

ISSN Print : 0976 – 6340

ISSN Online: 0976 - 6359

<http://www.iaeme.com/ijmet/index.asp>

***International Journal
of
Mechanical Engineering &
Technology (IJMET)***



IAEME Publication

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ROLE OF INFORMATION IN FUNCTIONING AND DEVELOPMENT OF HUMAN SOCIETY

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ABSTRACT

The paper reveals the role of information in the process of the development of the society. It is carried out an analysis of the state of the society at the present stage of the scientific and the technological progress and the dangers of the development of existing trends. Different informational streams are revealed, their differences, the different ways of their mastering. The maturation of the conditions for changing the paradigms of the human development that is connected with the need to reorient to new information priorities is substantiated. A tendency is revealed that directs the development of the mankind to the technological singularity, the point of non-return in the human history. Allocated information resources at the disposal of people, which are not accessible to cars and which can become a precaution to the prevent of the dangerous developments for humanity.

Keywords: Information, Informational Flows, Cyclicity, Paradigms of Social Development, Technological Singularity, Essence of Life.

Cite this Article: Grushko V.S, Petrova L. I, Voroshilova O.L, Khakimova N. G, Konovalova E.V and Rakhmatullina L. V, Role of Information In Functioning and Development of Human Society, International Journal of Mechanical Engineering and Technology, 9(11), 2018, pp. 1822–1830.

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1. INTRODUCTION

Formulation of the problem. At the present stage the humanity has entered a post-industrial era which brought with it changes almost in all spheres of the society. The share of employed in non-material production has increased. The sphere of circulation of money, securities began to play a key role in the economy, and with it the share of virtual capital exceeded the possibilities of the material production [1]. The rapid growth of scientific and technological progress and the humanity is undergoing an informational explosion [2]. The rapid dynamics of changes and the increasing flow of the new information misleads more people (peoples) who either lose their connection with the reality are on the verge of the life, or turn into thoughtless servicing elements of the system, which are continuously transforming every time into something new, having no time to comprehend and understand the meaning of what is happening and where does the process go.

Today, humanity has matured to realize the role of information in their lives, to which it had been going throughout its previous history[3]. It is likely that in the medieval workshops artisans has already noticed that their revenues depended directly on the quantity and quality of their embedded information per unit of material (metal, stones, trees, etc.) [4]. From the point of view of the work of people with information, the agrarian period in the development of mankind as a whole was characterized by its passivity [5]. In the industrial world people are activated by inventing all the new ideas (information), investing in the products they produce and at the final stage they have already learned to produce complex products that are able to perform a large number of functions, carry out complex operations and include the significant volume of information [6]. At a certain stage of information became so much, and the material, at which it was tied, so little that there was a climax in the development of the industrial era - information is separated from the material and becomes an independent substance, which begins to sell and buy so actively, which started the introduction of humanity in the post-industrial period. At this stage there is an information explosion [7]. The large flow of empirical data exacerbates the need for their efficient organization [8; 9], the discovery of laws by which is subjected this unmanageable process, to identify the principles as K. A. Helvetsii argued were easily compensated for the ignorance of a large number of facts. The science today comes to the boundary that it can be useful to have the experience of generalizations and the identification of the meanings practiced in religions. Otherwise, a "strategic initiative" for the further development (or degradation) of the society will take over the cars, the culmination of which, in the very near future, may become superhuman artificial intellect.

The analysis of the recent research and publications. Even at the dawn of the human civilization it began to be interested in the role of people and society in the general information. Ancient thinkers and religious leaders such as Lao Tzy and Confucius, Pataggali and Siddharkha Guatama, Pythagor and Plato, Moses and Apostle Paul, and others, sought to reveal its role. At a more recent stage, its place in the life of society was explored by O. Shpengler, A.J.Toynby, L.Tykhomyrov, K.Jaspers, D. Bell, E.Toffler, and by such domestic scientists as M.Rudenko, G.Shchokin, A .Krymskyi, V.Ilyin and others.

The purpose of the article. To reveal the role of information in the formation and self-identification of a person, to identify where the dynamism of existing changes is oriented, to find out what problems and threats generate the prevailing tendencies.

2. MATERIALS & EXPERIMENTAL PROCEDURES

Theoretical and methodological basis of the research is historically comparative, hermeneutical, phenomenological, structuralistic, existential methods and the method of the biographical analysis. The authors substantiated their argumentation on the basis of general scientific and philosophical principles: historicism, systemicity, pluralism.

3. RESULTS

At a special place of information in the life of society drew more attention to the introduction of humanity in the post-industrial era. However, at the dawn of the formation of human society, the most inquisitive have already made attempts to reveal the nature of this phenomenon and its place in the life of society [10-12]. Even before our Confucius came to the conclusion that it is the signs and symbols (media carriers) which control people. Pythagoras argued that the first principle of the world and the essence of all acts is a number (some basic information). In ancient India, the doctrine of Akashi was formed, as the foundation of the world and the source of any knowledge [13]. In the Bible we can find the statement: "At the beginning was the Word, and the Word was in God, and God was. Everything through Him arose, and nothing that arose was not risen without Him "[14]. It is likely that if the term "information" was at that day, the author of these lines could replace used by him the notion "Word". In the modern post-industrial era of studying the role of information in the life of society and every person in particular becomes as one of the central problems for the social sciences and the humanities [15-17]. That is why it becomes necessary to reveal a wider context that would allow to ascertain the role of information in the process of the development of the human society in the context of the evolution of the whole nature.

Particular, in the development of nature it can be found three main periods. At first, the main transformations were concentrated in the inanimate nature, the next - in the living and at the end it was in the human society. It can be found that at all three stages there is a complication of the nature, but the forms of this process are changing. In inanimate nature, smaller objects are united creating more complex structures [18], and at the same time increasing the level of information content of the environment. With the advent of the life, the main information processes shifted to the level of genes. The gradual increase in the quantity and quality of information in the genes of living organisms, has affected the multifaceted development of various systems that ensure their vital functions - digestive, excretory, cardiovascular, etc. [19-23]. However, the most dynamic of each subsequent, more highly organized species that appeared on the planet, was the progress of the nervous system. At the end, this led to the appearance of the central nervous system, and with it - a reasonable person and its consciousness [24]. The mission of consciousness, namely, is the processing and accumulation of information. And consciousness can do it incomprehensibly faster than this process takes place at the genetic level [24-31].

The revealed pattern allows us to conclude that the nature of human society, firstly and foremost, is the information and purpose of it, as well as of every person in particular is the accumulation of information. In order for the people can accumulate it, they should have a certain memory at a certain stage. What is called the memory of animals, it is more correctly to treat all the same as recognition [32]. After all, if they could reproduce in their imagination those with which they encountered, then they would be able to the abstract thinking. Memory, on the one hand, helped a person to know the world in which it lived and made it more effective, however, on the other hand, its accumulated experience was dying together with the physical death of the man. Yes, obviously, it lasted a long time when some people during the course of their lives were enriched with some information, but humanity was trampled on the spot. And only with the advent of the language, the coding system of information, people opened the

opportunity to know the world not only through the personal experience, but also through the theoretical absorption of it from others. From that moment every next generation has already entered into an independent life with a luggage of knowledge passed to him by his/her predecessors. Thus has already began the process of accumulation of knowledge by humanity, when each subsequent generation became increasingly informationally enriched and accordingly more effective. Subsequently, it turned out that people could not accumulate information infinitely because of the limited possibilities of their memory. Some people began to look for ways of more reliable preservation of it, which led to the emergence of a letter, then a print, and at the current stage, the Internet (all stages of improving the work with the information), and the other one - chose the path of selection of better quality, until the search for a certain overinformation that would be simple and concise, but at the same time universal, which will be able to explain everything that people had interacted in the past, deal with today, or will have to face the future. The desire to find such information has given rise to the idea of the existence of dinkum. Regarding whether such information exists, discussions have been under way for many millennia. Eventually those who preferred the orientation towards the amount of knowledge and memory, formed science, becoming scientists and those who established themselves in the belief of the existence of truth (short in form, capacious in the content of information), laid the foundations of faith, having organized religious institutes, in which they themselves began to act as spiritual leaders (sacrificers, wizards, priests). Most likely, the religious variant of mastering the information was formed under the influence of the conviction that the world was built on the principle of hologram [33], when the smallest part of the reality in which people live contains information about the whole reality as a whole. In particular, briefly this idea was formulated in the wisdom of the ancient Egyptian Hermes Trismegister "above and below". Pythagoras, proceeding from the same beliefs, has developed a concept of harmony of spheres, where everything generates a certain vibration, a sound, a rhythm and is subjected to the complicated mathematical regularities [34]. In China, up to day continues to dominate the correlative thinking, according to which recognizes the relationship (affinity, sympathy) between heterogeneous phenomena [35]. Such thinking has been reflected in such ancient teachings as astrology, physiognomy, numerology, chiromancy, and others like that. According to which, this interacts with the similar, forming the synchronicity between the correlated ties with the phenomena of reality [36; 37]. In particular, in this system of thinking, it was formed the belief that each sound corresponds to a certain color, a plant, an animal, a stone, a body organ, an emotion, a stage of development of a society, etc., which resonates with each other. This system of thinking is based on the ancient doctrine of Kabbalah, according to which a person occupies a central place in the universe and includes the earthly one and heavenly one, material and spiritual, and therefore capable of influencing the course of events with the help of certain magical actions (the most other disciples who recognize the existence of correlations between heterogeneous phenomena are only trying to predict it passively). Such a system of thinking in the distant past has formed the conviction: "If you want to cognize the world - cognize yourself", "If you want to change the world - change yourself." The statement that everything in this world is connected can be found in the Christian Bible: "Signs of approaching of the end of the world ... the people will rise against the people, and the kingdom will rise against the kingdom, there will be earthquakes in places, there will be famine"; "... the wise men came from Jerusalem from the east, and said, "Where is the king of Judah born? Because in the east we saw his star, and came to worship him" [14]. It is obvious that this, to a large extent, is unusual for a modern causal society, the system of thinking was once common in the world and was customary in almost all cultures of antiquity. And today it continues to exist, but mainly on the periphery of social life, except of the East (which, however, to a certain extent, in the modern globalized world, is a periphery).

Each religion offers its own version of dinkum. In the Far East, the sacred sound of "Om", which in Hinduism is interpreted as the symbol of the divine triumph of Brahma, Vishnu and Shiva, stands out as the central notion. In Buddhism, it represents three bodies of the Buddha. There was a belief that it was this sound that gave the beginning of the universe, and meditation on it, allows you to reach the peaks in your spiritual development [38]. In Christianity, the centerpiece is the figure of Jesus Christ, which is interpreted as the Word from which everything "... arose, and nothing that arose, did not rise without Him," "I (Jesus) - the Way, the Truth, and the Life." No one comes to the Father, but through Me "[14]. In Judaism and Islam, this is the Law of God (its execution). For the firstones, this is a commitment made by the descendants of Jacob who will provide them with the social success in life [39]. For others, the strategy of subordinating of the humanity to its requirements [39].

The idea of what the truth is which is accepted as a certain axiom forms the meanings that believers fill their lives with. Between different understandings of truth and various vital senses, the struggle, which during the history only changes forms from peaceful discussions to bloody religious wars, persists. Large associations of people, organized by certain ideas about the truth and the meaning of human life and society as a whole, form civilizations that compete among themselves in different spheres [40].

Those who are oriented towards the quantitative accumulation of knowledge, fill civilization with the technical and the technological means of development, decisively defining material progress. According to this, in the development of mankind there are three stages: pre-industrial, industrial, post-industrial. These three periods differ according to the different parameters. At the first stage in the economic activity predominates agriculture, on the second - industry, on the third - the informational sphere. In preindustrial society, the main goal is the power, in the industrial - money, in the postindustrial - knowledge. At each stage different forms of social organization dominate: in the agrarian - the church and army, in the industrial - the corporation, in the informational - universities. In the agrarian period dominated priests and knight-feudal lords, in the industrial - entrepreneurs, in the informational - scientists [41-43].

The information explosion and the rapid development of informational machines do not necessarily have to put humanity at a standstill. In particular, people receive information through four main streams: with the help of body organs, logical thinking, emotions and feelings, intuition [44]. These information flows, on the one hand, are complementary: sensory organs (eyesight, hearing, sense of smell, taste, touch) convey information from the surrounding reality; it is processed by logical thinking, with which it is systematized; at the next stage, an emotional (sensory) assessment is given to what you have to deal with (like or dislike, pleasant or unpleasant), on the basis of which determines the further algorithm of the action (acceptance or rejection, convergence or distancing); the last stage involves intuition, whose function is a prediction. On the other hand, these information flows function far from always consistently and often lead to diametrically opposite conclusions, entering into the middle of people in confrontation, which, as a result, they periodically fall into a state of confusion, when it is difficult for them to make a decision (to be guided by body's desires or rational calculation, benefits or feelings, etc.). Since the state of such confusion is extremely uncomfortable, people deliberately or not make choices in favor of only one informational stream, the conclusions of which are believed implicitly, and on that report others are questioned, and therefore is always tested as the main tool for obtaining information. If the findings of parallel information flows are in line with the main one, then they are taken into account and if not, then they are automatically rejected. As a result, in the society are formed four main psychotypes of people, according to the terminology of K.G Yung - sensory (sense of body), logic, ethics (emotional-sensual), intuition. They form the four main strata

of the society: the hired unskilled labor (sensors), economically active layer of society (logics), representatives of culture and warrior-protectors (ethics), clergy (intuitions) [45]. In the history of Europe, they showed themselves under the names of proletarians, bourgeoisie (entrepreneurs), knight-feudal lords, priests. And in ancient India, respectively, under the names of Shudra, Vaisy, Kshatriya, Brahmins.

Information flows are also connected with historical epochs. Periodically, one of the four informational streams, which begins to be treated as the only true one, is established in society, and all the others are recognized as false and even hostile. So in Europe, with the approval of the intuitive flow of information, based on the desire to see the invisible and unattainable, the era of the Middle Ages and the rule of the clergy was established. With the reorientation on the emotions and feelings, the period of the Renaissance came when the noble knighthood determined the ethical ideal for the whole society. In the New Times, the arguments of the cold reason, the rational calculation, brought the bourgeoisie to a prominent place in the society. Finally, since the 20th century, the ideas of the social equality have confirmed the domination of the consumer's person (sensoric), which became the driving force of the hedonistic revolution that embraced humanity at the present stage [46].

According to Pythyrism Sorokin, all societies develop cyclically periodically, reorienting from the development of one culture to another (from one information flow to another), ranging from the religious (intuitive) through humanistic (sensory) to materialistic-hedonistic (logical and sensory). The most difficult transition to P. Sorokin is the transition from the materialist-hedonistic stage of development to the religious [46 5]. It is precisely at this moment of its history that today is a globalized humanity.

Informational machines and work on creating artificial intelligence occupy an important place in the process of improving information work at the present stage [47-51]. Unlike humans, a toolkit that is capable of using artificial intelligence is limited by powerful memory and super-fast logical thinking that is capable of handling large volumes of information. People can oppose the dictation of intelligent machines to their emotional intelligence, which helps to identify the main and essential, as well as intuition, which allows you to fill your life with meaning (dreams, strategic plans, the idea of the future, which motivates to change the nowadays), to influence the change of the paradigms of development and do not fall into total dependence on existing trends.

4. CONCLUSION

The analysis shows that in the basis of the functioning and development of the society is information. Humanity, aimed at its mastering, gradually moves from the quantity orientation to the quality of information and finally to the search for meanings and means of comprehension of the ideal. People assimilated information during their history, focusing on its various streams, which led to a change in the epochs and change the status of different groups of people. Some informational flows that people learn are similar to those that are targeted by animals (the senses of the body), and therefore the society collapses during their era of domination. Other informational flows are much better mastered by machines and people thus also endanger their future. However, people have the means of mastering information (emotional intelligence, intuition) that have successfully overcome deep crises in the development of the society in the past and can help prevent non-return points when an explosive increase in the speed of scientific and technological progress will lead to the emergence of artificial intelligence capable of eliminating humanity on the roadside, starting the era of domination of information machines, capable of ultrafast self-improvement without the participation of people.

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