



Extended Abstract

Many“-isms” about information

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I. Introduction

In information age the “information+ism” is a necessary result of word formation, and appear many relevant now words such as informationalism, informatism, informationism and informatilism, they have different meaning and are applied in the fields of sociology, philosophy, art and literature. In general, the “informationalism” comes from the information sociology, its appeal is a kind of social (historical) view of informationalism; “informatism” mainly comes from the art and poetry circles, with an advocating of information art expression; “informationism” and “informatilism” comes mainly from the philosophy, and they pursuit of an information world outlook. Due to the complicated implication of “information+ism”, we need to perform specific investigation to clarify the different meaning of them, and then find which doctrine is acceptable or unacceptable especially from philosophy.

II. Four words about information+ism

From print publications and cyber source we can find at least four words about “information+ism”: informationalism, informatism, informationism and informatilism. They are formed and popular in different subject areas and show the complexity of information doctrine.

1.Informationalism as a sociological concept was proposed most early by the Canadian scholar David Lyon (D. Lyon, 1988) and USA scholar Maunel Castells(M. Castells, 1996). In his Information Society published in 1988, David Lyon took the informationalism as a similar theory with the post-industrialism, and use it to describe the emergence of a new social structure. He said that we take the “informationalism” to understand the technological and social organization of production and management, among them the application of new information technology constitutes the intellectual potential and the productivity based by information. In this view, the development and diffusion of information technology lead to the changes of social community structure pattern.

This meaning of informationalism was inherited and expanded the influence by Castells. Since 1990’s he published his Information Ages Trilogy (The rise of the network society, The end of Millennium and The Power of Identity) and constantly used the concept of informationalism to describe the paradigm of the new technology with the information technology as its foundation and the network technology as its core. He think it is speeding up remodeling the material basis of society,

and has exerted a profound and significant influence to the economy, politics and culture of contemporary society and the whole social life as well as the corresponding system, and also led to the change of social structure, therefore it was regarded as “the historical most decisive factors of the whole world”.(Manuel Castells, 1996)

For Castells the informationalism is a new technological paradigm, which emphasized the overall impact of information technology on society and its fundamental role for changing the age, and reflected a proposition of "information technology determinism", so it also can be called as “informationizationism”. In this field its synonyms are information age, network society and so on ,and its Contrast word is industrialism.

As you can see, Castells’ "information" in the "informationalism" is the short term of "information technology", and even referred to "modern information technology". Therefore, the informationalism on this context is essentially the "information technology doctrine ", more precisely the "modern information technology doctrine ", and even can be said to be "the doctrine of the network", its expression is the decisive influence of information technology such as computer and network to contemporary society. In a sense, it also is an effort to seek the technology roots of the changes in contemporary society, So the term "informationalism" is properly expressed his Worship on information technology in the view of social development, and then he took it as a perspective to puts forward the concept of "informational capitalism", also in China some scholars proposed the "informational socialism" and "information of communism". Because of this "first application" for “informationalism”, which makes it became the proper noun referencing the theory of Castells, or synonymous with "information society" or “informationization”.

In a recent paper Zhou Liqian and Søren Brier (Zhou Liqian and Søren Brier, 2015) use “Pan-informationalism” to reference the philosophical proposition, especially classify the view of Wu Kun to this camp, which marks the meaning of “informationalism” going beyond the sociology and expanding to philosophy field.

2.Informatism appeared earlier than informationalism, it is with complicated usage at least in three disciplines: art and literature, politics and philosophy.

(1) **The informatism from art and literature** (first from the 1970’ art) is a kind of ways for art expression. The Wikipedia describes it as information art, data art or electronic art, which is a form of art that makes use of electronic media and it synthesizes computer science, information technology, and more classical forms of art, including performance art, visual art, new media art and conceptual art, it often includes interaction with computers that generate artistic content based on the processing of large amounts of data. Information art data can be manifested using photographs, census data, micropayments, personal profiles and expressions, video clips, search engine results, digital painting, network signals, and prose. In China the dominant usage of informatism is to reference a new school of poetry: the network poetry (or informatism poetry) , Some network poets named their style and characteristics of poetry as "informatism", and then they created a web site for <http://informatism.org>., it born in 1993 or 1994 and becomes very active 10 years later in early 21st century, so it also is called contemporary art movement mainly in poetry.

Informatism poetry explained the general relationship between poetry and information. In the new age, information goes into our spirit, into our poetry entity, our poetry environment full of omnipresent information, and our poetry are always surrounded by information, the whole meaning of information movement subsumes the spirit phenomenon of poetry. Our practice of poetry creation can be understood as information movement reducing to the native state of the process of poetry, we even can’t confirm thoroughly the reliability of the information source in the process of poetry creation. The informational transmission, feedback, alienation and exhaustion form of unlimited survival practice, and poetry can be saw as the aesthetic simulation of this kind of process. (Shi Yang)

(2)**The informatism from politics** is used as “bureaucratic informatism”. David T. Johnson defined it as the bureaucracy has the information, but other people do not have. As a privilege, the right to information becomes a confidential legal system, forms the social divide between people, and also

becomes the means for "elites" to keep control of social conflict and changes.

(3)**The informatism from philosophy** is mainly in the phrase “dialectical informatism” (DIAINF). Rafael Capurro thinks Wolfgang Hofkirchner’s method as “dialectical informatism” —a deferent new version of dialectical materialism(DIAMAT) when Wolfgang takes an evolutionary perspective to see information as a feature of emergence and goes back to the etymological roots (information as "giving form") in his establishment of a unified information theory. (Rafael Capurro[6])

Both the usage (2) and (3) are sporadic, and mainly the informatism express a general view of art doctrine, or a new idea and expression of literary and artistic creation.

3.Informationism has two usages, one is the term first used by Richard Price in 1991 in the magazine *Interference* to describe common trends in the work of a group of Scottish poets. Their work was later collected in the anthology *Contraflow on the Super Highway* (1994). Inside it there is an introduction: *Approaching the Informationists*.

Another one is considered as a new philosophical trend, it is the focal point in this paper and will be introduced soon afterwards.

4.Informatilism is a word used only by a Chinese scholar Shen Xinxi(沈新曦) and only take it as a philosophy category. In Shen Xinxi's view, information includes two kinds: "original information" and “derived information”. In its own deductive history the “original information" shows as rule, relation, structure of N order's ($0 \leq N \leq 7$) things of universe including the derived information since C. E. Shannon. (Shen Xinxi, 2007)

III. Multiple dimensions of philosophical informationism

From above we can see that all four words (informationalism, informatism, informationism and informatilism) have the philosophical meaning. Due to the informationism is used by more scholars in philosophy circle, so we can mainly take it as a philosophical theory.

Based on the research in China as I know, there are multiple dimensions for philosophical informationism:

1.Axiological informationism views that information (resource) is more important than material (resource), it is a prevalent values while the information age is coming, and it also becomes the dominant ideology of contemporary economic philosophy, political philosophy and so on. But it is not involved in the ontological issue such as whether or not the information is dependent on the matter.

2.Epistemological informationism claims that information decide the matter, or information guide material items, this is actually another way of saying concept guiding artificial object, or man’s intent leading the creation (building). The information here indicates knowledge, idea, purpose, and so on.

3.Ontological informationism is the most important philosophical informationism. In China the ontological informationism match a kind of definitions of “information”, which is based on the disciplines tripartite division into material, energy and information and take them as three major elements of the world(also from Wiener’s “information was neither a matter, nor energy, and information was the information”). If a philosophical point of view take one of them as the most basic elements, which can be respectively formed the "materialism", "energetism" and "informationism". Miao Dong-sheng, a Chinese scholar, uses explicitly the "only-informationism" to sum up physicist Wheeler’s point of view. John Archibald Wheeler divided his life in physics research and the evolution of world view into three periods: the first period he believed everything is particle, the second the field, and the third the information. In the third perspective, one will think the information is the only reality, or more real than material; the material is the derivative item of information, there is information first

in the world, and then the material. Due to above Professor Miao thinks that "Wheeler is advocating an ontology of informational monism, so it should be called only-informationism. There have been idealism and materialism in the human cognitive history, and now there is another ontology: only-informationism." (Miao, 2008)

Wheeler's famous point is "It from bit" and "Everything is information". In his view the information is not only an independent existence that differed from matter and mind, but also the most basic existence, because whole universe was initiated from information, it is why we call informationism not materialism. In China there also are some similar viewpoints, such as "information is the fundamental factor of the universe", "The material is an aggregate of information"(Wang Jiang-huo), "Information generate world, the universe is a deductive process of information"(Shen Xin-xi), and so on.

We can call the ontology informationism as "strong informationism" or "radical informationism", and the others as "weak informationism" or "mild informationism".

IV. How to evaluate the philosophical informationism?

Which kind of philosophical informationism can we accept?

Axiological and epistemological informationism is certainly acceptable, and ontological informationism is difficult to be accepted.

"Ontology" is a very complex concept, if it is interpreted as the theory of the essence of "being" or the foundation of the world (what initiates another one between physical and mental phenomena), then the ontological doctrine can be differentiated into materialism and idealism, so we will face the problems of relationship between informationism with materialism and idealism.

Some axiological and epistemological informationists are not ontological informationists even if they claim the existence of ontology information. The key problem is how to understand the relationship between the information and material. If one asserts that information is a property of matter and its existence depends on the material, then we can say that his assertion of informationism is a new form of materialism but not an ontological informationism. If one asserts that information belongs to mental phenomenon similar to news, message (telling something to somebody), knowledge, data and further think such information can't rely on the material, we should classified it as a new form of idealism. If one asserts that information is a "third" phenomenon beyond both material and mental phenomenon, then it is also beyond materialism and idealism and belongs to the "third form" of ontology theory.

So far there are three different ontological positions about informationism can be found: The first one thinks of it as a new form of materialism (Rafael Capurro, maybe including Wu Kun); The second one takes it as a new form of idealism (Miao Dongsheng thinks Wheeler's opinion); The third one asserts that it is beyond materialism and idealism and belongs to the third form of ontology theory (Shen Xinxi). The first one is not but the second and third ones are access to the ontological informationism.

The difficulty of ontological informationism is how to understand the information without the material carrier, or how bare-information

“bare-information” can existence? If there is no reasonable explanation for how information initially produces material, we should think the ontological informationism is unreasonable. bare-information

V.Conclusion

How to understand information philosophically decided how to evaluate ontological informationism for us. In my opinion, because the information is not equal to the material or any physical items, so the ontological informationism as a form of materialism is not reasonable. And due to the existence of information is inseparable not only from material but also from person's consciousness, namely the information is not the third being beyond the physical and mental phenomena, so the ontological informationism as third kinds of ontological doctrine transcending materialism and idealism is also untenable.

Furthermore, how to understand information philosophically is determined by ho to understand philosophy. When Claude Shannon and Warren Weaver develop their mathematical theory of communication, they intend to eliminate the "psychological factors" involved in the concept of information, in order to establish a "measure of information in terms of purely physical quantities." (C. E. Shannon and W. Weaver, 1949) They intend to forget the specific common meaning of information, i.e., the semantic and pragmatic levels of the concept.(Rafael Capurro[14]) Philosophy is different from science. If we see philosophy as the studies of the relation between Men and world (so philosophy is not a research only about matter or only about Man, but about Man-matter), then the information as a philosophical concept should be understood involving human being rather than a phenomenon unrelated to people, i.e. it indicates a major human characteristic and so there is no “nature information”, all information is “human information”. More immediately, information can be regarded as the virtual form of material reality, it belongs to the mental world —— a mental phenomenon emphasizing communication and semantic function. With this understanding of information and philosophy, we can say that the ontological informationism is a new form of idealism. If you are a materialist, you certainly will not agree with it.

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