in 1940s, the study of information science and technology has been paid more attention at the same time. Academics continued exploration on this issue in recent decades, is many things, understanding each are not identical, has not been determined. In spite of this, with the development of information science and technology and the progress of the society, people awareness of the problem in deepening, and even in some ways has a major breakthrough. But the research of this problem is difficult to reach a consensus for a long time, also reflect that profundity and complexity of information concept. At present there are hundreds of definitions of the information, which shows the attention of the nature of information greatly.

## 2. Reviewing the History of Information Research

### 2.1. Foreign Research Progress

Wiener (1950) gave the earliest concept of information that information is what we adapt to the outside world, and adapt it to the felt by the outside world in the process, in the name of the content and the exchange with the outside world. Information is people know about things to reduce or eliminate the uncertainty from Information Theory, which can also be interpreted as the difference

between the two uncertainties Shannon (1948). Ashby (1956) put forward the concept of “variability”, thus the nature of information is the thing itself has variability, information is transmitted the variation degree of “variability”. General definition of information (GDI) should be from the data (data) + meaning (fancy) Floridi (2002).

## 2.2. Research in China

Information science research in China began during the 1960s. In the 1980s, with the deepening of the reform and opening up and the liberation of the people’s thoughts, Chinese scholars have been studying more extensively System Theory, Information Theory and Cybernetics. At the same time, and its nature of information to the people also are analyzed and discussed from different angles, in the process also formed some different views, which are: Information is the motion state and the way of things Yixin Zhong (1988, 2005). Information is the material attribute Changlin Liu (1985), Nipeng Yun (2003). Information is material “interaction” Ming Li (1984). Information is a kind of spiritual phenomenon peculiar to human beings Feng Xiao (2010), Youguang Huo (2013). Information is material characteristic parameters Xianhan Luo (2005). Four forms of information. Kun Wu (2005) set up a new philosophy of information system and points out that “Being-in-itself information, Being-for-itself information, Reproducible information, Social information” are four different forms of information. This partition and the definition of information regarded as the newest and one of the most important achievements of this field, is a global significant research results, to subvert the basic ideas of traditional philosophy, is a major contribution to modern philosophy Yixin Zhong (2015).

## 3. The Nature of Information and Relevant Issues

### 3.1. Presentation of Information and Internal Relationship between Objective Things

It is believed in Marxist Philosophy that between all the matters and phenomena in the universe and between components of the matters exist mutual dependence and effect. All the information is material or material between based on certain aspects of the internal contact. In this sense, there is no link, there is no information. Views that information is a kind of state, methods, properties, laws, etc., although it is of an inseparable relationship with material information, the way of status, but the same thing, properties, and law have diversity, and it is relative, always changing along with time, place, condition. Therefore, only from the angle of dynamic and associated information for sure, it is defined as a “connection” can overcome these defects. Because universal relation has not only, and is constantly developing and changing.

### 3.2. The Nature of Information is External and Internal Relationship between the Objective Things

In discussing the nature of information problems, first thing is how to understand the exact meaning of nature accurately. Marx’s the analysis of the commodity and the general human labor in “Das Kapital” provided the beneficial enlightenment. Our understanding of the nature of information also is such, no matter what the form of information, no matter use what kind of carrier, also both ontology in the sense of information and epistemology in the sense of information, in the final analysis, they are all objective things or between objective things within a relationship, also including the spirit or the connection of ideas. In contact with this point, all of the information are homogeneous or indifference. This is the essence of information.

### 3.3. Information Cannot Exist without Objective Material

Information is closely linked with the material. First of all, the material is the premise and foundation of information on which exists, does not exist without material information exist alone. Meanwhile, the spread of information also need to be by means of physical channel, lines or medium. The development of modern science and technology has promoted the diversification of information dissemination channel to a great extent. Secondly, information is linked to present matter, that

means matter and its motion is dependent on the information and any material movement process must be with the help of information and information exchange. Again, in terms of human epistemology in the sense of information, even though the form is subjective, but its content is objective which also comes from the objective reality, just as each nation shape of ghosts and gods and the national somewhat similar.

#### 3.4. Information and Consciousness is Interrelated and Distinct from Each Other

Since information is considered as a connection between objective things and its internal, so how to understand the relationship between information and the consciousness? According to the Dialectical Materialist point of view, consciousness is the function of the human brain, is a product of long-term development, nature is the subjective image of objective things. In the context of the word "information", should be a human for a given by the objective things contact name. Consciousness came after information should be in line with the materialism point of view. Due to the human society is the product of natural evolution to the specific development stage, thus determines the information and consciousness of historical order: a prior information, the consciousness in the back. As long as the acknowledged objective things is common contact, interaction, should be admitted that the information is present and things happens in humans before.

### 4. The Distinction between the Nature of Information and its Forms

#### 4.1. Information and Knowledge

Knowledge there is no doubt that is part of the information, or a systematic information. Knowledge comes from practice of human society, is the sum of knowledge and experience gained by the practice, is the human brain thinking recombine processing through the systematic collection of information. Knowledge is derived from the information, it is obtained after the information processing products. In contact information see knowledge at the same time, we also should see the difference. The same knowledge, for some Destination is information, and it may not be for others. The relativity of knowledge does not affect the information and knowledge as the division of two different concepts to different people.

#### 4.2. Different Forms of Information

As mentioned above, the nature of information is the objective things and their internal and external relationship between the elements. Information features include objectivity, the validity, the transmission, transformation, sharing, etc., involving information processing, the reorganization, transmission, storage, use and so on also must use a certain carrier to complete. These carriers including data (Numbers, symbols), image, statements, documents, instructions, the telegraph, text, etc., the lack of the carrier, information is difficult to become in the true sense. All this is just the expression form of information, rather than the substance of information, only to identified is the significance of information from it. The same content of information, can use different forms of expression.

**Conflicts of Interest:** The authors declare no conflicts of interest.

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