

Philosophical interpretation of knowledge and information: knowledge value and information diversity in modern communication

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Abstract

The article examines the development of the intellectual potential of modern society. The purpose of the article is to determine the main dimensions and philosophical foundations of knowledge and information in the context of the problems of communication development of society. The methodology of the article are based on the analysis and generalization of scientific-research works of scientists in the field of information and knowledge development of society, cognitive philosophy, communication development of society. The authors define the basic philosophical foundations of modern understanding of the content of knowledge and information in the context of communication social development. It is noted that knowledge and information are the organizing principle of the post-industrial information society. Conclusions about the correlation between cognitive and social content of the concepts of knowledge and information are made.

Key words: philosophical interpretation, knowledge and information, knowledge value, information diversity, modern communication

Introduction

The most important sources of rapid development of social processes include the quantitative growth of information flows and the improvement of communication technologies. The most important driving force behind these changes has been Information (Ursul, 1975, Webster, 2002). Informatization promotes penetration of information and communication technologies in all spheres of human life and activity (Mayer, 2006, Pushkarev, Pushkareva, 2015).

Become more and more widespread new, especially information technology (Mayer, 2005). Formed covering the planet of communication and transportation networks, the flows of capital, strengthens the processes of migration (Choi, 2015).

In order to understand the peculiarities of the development of modern society, it is necessary first of all to understand the place and peculiarities of the functioning of knowledge and information.

Knowledge and information is the organizing principle of the post-industrial information society.

The beginning of the information society put the statistical report, which appeared in the late 50-ies of XX century in the United States Commerce Department. It was said that for the first time in the history of the number of employees exceeded the number of production workers. The new state of social development was defined as:

– "Postindustrial" (D. Bell, 1973),

– "Technological" (J. P. Grant, 1983),

- "Programmable" (A. Touraine),
- "Superindustrial, The Third Wave" (A. Toffler, 1980),
- "Post-Capitalist" (R. Dahrendorf),
- "Informational" (Y. Masuda, 1981),
- "Knowledge Society" (M. Castells, 2001, P. Drucker, 1993a, 1993b).

In the works of D. Bell, A. Toffler and other researchers the prospects of human development were associated with the recognition of the increasing role of theoretical knowledge and information in the modern world (Pushkarev, Pushkareva, 2015).

The technical basis of the post-industrial society is the development of computer technologies and means of communication, radically transforming the various spheres of modern society.

Modern researchers noted that:

- Communicational technologies have increased the amount and types of communications;
- More communications increase the complexity of society, accelerating social change;
- Increased complexity leads to the possibility of proposing the arrival of a new era (Rodríguez, Busco, Flores, 2015).

The modern stage of development is characterized by rapid growth of scientific and technological progress, as well as problems related to the development of material production (Vlasyuk, 2016), the need to move to low-waste technologies and to civilization with a minimum of energy costs (Pushkarev, Pushkareva, 2017).

New social practices, often contributing to a sharp renewal of established social relations and professions, tend to acquire advanced technological forms, become increasingly capacious in intellectual and information content (Knyazev, Buyankina, Zukov, 2017).

Modern researchers are actively exploring the concepts of knowledge society and information society: characterize the current state and direction of the knowledge society, its connection to related ideas of digital economy, e-government, and others, and detail implications for business and other organizations, and for society at large (Phillips, Ching-Ying, Hameed, El Akhdary, 2017).

Modern society is actively looking for new approaches to educational strategies in accordance with the accumulated experience and General development trends in the context of globalization (Auer, 2015, Diaz-Fernandez, 2017, Smajs, 2016).

Modern researchers are searching for the concepts of sustainable development of society (proposed as a positive vision for a more sustainable society (Heylighen, 2017, Vlasyuk, 2016), so and negative vision (Smajs, 2016).

The researchers consider some philosophical background of the education process, which have a significant impact on its creation until today (deals with some

philosophical backgrounds of the process of education, which have a major impact on its creating till today) (Masuda, 1981).

The penetration of information technologies in almost all spheres of social life is closely connected with the processes of globalization. Globalization as a manifestation of the modern scientific and technological revolution is reflected in the organic connection of science with production, the transformation of production into a large-scale innovation process, the emergence of a new method of production based on information technologies (Pisonova, 2016). Accordingly, modern society is becoming more dependent on technologies (more dependent on technologies), new opportunities and ways of integrating technologies into the educational process are created every day (Laal, 2013, Ushakova, 2006, Wohlin, Smite, Brede Moe, 2015, Zlate, Enache, 2015).

This era is characterized by a special form of social organization in which the latest technologies for obtaining, processing and transmitting information have become a fundamental source of efficiency, productivity and power (Knyazev, Buyankina, Zukov, 2017).

Socio-political problems as a result of uneven and suboptimal development of society today have reached a new aggravation.

If we want to understand what is happening to man and society today, we must answer the questions of what modern knowledge and information is in terms of their essence, meaning and structure.

The purpose of the article is to determine the main dimensions and philosophical foundations of knowledge and information in the context of the problems of communication development of society.

Materials and Methods

The methodology of the article are based on the analysis and generalization of scientific-research works of scientists in the field of information and knowledge development of society, cognitive philosophy, communication development of society.

Results

1. The Information Concepts

Let's start with a broader concept – information.

Information today in most cases in relation to any individual is not only sufficient, but also excessive.

The total amount of information, knowledge today is growing avalanche and can be described as an information explosion.

The spiritual crisis of man-made civilization against the background of the accelerating development of scientific thought and information explosion, the consequences of which are still difficult to predict, is becoming more acute.

Information is becoming increasingly uncertain. This refers to its ability to act not only positively, but also negatively (for example, the risk of terrorist threats increases).

Information (from lat. Information – explanation, presentation), originally referred to the information transmitted by people orally, in writing or in another way (using conventional signals, technical means, etc.).

From the middle of the XX century – is a general scientific concept, including the exchange of information between people, man and machine, automatic and

automatic; the exchange of signals in the animal and plant world; one of the basic concepts of cybernetics.

Within the boundaries of the system-cybernetic approach information is viewed in the context of three fundamental aspects of any cybernetic system (Tabl.):

Table. Functions and content of information in the context of a systematic approach

Fundamental aspects of the system	Information functions	Information content
Informational	Implementation of the set of processes of reflection of the external world and internal environment of the system	Collection, accumulation and processing of relevant signals
Managerial	The process operation of the system	Degree of achievement of objectives
Organizational	Structure and degree of perfection of the system	Reliability, completeness of implemented functions, perfection of structure, cost efficiency

Information related to the implementation in the system of a certain set of processes of reflection of the outside world and the internal environment of the system by collecting, storing and processing the respective signals; management, taking into account the processes of functioning of the system, the direction of its movement under the influence of the information received and the degree of achievement of their goals; organizational, which characterizes the structure and the degree of perfection of the control system itself in terms of its reliability, survivability, completeness of functions, perfection of structure and cost-effectiveness of management processes in the system (Gritsanov, 1998): 274).

In modern times, information begins to act not just as a social memory, but as a working tool, as a means of decision.

The phenomenon of social information at the beginning of the third Millennium is extremely complex, with many specific characteristics.

Social information in its quantity has become almost immense, infinite in relation to an individual subject. On quality-so versatile that there are difficulties with its systematization.

2. The Knowledge Concepts

Understanding the specifics of the development of any social processes is impossible without understanding the place and role of knowledge in modern information civilization.

Accordingly, it is further necessary to determine what we mean by knowledge and how knowledge and information are correlated.

Currently, many scientists have dramatically changed their attitude to the role of knowledge. Publications have shown a steady tendency to differentiate it in the General information flow and to place it at the centre of the production and consumption of information.

Questions about what is knowledge, what is the meaning of knowledge, what we need to know, why (for what) to know, worried mankind since when it became able to philosophize. At different stages of history, it responded to him differently. Humanity has gone from knowledge (singular) to knowledge (plural).

In the early days of the development of society knowledge was of a General nature. Today knowledge has become deeply specialized by necessity. Previously, such a concept as "a person with knowledge" was not used, but it was said: "an educated, scientific person". In other words, a person of wide erudition, who has sufficient knowledge to conduct a conversation or write on a variety of common topics and at the same time does not know any specific practical activities.

Socrates believed that the purpose of knowledge is self-knowledge and self-development. The results are to the person. Protagor also argued that the purpose of knowledge-to be able to say what you need and how to. In the middle Ages, the education system included grammar, logic and rhetoric, that is, it was also aimed at developing the ability to speak argumentatively.

In the modern philosophical understanding knowledge is "an objective reality given in the consciousness of man, which in its activity reflects, perfectly reproduces the objective natural connections of the real world" (ibid.).

It arises as a result of interaction of the subject and object on the basis of experience of social and historical practice of acquisition, development, deepening and expansion, improvement and reproduction of information on the relations both in the sphere of life and in the sphere of consciousness. Knowledge is, firstly, abilities, abilities, skills gained through acquaintance or practical use of algorithms of activity; secondly, information that is important for cognitive and practical activities; third, the "special epistemological unit of man's relationship to the real world, corresponding (in the dialectical unity of theory and practice) the operationalization of abstract constructs of consciousness" (Chupahin, 2004: 133).

Scientific revolutions invariably led to constructive changes in the system of knowledge, influencing the ideological development and understanding of the laws of the world. As a result, the press of time, the process of division of labor, especially intensively occurred in recent centuries, split the once holistic knowledge of nature, man and society into a lot of knowledge.

Differentiation and specialization of knowledge is increasing, and specialists of even close areas understand each other less and less.

The very nature of knowledge has been modified: the key provision has been given to knowledge, which in the form of an invention or organizational improvement are involved in the practical processing of resources.

At the same time, the structural and functional characteristics of scientific knowledge and its integration abilities are complicated (Knyazev, Buyankina, Zukov, 2017).

Modern knowledge of mankind is a huge array of information, which is even difficult to imagine at once, and even more so, to comprehend and assess in detail.

Knowledge in modern society is information of practical value, serving to obtain concrete results. What we call knowledge today is constantly proving its importance and being tested in practice. Moreover, the results are manifested outside the person-in society, the economy, in the development of knowledge itself. To obtain significant results in any field requires knowledge of highly specialized. That is why the tradition that started in antiquity, is preserved today in the education system (Pushkarev, Pushkareva, 2016).

Processing of complex information

The history of cognitive science began earlier than what we now call science, because the development of cognitive abilities was a requirement of the practice of human survival in a changing environment (Abrarova, Salikhov, 2016). Any scientific idea trying to explain any side of the reality existing outside the person needs objectification. Under the objectification of knowledge to understand it in the sense of the world. One form of objectification can be visualization.

In modern science and technological processes visualization is often used to represent the dynamics of any abstract quantities (physical parameters, economic characteristics, etc.) in the processing of complex information about the structure of objects and systems (Trofimov, 2017).

3. The relationship between Knowledge Concepts and Information Concepts

The first is the expansion, the total; in this case, knowledge is the entire array of information available to society at a certain time period of its development. And then the term "knowledge" turns out to be, in essence, synonymous with the aggregate information of the society (or any particular social community) (Ushakova, 2006).

The second position is more narrow: knowledge is seen as a certain part of the total information, often having a specific quality, which should be understood as a positive, vital meaning concluded in the relevant part of the information. In the second case, the information of meaningless or destructive pastime, the corresponding types of activity is no longer knowledge, understood as the fundamental basis of social existence (Ushakova, 1998).

At the same time, the development of technological and infrastructural features of information radically change the face of social practices and social relations in General. All this makes a very diverse not only the subject of the interaction of knowledge and information, but also the problem space of the application of this interaction in the socio-economic, humanitarian, scientific and educational spheres of society (Knyazev, Buyankina, Zukov, 2017).

In relation to personality

Knowledge is a form of existence and systematization of the results of human cognitive activity. Knowledge is objectified by sign language means. At the same time, knowledge is the result of the process of cognition of reality, which has been confirmed in practice; adequate reflection of objective reality in the human

consciousness (ideas, concepts, judgments, theory); it is fixed in the signs of natural and artificial languages.

The core of knowledge forms the General Outlook as an understanding of the world of people, nature and their own life world (ideological aspect), as well as the General practical orientation of the person (praxiological aspect as existential readiness of the person to act in a certain direction). A "knowledge shell" forms blocks of social and professional knowledge of people (professional and pragmatic aspect-for society) (Pushkarev, Pushkareva, 2017).

Conclusions

Information in modern conditions in relation to any individual is not only sufficient, but also redundant.

Modern *knowledge* of humanity is a vast array of information that is difficult to assess competently; differentiation and specialization of knowledge is increasing.

Information is becoming more and more uncertain, that is, it affects social processes not only positively, but also negatively.

Knowledge has a vital meaning in the relevant part of the information. In this case, the information of meaningless or destructive pastime, the corresponding types of activity is no longer knowledge.

Information is not just a quality of social memory, but also an effective tool, a means of decision-making.

Knowledge in modern society is information of practical value, serving to obtain concrete results.

Bibliographic references

- ABRAROVA, Z. F. – SALIKHOV, G. G. 2016. Visualization as method of scientific knowledge development. In: Eurasian Juridical Journal, no. 4, pp. 364–367.
- AUER, R. A. 2015. Human capital and the dynamic effects of trade. In: Journal of development economics, vol. 117, pp. 107–118. DOI: <https://doi.org/10.1016/j.jdeveco.2015.07.004>
- BELL, D. 1973. The coming of post-industrial society: A venture of social forecasting. New York, Basic Books Publ.. Available online: <https://www.questia.com/library/91376980/the-coming-of-post-industrial-society-a-venture-in>
- CASTELLS, M. 2001. The Internet Galaxy. Reflections on the Internet, Business and Society. Oxford UP.
- CHOI, K.-H. – SHIN, S. 2015. Population aging, economic growth, and the social transmission of human capital: An analysis with an overlapping generations model. In: Economic modelling, vol. 50, pp. 138–147. DOI: <https://doi.org/10.1016/j.econmod.2015.05.015>
- CHUPAHIN, N. P. 2004. Mathematics and philosophy of the meaning of the cultural world. Tomsk, TSPU Publ.
- DIAZ-FERNANDEZ, M., PASAMAR-REYES, S., VALLE-CABRERA, R. 2017. Human capital and human resource management to achieve ambidextrous learning: a structural perspective. In: BRQ Business Research Quarterly, vol. 20, no. 1, pp. 63–77. DOI: <https://doi.org/10.1016/j.brq.2016.03.002>
- DRUCKER, P. F. 1993a. Innovation and Entrepreneurship: Practice and Principles. 1-st Harper Business ed., N.Y., Harper Business Publ.
- DRUCKER, P. F. 1993b. Post-capitalist Society. N.Y., Harper Business Publ.

- GRANT, G. P. 1983. Philosophy and culture: Perspectives for the future. In: XVIIth World Congress of Philosophy, Montreal.
- GRITSANOV, A. A. 1998. (ed.) Newest philosophical dictionary M.
- HEYLIGHEN, F. – LENARTOWICZ, M. 2017. The Global Brain as a model of the future information society: An introduction to the special issue. In: Technological Forecasting and Social Change, Volume 114, pp. 1-6
<https://doi.org/10.1016/j.techfore.2016.10.063>
- KNYAZEVA, N. A. – BUYANKINA, R. G. – ZUKOV, R. A. 2017. The relationship between knowledge and information in the development of modern social practices. In: Novosibirsk State Pedagogical University Bulletin, no. 3, pp. 124–139. DOI: <http://dx.doi.org/10.15293/2226-3365.1703.08>
- LAAL, M. 2013. Lifelong Learning and Technology. In: Procedia – social and behavioral sciences, vol. 83, pp. 980–984. DOI: <http://dx.doi.org/10.1016/j.sbspro.2013.06.182>
- MASUDA, Y. 1981. The Information Society: as Post-Industrial Society. World Future Society, Washington, D.C., U.S.A.
- MAYER, B. O. 2006. Cognitive aspects of the modern philosophy of national education. Monograph. Novosibirsk, SB RAS Publ.
- MAYER, B. O. 2005. Epistemological aspects of philosophy of education. Monograph. Novosibirsk, Novosibirsk state pedagogical University Publ.
- PHILLIPS, F. – CHING-YING, YU – HAMEED, T. – EL AKHDARY, M. A. The knowledge society's origins and current trajectory. In: International Journal of Innovation Studies, Volume 1, Issue 3, 2017, pp. 175-191
<https://doi.org/10.1016/j.ijis.2017.08.001>
- PISONOVA, M. 2016. Philosophical explication of requirements on the process of education – Novelty or Relic? In: XLinguae, vol. 9, no.1, pp. 83-90. DOI: <https://doi.org/10.18355/XL.2016.09.01.83-90>
- PUSHKAREV, Y. V. – PUSHKAREVA, E. A. 2017. Healthcare educational value for ensuring social and environmental sustainability (review). In: Novosibirsk State Pedagogical University Bulletin, no. 5, pp. 157–178. DOI: <http://dx.doi.org/10.15293/2226-3365.1705.11>
- PUSHKAREV Y.V., PUSHKAREVA E. A. 2016. Fundamental knowledge in the continuing education: methodology and axiology of the problem. Novosibirsk State Pedagogical University Bulletin, 2016, no. 1, pp. 87–98. DOI: <http://dx.doi.org/10.15293/2226-3365.1601.08>
- PUSHKAREV, YU. V. – PUSHKAREVA, E. A. 2015. Knowledge paradigm in social development: basic concepts. In: Novosibirsk State Pedagogical University Bulletin, 2015, no. 3, pp. 55–62. DOI: <http://dx.doi.org/10.15293/2226-3365.1503.05> (In Russ.)
- PUSHKAREV, YU.V. – PUSHKAREVA E.A. 2017. The concept of intellectual potential development: the main dimensions and bases within the context of lifelong education (review). In: Novosibirsk State Pedagogical University Bulletin, no. 3, pp. 140–156. DOI: <http://dx.doi.org/10.15293/2226-3365.1703.09>
- RODRÍGUEZ, C. – BUSCO, C. 2015. Flores R. Information technology within society's evolution. In: Technology in Society, Vol. 40, pp. 64-72
<https://doi.org/10.1016/j.techsoc.2014.08.006>
- SMAJS, J. 2016. On the principle of evolutionary ontology. In: Novosibirsk State Pedagogical University Bulletin, no. 1, pp. 78–86. DOI: <http://dx.doi.org/10.15293/2226-3365.1601.07>
- TOFFLER, A. 1980. The Third Wave: The Classic Study of Tomorrow New York.

- TROFIMOV, V. M. 2017. About the mathematical nature of acumen. In: Novosibirsk State Pedagogical University Bulletin, no. 4, pp. 108–118. DOI: <http://dx.doi.org/10.15293/2226-3365.1704.10>
- TZEREMES, N. G. 2014. The effect of human capital on countries' economic efficiency. In: Economics Letters, vol. 124, no. 1, pp. 127–131. DOI: <https://doi.org/10.1016/j.econlet.2014.05.006>
- URSUL, A. D. 1975. The problem of information in modern science. Moscow, Nauka Publ.
- USHAKOVA, E. V. 2006. Study of Knowledge and management. Monograph. Barnaul, University Publ..
- USHAKOVA, E. V. 1998. Systematic philosophy and systematic-philosophical scientific picture of the world at the turn of the third Millennium. Barnaul, University Publ.
- VLASYUK, N. N. – MAYER, B. O. 2016. Education for sustainable development: global and regional aspects. In: Novosibirsk State Pedagogical University Bulletin, no. 3, pp. 50–59. DOI: <http://dx.doi.org/10.15293/2226-3365.1603.05>
- WEBSTER, F. 2002. Theories of the Information Society. Second Edition. L., Routledge.
- WOHLIN, C. – SMITE, D. – BREDE, MOE N. 2015. A general theory of software engineering: balancing human, social and organizational capitals. In: Journal of Systems and Software, vol. 109, pp. 229–242. DOI: <https://doi.org/10.1016/j.jss.2015.08.009>
- ZLATE, Ş. – ENACHE, C. 2015. The interdependence between human capital and organizational performance in higher education. In: Procedia – Social and Behavioral Sciences, vol. 180, pp. 136–143. DOI: <https://doi.org/10.1016/j.sbspro.2015.02.096>

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