Journal of Alternative Perspectives in the Social Sciences (2009) Vol 1, No 2, 193-201

The Future Neo-Industrial Society: A New View on the Intellect

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Abstract: *Developing the concept about a priority of texnocratic young's intelligence we make a new step to development of structure of a postclassical metaparadigm in sociology. In the scientific work given below the "Theory of Neoindustrial society" and "Top Marxism" are introduced for the first time.*

Following the rate of Postindustrial society, with its information technologies, development of gene engineering, medicine, pharmacology, researches in the field of aeronautics and nanotechnology, the mankind tries to find the decision for Global problems of modern civilization, in addition, developing and updating models of the future. However, postulating the thesis about coming threat of a resource exhaustion and having break in the market, we does not pay attention to the factor which can solve or reduce danger of escalation of problems to a minimum, as well as represents the resource of mankind which not used today, the source for creation new and improvements of existing scientifically-technological objects and for opening new both natural-science laws, and laws of ability to live and functioning of a society. It is a question of intelligence of young, its actualization, and increase of a role heuristic intellect (intellect of inventive thinking) in the modern world.

In spite of a great quantity of scientific and close to scientific publications, dedicated to the problem of the intellect and intellectuals, still for elites make history as well as for the majority of people, these notions remain in the shadow.

In our investigation we give a list of following restrictions and the essential historical overlook.

In our point of view, such notions as "an intellectual" and "a member of the intelligentsia" are not the same. We share the opinion of Randal Collins (2002) that the intellectuals are the people who generate the ideas which are out of the context. We refuse to acknowledge the glorification of the intelligentsia and attach an aureole of intellectuality to it: the history witnesses the fact that the members of the intelligentsia were at the origin of the

Russian terrorism, starting from the tzar's time, and in this way they gave the origin to the state terrorism in the USSR. And in this case arises the question: what is the connection with the intellectuality?

Our intelligence research is not based on the following:

- cutting the brain of a dead person into sections and studying them under the microscope;
- affecting the brain by the electromagnetic and infrasonic fields;
- hours-long investigations with the help of the tomographic scanner etc.

We put out of the investigation field the erudition attributed to the intellect by many people. The erudition is not the intellect, but represents a set of ideas about the known facts that as such are not the basis for the creation of something new.

By the short historical review we define what we understand under the term “intellect”. The notion “intellect” was introduced by Cicero. In the philosophical encyclopedia (1983) the Latin word “intellectus” means cognition, comprehension, reason. The term “intellect” is defined as the ability to think, rational cognition. I. Kant identified the “intellect” with the notion “reason” and understood it as the ability to form the concepts, and the “mind” he characterized as the ability to form metaphysical ideas. This tradition was finally fixed in the works of Hegel.

The study of the human intellect in science has a long history. There is given an analysis of the mental faculties, talents, gifts in the works of Fr. Galton (the founder of the anthropometry and dactyloscopy methods and the initiator of the eugenics), A. Binet, W. Stern, R. Sternberg, H. Eysenck and other researchers who innovated the study of this problem, and also classified and systematized the total information.

Researcher of the intellect, doctor of technical and philosophical sciences, A.P. Lyalikov (2002) in his work “The treatise about the art of inventing” points out that the notions “thinking”, “wit” are the synonyms.

We substitute all these terms by the one word “intellect”.

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Researchers of the intellectual peculiarities of a man Ch. Spearman and L. Thurstone and others separated the intellect into its constituents: - a verbal capability, - the capacity to operate with the numbers, - visual-spatial or technical abilities that are to be measured by different types of tests, and ascertain the presence of general abilities (the general intelligence) (Eysenck & Kamin, 202).

> It is necessary to point out that the investigations of the inventive abilities of a man were not yet carried out, all the more, there are not yet any tests to gauge these abilities. Therefore, the contemporary evaluation of the intellect (the tests) is the evaluation of already cognized knowledge.

During the last time, describing the inventive intellect, the researchers fundamentally understand "the creativity" as the creative work of the artists (Dresher, 2002), (please keep in mind that terms "creativity" and "creative" in Russian language are not the same), that is to say of the people who in most cases deal with objects of legislation about the copyright, with some minor exceptions of the authors of scientific - technical works. That is why, let us allow the term "creativity" to refer to those, who are involved only in the arts, the more so because it still has not fixed in the mind of the majority of the people who are interested in the intelligence. Further we will not pay attention to this field of the creative work.

The famous intelligence researcher Howard Gardner defines the intellect as the ability of a man to decide, find and state the problems and create the products. He has suggested the theory of diversified intelligence, where, in our point of view, the role of the inventive (heuristic) intellect is underestimated and it is lost in the mass.

The heuristic intellect we define as the intellect which belongs to the sphere of technologically oriented objects, of new material values (in the first place, inventions – technical improvements in any sphere, concerning the product or the method), the objects of the patent law sphere, that possess a feature of novelty and in the same time a feature of unobviousness and utility, that ensure the progress of mankind.

Thus, according to the realized analysis of workings in the sphere of human intellectual potential studies, we have composed the following simplified classification of intellect:

1. Logical intellect (Aristotle's intelligence, intellect of trivial thinking) which is evaluated by intelligence quotient IQ.
2. Creativity (intellect in the sphere of art).
3. Heuristic intellect (intellect of inventive, scientific, non-trivial thinking) which creates new material objects and technologies (Pestriakova & Pestriakov, 2007).

Undoubtedly, we should step aside from the mixed notion of "heuristic". Under the influence of euphoria from gigantic investments into the research of so-called "artificial intelligence" the followers of technical and cybernetic reductionism combined the "artificial intelligence" and the intellect of a human being under this notion (Batishev, 1997). Artificial intelligence is logical intellect of a machine is trained by a person.

We investigate the intellect of Homo Sapiens, but vigorously reject such idea as "artificial intelligence" considering it to be a dead-end branch in the science of creative, heuristic, technological intelligence.

There are attempts to separate heuristic abilities from intelligence in works of contemporary researchers. These and other authors that separate intellect from heuristic results: G. Gilford, K. Taylor, Y.A. Ponomarev and others (Karabushenko & Karabushenko, 2006) are right about logical intellect only. High level of IQ is not yet a heuristic result. Only after sufficiently long period of a person's life we may conclude: his logical intelligence (high IQ) was realized in any achieved results of vital activity, both in taking a social status and in actual results of new theories, creations made by him or wasn`t.

In our exposure and research of heuristic intellect its quantification is carried out simultaneously with achieving a concrete result.

The peculiarity of our research of heuristic intelligence is that the achieved heuristic result is at the same time the standard of heuristic intelligence. Here the heuristic result interprets the creation of new technological decisions, methods, devices, substances, that in their turn are easily appraised. For example, by comparing with scientific -

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technological level. In order to achieve more objectivity the costs for innovation and prototypes with their scientific and technological level are compared.

> The empirical experience accumulated by us underlies the research. Since 1986 and later, at the same time with the creation of new technical solutions and inventions, the author according to his own method carried out IQ tests (H. Eysenk`s tests), where determined the logical intellect of children, and according to which statistical data has been accumulated (Pestriakov & Pestriakova, 2006).
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> Our experience allows us to come to the conclusion that the creative faculties appear in children already from the age of 13 years. This conclusion coincides with the evidence of the inventiveness of children in the USSR. The newspaper Pionerskaya Pravda published exercises for inventions and gathered a great mass of of comments with children's answers. The author of TRIZ (Theory for the Solution of Heuristic Problems) explained that children in as early as the sixth grade had already acquired a knowledge of physics and could, therefore, invent (Altov, 1984).

However, we have evidence of the appearence of creative thinking in children of the same age, who have not yet studied optics in physics but are able to come up with new technical solutions to problems in optics. We find an explanation for this in other factors.

The authors consider that the heuristic intellect correlates closely with the logical intellect, which Eysenk (2002) has illustrated in his graphs for the rise and fall of mental faculties and demonstrates that these faculties have a peak, which starts from age 13. In such a way, according to our opinion, man at such an age is at the peak of his logical intellect, and, perhaps, at the peak of his heuristic intellect. However, it does not exclude that heuristic intelligence blossoms at the earlier age.

To sum up the above, we concentrate our attention on one of the varieties of an elite theory called meritocracy that was developed by Yang, Bell and others and, certainly, on the technocracy analysis, the ancestor of which is called Sen-Simon by Bell, with what we fully agree.

We share Saharov's opinion who separated people of technological science from people of art.

The first of our main innovative ideas: applying our view to meritocracy we mark out and give the head role to people with heuristic intellect and firstly with heuristic intelligence carriers of early ages.

The second idea is connected with the thought that here the philosophy of a new period of Marksism takes shape. Following the Neomarksism, the left-handed movement that overhauls Marxism (especially its "second wave") and that ideologically provided the movement of "the new left-handers" and determined it as a strongly revolutionary and progressive class – the youth, - we say, that the theory of Topmarksism comes up to the place of Neomarksism, forecasting the evolutionary-revolutional coming of a new epoch (the highest and least step of Marksism in the history of the society's development). According to the New theory, the leading progressive brigade of humanity is the youth with high intellect: both logic and, first of all, heuristic. They slogan will be the next: "Young intellectuals-technocrats of all countries be united!"

> By this we get into confrontation with Bell's utterance about the end of the inventors epoch, given in the work "Coming postindustrial society": "… having come through the step of invention and innovation, we have entered the most important epoch – the period of mass spreading and introducing new technologies." (Bell, 1999) We are in the position of revival of thinker-inventors`s role in the life activity of separate countries, as well as of the society in general and in the position of conception, the development of a new wave of invention in a qualitative and quantitative relation, that exceeds everything former. The step of invention will go on, while the humanity exists.

Also in his work Bell (2004) states, that "… scientific researches, that conditioned a breakthrough in people's mind, were completely separated from the inventive activity. As a consequence, the greater part of scientific knowledge serving as a base for inventions, was received as a result of great effort, that was consciously directed at provision of understanding the fundamental laws and getting the data, necessary for achieving next technical results."

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One could already close the question about the controversial opinions that new inventions are made only on the basis of fundamental researches. An anti-example for Bell's statement can be the Large hadron collider (seems to have been started), which already represents a complex of inventions, but has not given scientific results yet. It is interesting, that the final results of the experiments have not been formulated. The result will be positive either zero or negative with probability of 1 %: 98 %: 1 %.

And the existing in the scientific world rule that a negative result is also a result, will not cause doubt in the justification of milliards of embeddings in the accelerator.

The discussion about - what is primary: science or invention, is similar to the argument about what appeared first, the chicken or the egg. Only when both elements will be considered equal – science and invention, the opportunity for a qualitative technological progress leap will occur.

Thirdly, it is obvious, that the Postindustrial society has become exhausted by concentrating on developing IT technologies and microminiturization through getting more and more fine substances and materials, introducing the achievements existing a very long time. The epoch of informational technologies should rather be considered the epoch of thoughtlessness absorbing of energetical resources and irreplaceable damage of the planet's ecosystem.

Despite of all the efforts that have been made in the last decades to perfect the already existing inventions of the great inventors of the XVIII, XIX and the first part of XX century, there will not be a quantitative leap in the cognition of the world, because science and education have concentrated, generally, on the spheres where only logical thinking is required.

In the "POPULAR SCIENCE. What is new in science and technology" (russian edition, 2007) were enumerated the best innovations of 2007. In our opinion, from all the listed in the magazine we can conditionally attribute the medical inventions to innovations. Everything else represents a skilful combination of former discovered conformities to natural law and methods, therewith, their usage is not going to be mass in the nearest future, because of the peculiarity of the product and the high price.

Therefore, preservation of the Earth's humanity is possible only in becoming of the fourth - Neoindustrial Era of development by finding new laws and discoveries of the material world and qualitative new inventions and new introductions.

In the conclusion we emphasize, that D.Bell's (2004, p. 608) statement does not lose the urgency, its fair twenty years later, today, that the United States of America are not a society of meritocracy. This is one of principal causes of increasing crisis in America and, thereby, in the world, and a decreasing share of gross national product of the West in the world economy. And the original cause is that the economist Keynes who defining effective demand (consisting of a consumer demand and investment) as motive power of economy, has not allocated in an investment demand (demand with support of manufacture) a major category - demand with support of the manufacture, created on a level of inventions and opening.

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