2023
Vol 2, No. 2

ISSN 2782-6465 (Print)
ISSN 2782-6481 (Online)

NOONOMY AND NOOSOCIETY

ALMANAC OF SCIENTIFC WORKS OF THE S.Y. WITTE INID

NOONOMY AND NOOSOCIETY

ALMANAC OF SCIENTIFIC WORKS OF THE S.Y. WITTE INID

Vol 2, No. 2 2023

Founder – S.Y. Witte Institute for New Industrial Development (INID)

主办单位：维捷新兴工业发展研究所

Registered by the Federal Service for Supervision of Communications, Information Technology and Mass Media (Mass Media Registration Certificate PI No. FS77–82239 of 22.11.2021)

在联邦通信、信息技术和传媒监督局注册。

(传媒登记证书编号为PIN№FS77-82239，颁发日期为2021年11月22日)

The journal is a biannually issued periodic scientific publication

本刊为科学期刊，每年出版两期。

The editorial board without fail provides expert assessment (peer review, scientific and stylistic editing) to all content in the journal

本刊发表的所有文章经本刊编辑部审核（审阅，科学和文字编辑）。

Official Journal website: noonomy-journal.ru

本刊官方网站：noonomy-journal.ru

Free pricing

自主定价

NOONOMY AND NOOSOCIETY
ALMANAC OF SCIENTIFIC WORKS OF THE S.Y. WITTE INID
Vol 2, No. 2 2023

EDITORIAL COUNCIL

NOONOMY AND NOOSOCIETY
ALMANAC OF SCIENTIFIC WORKS OF THE S.Y. WITTE INID
Vol 2, No. 2 2023

NOONOMY AND NOOSOCIETY
ALMANAC OF SCIENTIFIC WORKS OF THE S.Y. WITTE INID
Vol 2, No. 2 2023

编辑顾问委员会

NOONOMY AND NOOSOCIETY
ALMANAC OF SCIENTIFIC WORKS OF THE S.Y. WITTE INID
Vol 2, No. 2 2023

EDITORIAL BOARD

NOONOMY AND NOOSOCIETY
ALMANAC OF SCIENTIFIC WORKS OF THE S.Y. WITTE INID
Vol 2, No. 2 2023

学刊编辑委员会成员

NOONOMY AND NOOSOCIETY
ALMANAC OF SCIENTIFIC WORKS OF THE S.Y. WITTE INID
Vol 2, No. 2 2023

CONTENTS

TRANSFORMATION OF SOCIETY

NOONOMY

GLOBAL TRANSFORMATION: PROBLEMS OF EDUCATION

GLOBAL TRANSFORMATION: PERSONAL DEVELOPMENT

NOOPHILOSOPHY

REVIEWS

NOONOMY AND NOOSOCIETY
ALMANAC OF SCIENTIFIC WORKS OF THE S.Y. WITTE INID
Vol 2, No. 2 2023

目录

社会转型

智力经济

全球转型与教育问题

全球转型与个体发展

智慧哲学

书评

DOI: 10.37930/2782-6465-2023-2-2-9-15

Sergey D. Bodrunov
S.Y. Witte Institute for New Industrial Development (Saint Petersburg, Russia)

THE NATURE OF CREATIVE ACTIVITY AND "CREATIVE INDUSTRIES"

Abstract: the article critically analyzes the widespread views on the problems associated with creative activity, on the composition and role of the so-called creative class and creative industries. The author shows that many popular views, despite their widespread prevalence, do not stand up to either theoretical or empirical testing. At the same time, these distorted ideas did not appear from scratch, but reflect, firstly, the increased role of creative activity, and, secondly, the specific framework in which creative activity is placed in the conditions of modern capitalism. The author contrasts these ideas with his own view of the nature and prospects of creative activity, which can and should be put at the service of the goals of human development.
Keywords: creative activity, creative class, creative industries, cognition, technology, noonomy, noohuman.

For citation: Bodrunov S.D. (2023) The Nature of Creative Activity and "Creative Industries". *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 2, pp. 9–15. DOI: 10.37930/2782-6465-2023-2-2-9-15

博德鲁诺夫S. D.
维捷新兴工业发展研究所（俄罗斯，圣彼得堡）

创造活动性质与"创新工业"

摘要：文章批判性地分析了常见的关于创造活动方面问题以及"创新"阶层和"创新工业"的构成和作用的观点。作者说明了这些观点都经受不住理论和实践的检验。并且，这些被扭曲的认识反映了创造活动作用的增强和现代资本主义社会环境对它的限制。作者阐述了自己对这种应服务于人类及其发展的创造活动的性质和前景的看法。
关键词：创造活动、创新阶层、创新工业、认识、技术、智慧经济、智慧人

引用注释：博德鲁诺夫S. D.（2003）创造活动性质与"创新工业"//智慧经济与智慧社会. 维捷新兴工业发展研究所论文选.vol. 2, no. 2, pp. 9–15. 10.37930/2782-6465-2023-2-2-9-15

The topic of human creativity has long attracted the attention of researchers. Philosophers, sociologists and economists try to conceptualise it. And understandably so: creativity is one of the fundamental features of human existence and therefore requires philosophical understanding; creative activity obviously affects social stratification and therefore becomes the subject of so-

ciological research; and finally, the significant increase in the economic role of creative activity deserves evaluation from the perspective of economics.

Understanding the place and role of creativity in people's lives requires an integrated, interdisciplinary approach. The study of creativity from the perspective of a single science is one-sided and therefore fraught with biased or even false conclusions.

Research in the field of human creativity is not happy with terminology. Very common terms such as homo creator, creative class and creative economy are either poorly defined or the term itself is poorly chosen.

It is easy to see this as a mere terminological confusion and hope that all problems can be solved by clarifying the terminology. However, the problem is much more serious - the "sloppiness" in terms is related to an insufficiently deep understanding of the nature of creative activity.

The use of the Latin term homo creator in connection with the problem of creative activity seems to be unsuccessful. For some reason it is used in the sense of "creative person". But in Latin a creative person is partum persona. And homo creator literally means the Creator (God). Whether we believe in God or are atheists - from both positions, such a framing of the question (the word "substitution" keeps coming to mind… in mathematics, it's the replacement of one thing with another - in other words, a substitution!) should be rejected. And one more thing: this term entered science in a completely different sense and in a different field - in the sphere of genetic eugenics. It was used by supporters of eugenic theories to denote a person who represented the standard for producing perfect offspring.

Founder of the Russian Eugenics Society (1920-1930), academician Nikolai Konstantinovich Koltsov, wrote in his work "Improving the Human Race": "And to this day, many sociologists, naively - from a biologist's point of view - believe that any improvement in the well-being of certain population groups, any increase in their cultural level, must inevitably be reflected in a corresponding improvement in their offspring, and that precisely this influence on the environment and the elevation of culture are the best ways to improve the human race. Modern biology rejects this path" [Koltsov, 1923, web].

What path can modern biology suggest? Read on: "The best and only method to achieve the goal of racial eugenics is to select valuable producers based on their hereditary traits: physically strong, endowed with outstanding mental or moral abilities, and place all these talents in conditions where they can not only fully express these abilities but also feed and raise a large family, and, moreover, predominantly in comparison with people not exceeding the average norm. This advantage is the eugenic value, as equality of reproduction conditions for both outstanding and mediocre people will only lead to an increase in the overall population and will not change the desirable hereditary traits of the human race. The nation that values its talents more than others and learns to put them in better living conditions early enough will give humanity the largest number of representatives of the highest type of Homo creator" [Koltsov, 1923, web].

Times of Koltsov have long passed, and his fashionable ideas, misinterpreted by well-known proponents of "improving the human race", have lost their scientific basis with the development of science about humans and society. The term itself has successfully transitioned into modern social science.

From the perspective of modern science, the ability for creativity (like any human trait) has biological prerequisites, which can vary among different individuals. However, the ability for creativity itself is a trait that has a purely social origin. In any case, there is a problem with the re-

lationship between the influence of biological prerequisites and societal conditions on creativity. For example, no one has yet discovered a biologically innate ability of a person to solve problems of elementary particle physics without the corresponding education, complex mathematical apparatus, and equipment - and those certainly don't have a biological nature!

So, borrowing the term "homo creator" from eugenics supporters, which is accompanied by a dubious theoretical background, is not the best choice.

For different reasons, research on human creative activity has not been fortunate with terms that use the adjective "creative": creative class, creative industries. There is nothing to object to the terms themselves, but their substantive content, which has gained widespread use in science, departs from their literal meaning – thereby, there is a "substitution" of meanings – an incorrect interpretation of the concept of creativity. Creativity is now understood as originality, inventiveness (in the sense of resourcefulness, not the ability to invent), cleverness, the ability to stand out and surprise.

Why does this happen? The answer is not straightforward; it requires an economic, and to some extent, a political-economic analysis. The shift in concepts is related, in our view, to an imprecise interpretation of the nature of creative activity under the influence of the characteristics of modern capitalism.

Creativity is closely connected with the process of cognition, and its basis lies in gaining new knowledge through the process of grasping objective truth and applying this knowledge in practical activity. However, it cannot be said that creative industries have no relation to creativity at all. But in most areas commonly considered part of the creative industries, the focus is not on creative processes per se, but more on processes of transforming knowledge from one form to another, adaptable for end-users (translating a technical concept into a drawing, recording a song onto technical media, and so on). Of course, there is an element of creative process here – in creating a new form of knowledge or representation. For example, creating and performing a song for the first time is undoubtedly a creative act, but only to the extent that it contributes to the growth of human culture.

However, a significant portion of "creativity," aimed at achieving a market effect, is used to shape and impose simulated needs on consumers, to invent simulacrum products that create an illusion of satisfying those needs. The market is ready to entice consumers down any twisted paths, as long as it contributes to product sales. As Slavoj Žižek observes: "Today, the cultural-economic apparatus itself, in order to reproduce itself under conditions of market competition, is forced not only to endure but also actively provoke increasingly strong shocking effects and products" [Zizek, 2008, web]. The creative class is actively involved in creating such "creatives." The creative class is, to a large extent, a result of modern trends in the development of the service sector, characterized by the hypertrophy of the financial and entertainment sectors, with mass-market-oriented culture aggressively displacing authentic culture [Danilov-Danilyan, 2009].

The prominent theory of the creative class by American sociologist Richard Florida [Florida, 2005] largely reflects the distortion that creative activity itself and the theoretical concepts about it undergo in the system of modern capitalism. Florida avoids precise definitions of the fundamental theoretical assumptions from which he starts, replacing them with vague descriptions (a characteristic feature of Western social sciences). This allows for the selection of vague and arbitrarily chosen empirical criteria, leading to a high degree of subjectivity when categorizing professional groups as part of the creative class. Florida essentially ignored the opinion of the

founder of the theory of the creative economy, John Howkins, who noted the complexity of a precise theoretical distinction between creative and non-creative activities [Howkins, 2001].

It is difficult not to agree with the view that "in modern industrial societies, the work of almost all professional groups combines creative and purely executive tasks. Technologically advanced production processes and contemporary complex forms of economic organization would face serious disruptions if a significant portion of people employed in industrial production did not possess 'hidden' knowledge and the ability to approach problem-solving creatively" [Krätke, 2010, p. 837]. Doesn't creativity allow poor workers to improvise and survive in the risky environment of modern capitalist cities? [Wilson, Keil, 2008].

Recommendations made by Richard Florida on attracting the creative class to cities to stimulate their economic development, based on very uncertain criteria, have turned out to be just as ambiguous in their consequences. Depending on the criteria chosen by researchers of these processes, the results vary and sometimes even produce directly opposing conclusions. Some researchers found empirical evidence supporting Florida's recommendations, suggesting that the presence of a creative class has a positive impact on economic development [Stepanova, 2020, pp. 159–161]. Others insisted, "The creative class consistently failed many statistical tests to explain either job growth or wage growth or absolute wage levels. Moreover, individual characteristics of the creative class – talent, technology, and tolerance – negatively correlated with all our economic indicators" [Hoyman and Faricy, 2009, p. 329].

Even Richard Florida's motives were questioned. Some researchers believed that his recommendations served as a justification for restructuring cities in favor of specific functional elites within the framework of a neoliberal societal model [Brenner, Theodore, 2002].

Many critics of the concept of Florida noted his tendency to recognize the creative nature of the activity only for a certain elite group of professionals. In connection with this, the legitimacy of classifying financiers, business consultants, and politicians as part of the creative class was considered dubious [Huffschmid, 2002; Zeller, 2004; Huffschmid et al., 2007; Krätke, 2010, p. 838].

In an attempt to reject these claims, Florida essentially diluted his own theory of the creative class: "Every single person has creative potential," he stated on October 2, 2012, at the annual conference of the Council for International Economic Development in Houston. "We have millions of American workers in the service sector, from hairdressers to factory workers, who are highly creative. We simply don't harness their creative energy as effectively as we should" [Starner, 2012, web].

Indeed, creativity is an inherent attribute of human activity, even in the most routine, templated, and monotonous work, there are traces of creativity. There are elements of cognition even in the fact that in any work process, an ideal image of the final result is formed. And this image is something a person must create, even if it's with the help of external instructions.

When we specifically discuss creative activity, we are dealing with a different measure of the presence of creativity, where it becomes a defining factor in the activity. It's understood that no classification of professions can definitively identify professional groups engaged in creative activity and separate those not involved in creative activities. Therefore, we can only identify groups primarily engaged in creative activity, or more precisely, groups in which the creative component is the determining factor. It's challenging to precisely determine the focus of creative activity in these groups and whether their creativity is aimed solely at demonstrating novelty and originality of the results, regardless of their nature.

An industry-based approach, like identifying so-called creative industries, is even less suitable for delineating the spheres of creative activity. In every creative industry, no matter how important creative activity may be in it, there is a significant role for personnel performing routine support tasks. For example, it's unlikely that an office manager in a research organization could be classified as a creative worker.

To define the criteria of creative activity more precisely, we need to delve deeper into its content. Another question to address is what the purpose of the creative process is, not just its content. What are we "creating" and why? After all, we can "create" things that we ourselves may find horrifying. If the process of creative activity is primarily based on acquiring new knowledge and applying it in technologies (whether industrial, social, or cultural), then the result of creative activity is determined by its alignment with human needs. If these needs are rational and directed towards creating conditions for human development, then creativity will be rational.

But what if they are not? Even in this case, the activity remains creative, but it takes on the role of a kind of "theft" of people's creative abilities, subtracting from the world of creativity oriented toward human development in favor of creating a world of counterfeit, illusory goods and "creatively" imposing this world on consumers.

Are developers of algorithmic trading software on the stock exchange or creators of targeted online advertising relying on complex analysis of large amounts of customer preference data creative individuals? Certainly, they are. And this creativity plays an important role in the functioning of modern capitalist economies. Modern capitalism cannot function without advertising and the stock market. However, there is a limit beyond which the pursuit of private interests turns into a pursuit of success at any cost, at the expense of destabilizing the financial market or forming "induced" simulated needs in consumers. Such creativity becomes a search for means to divert resources from human development in favor of purely economic success criteria, regardless of what is behind that success.

Certainly, creativity, like any human activity, is influenced by the prevailing socio-economic conditions. Currently, these conditions have a dual impact on the utilization of human creative potential. On one hand, there is a significant increase in the importance of knowledge, scientific research, and experimental design, which become the primary drivers of progress in production. This is driven by the nature of modern material production processes, the development of which depends on new knowledge translated into new technologies and products.

On the other hand, there is a growing significance of knowledge aimed at generating profits from financial speculation and the creation of illusions as both new needs and their satisfaction. Those who create these illusions (whether material or spiritual) hold a prominent place in the creative class, pushing scientists, educators, and healthcare professionals into the background.

Should we admire the creative achievements of researchers in the field of artificial intelligence, for example, when their work is geared towards manipulating our consumer choices? [Dezfouli et al, 2020 web]. Are these individuals true creators in the genuine sense? When the pursuit of new knowledge and its application in practical activities is not directed towards knowledge and the technologies derived from it, but rather towards commercial success, it means that the creative process is confined within narrow boundaries, and representatives of the creative class are not so much creating as they are executing a prescribed program in pursuit of financial success. More often than not, this success is achieved through imitation of creativity.

Even worse, in the pursuit of profit, there is an undermining and deformation of socio-cultural norms that compensate for the corrupting influence of "pure gain morality." Considerable effort is made to blur any basic concepts of human culture and to leave in place this cultural desert, where only economic considerations, serving as a wrapper for the greed for wealth, remain as the driving force, undermining moral standards that serve as natural limits to mercantilist expansion [Bodrunov, 2022, p. 19].

Creativity has become bifurcated, and a significant portion of creative products opposes humanity as something alienated from it, even hostile. The human individual is seen as entirely immersed in the all-subjugating non-human and anti-human world of material objects, where there is no place for their genuine sovereignty as a creative subject [Batishchev, 2015, p. 199].

How can this duality be overcome? The answer lies in the theory of noonomy. It is necessary for "noos" (reason) to become the leading criterion for acquiring and using new knowledge. It is impossible to force a person to behave reasonably towards themselves and their role in the world of everyday activities, especially if socio-economic conditions try to impose economically rational but inherently unreasonable behavior. The restriction of freedom of will inevitably distorts a person's system of goals and values.

Coercion can yield some results even in creative activities, but this instrument has its limits. Coercion cannot make criteria of reasonableness in creativity become ingrained in the flesh and blood of every person because limiting freedom of will inevitably distorts their system of goals and values.

The theory of noonomy suggests a way out of this situation, which involves the gradual removal of economic criteria from human activity based on the cessation of the struggle for production and consumption resources (on the appropriate technological base, primarily through automated production). These criteria are replaced by criteria of reason and culture that are formed based on the material conditions for the transition to the noosocial stage of human history, where human activity will be directed towards providing conditions for their development.

The transition to the new industrial society of the second generation (NIS.2) creates the necessary material prerequisites for this shift. "Objective processes in the development of knowledge-intensive production in NIS.2 will increasingly free up human time for self-improvement, education, and creativity. Furthermore, even in the diminishing labor activity, the creative component will inevitably increase. In cases where human activity becomes predominantly creative, their preferences will gradually shift from the pursuit of material goods and services to self-realization in the process of creative activity." [Bodrunov, 2021, p. 26].

So, it's not about the Homo creator or "creative class" but about the noohuman, who doesn't just create but does so rationally. Instead of direct coercion or coercion through economic necessity, the focus should be on education, upbringing, and raising cultural awareness. Then, rational criteria for creative activity will become reflections of an individual's inner conviction.

References

Batishchev G. S. (2015). Active Essence of Human as Philosophical Principle. Almaty: Institute of Philosophy, Political Science and Religious Studies KN MON RK. (In Russ.).

Bodrunov S. D. (2021). From Homo Economicus – To Homo Sapiens. *Issues of Philosophy*. No. 12. Pp. 18–31. (In Russ.).

Bodrunov S. D. (2022). From Economic Interests to Noovalues. *Issues of Philosophy*. No. 7. Pp. 15–26. (In Russ.).

Danilov-Daniliyan V. (2009). Global Crisis as a Consequence of Structural Shifts in the Economy. *Issues of Economy*. No. 7. Pp. 31–41. https://doi.org/10.32609/0042-8736- 2009-7-31-41 (In Russ.)

Koltsov N.K. (1923). *Improvement of the Human Breed*. Petrograd: Vremya. URL: https://oleg-devyatkin.livejournal.com/60218.html; https://oleg-devyatkin. livejournal.com/59987.html; URL: https://oleg-devyatkin.livejournal.com/ 59892.html (Accessed: 27.06.2023). (In Russ.).

Stepanova T. D. (2020). Development of the Theory of the Creative Class: Foreign and Russian Economic Thought. *Problems in Political Economy*. No. 3. Pp. 153–169. (In Russ.).

Florida R. (2005). *The Rise of the Creative Class*. Moscow: Klassika XXI. (In Russ.).

Brenner N. and Theodore N. (Eds.) (2002). *Spaces of Neoliberalism. Urban Restructuring in North America and Western Europe*. Oxford: Blackwell.

Dezfouli A., Nock R., Dayan P. (2020). Adversarial Vulnerabilities of Human Decision-making. *PNAS*. Vol. 117, No. 4. 29221–29228. URL: https://doi.org/10.1073/pnas.2016921117 (Accessed: 26.06.2023).

Howkins J. (2001). *The Creative Economy. How People Make Money from Ideas*. London and New York: Penguin Press.

Hoyman M., Faricy C. (2009). It Takes a Village: A Test of the Creative Class, Social Capital, and Human Capital Theories. *Urban Affairs Review*. Vol. 44. No. 3. Pp. 311–333.

Huffschmid J. (2002). Political economy of financial markets. Hamburg: VSA.

Huffschmid J., Köppen M., and Rhode W. (Eds.) (2007) Financial investors: saviours or robber barons. New challenges by the international capital markets. Hamburg: VSA.

Krätke S. (2010). 'Creative Cities' and the Rise of the Dealer Class: A Critique of Richard Florida's Approach to Urban Theory. *Journal of Urban and Regional Research*. Vol. 34. No. 4. Pp. 835–853. DOI:10.1111/j.1468–2427.2010.00939.x

Starner R. (2012). *The Rise of Richard Florida – Revisited*. URL: https://creativeclass.com/articles/Site%20Selection.pdf (Accessed: 26.06.2023).

Wilson D. and Keil R. (2008). The real creative class. *Social and Cultural Geography*. Vol. 9. No. 8. Pp. 841–847.

Zeller C. (Ed.) (2004). The global dispossession economy. Münster: Westfälisches Dampfboot.

Zizek S. (2008). *When Straight Means Weird and Psychosis is Normal*. URL: https://www.lacan.com/ripley.html (Accessed: 26.06.2023).

Information about the author

Sergey D. Bodrunov

Dr. Sc. (Econ.), Professor, Corresponding Member of the Russian Academy of Sciences, Director of the S.Y. Witte Institute for New Industrial Development (INID), President of the Commission of the Union of Economists, President of the Free Economic Society of Russia, (Bol'shaya Monetnay Str. 16, St. Petersburg, 197101, Russia)

E-mail: inir@inir.ru

DOI: 10.37930/2782-6465-2023-2-2-16-25

Petr S. Lemeshchenko, Alexander M. Baranov
Belarusian State University (Minsk, Belarus)

FORMATION OF THE EAEU INFORMATION ECONOMY IN THE CONDITION OF THE GLOBAL SOCIO-ECONOMIC TRANSFORMATIONS

Abstract: on the basis of the concept of the national innovative systems (NIS) and methodology of transforming of socio-economic institutions, the model of the correlation of NIS and the main elements of the information economy has been proposed. Theoretical patterns of the influence of socio-technological, cluster and anthropogenic infrastructures on the transformation of the information economic system have been identified. The main legislative acts ensuring the digital transformation of anthropogenic resources in the EAEU countries were systematized, their comparative analysis with similar legislative initiatives of the PRC was carried out. The strengths and weaknesses of the economic policy for the development of the EAEU information economy in terms of training personnel for digital transformation, personal data protection, and public administration are considered. The model for the formation and development of the EAEU in- formation economic system taking into account foreign experience and the peculiarities of the integration association, the innovative environment, the socio-technological infrastructure of clustering, the educational, scientific environment and metasystems of information exchange in integration associations has been developed.
Keywords: anthropogenic capital, national innovation system, information economy, digital transformation.

For citation: Lemeshchenko P.S., Baranov A.M. (2023). Formation of the EAEU information economy in the condition of the global socio-economic transformations. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 2, pp. 16–25. DOI: 10.37930/2782-6465-2023-2-2-16-25

列梅辛科 P. S., 巴拉诺夫 A. M.
白俄罗斯国立大学（白俄罗斯，明斯克）

在全球社会经济转型条件下欧亚经济联盟的信息经济建设

摘要：作者以国家创新系统概念和社会经济体制转型方法论为基础提出了国家创新系统与信息经济基本成分相互关联的模式。揭示了社会技术方面联盟的人造基础设施对信息经济系统转型影响的理论上的必然性。系统地说明了保障欧亚联盟国家人造资源数字化的基本法律规定，并以中国有关法律为参照对其进行了比较分析。文章从信息化人才培养、个人信息保护以及国家管理角度讨论了经济联盟国家发展信息经济方面的经济政策的优势和弱势。作者指出了建设和发展欧亚经济联盟信息经济的模式并注意到了一体化特点和外国经验。该模式考虑了创新环境、联盟的社会技术基础设施、教育科学和信息交换元系统的情况。
关键词：人造资本、国家创新系统、信息经济、数字化。

引用注释:列梅辛科 P.S., 巴拉诺夫 A.M.(2003)在全球社会经济转型条件下欧亚经济联盟的信息经济建设//智慧经济与智慧社会. 维捷新兴工业发展研究所论文选.vol. 2, no. 2, pp. 16–25. DOI: 10.37930/2782-6465-2023-2-2-16-25

Introduction. Various regional formations and clusters are a distinct trend of the present time. The Eurasian Economic Union (EAEU) is one of the unions whose member countries are attempting to jointly build national socio-economic systems that correspond to the economic interests, as well as the national and cultural characteristics of these countries. This is a form of cooperation among countries, in which it is assumed that when making joint decisions by the union, it should represent the best expression of human capabilities, the potential of human activity, taking into account the achievements of science, technology, natural technological constraints, and also the limitations of capital in its traditional forms. From our standpoint, the use of exclusively *a technocratic approach* in the study of the information economy has significant cognitive limitations, as it does not take into account creativity, invention, and the anthropogenic activity of labor resources as subjects of scientific knowledge, focusing solely on technical and engineering operations. From this point of view, the theory of noonomics [Bodrunov, 2018] has theoretical and practical significance.

Thus, according to *the anthropogenic method of information-time analysis* in the information economy, *mesoinformation, and anthropogenic capital* become connecting elements that permeate all institutions of society, resulting in changes in the functions of public administration. This is because an increasing portion of the time of government officials is devoted to creating national and supranational databases and managing the information contained in them. The transformations in the information economy, driven by mesoinformation, lead to the activation of the innovation process and *the active development of education, science, and the generation of anthropogenic capital*. Such integration entities as the EAEU face these challenges particularly acutely.

Main Part. The practical implementation of the concept of socio-economic transformations and the institutional basis of the information economy is the *macroeconomic model of the national innovation system (NIS) of a country. This model assumes not only the infrastructure aspect of innovation development but also the transfer of knowledge through institutions* (government, clusters, research centers, virtual and material enterprises, etc.). Long-term sustainable development (a new quality of economic growth) becomes possible thanks to the innovation-oriented actions of the actors. Furthermore, NIS as a modern institutional model for generating, disseminating, and using knowledge, embodying them in new products, technologies, and services, becomes *the basis of the information economic system* (Figure 1).

The structure of the national innovation system includes: *the knowledge generation system* (education and science - academic, university, sectoral, corporate); the knowledge application system (commercial and non-commercial organizations, including small and medium-sized innovative businesses; integration entities - clusters, innovation parks, groups, etc.); *innovation infrastructure* (scientific and/or technological parks, technology transfer centers, innovation centers, innovation and venture funds, and other organizations); *the system of state management* (management bodies for scientific, scientific and technical, and innovative activities); *the innovation environment* (regulatory and legal regulation, including aspects of forecasting and planning,

priority setting, stimulation, intellectual property circulation, including its commercialization; innovation culture of society).[1]

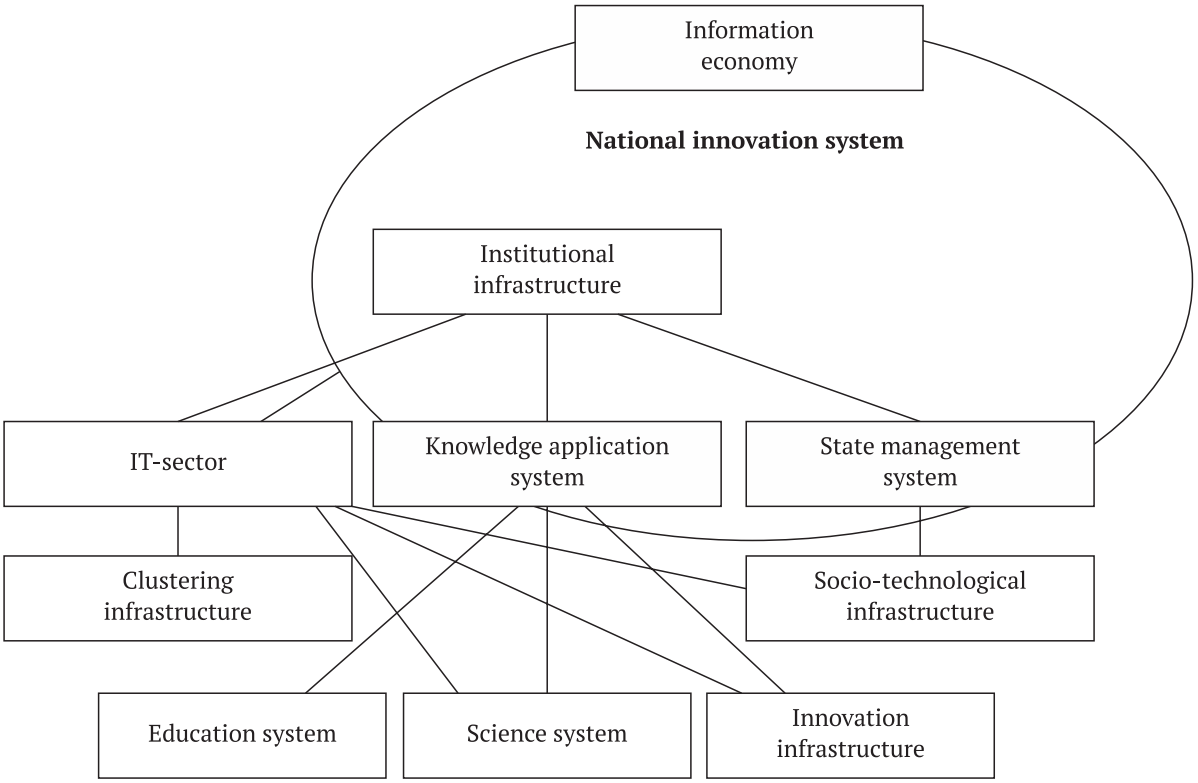


Fig. 1. Model of interrelations between NIS and the main elements of the information economy

The relationship between NIS and the information economy is manifested through *the development of innovative infrastructure, human capital,* and mechanisms for knowledge generation and dissemination. According *to a humanitarian methodological approach and an anthropogenic method of information-time analysis* [Baranov, 2023], the main structural elements of the information economy are as follows:

1. *Innovation Infrastructure*: It facilitates the creation and development of innovations in the information economy. It includes institutional structures that support research and development, technology parks, venture funds, innovation centers, and more. Innovation infrastructure is closely linked to institutional infrastructure, including legislative and legal mechanisms that protect intellectual property and stimulate innovation. Innovation infrastructure should support all stages of the innovation process and the introduction of innovative products to the market. NIS interacts with the IT sector, enabling the effective distribution, replication, analysis, and processing of information.

One of the most well-known scholars researching innovation infrastructure as the basis of the modern economy is *Paul Romer*, the 2018 Nobel laureate in economics. He is known for his work on economic growth, human capital, and innovations, including the concept of "endogenous growth theory." Similar views are held by his followers *R. Jedwab, P. Romer, A. Islam, and R. Sa-*

[1] National Innovation System (2023). Belarus in the Information Space. URL: https://infocenter.nlb.by/nauka-i-innovatsii/natsionalnaya-innovatsionnaya-sistema/ (Access date: 21.05.2023).

maniego [Jedwab et al., 2023]. Significant contributions to the study of the impact of innovation infrastructure on the information economy and economic growth have been made by various scholars. For example, C. *Perez,* a professor at the London School of Economics, developed the concepts of "techno-economic paradigms" and "long waves theory." In her work *Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages* [Perez, 2013], she emphasizes the role of innovation infrastructure in the development of the new economy and society. Similar views are held by *E. Brynjolfsson,* director of the Stanford Digital Economy Lab, and *E. McAfee*, executive director of the MIT Initiative on the Digital Economy. They study the impact of innovation infrastructure on the development of the digital economy, including productivity growth and the quality of anthropogenic potential [Brynjolfsson, McAfee, 2016].

There is a positive feedback loop between the development of innovation infrastructure and the formation of the information economy. Analysis of the U.S. experience in this area has shown that *U.S. government policy* in the development of innovation infrastructure focuses on several key areas, including building an information and knowledge-based economy, improving the efficiency of education and workforce retraining, enhancing the activities of government bodies responsible for this sector of the economy, and more. American experts note that the development of relevant subsystems of the information economy significantly affects labor productivity and GDP growth in the country [Zolotykh, 2015].

2. *Institutional Structure*: This is closely related to innovation infrastructure and includes institutions and organizations that establish rules and regulate the functioning of the information economy. This category includes government agencies, specialized organizations, trade unions, and other institutions that create an institutional and legal environment for businesses and consumers.

Peter Drucker, a renowned scholar who researched the influence of institutional infrastructure on the new economic system, emphasized the importance of effective institutional infrastructure for the successful operation of the knowledge economy. In his work *Challenges of Management in the 21st Century*, he underscored the role of the state in creating rules of the game that provide stability and predictability in the business environment, as well as the need to develop institutions that promote innovation and the generation of new knowledge [Drucker, 2007]. Similar views are held by *S. Law and A. Bany-Ariffin,* who, based on empirical research, studied the relationship between institutional infrastructure and innovation activity in the information economy. They noted that well-developed institutions that protect property rights, ensure access to information, and stimulate competition contribute to the development of IT and innovation [Law, Bany-Ariffin, 2008]. Likewise, *I.N. Benson* analyzed the impact of the quality of the institutional environment on the economic growth of 74 countries, including countries with high levels of information development. She examined countries' positions on indicators such as the *Rule of Law Index, Property Rights Index, Corruption Perceptions Index, Knowledge Index, and Economic Freedom Index*. The research showed that countries with strong institutional and information development demonstrate the highest growth rates [Benson, 2016].

3. *Social-technological infrastructure* comprises social and technological elements that enable the functioning of the information economy. It encompasses various communication technologies, network infrastructure, Internet access, e-government, and more. Social infrastructure also includes norms, values, and behavioral models that develop within society and influence the use of information technology.

Manuel Castells, the most prominent advocate of socio-informational development, in his work *The Information Age: Economy, Society, and Culture*, analyzes the social role of information technologies in shaping the information society and their impact on the economy [Castells, 2000]. *W. Arthur* examines institutional issues related to the influence of social-technological infrastructure on economic development [Arthur, 1996]. Michael Mandel, in his work *Can the Internet Revive the Economy's Growth?* analyzes the socio-technological aspects of informatization and their connection to economic growth in the United States [Mandel, 2023].

4. *Cluster infrastructure* refers to spatially and non-spatially concentrated groups of organizations that operate in related or interconnected industries. Cluster infrastructure encompasses various resources, services, and institutions that support the development and growth of clusters. It may include specialized educational institutions, research centers, business incubators, and other entities that facilitate interaction and innovation within the cluster.

Research on the impact of cluster infrastructure on the development of the information economy is a relatively new and less-studied area. *Michael Porter* is considered a classic proponent of cluster development concepts. According to his research, assessing a country's competitiveness should not only occur at the micro-level but also at the level of cluster associations. The importance of clusters lies in their ability to effectively leverage the advantages of competition and cooperation within a unified institutional structure [Porter, 2005]. These issues are explored by various authors. For example, *David Audretsch* examines the influence of clusters on regional competitiveness and the role of infrastructure in supporting such clusters [Audretsch, 1995]. *M. Tvaronaviciene, K. Razminiene, and L. Piccinetti* investigate the impact of cluster infrastructure on economic activity [Tvaronaviciene, Razminiene, Piccinetti, 2015]. The role of knowledge cluster infrastructure in regional economic development is illustrated in the research conducted by *H. Evers, S. Gerke, and T. Menkhoff* [Evers, Gerke, Menkhoff, 2010].

5. *The education system* is closely interconnected with the formation of the information type of economy. On the one hand, the education system contributes to increasing the intellectual potential of society, which is a necessary condition for the transition to the information economy. On the other hand, the economic environment of the information society creates conditions for expanding the opportunities of the education system and strengthening the positive external effects, such as: synergetic effect for the enterprise from each employee; increased mobility of labour force and productive forces; accumulation of knowledge that is used in practice and is a way of producing goods and services; saving resources by improving the quality and volume of knowledge; improving the quality of decisions made by the authorities. [Evers, Gerke, Menkhoff, 2010].The role of the education system in the formation of the information economy is studied by *R. Bekkers, I. Bodas Freitas* [Bekkers, Bodas Freitas, 2008], *K. Cosmulese, V. Grosu, E. Glachuk, A. Zhavoronk* [Cosmulese et al., 2019], *G.A. Sosedov* [Sosedov, 2010], *A.A. Andreev* [Andreev, 2010], *S.E. Savzikhanova, V.N. Kosinova* [Savzikhanova, Kosinova, 2011] and other scientists.

6. *The science system* plays a key role in the development of the information economy by providing the basis for innovation, technological progress and the creation of new knowledge. The impact of the science system on the information economy can be described as follows:

- Scientific research is the basis for the creation of new knowledge, technologies and innovations; it contributes to the development of new products, services and processes that can be used in the information economy; scientific discoveries and innovations in the field of information

technology, artificial intelligence and other related fields have a direct impact on the development of the information economy [Amirova, 2022].

- The system of science facilitates the transfer of technologies from the academic environment to industry and the business sector, which makes it possible to turn scientific research into commercial products and services that can be used in the information economy, with cluster infrastructure playing an important role in this process [Karpov, 2017].

- The system of science contributes to the development of human capital, which is a key resource for the information economy; research and education in science, technology, engineering and mathematics (Science, Technology, Engineering and Mathematics - STEM) help to form highly qualified specialists who can work in information industries and contribute to their development [Kivarina, Makarevich, 2020].

Modern scientists consider practical aspects of the influence of science and education on the information economic system. Thus, *M. Kivarina, A. Makarevich* consider the mutual influence of science and education on digital transformations in the modern society [Kivarina, Makarevich, 2020].

Social aspects of the information economy are considered by *V. Nikiforova, L. Achba, A. Nikiforov, A. Kovalenko* [Nikiforova et al., 2019]. Similar studies are conducted by international research institutes and within individual countries and regions [Salazar-Xirinachs J.M. et al., 2023].

Considering the practical aspects of formation of the information type of economy for such an integration association as the EAEU, it should be noted that the main legislative support for the formation and *development of the information economy*, first of all, includes the formation of institutional infrastructure, which is envisaged by the legislative documents of Russia, Belarus, Armenia, Kazakhstan and Kyrgyzstan. However, in accordance *with the experience of similar projects in the People's Republic of China* "One Belt, One Road" ("带一路") and the EU "Global Gateway" projects, the EAEU needs to ensure not only investment in high-technology and high technology, but *also the development of new technologies*.

Training of personnel for digital transformation has become a common institutional and legal direction for Russia, Belarus and Kazakhstan, but in Armenia and Kyrgyzstan the legislation implements *its narrower interpretation - development of competences and skills for the digital economy*. The protection of personal data is also a common institutional and legal aspect that unites all EAEU countries. The relevant legislation has been updated in recent years in Russia, Belarus and Kazakhstan. At the same time, the Federal Law of the Russian Federation of 31 July 2020 No. 258-FZ "On experimental legal regimes in the field of digital innovation in the Russian Federation" has become the benchmark[1].

A common aspect of information economy development for all EAEU member countries is *public administration based on information economy technologies. The differences include approaches to its implementation*. Thus, in Russia the priority is *the development of digital public administration*; in Belarus - improvement of the state information policy; in Kazakhstan - *transition to a proactive state on the basis of improving the system of electronic and mobile government, development of public information services*; in Armenia - *attraction of investments in the digital sphere to ensure maximum national economic security*; in Kyrgyzstan - *development of the state based on the data industry, technology and digital economy*; in Kyrgyzstan - *development of the state based on the data industry, technology and digital economy*. In this aspect, the development of personal data protection insti-

[1] Eurasian Economic Union Digital Agenda 2025: Prospects and Recommendations (2023). Overview. World Bank Group. URL: http://www.eurasiancommission.org/ru/Documents/digital_agenda_eaeu.pdf (Access date: 06.21.2023).

tutions and state regulation of the information economy will make it possible, *following China's experience*, to create meta-systems of *information* exchange between the state and business, business and business, individuals and the state in order to provide innovative entrepreneurship with more accessible and better quality data from the public sector.

In contrast to the EU system, the Eurasian Economic Union requires the application of Chinese experience in direct public funding of R&D and cooperation between science and industry through public-private partnerships. China's experience also implies the use of a significant regulatory function for information sectors of the market, implementation of technical standardization, including mapping and codification of existing and emerging standards, their linkage with business processes based on best industry practices and methodological guidelines (e.g. cyber security standards, cyber-physical systems, etc.).

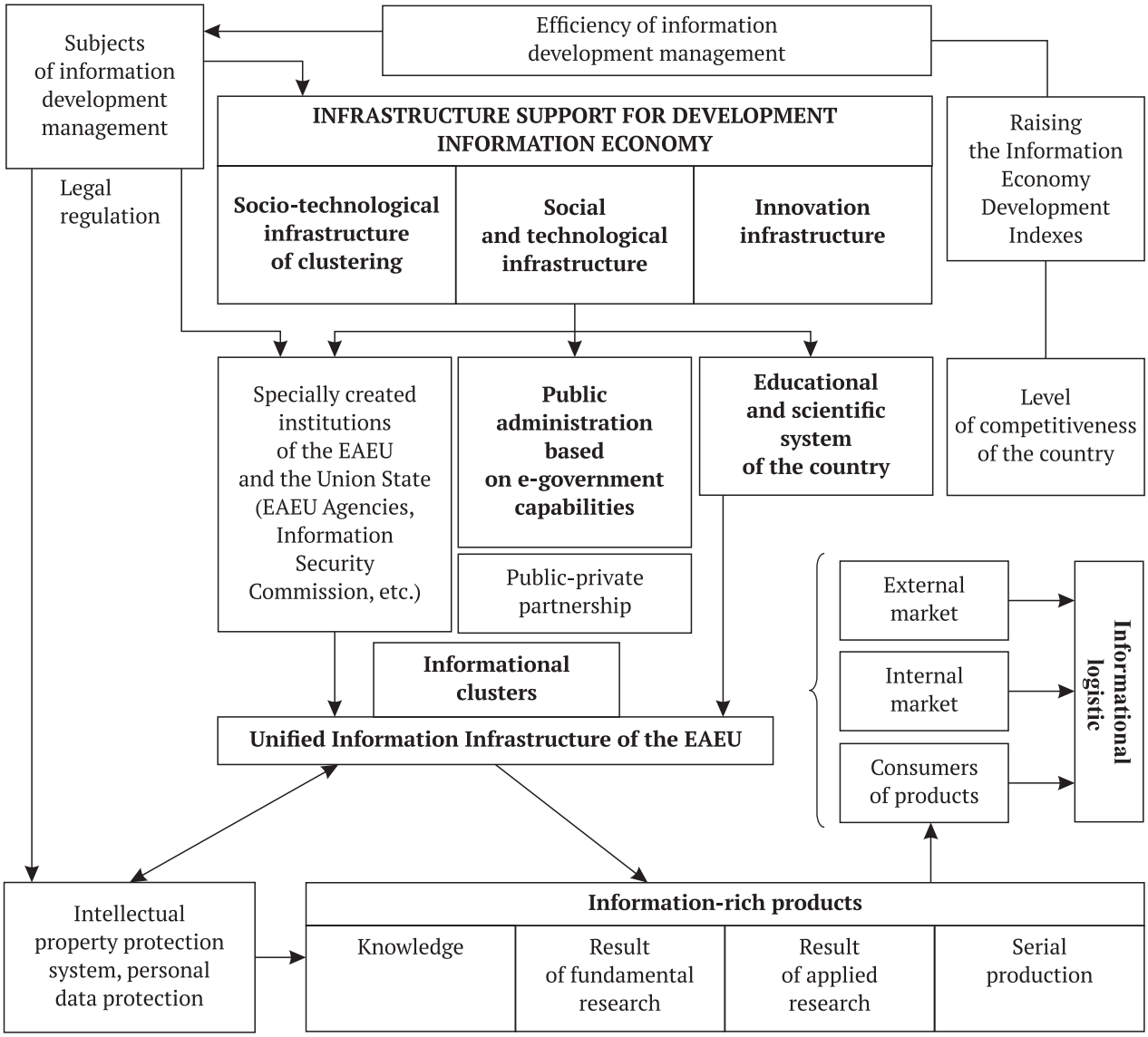


Fig. 2. Model of formation and development of the EAEU information economic system taking into account foreign experience

In the EAEU, it is necessary not only to invest in high-tech and intellectual infrastructure for the development of supply chains, logistics, and IT, but also to link them with the educational and scientific systems of the countries. *This will require an appropriate infrastructure based on information clusters and distributed university complexes* (Figure 2).

In addition to adapting China's useful experience in the field of institutional and legal regulation of information economy development, full-fledged economic cooperation is important through the formation of a digital environment of interaction that eliminates trade barriers and simplifies customs and administrative procedures. Such cooperation is established through trade agreements with China within the framework of the Customs Code and the EAEU Digital Agenda [Khalova, Khalov, 2021].

Additional institutions are needed in *the Eurasian Economic Union,* including representatives of both official authorities and big business in the IT sector, *the Eurasian Union Agencies* to fulfil individual tasks in the field of information and scientific and technological development [Kapustin, Kucherov, Chernogor, 2019]. They should be empowered to provide R&D funding *for advanced technologies, which has been realized in the PRC and has not been formed in the European Union.*

Conclusion. *The formation of the information economy in both theoretical and practical terms is* based on the increasing role of education, the formation of a common scientific space, common digital standards and the evolution of socio-technological infrastructure. A comprehensive analysis of these factors will make it possible to determine the level of influence of socio-economic transformations of the information economy on the economic development of the EAEU and identify the main directions of its further development. The first step for this is a competent institutional and legal regulation of information economy building, including cooperation at the national and regional levels within the framework of information cluster formations and innovation ecosystems. The resulting indicators should be both an increase in the Information Economy Development Index according to international institutional structures and, as a result, an increase in the competitiveness of the integration association in the world markets and economic growth.

References

Amirova S.A. (2022). The Role of Information Technology in the Development of Modern Economy and Society. *Topical Issues of the Modern Economy.* No. 4. Pp. 311-317. (In Russ.).

Andreev A.A. (2009). Certain Characteristics of Education in the Information Society. *Education Technologies*. No. 3. Pp. 3-8. (In Russ.).

Baranov A.M. (2023). *Information Economy: Assessment Methodology and Institutional Mechanisms of Development.* Moscow: Pravo i ekonomika Publ. 248 p. (In Russ.).

Benson I.N. (2016). The Impact of Institutional Environment on Wealth and Economic Development: Cross-Country Comparisons. *St. Petersburg University Journal of Economic Studies*. No. 3. Pp.38-55. (In Russ.).

Zolotykh I.B. (2015). National Innovation System as a Component Knowledge Economy: Problems and Prospects. *Technology Audit and Production Reserves*. Vol. 22. No. 6. Pp. 94-99. (In Russ.).

Kapustin A.Y., Kucherov I.I., Chernogor N.N. (2019). *Development of the Comprehensive Regulation Concept (Legal Regulation) Of Relations Arising in Connection with the Development of the Digital Economy: Report on Research Work (Second Phase)*. Moscow: IZISP Publ. 188 p. (In Russ.).

Karpov A. (2017). Modern University as an Economic Growth Driver: Models and Missions. *Questions of Economy*. No. 3. Pp. 58-76. (In Russ.).

Castells M. (2000). *The Information Age: Economy, Society and Culture*. Moscow: HSE University, 2000. – 608 s. (In Russ.).

National Innovation System (2023). Belarus Through the Information Space. *National Library of Belarus*. URL: https://infocenter.nlb.by/nauka-i-innovatsii/natsionalnaya-innovatsionnaya-sistema/ (Accessed: 21.05.2023). (In Russ.).

Perez C. (2013). *Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages*. Moscow: Delo Publ. 232 p. (In Russ.).

Drucker P. (2007). *Management Challenges for 21st Century*. Moscow: Williams Publ. 272 p. (In Russ.).

Porter M. (2005). *On Competition*. Moscow: Williams Publ. 495 p. (In Russ.).

Savzihanova S.E., Kosinova V.N. (2011). System of Higher Education in Conditions of Information Economy Development. *Creative Economy*. Vol. 60. No. 12. Pp. 109-114. (In Russ.).

Sosedov G.A. (2010). Economic Relations of the Education System: Modernization in the Conditions of Formation of the Information Economy. *Education Economy*. No. 6. Pp.130-139. (In Russ.).

Halova G.O, Halov O. (2021). Prospects for Digitalization of the EAEU States Economy. *Innovations and Investments*. No. 2. Pp.42-44. DOI:10.24411/2307-180X-2021-00015. (In Russ.).

EAEU Digital Agenda (2023). *Eurasian Economic Commission*. URL: http://www.eurasiancommission.org/ru/Documents/digital_agenda_eaeu.pdf (Accessed 21.06.2023). (In Russ.).

Arthur W.B. (1996). Increasing Returns and the New World of Business. *Harvard Business Review*. Vol. 74. No. 4. Pp. 100–109.

Audretsch D. (1995). *Innovation and Industry Evolution*. Cambridge, MA: MIT Press. 224 p.

Bekkers R., Bodas Freitas I. M. (2008). Analysing Knowledge Transfer Channels Between Universities and Industry: To What Degree Do Sectors Also Matter? *Research Policy*. Vol. 37. No. 10. Pp.1837-1853. DOI: 10.1016/ j.respol.2008.07.007

Brynjolfsson E., McAfee A. (2016). *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. N.Y.: W.W. Norton & Company. 336 p.

Cosmulese C. G., Grosu V., Hlaciuc E., Zhavoronok A. (2019). The Influences of the Digital Revolution on the Educational System of the EU Countries. *Marketing and Management of Innovations*. No. 3. Pp. 242-254. DOI:10.21272/mmi.2019.3-18

Evers H.D., Gerke S., Menkhoff T. (2010). Knowledge Clusters and Knowledge Hubs: Designing Epistemic Landscapes for Development. *Journal of Knowledge Management*. Vol. 14. No. 5. Pp.678-689.

Kivarina M., Makarevich A. (2020). Economic Research and Education in the Era of Digital Economy. *E3S Web of Conferences. EDP Sciences*. Vol. 164. Pp. 1-11. DOI: 10.1051/e3sconf /202016412006

Law S., Bany-Ariffin A. (2008). Institutional Infrastructure and Economic Performance. *Transition Studies Review*. No. 15. Pp. 542–557 DOI: 10.1007/s11300-008-0026-1

Mandel M. (2023). Can the Internet of Everything Bring Back the High-Growth Economy? *The Progressive Policy Institute*. URL: https://www.progressive- policy.org/p-content/uploads/2013/09/09.2013-Mandel_Can-the-Internet-of-Everything-Bring-Back-the-High-Growth-Economy-1-1.pdf (Accessed: 21.05.2023).

Nikiforova V.D., Achba, L.V., Nikiforov, A.A., Kovalenko, A.V. (2019). Dialectics of the Processes of Digitization of the Socio-Economic System. *Institute of Scientific Communications Conference*. Cham: Springer International Publishing. Pp. 690-697.

Romer P., Jedwab R., Islam A.M., Samaniego R.M. (2023). Human Capital Accumulation at Work: Estimates for the World and Implications for Development. *American Economic Journal: Macroeconomics*. Vol. 15. No. 3. Pp. 191-223. DOI: 10.1257/mac.20210002

Science, Technology and Innovation: Cooperation, Integration and Regional Challenges (2023). *United Nations* (LC/TS.2022/156), Santiago. 33 p.

Tvaronaviciene M., Razminiene K., Piccinetti L. (2015). Cluster Efficiency Study Through Benchmarking. *Enterpreneurship and Sustainability Issues*. Vol. 3. No. 2. Pp. 120-127.

Information about the authors

Petr S. Lemeshchenko
Head of the Department of International political economy, Belarusian State University (4 Nezavisimosti Avenue, Minsk 220030, Belarus), Doctor of Economics, Professor
E-mail: liamp@bsu.by
Alexander M. Baranov
Doctoral student of the Department of International political economy, Belarusian State University (4 Nezavisimosti Avenue, Minsk 220030, Belarus), Ph.D in Economics, Associate Professor
E-mail: axmbaranov@inbox.ru

DOI: 10.37930/2782-6465-2023-2-2-26-29

Nataliya S. Voronova
St. Petersburg State University (Saint Petersburg, Russia)
Elena A. Yakovleva
St. Petersburg State University of Economics (Saint Petersburg, Russia)

FINANCIAL TECHNOLOGIES AS A DRIVER OF INDUSTRIAL TRANSFORMATION

Abstract: the article systematizes the factors of acceleration of industrial development based on the use of digital technologies applied in financial intermediation. The applicability of the concepts of noonomy and the new industrial society as a theoretical basis for the development of innovative investment mechanisms is substantiated. The contradictions of traditional and new forms of interaction between participants in financial relations are summarized.
Keywords: digital financial technologies, transformative investments, crowdfunding, technological platforms, noonomy.

For citation: Voronova N.S., Yakovleva E.A. (2023). Financial Technologies as a Driver of Industrial Transformation. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 2, pp. 26–29. DOI: 10.37930/2782-6465-2023-2-2-26-29

沃罗诺娃 N. S.
国立圣彼得堡大学（俄罗斯，圣彼得堡）
雅克芙列娃 E. A.
国立圣彼得堡大学（俄罗斯，圣彼得堡）

金融技术是工业转型的动力

摘要：文章系统地分析了金融经纪活动中采用数字技术时能够加速工业发展的因素，论证了把智慧经济学和新型工业社会理论作为创新投资机制发展的理论基础的适用性。文章总结了金融活动参与者之间传统的与新型的相互关系之间的矛盾。
关键词：数字金融技术、转型投资、众筹、技术平台、智慧经济学。

引用注释：沃罗诺娃 N. S., 雅克芙列娃 E. A. (2023). 金融技术是工业转型的动力//智慧经济与智慧社会. 维捷新兴工业发展研究所论文选.vol. 2, no. 2, pp. 26–29. DOI: 10.37930/2782-6465-2023-2-2-26-29

Beneficial effect of financial mechanisms on the dynamics of economic growth is manifested in accelerated industrial development based on the integration of so-called core technologies simultaneously in finance and business. The use of financial innovations based on digital techno-

logies ensures more efficient financial intermediation through diversification of sources and tools for fundraising by optimizing financing conditions and significantly reducing its cost. Broadly speaking, modern financial technologies represent an organic combination of financial and information innovations. For industrial enterprises, like for all other consumers of financial services, the quality of these services in terms of ease of use, speed and reliability in the field of financing, investment, payments and settlements is essential.

In this regard, it seems important to search for areas of common interest, points of intersection and effective, consistent interaction between economic entities that both independently generate and use various types of social, economic, financial and other innovations based on modern information technology. Interest in this issue is due to the need to intensify the unharmonized, multidirectional, and therefore unduly slow movement towards a new industrial reality. Incentives for acceleration should be sought, in our opinion, in the methodology of the new industrial society, which allows us to take into account established approaches to determining the goals of using long-standing and new technologies, the practice of their application in production and exchange, in management, in science, in education, in the service sector and etc., as a starting point in the transition to reasonable wants and reasonable production [Bodrunov, 2020, pp. 153-173]. Thus, in its depths one can find a replacement for the concept of so-called "sustainable development", which brought discredit upon itself in the conditions of new geopolitical challenges.

Identification of global development trends brings us to the realization that in the conditions of modern geopolitical realities it is necessary to use a wider range of mechanisms and financing instruments through different groups of investors, including retail ones, to financially support the development of the national economy in general and in particular, industrial production.

These goals are quite achievable given the level of development of technologies used by modern Russian financial institutions, which makes it possible to accumulate the necessary resources in the right areas very quickly and efficiently. It should be noted that the mechanisms for ensuring acceptable restrictions for the sake of observing the principles of social justice are quite convincingly justified in the theory of noonomy [Bodrunov, 2019, pp. 272-279].

If we focus on the direct impact of modern financial technologies based on the use of digital solutions on the industrial production, first of all we see those industries and organizational forms of business where high-tech and innovative products are created or scaled. The peculiarities of capital raising in this area are manifested both in fairly traditional forms of venture financing and in various crowdfunding formats. Under conditions of significant restrictions caused by unfavorable geopolitical factors, these sources of financial resources become especially significant. Based on the widespread interpretation of crowdfunding as an alternative investment mechanism and taking into account its types such as non-financial and charitable, crowdfunding can be considered as a step towards a "non-economic mode of economic activity", towards a new industrial society.

In this regard, it is instructive to assess the scale of this phenomenon in the world and in Russia. Based on estimates of the global crowdfunding market at the end of 2019, experts predicted its growth by the end of 2026 to $39.8 billion. Moreover, according to the forecast for 2021, the increase in the annual volume of investments raised through crowdfunding platforms only in developing countries, including Russia, will amount to about $95 billion

in 2025 [Salnikova, Permyakov, 2021, p. 4, 6]. As for Russian environment, according to the Bank of Russia, the Russian crowdfunding market in 2021 grew by 97 %, to 13.8 billion rubles. After contracting slightly in the first quarter of 2022 amid uncertainty, it began to recover in the second quarter of this year. More than 95 % of investors on crowdfunding platforms are individuals[1].

These mechanisms for business funding and investing temporarily available funds of retail investors in projects are so-called transformative investments reflecting fundamental changes in the perception of potential investors of their role in economic development and responsibility for its orientation and results. They are implemented on digital technology platforms. Expansion of the use of such mechanisms indicates the spread of the ideology of sustainable development, no matter how dubious its principles may now seem from the point of view of how consistently the ideologists of the concept adhere to them under the pressure of geopolitical ambitions.

Russian financial authorities, in the context of restrictions on the use of global capital markets, now, more than ever, can take advantage of the situation to channel savings in unorganized form into the national financial market by activating digital financial technologies, which, due to their simplicity, speed and reliability, are attractive to small investors who accumulate huge amounts of money.

This is not the first time we have drawn attention to the fact that the prerequisites are already taking shape to substantiate approaches to the formation of a research methodology for both the social organism and the financial system, corresponding to the new technological paradigm with its new social and value characteristics [Voronova, Yakovleva, Sharich, 2021, pp. 4994-4995]. In this regard, the study by Russian authors of the theoretical and methodological aspects of the financial system of noonomy, which implements a systematic approach to substantiation of the digital financial model of a new industrial society, is of interest. The paper rightly emphasizes the paradoxical nature of not the new, but the traditional financial model, where, according to the authors, ideas about the essence of the finance function are distorted, and the financial sector is divorced from the needs and problems of the real economy [Tkachenko, Gorelchanik, 2022, p. 68].

In our opinion, this statement is only partly true. Unprecedented increase in liquidity of the financial market and its unstoppable filling with new financial instruments occur not so much "for the sake of the financial transactions themselves", but rather for the sake of using all the opportunities for hedging price risks of financial assets. However, obvious imbalances in the ratio of turnover of commodity and financial assets have long required the close attention of regulators and self-regulatory organizations of the capital market. In a certain way, they have already served as a trigger for exacerbating geopolitical tensions, which Western countries have repeatedly used to handle looming financial troubles.

We should make specific mention that this contradiction turns out to be completely resolvable exactly in the conditions of radical technological transformation, when the role of information products in the socio-economic system changes significantly, as experts note, indicating the trend of "socialization of capitalism" [Maslov, 2023, p. 104]. There is confidence that the development of information financial technologies, while ensuring industrial transformation, will also ensure a

[1] Overview of the Crowdfunding Market in Russia. 2021 and the First Quarter of 2022: Insight / Bank of Russia. Moscow, 2022. p. 1-5. URL: https://cbr.ru/Collection/Collection/File/42097/crowdfunding_ market_01_2022.pdf (accessed on: 15.04.2023).

smooth transition to a social society in a new sense that meets the standards of noonomy. Regulation of these expanding processes should be based on well-developed theory and methodology of the new industrial society in all its manifestations.

References

Bodrunov S.D. (2019). *General Theory of Noonomy*. Moscow: Cultural Revolution Publ. 594 p. (In Russ.).

Bodrunov S.D. (2020). *Noonomy: The Trajectory of Global Transformation*. Moscow: Cultural Revolution Publ. 224 p. (In Russ.).

Voronova N.S., Sharich E.E., Yakovleva D.D. (2021). Development of Digital Technologies in the Field of Investment Decisions as an Integration Factor of the Financial Market of the Eurasian Economic Union. *Creative Economy*. Vol. 15, No. 12. Pp. 4989-5004. DOI: 10.18334/ce.15.12.114010. (In Russ.).

Salnikova K.V., Permyakov R.V. (2021). Analytical Review of the State of Crowdfunding and Crowdlending Market in Russia. *Bulletin of Eurasian Science*. No. 2. URL: https://esj.today/PDF/23ECVN221.pdf. DOI: 10.15862/23ECVN221 (Access date: 15.04.2023). (In Russ.).

Maslov G.A. (2023). Contradictions of the Information Economy as a New Space for the Development of Human Potential in Russia and China. *Economic Revival of Russia*. Vol. 75. No. 1. Pp. 98-107. DOI: 10.37930/1990-9780-2023-1-75-98-107. (In Russ.).

Tkachenko E.A., Gorelchanik P.P. (2022). Finance of Noonomy: Paradox or Result of Evolution? *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*. Vol. 1. No. 4. Pp. 63-75. DOI: 10.37930/2782-616X-2022-1-4-63-75. (In Russ.).

Information about the authors

Nataliya S. Voronova

Professor of Department of Credit Theory and Financial Management of the St. Petersburg State University, Doctor of Economics, Professor (7-9 Universitetskaya Embankment, St Petersburg, 199034, Russia)

E-mail: n.voronova@spbu.ru

Elena A. Yakovleva

Professor of the Department of Economics and Management of Enterprises and Industrial Complexes, St. Petersburg State University of Economics, Doctor of Economics, Associate Professor (30-32 Griboedov Canal Embankment, St Petersburg, 191023, Russia)

E-mail: helen7199@gmail.com

DOI: 10.37930/2782-6465-2023-2-2-30-38

Lyudmila V. Kuropatkina
Central Economic Mathematical Institute of the Russian Academy of Sciences (Moscow, Russia)

PEARLESCENT TRANSFORMATION OF ENTERPRISES AS A MICROECONOMIC STAGE OF TRANSITION TO NOONOMY

Abstract: a new “pearlescent” concept of enterprise management is examined in this paper. This concept ensures its sustainable development due to the flexibility of the internal structure, the combination of hierarchical and democratic models for taking and implementing decisions, expanding the planning horizon and focusing on the future as well as increasing the intellectual and creative intensity of labor. The “pearlescent” enterprises are the most relevant form of organizing the functioning of production at the stage of establishment of a new industrial society of the second generation (NIS.2). The nooindustrial society is characterized by a high level of knowledge-extensiveness and knowledge-intensity of industrial production. This stage initiates the transition to a qualitatively new form of social relations – noonomy (S.D. Bodrunov), where material needs are met mainly through the creation of automated, intelligent industries using information and computer technologies with minimal participation of people in the process of social production, and a creative, cultural, non-economic individual develops. The expansion of the corps of the pearlescent enterprises and the development of the pearlescent sector of the economy, which includes pearlescent industrial, educational, research and development organizations, can become a reliable foundation for the further formation of NIS.2 and the transformation of the Russian economy into noonomy. Justification of the expediency of developing the pearlescent sector of the economy as a necessary stage on the way to creation of NIS.2 should be considered a new step in the theory of building a society of the future.

Keywords: new industrial society of the second generation (NIS.2), noonomy, creative economy, pearlescent economy, pearlescent enterprises, creative activity.

For citation: Kuropatkina L.V. (2023). Pearlescent Transformation of Enterprises as a Microeconomic Stage of Transition to Noonomy. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID,* vol. 2, no. 2, pp. 30–38. DOI: 10.37930/2782-6465-2023-2-2-30-38

库罗巴特基娜 L. V.
俄罗斯科学院中央数理经济学研究所

在企业向“珠色”企业转变过程中微观经济向智慧经济过度

摘要：本文研究了新的企业管理 “珠色”观点。这一观点提出，依靠内部组织的灵活性、决策和执行的层级制和民主制模式的结合、强化远景规划和未来目标以及提高劳动的智慧和创新成分含量来保证企业的稳定发展。“珠色”企业是第二代新型工业社会（NIS.2）形成时期最重要的生产组织形式。智慧

工业社会的特点是工业生产中高度的知识密集性和高度的知识复杂性。在这一阶段，经济向具有新质的社会关系形态过度，即向智慧型经济（博德鲁诺夫S. D.）过度，物质需求的满足主要依靠采用计算机和信息技术的自动化智能生产，社会生产中人的劳动占比最小，有创造性的文明的 “非经济人”得到发展。“珠色”企业数量的扩大和经济的“珠色”领域（包括“珠色”的工业、教育、研究和研发组织）的发展，可以成为进一步形成NIS.2的可靠基础。对作为建设NIS.2必经阶段的“珠色”领域发展的合理性的论证，应当被视为关于建设未来社会的理论的新内容。
关键词：第二代新型工业社会（NIS.2）、智慧经济、创新经济、珠色经济、珠色企业、创新劳动。

引用注释：库罗巴特基娜 L. V.（2003）在企业向 “珠色”企业转变过程中微观经济向智慧经济过度//智慧经济与智慧社会. 维捷新兴工业发展研究所论文选. vol. 2, no. 2, pp. 30–38. DOI: 10.37930/2782-6465-2023-2-2-30-38

Introduction

The transition to the nooindustrial society of the second generation sets a number of serious tasks for economics referring to economic theory, economic policies and management of the economy. These challenges refer to the worldview basics of social dynamics, and in recent decades they stayed on the sidelines of socioeconomic research, giving way to certain pragmatic topics of production management and organization of production, distribution, exchange and consumption. NIS.2 as a stage of progressive evolution of the society originating based on intensification of the processes of creation of new knowledge and deepening its application in social production, predictably leads to gradual withdrawal of humans beyond material production, narrowing the sector of economic relations between people, formation of a new self-acting sphere of production – the noosphere, and development of a non-economic system in future – noonomy [Bodrunov, 2019].

At the current stage of the NIS.2 establishment, all levels of economy should be subjected to transformation: macroeconomy (the processes of economic growth, investing, employment, pricing); mesoeconomy (regional and sectoral development); microeconomy (operation and interaction of enterprises); nanoeconomy (human activities as a participant in social production and consumption).

Thus, the transition to NIS.2 requires a new model for regulating economy as a whole; a new model of federalism and sectoral management; a new model of enterprise’s activity; a new image of a human as a member of the NIS.2 society. At the same time, the priority task is creation of a new model of the enterprises’ operation as the main unit of not only economic space but social space as well. The new principles of organization of production when transiting to NIS.2 should take into account the rapid growth of creativity of labor, the necessity to create the environment for the full use of workers’ intellectual energy and deepening the socioeconomic symbiosis at the level of “worker – enterprise”. In our opinion, the multi-sided and multi-level pearlescent transformation of Russian enterprises should become the content of the microeconomic stage of transition to noonomy.

In this paper, we focus our attention on the structure and functions of enterprises in the nooindustrial society of the second generation. We show that the “pearlescent” enterprises originating based on the experience of the most developed forms of contemporary domestic and foreign organizations, including “green” and “turquoise” ones [Beck et al, 2019; Lalu, 2020], should

comprise a considerable number of the enterprises. A new "pearlescent" model of enterprise management was offered to preserve the integrity and sustainable development of enterprises at the expense of achieving the necessary level of adaptability to changes of the external environment of activities and inner situation in the organization [Kleiner, 2020].

The humanistic worldview principles implemented in the environment of digital technologies development and expanding the borders of their application are in the basis of the "pearlescent" concept. The general purpose is activating the creative potential of workers and other stakeholders of the enterprise. A whole number of intra-company institutions of discrete and continuous target coordination of the participants' creative activity is employed at the pearlescent enterprises. This concept is aimed at the maximum long-term efficiency of labor activities of each employee, mutual interest and loyalty in the "worker – enterprise" relations [Kleiner, 2021; Kuropatkina, 2023]. With the development of the process of pearlescent enterprises establishment, the volume of pearlescent economy will expand, rivalry between economic agents sometimes leading to unproductive costs of economic resources and human efforts, will come down to rational proportions with cooperation or collaboration [Polterovich, 2022]. In our opinion, pearlescent economy should be viewed as one of the most desired forms of a microeconomic organization of the NIS.2 operation. However, pearlescent economy on the whole will grow from below – from the level of enterprises.

1. Creative labor is the basis of the society of the future

Currently, serious changes are taking place in the social production and composition of labor in economy that is being more and more based on innovations and knowledge: the creative component of labor activities is striving for dominating and wide spreading. The extensive and intensive development of the creative component of labor creates prerequisites for accelerating the scientific and technological progress, qualitative socioeconomic and institutional transformations. The creative revolution is on, the importance of the creatosphere in economy and creators in the society increases [Buzgalin, 2021].

In this paper, under "creativity" we'll understand the aggregate of such characteristics of an individual like *intelligence, imagination* and *originality of thought* allowing a human to go beyond the frames of the established standards, stereotypes, traditional ideas and clichés, and generate new unique and unexpected ways for dealing with problems and solution of tasks. Personal creativity helps humans to engage in creative labor (creativity) in any field of activities and create innovative products. The following characteristics can be mentioned as special features of creative labor: labor stops being an obligation for the worker and transfers into the list of needs; self-motivation becomes the main incentive factor for such labor; creative labor is not regulated by any work schedule; the product of creative labor is richness that is "not restricted, not competitive, and limitless" [Buzgalin, 2022]. In contrast to reproductive labor, creative labor may create an outside positive effect, the so-called "creative multiplier", i.e., many times multiply human opportunities in production, distribution, exchange and consumption of material goods. This shapes the environment for inclusion of previously not engaged resources into the economic turnover, replacement of material resources by intellectual resources and thus turning science in the actual productive force [Pavlov, 2022].

The importance of the creative segment of economy as a sustainable growth factor and its role in transition to the innovative type of development has been paid deliberate attention by

the global academic community for several decades. The United Nations declared 2021 the International Year of the Creative Economy and Creative Industries. Nevertheless, there is still no unified understanding of the "creative economy" till now, and no certain criteria according to which it is possible to unambiguously refer this or that enterprise, sector or industry to creative ones.

The Richard Florida's *theory of the creative class* is the basis of the "creative economy" concept. Under "creativity" Florida understood a human ability "to generate unusual ideas, deviate from traditional thinking patters and quickly and efficiently achieve an intellectual breakthrough in eliminating problem situations" [Florida, 2016]. In the opinion of R. Florida, creativity is an ability to synthesize, select and analyze data to create something new and useful. Creativity is the main source of economic growth, and creative people have such a power, talent and there are so many of them that they are capable of changing the world.

R. Florida united educated, independently thinking, generating new knowledge, ideas and technologies people from various fields of activities into the new creative class: from science, arts, education, literature, architecture, design, music, entertainment industry, jurisprudence, finance and business. He thought that their main difference from representatives of other social groups is the creative class having such personal qualities as creative activity, individuality, talent, openness and tolerance. The priorities for the creative class representatives are not their career, prestige and high wages but the value of the environment for working and living, disclosure of their creative potential, including tolerant atmosphere and creative incentives [Florida, 2016]. It is exactly the people who creatively make new knowledge, ideas, technologies and economic values that refer to the economy of the future [Iskakov, 2023].

Summarizing numerous academic papers present today (see, e.g.: [Abankina, 2022; Kuznetsova, 2022; Khlyshcheva, 2022]), dedicated to the issues of development of the creative economy concept, one can say that the *creative economy* is the system in which the central place is taken by creative resources, knowledge, ideas, technologies and cultural values. The development of the creative economy together with the development of technologies and establishment of new social institutions comprise the united process of humanitarian, technological and social process.

The *creative economy* is officially defined in Russia as "the type of economy based on capitalization of intellectual property in all fields of human activities – academic, scientific and technical, culture and creative activities on the whole. The nucleus of the creative economy is the creative industries" to which those fields of activity refer where "goods and services having economic value are produced in the course of creative and cultural activities, managing the intellectual property, including those providing formation of a harmoniously developed person and improving the quality of life of the Russian society."[1]

As a result of the extensive and intensive growth of the creative component of labor, increase of the numbers of creative workers, transformation of technologies, there is a need for changes in economy, origination of new socioeconomic relations and institutions, in which development of the "creative man" (homo creator) and transition to a qualitatively new social structure will become the main leading idea [Buzgalin, 2022].

[1] Russian Federation Government Directive of September 20, 2021 No. 2613-p "On the Approval of the Concept of Developing Creative Industries and Mechanisms of their State Support in Big and the Biggest Urban Agglomerations up to 2030". URL: https://www.garant.ru/products/ipo/prime/doc/402745784/ (Access date: 11.08.2023).

In recent years, there are talks in the academic community that the contemporary world is on the eve of a new technological revolution and rapidly moves to a new, 6th technological pattern, in case of which knowledge becomes the main production resource [Tereshkina, 2020; Kuzmina, 2021]. The importance of spent material resources in social production reduces and the importance of expenditures for new knowledge, innovative developments, creative solutions increase. From the industrial point of view, the 6th technological pattern includes such technologies as creation of "smart factories", expansion of the use of industrial Internet of Things, industrial robots, systems for processing Big Data, self-learning systems of artificial intelligence; arrangement of people-free technological processes and other cognitive-orientated technologies. This entails big reduction of humans' direct participation in the production process. The most qualitative part of labor resources is concentrated in the creatosphere where they can't be replaced by less qualitative personnel.

The technological revolution changes all the technologies of material production: technologies of organization of production, labor, management, in view of which we can speak about the complex industrial revolution. The very essence of the established idea of "economy" changes: relations between people in the process of creation, distribution, exchange of consumption of goods are replaced by relations between cognitive models of economic processes and objects. Knowledge becomes the connecting link in the relations between the participants of production activities as well as between the participants of activities and processes implementing the said activities. As knowledge is fairly dynamic elements of social production, the adaptation of agents to a new cognitive environment requires rapid increase of susceptibility to new knowledge, readiness to take non-standard solutions, intellectual mobility and, finally, principally new socioeconomic relations.

S.D. Bodrunov claims that the only efficient strategy of development in the environment of the developing scientific and technological revolution is transition to a new stage of public development providing for an opportunity of the harmonious development of the society, economy and man – to NIS.2. The basis of NIS.2 is the knowledge-intensive, knowledge-extensive, "uncrowded" production: as a rule, humans perform intellectual and creative functions there, which the system of machines is incapable of [Bodrunov, 2022].

The development of the creative economy being embodied in NIS.2 has both its merits and hidden threats. In our opinion, the most dangerous social threat among the noted by S.Y. Glaziev challenges of the technological revolution defying the society, is the probability of the society's split into "the creative class of people engaged in creative self-realization and the precariat satisfied with the role of the service personnel and consumers" [Glaziev, 2022]. The more the share of the creative class, the higher the probability of split according to worldviews. Such a split in Russia may become a generator of self-growing social contradictions up to a revolution. Such splits may be viewed as a kind of a delayed-action mine capable not only to undermine the unity of the society but also create a whole number of additional threats of new splits according to industry affiliation, official level, place in the innovative system of economy (investing – scientific research – research and development – production – distribution – consumption of innovative products). The institutions of the society should not only provide differentiation of the conditions and payment for labor of representatives of the creative class and the precariat but also the mechanisms for aligning the living conditions of the said representatives taking into account the differences in their interests, preferences, ideals. Creation of such institutions for NIS.2 is a required condition for the survivability of this kind of the society.

2. Pearlescent enterprises as the outpost for the development of noonomy

Noonomy can and should meet the challenges presented to the society by the new creative revolution at the macro-level. S.D. Bodrunov proves in his theory of noonomy that movement of economy to the new 6th technological pattern based on the accelerated innovative, scientific and technological development and increase of the knowledge-intensity of production, expectedly entails establishment of a new industrial society of the second generation, in which humans are gradually withdrawn from the sphere of material production and stand above it. Economy is inevitably transformed into a new economic system – noonomy combining technological progress, diffusion of property, socialization of economy and society, progress of solidarity [Bodrunov, 2023].

The process of transition to noonomy is long-term but changes leading to a new economic system both in economic relations and the society on the whole, will take place in the near future. Establishment of new pearlescent enterprises, pearlescent sectors, pearlescent economy should be one of the important characteristics of the transition.

The structure of the pearlescent enterprises is aimed at prevention of professional and institutional burnout of workers that is manifested in the loss of interest in one's job, loss of sensitivity for innovative solutions, tiredness from the traditional and not changing worker's environment, including information and emotional impressions.

Special culture is established in the pearlescent enterprises – culture of "pearlescence" of the worker's impressions, capable to save the worker from emotional tiredness and provide elements of a new interest. In the environment of digitalization's expanding and deepening, pearlescent culture may be created including at the expense of active application of the virtual and augmented reality capable to unrecognizably change and individualize the conditions of working life.

The following should be presented as the basic special features of the pearlescent enterprises:

– the enterprise's striving for acquisition of the proper corporate (inter-organization) citizenship status and harmonization of relations with counteragents in the economic and management fields;

– active application of the inclusiveness principles, when the maximum number of internal and external interested parties having the necessary level of intelligence and strategic thinking competence are invited to take part in development of suggestions, discussion and taking managerial decisions;

– systemic continuous inter-penetration of official and informal organizational structures and institutions at the enterprise;

– employment of the personalized management principles, i.e., personnel management with obligatory taking the individual features of every employee into account, their intelligent, cognitive, creative and emotional special features;

– implementation of the full-featured intellectual management, i.e., regular management of the enterprise's and its divisions' intelligence: accumulation, storage, reproduction, augmentation of the enterprise's intellectual resources [Kuropatkina, 2023].

The implementation of the above said characteristics of the pearlescent enterprises is achieved at the expense of the special arrangement of management combining the administrative and managerial official hierarchy with informal hierarchy based on taking into account the professional level and respect by colleagues as well as the important role of such informal

social figures as the intellectual leader, cultural leader, spiritual leader and inspirational leader [Kleiner, 2022]. The dynamic synthesis of the inter-organization hierarchical subordination and flexible form of management based on social leadership allows to maximally intensify and consolidate creative abilities of the employees of the enterprise. The barriers between divisions are considerably reduced at the pearlescent enterprises, transfer of workers from one division to another is simplified, because of that the internal landscape of the organization changes. The enterprise appears before the worker not as a monolith capable to inevitably press the worker but as a complex multi-component "live" structure providing every participant with a maximally interesting creative labor activity and an opportunity for continuous development.

The inner humanistic culture of the pearlescent enterprises in NIS.2 should be supplemented by the special culture of the enterprises' relations with the external environment, first of all, with counteragents – suppliers of raw materials, materials, component parts, technologies, information, knowledge, etc. and consumers of products or services as well as the worked out at the enterprises cultural patterns, knowledge, institutions and decisions taken in various situations. It is evident from the above list that the interactions of the enterprise and its counteragents are fairly various and are not limited to commercial inquiries. In order to use the potential of the pearlescent enterprises, it is required to establish pearlescent culture of the company's external ties. This culture should meet the requirements for flexibility, humanitarianism, adaptability and strategic thinking.

We suggest to use the *Agile* principle [Venkatesh, Rakhra, 2020] to arrange the relations of the pearlescent enterprises with the external environment. The application of the Agile culture allows to reduce the "height" and increase the information penetrability of the barriers separating the enterprise from its counteragents. This communication technology provides for practically uninterrupted communications of the enterprise with the counteragent, including mutual participation in working out operation and development strategies; timely exchange of teams formed at the enterprises-clients and enterprises-executors for closer integration and interaction.

Currently, the Agile principles are actively used by numerous enterprises operating in the sector of information and communication technologies [Lozgacheva, Tabekina, Fedotova, 2019]. It is believed that the Agile technologies shortening the distance between counteragents allow to accelerate the creation of new products, prevent dissatisfaction of clients and suppliers' grudges. Currently, the flexible Agile technologies are widely used in project management, marketing, logistics, HR management, state management, etc. [Brusov, 2022].

The flexibility of the internal technologies combined with the flexibility of the external company communications will help to create the new in essence environment for production activities. The pearlescent "coloring" of the inner climate in the company will spread with the help of the Agile interactions to a considerable number of subjects from the area of this enterprise's economic activities.

The spreading of these technologies to a wide range of relations between economic agents as well as between economic agents and managing bodies will help to overcome the gaps in the inter-level, inter-sector and inter-regional structures of economy, prevent growing contradictions between the creative class and the precariat, increase the level of the Russian society's consolidation.

Conclusions

The mainstream of the contemporary society's evolution, viewed from the point of view of the scientific and technological progress, intellectualization of the economy, implementation of information and computer technologies and artificial intelligence, leads to the establishment of the new industrial society of the second generation and noonomy as a new economic pattern. Naturally, the implementation of such a trajectory requires passing a number of consecutive stages, encompassing macro-, meso-, micro- and nano-levels of social organization. In this case, the microeconomic transformation acquires special importance as social ties, production relations, creative abilities, intellectual potential and finally hopes and ideals of the society are integrated exactly at enterprises. Actually, the enterprise is a whole economic system from the micro-level, in which labor, capital, natural resources and enterprising initiatives of people are combined. Freeing humans from the pressure of purely economic factors characteristic of developed noonomy also takes place at the enterprise.

The concept of "pearlescent enterprises" shows the goals and stages of the promising transformation of enterprises, required for building noonomy. The corps of pearlescent enterprises are capable not only to become a sphere but also a kind of a testing ground for dealing with complex socioeconomic issues in the establishment of noonomy in Russia.

The further research in this area will be focused on looking for institutions providing the expansion of the pearlescent enterprises sector, efficiency and sustainability of activities and interaction of enterprises, fully or partially referring to the pearlescent sector of economy.

References

Abankina T.V. (2022). Creative Economy in Russia: New Trends. *Journal of the New Economic Association*.Vol. 54. No. 2. Pp. 222-229. DOI: 10.31737/2221-2264-2022-54-2-13 (In Russ.).

Beck D., Larsen T., Solonin S., Viljoen R., Johns T. (2021). *Spiral Dynamics in Action: Humanity's Master Code*. M.: Alpina Publisher. 382 p. (In Russ.).

Bodrunov S.D. (2019). Noonomy: The Conceptual Basis of the New Development Paradigm. *Journal of the Ural State University of Economics*. Vol. 20. No 1. Pp. 5-12. DOI: 10.29141/2073-1019-2019-20-1-1 (In Russ.).

Bodrunov S.D. (2022). New Industrial Future for the Global World. *Economic Revival of Russia*. Vol. 72. No 2. Pp. 5-23. DOI: 10.37930/1990-9780-2022-2-72-5-23 (In Russ.).

Bodrunov S.D. (2023). Creative Activity as an Open Problem: Noonomy Approach as a Metatheory. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*. Vol. 2. No 1. Pp. 25-34. DOI: 10.37930/2782-618X-2023-2-1-25-34 (In Russ.).

Brusov A.S. (2022). "Agile": Opportunities and Perspectives of Application in Public Administration (Literature Review). *Public Administration Issues*. No 2. Pp. 134-158. DOI: 10.17323/1999-5431- 2022-0-2-134-158 (In Russ.).

Buzgalin A.V. (2021). Creative Revolution Transforms Market and Property Relations. *Economic Revival of Russia*. Vol. 67. No 1 (67). Pp. 109-115. DOI: 10.37930/1990-9780-2021-1-67-109-115(In Russ.).

Buzgalin A.V. (2022). Creative Person in the Economy of the Future. *Economic Revival of Russia*. Vol. 71. No 1. Pp. 48-57. DOI: 10.37930/1990-9780-2022-1-71-48-57 (In Russ.).

Glaziev S. Y. (2022). Noonomy as the Forming Linchpin for the New Technological and World Economic Order. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*. Vol. 1. No 1. Pp. 43-64. DOI: 10.37930/2782-618X-2022-1-1-43-64 (In Russ.).

Iskakov M.R. (2023). Creative Economy: Essence and Development Trends. *Economics and Management: Scientific and Practical Journal*. No 3. Pp. 28-31. DOI: 10.34773/EU.2023.3.5 (In Russ.).

Kleiner G.B. (2020). Spiral Dynamics, System Cycles and New Organizational Models: Pearlescent Enterprises. *Russian Management Journal*. Vol. 18. No. 4. Pp. 471-496. DOI: 10.21638/spbu18.2020.401 (In Russ.).

Kleiner G.B. (2021). *System Economics: Steps of Development*. Moscow: Nauchnaya biblioteka Publ.746 p. (In Russ.).

Kleiner G.B. (2022). Social Leadership, Power Splitting, and Inclusive Management of the Organization. *The Questions of Economics*. No 4. Pp. 26-44. DOI: 10.32609/0042-8736-2022-4-26-44 (In Russ.).

Kuznetsova N.V. (2022). A New Paradigm of Modernity – The Creative Economy. *Pacific RIM: Economics, Politics, Law*. Vol. 24 No 1. Pp. 15-37. DOI: 10.24866/1813-3274/2022-1/15-37 (In Russ.).

Kuzmina L. A. (2021). Changes in the content of labour and employment under the influence of the new technological structure. *Eurasian Union of Scientists*. Vol. 6. No 1(82). Pp. 32-38. DOI: 10.31618/ESU.2413-9335.2021.6.82.1242 (In Russ.).

Kuropatkina L.V. (2023). New Forms of Production Organization: Pearl Companies. *Russian Journal of Economics and Law*. Vol. 17. No 1. Pp. 23-34. DOI: 10.21202/2782-2923.2023.1.23-34 (In Russ.).

Lozgacheva T.M., Tabekina O.A., Fedotova O.V. (2019). "Agile" and Scientific Organization of Labor: The Practice of Using Flexible Methods in Russia. *Scientific notes of the V.I. Vernadsky Crimean Federal University. Economics and Management*. No 2. Pp. 48-59 (In Russ.).

Lalu F. (2020). *Reinventing Organizations*. M.: Mann, Ivanov i Ferber Publ. 425 p. (In Russ.).

Pavlov M.Y. (2022). How to Measure Creative Activity? *Economic Revival of Russia*. Vol. 74. No. 4. Pp. 68-74. DOI: 10.37930/1990-9780-2022-4-74-68-74 (In Russ.).

Polterovich V.M. (2022). Competition, Collaboration, and Life Satisfaction. Part 2. The Fundament of Leadership – Collaborative Advantage. *Economic and Social Changes: Facts, Trends, Forecast*. Vol. 15. No. 3. Pp. 42-57. DOI: 10.15838/esc.2022.3.81.2 (In Russ.).

Tereshkina N.E. (2020). VI Technological Paradigm: Has the World Transition Already Completed? In: *New Reality: Economics, Management, Social Communications*. Novosibirsk: Novosibirsk State Pedagogical University. Pp. 139-145 (In Russ.).

Florida R. (2016). *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life*. M.: Mann, Ivanov i Ferber Publ. 384 p. (In Russ.).

Khlyshcheva E.V. (2022). The Creative Class as a New Modern Elite: on the Question of Concepts. *Issues in Elitology*. Vol. 3. No 1. Pp. 39-50. DOI: 10.46539/elit.v3i1.93 (In Russ.).

Venkatesh D., Rakhra M. (2020). Agile Adoption Issues in Large Scale Organizations: A Review. *Materials Today: Proceedings*. URL: DOI:10.1016/j.matpr.2020.11.308 (Access date 22.05.2023).

Information about the author

Lyudmila V. Kuropatkina
Lead Engineer at the Laboratory of Microeconomic Analysis and Modeling, Central Economic Mathematical Institute of the Russian Academy of Sciences (Moscow)
E-mail: 1eolus1@rambler.ru

DOI: 10.37930/2782-6465-2023-2-2-39-45

Gumar Kh. Batov
Institute of Informatics and Regional Management Problems Kabardino-Balkarian Scientific Center of the Russian Academy of Sciences (Nalchik, Russia)

THEORY OF NOONOMY IN THE SYSTEM OF REGIONAL DEVELOPMENT

Annotation: at present, society is faced with the choice of the vector of the direction of socio-economic development and methods of technological modernization of the foundations of the economy. The existing problems and contradictions of the modern social structure have become impossible to solve within the framework of the existing formational system.
On one hand, the need to choose new approaches is due to the fact that the current system, which is imputed to permanent crises, slows down progressive socio-economic shifts, and on the other hand, there is an aggravation of urgent problems that need to be addressed in the short term. Numerous publications offer various paradigms for solving these and other problems. Among them the most promising is the theory of noonomy, which contains the necessary prognostic potential for comprehending and understanding trends in both the near and distant future. These publications touch on the global or country level, leaving the regional aspect unaddressed. This study examines how elements of the theory of noonomy can be implemented at the regional level and whether it can act as a methodological and theoretical tool that allows the implementation of strategic projects for the development of the region. The possibility of using project management methods to implement aspects of the theory of noonomy is substantiated.
Keywords: region, noonomy theory, knowledge, technological paradigm, project management

For citation: Batov G. Kh. (2023) Theory of Noonomy in the System of Regional Development. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 2, pp. 39–45. DOI: 10.37930/2782-6465-2023-2-2-39-45

巴托夫 G. K.
俄罗斯科学院卡巴尔达-巴尔卡尔科学中心信息学与区域管理问题研究所（俄罗斯，纳尔奇克）

区域发展体系中的智慧经济学

摘要： 现阶段，社会面临着对社会经济发展方向和经济基础技术现代化方式的选择问题，现代社会制度现存的问题和矛盾在现有社会结构条件下是无法解决的。这种选择的必要性表现在：一方面，无法避免经济危机的现代社会结构正在阻碍社会经济的发展；另一方面，原有的需要短期内解决的矛盾正在加剧。在大量文章中提出了许多种解决这些问题的范式，其中智慧经济学最具前景，智慧经济学能够帮助我们认识和把握近期未来和远期未来发展方向。在这些文章中，讨论了全球层面和国家层面的这方面问题，而区域层面的问题未被涉及。本课题研究了如何在区域层面应用智慧经济学要素，

是否可以把智慧经济学作为区域发展项目管理的方法和理论工具，论证了将智慧经济学观点运用到项目管理上的可能性。

关键词：区域、智慧经济学、知识、技术体制、项目管理

引用注释：博德鲁诺夫S. D.（2003）区域发展体系中的智慧经济学//智慧经济与智慧社会. 维捷新兴工业发展研究所论文选.vol. 2, no. 2, pp. 39–45. DOI: 10.37930/2782-6465-2023-2-2-39-45

Introduction

The issues of choosing a paradigm for the development of society and the economy have always been difficult and controversial. In numerous publications by various experts – sociologists, futurists, economists, historians, there is a constant debate that modern development models have exhausted their possibilities or have reached the limit of their effectiveness [Buzgalin, Kolganov, 2009; Kondratyev, Krasnov, 2014]. The post-industrial model, which has been a guideline since the mid-19th century, has recently shown its futility [Shakhverdov, 2018]. Many countries are faced with the choice of how to ensure further development, how to create the sixth technological paradigm in the economy, what form of statehood to choose? These questions remain unanswered, but the scientific and expert community is in search and so far there is no clearly developed theory or concept that could become mainstream. In this regard, the theory of noonomy proposed by S.D. Bodrunov looks very promising [Bodrunov, 2021]. After introduction into the theory of noonomy, researchers interpret it differently. Some consider it a “new economy” or a “knowledge economy”, others – a “new society”, etc. It can be mentioned that even in the wording used by different researchers to present the theory of noonomy, they expand and interpret the essence of the theory one-sidedly and in a narrow sense. It seems that the basis of the theory of S.D. Bodrunov consists of three fundamental elements: noonomy; NIS.2; noosociety.

As S.D. Bodrunov notes, “noonomy is an orderly way of life, a way of satisfying wants in a society where there is the “light of reason” and there is no relation to production and production relations; there is no relation to property and ownership relations; there is no economy and economy is impossible. This is a non-economic way of satisfying noowants” [Bodrunov, 2019, p. 5]. The key categories in this definition, in our opinion, are “an orderly way of life”, “the light of reason” and “a non-economic way of satisfying noowants”. Regarding the noowants, S.D. Bodrunov clarifies, “noowants are not the equivalent of those needs that are mentioned in well-known Maslow’s hierarchy, “basic values”, etc. On the one hand, these are the wants that are formed in a person in the process of his development. But, on the other hand, while developing, expanding and growing, they must always be limited by those “noo”-principles of the formation of wants that culture dictates to a person as an internal sense of self. These wants act as self-limitation of simulative wants” [Bodrunov, 2019, p. 6].

Implementation of the principles laid down in the theory of noonomy will make it possible to create a new industrial society of the second generation (NIS.2), where physical and institutional conditions will be created for the transition to a noosociety.

According to S.D. Bodrunov, the following is required to implement the main provisions of NIS.2:

– formation and rapid development of knowledge-intensive production based on the integration of NBICS technologies; in particular, priority solution to the problems of reindustrialization on this basis and the reintegration of production, science and education;

– evolutionary transformation of ownership relations based on the development of institutions of co-ownership, sharing, etc.;

– solidarity and socialization aimed at the development of a society where equal starting socio-economic conditions are created for the development of each member of society and the unlocking of person's creative potential.

This system of objectives determines the system of tools for implementing the provisions of NIS.2, including:

– strategic planning and active industrial policy aimed at creating a new technological basis;

– support for economic forms of activity aimed at transforming ownership relations that go beyond the traditional relations and institutions of property appropriation, disposal and use;

– development of universal healthcare, education, culture in unity using mechanisms close to "universal basic income", etc. [Bodrunov, 2022a, pp. 40-41].

The main objective of NIS.2 is to produce a creative person. And as stated by S.D. Bodrunov, "if a creative person is formed, a cultural person who is aware of his true interests in conjunction with the actual interests of other individuals and society as a whole, a person acting within the possibilities of progress realized by him and the necessary restrictions – the path to noosociety and active formation of noonomy as its material basis will open" [Bodrunov, 2019, p. 8].

Factors required for the implementation of the theory of noonomy in the region

Russia includes regions that differ in both natural resource and socio-economic factors. To implement the provisions of the theory of noonomy, each of them must develop their own approach. It is hardly possible to consider all aspects of the theory of noonomy and the possibilities of implanting its elements into the regional system in one article, so we will consider several of them. The object of our study will be the North Caucasian Federal District (NCFD).

The theory of noonomy is characterized by comprehensiveness and consistency, and includes many factors and elements. In this case, we will consider several of the most significant factors that can have a significant impact on the formation of NIS.2 aspects in the region. They include: knowledge production and scientific potential of the district; technological paradigm and the formation of a common economic space; project management as a method of organizing the creation of NIS.2.

Implementation of the provisions of the theory of noonomy and the principles of NIS.2 largely depends on how new **knowledge** will be produced and used. In the new society, knowledge becomes the main productive force and is given a leading role in managing socio-economic development at the national and regional levels. Under the existing circumstances, knowledge is created by research institutes, universities, research units of large companies, and various research foundations. Production of knowledge is directly dependent on the efficiency of scientific activity and the speed of transformation of new knowledge into new products and technologies.

Whatever development model the society adheres to, knowledge will be the basis of progress in all areas of economic and social activity, which will be characteristic of noosociety as well. An important aspect that provides scientific activity is the number of personnel engaged in research and development. To compare this indicator by region or country, as a rule, the number of personnel engaged in research and development per 10 thousand persons employed in the economy is calculated.

In 2021, in the Russian Federation (RF), there were 93 researchers per 10 thousand people employed in the economy, which is 41 people more than in 2010. In the North Caucasian Federal District there were 17 researchers per 10 thousand employees. The difference in indicators is 5.5 times. From 2010 to 2021, the number of personnel engaged in research and development in the Russian Federation decreased by 73,838 people.

During the same period, there was a decrease in the number of graduate students, their number almost halved. This is an adverse trend and a clear-cut message that scientific potential is declining and will have negative consequences in the long term.

The development of science is hampered by organizational and financial factors. Consequences of the reorganization of the Russian Academy of Sciences are waiting in the wings and are not yet very noticeable, but the negative aspects regarding financing are clearly visible.

In 2021 in the Russian Federation, the funding was 10.7 rubles per 1000 rubles of GDP, which is 3.3 rubles less than in 2010, which is 76.4% of the baseline period. In 2021, in the gross regional product of the North Caucasian Federal District, internal costs for research and development amounted to 2.4 rubles per 1000 rubles of GRP, which is 25% less than the baseline indicator. Compared to the Russian average, they (costs) are 4.4 times less. It can be stated that science is funded residually in the North Caucasian Federal District.

It should be mentioned that the District has a certain potential, which is expressed by the number of issued patent applications for inventions and utility models per 100 people engaged in research and development. In terms of the number of patents issued for inventions and utility models, the North Caucasian Federal District is ahead of the Russian average, i. e. regional inventions and developments can contribute to development.

It is hard to escape a conclusion that in order to move on to the path of creating a noosociety, it is necessary to make major adjustments to the organization of scientific activity in the country.

The need to form a new technological paradigm

As noted by S.D. Bodrunov, the development of modern technological paradigms resulting in a significant increase in knowledge-intensity, creates the prerequisites for the formation of a new industrial society of the second generation (NIS.2), "in turn, NIS.2 forms the starting point for the transition to noonomy – a non-economic method of production activities that ensures the satisfaction of human wants based not on economic (essentially, according to Aristotle, chrematistic) criteria of rationality, but on the criteria of knowledge and culture" [Bodrunov, 2022b, p. 19]. The material basis of the new paradigm is a set of digital, information, bioengineering, cognitive, additive and nano-technologies that form the core of the new paradigm. With these technologies, unmanned, fully automated production facilities are created that manage limitless databases of artificial intelligence systems, transgenic microorganisms, plants and animals are produced, living beings are cloned and human tissue is regenerated [Glaziev, 2020].

Currently, the regions of Russia are characterized by the fact that each has its own level of technological paradigm and this could be the third, fourth or fifth paradigm [Batov et al., 2019; Ioda, Suleymanova, 2015]. In practice, there is a combination of these paradigms with the dominance of one of them.

It seems to us that the theory of noonomy by S.D. Bodrunov **can be implemented** if the regions of Russia are at the same technological level or have technological paradigms close to each other. Of course, this refers to the fifth and sixth technological paradigms. This statement is

proved by the fact that the main tools for interactions and cooperation between regions and business entities will be digital technologies, and production processes will be carried out with the participation of robotic, additive and other technologies that will function under the "guidance" of artificial intelligence.

Regions or companies that will be at different technological levels will not be able to fit into the general development trend, which will ultimately be a loss for both the economy and society. Avoiding such losses (not only in the economy, but also in the social sector) will become possible when the economic bases of the regions are built on technologies that can interact with each other and create conditions for non-economic production and non-economic consumption.

The principles of NIS.2 involve the development of institutions of co-ownership and sharing, which is possible if the identical technological paradigm of the regions allows the creation of a common economic space. Establishment of a common economic space will help reduce the level of diversity of regional economies and their differentiation according to the parameters of social and infrastructural security.

Common economic space will allow actors to reduce the level of ineffective behavior and create conditions for the transition to noonomy, the activity of which will be based "not on rationality, but on reason" [Bodrunov, 2019]. In addition, noonomy will eliminate the fundamental negative feature of the existing (market) model, which is inequality in the broadest sense of this word. There are no internal mechanisms in this model that would help eliminate this shortcoming. With the transition to noonomy, these and other extremes are removed.

Project management as a method of implementing the principles of NIS.2

Formation of NIS.2 requires its unique methods of management. Depending on the management problem that needs to be addressed, different approaches can be used. In our country, the most frequently used form of management is "Management by Objectives" approach which is used to address challenges of an economic, social, innovative, environmental nature and otherwise.

This study proposes the use of project management methods. The peculiarity of project management is that a goal is established that can be structured and have specific responsible persons, it describes how limited resources and time frames can be used. In most cases, project management is described as a tool that allows achieving the best results under conditions of limited resources and time.

The reference [Kotov, 2020] discusses various ways of using project management at various levels, regional and district. The range of methods for using project management is wide.

The use of project management should be preceded by an analysis of the project itself, its goals, means of achievement and what result will be obtained. As noted by N.I. Komkov, "the establishment of projects should be preceded by an analysis of the "bottlenecks" and problematic situations and challenges that impede development and were accumulated by managed objects by the time of consideration. We will consider a "bottleneck" to be something that can be eliminated through technological and/or organizational measures and that impedes the increase in the productivity of the potential of the managed object" [Komkov, 2020, p. 113].

The main benefits of using project management in the socio-economic development of regions include: less time to achieve the set goals; higher efficiency of using the limited resources available; development of public-private partnerships by strengthening interaction between regional authorities and the business community.

Conclusions

The modern economic development model based on neoclassical theory in the attributes of rationality and optimal behavior of economic entities, has shown its invalidity. In addition, the existing architecture of the economy demonstrates that the use of essentially incorrect and ineffective fundamental provisions continues. The need to move away from this concept is proved by the fact that in this concept the priority of economic development is an economic unit which must "behave" rationally and optimally, and pursue one goal – making a profit. It is possible to eliminate these shortcomings and move to a new development model by implementing the concept of creating a noosociety developed by S.D. Bodrunov.

References

Bodrunov S.D. (Ed.) (2021). *Anthology of Noonomy: Fourth Technological Revolution and Its Economic, Social and Humanitarian Consequences*. St. Petersburg: S. Y. Witte INID Publ. 388 p. (In Russ.)

Batov G.Kh., Kumysheva Z.Kh., Tlisov A.B., Shalova Sh.T. (2019). Technological Structures in the Concept of Advanced Development of the Macro-Region. *Proceedings of the Kabardino-Balkarian Scientific Center of the Russian Academy of Sciences*. No. 1. Vol. 87. Pp. 23-33. (In Russ.)

Bodrunov S.D. (2019). On the Issue of Noonomy. *Economic Revival of Russia*. No. 1. Vol. 59. Pp. 4-8. (In Russ.)

Bodrunov S.D. (2022a). Modern Technological Transition and Its Socio-Economic Consequences. *Economic Revival of Russia.* No. 2. Vol. 72. Pp. 35-43. DOI: 10.37930/1990-9780-2022-2-72-35-43. (In Russ.)

Bodrunov S.D. (2022b). Noonomy and Noosphere: Interrelation and Differences of Concepts. *Bulletin of the Institute of Economics of the Russian Academy of Sciences.* No. 1. Pp.7-31. DOI: 10.52180/2073-6487_2022_1_7_31. (In Russ.)

Buzgalin A.V., Kolganov A.I. (2009). *Capital Limits. Methodology and Ontology. Reactualization of Classical Philosophy and Political Economy*. M.: Kul'turnaya revolyutsiya Publ. 680 p. (In Russ.)

Glaziev S.Y. (2020). Noonomy as the Core of the Formation of New Technological and World Economic Structures. *Economic Revival of Russia.* No. 2. Vol. 64. Pp. 15-32. DOI: 10.37930/1990-9780-2020-2-64-15-32. (In Russ.)

Ioda Y.V., Suleimanova L.R-K. (2015). Influence of Technological Structures on the Innovative Development of Territories. *Socio-economic Phenomena and Processes.* Vol. 10. No. 6. Pp. 44-50. (In Russ.)

Komkov N.I. (2020). *Problems of Managing the Development of Large-Scale Socio-Economic Systems: Analysis, Experience, Methodological Foundations and Prospects*. Nauka Publ. 152 p. (In Russ.)

Kondratyev K.V., Krasnov A.S. (2014). «The End of Capitalism» and the Future of History: Prolegomena to Post-Capitalist Social Theory. *Scientific notes of Kazan University. Humanitarian Notes.* Vol. 156, Book 1. Pp.70-83. (In Russ.)

Kotov A.V. (2020). Project Management in the Implementation of Long-Term Interregional Initiatives. *Administrative Consulting.* No 8. Pp. 132-144. DOI: 10.22394/1726-1139-2020-8-132-144. (In Russ.)

Shakhverdov V.A. (2018). The Collapse of the Post-industrial Concept of the World Order. *Academic Journal of Western Siberia.* No. 2 (73). Vol. 14. Pp. 19-22. (In Russ.)

Information about the author

Gumar Kh. Batov
Leading researcher of the Institute of Informatics and Regional Management Problems – Branch of the Federal State Budgetary Scientific Institution "Federal Scientific Center" Kabardino-Balkarian Scientific Center of the Russian Academy of Sciences", (360004, Nalchik, I. 37 Armand str., 37a).
E-mail: gumarbatov@mail.ru

DOI: 10.37930/2782-6465-2023-2-2-46-53

Vladimir A. Plotnikov
St. Petersburg State University of Economics (St. Petersburg, Russia)
Olga A. Shamina
St. Petersburg State University of Industrial Technologies and Design (St. Petersburg, Russia)

STRATEGIC PRINT MEDIA MANAGEMENT MODEL: TRANSFORMATION UNDER THE INFLUENCE OF NEW CHALLENGES

Abstract: the fundamental and situational factors that determine the transformation of the strategic management model for modern organizations are examined in this paper. The study was conducted using print media as an example. The authors' model of print media strategic management is described, where a development strategy is presented as a set of three separate strategies: creating media content; content promotion and distribution; encouragement of content and services consumption. Areas where this model's improvement is possible are examined taking into account the specific features of print media and contemporary environment of socioeconomic development. It is also shown that the strategy should be adapted to the used media channels via which communication between print media and target audience is planned.
Keywords: management model, strategic management, print media, challenges and threats of the external environment.

For citation: Plotnikov V.A., Shamina O.A. (2023). Strategic print media management model: transformation under the influence of new challenges. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 2, pp. 46–53. DOI: 10.37930/2782-6465-2023-2-2-46-53

波洛特尼科夫 V.A.
国立圣彼得堡经济大学（俄罗斯，圣彼得堡）
沙米纳 O. A.
国立圣彼得堡工业技术与设计大学（俄罗斯，圣彼得堡）

纸质大众媒体的战略管理模式与新挑战下的转型

摘要：文章探讨了决定现代组织战略管理模式转变的基本因素和情境因素，以大众纸质媒体的出版组织为例进行了研究。文章描述了作者的纸质媒体战略管理模式，在这种模式里发展战略以三项特定的战略形式呈现：创造媒体内容、发行和推广内容、促进对内容和服务的消费。作者分析了，在纸质媒体的特殊性和现代社会经济发展条件影响下这一模式可能的改进方向。文章指出，这个战略应与媒体开展与目标受众的交流所使用的媒介渠道相适应。
关键词：管理模式、战略管理、纸质媒体、外部环境的压力和挑战。

引用注释: 波洛特尼科夫 V.A. 、沙米纳 O.A. (2023) 纸质大众媒体的战略管理模式与新挑战下的转型//智慧经济与智慧社会. 维捷新兴工业发展研究所论文选. vol. 2, no. 2, pp. 46–53. DOI: 10.37930/2782-6465-2023-2-2-46-53

Introduction

Notwithstanding numerous perturbations of the socioeconomic environment in recent years [Grishkov, 2022; Plotnikov, 2022; Rukinov, 2020; Tsekhomsky, 2022], with the Covid-19 pandemic (2020–2021) and unprecedented sanctions imposed by "the collective West" (2022–2023) being the most attention-getting and important for Russia, the long-term trends of civilization development did not disappear and are still preserving their importance. One of such trends is the transformation of the socioeconomic system in the direction of: "new industrial society – new industrial society of the second generation – noonomy" [Bodrunov, 2018]. It is also reasonable to think that the above mentioned and other manifestations of the socioeconomic environment's turbulence are situational, current manifestations of this civilizational global transformation.

In this environment, the importance of strategic management changes [Vertakova, 2017; Volkova, Gorshkova, 2015; Nazarov, 2022]. The economic systems of various scales are becoming more and more dependent on the quality of strategy planning [Kvint, Bodrunov, 2021], efficiency of long-term risk management [Ivanova, Dzen, Borkova, 2022; Kotlyarov, 2012; Krekotnev, Kurbanov, Pakhomov, 2014; Plotnikov, Seregin, 2011]. And that refers not only to the mode of reacting to them but also the mode of prevention focused on the existing threats not becoming risks. There is no doubt that this requires efficient strategic management models.

The said models vary considerably in various sectors as certain special features and key factors determining the success of development of organizations engaged in certain kinds of economic activities should be taken into account. In particular, the subject of our interest and research is organizations publishing print media. In the opinion of the authors, the attention paid to them in modern literature is not enough. It should be noted that in recent years print media have to deal with difficulties related to origination of a number of factors:

– first, the technological convergence of mass media as a result of which readers began shifting to digital content en masse as digital media are winning in the speed of information distribution;

– second, because the consumers' inquiries expanded, mass media today are performing not the traditional for them function of people informing but also the function of audience entertainment (to keep the audience and afterwards to attract advertisers) and because of that they compete with the entertainment industry;

– third, the sanction pressure imposed by unfriendly countries negatively affects functioning and development of Russian print media. There is reduction of incomes from advertising because big foreign advertisers are gone, insufficiency of imported materials, equipment and machinery (printing machines, software, printing ink, etc.).

Nevertheless, the number of print media readers is still big, and it even increased in 2022 – the number of newspaper readers increased by 18%, the number of magazine readers in the mass market segment increased even more – up to 65%. [1] It is necessary for print media to provide long-term competitiveness using their competitive advantages that will update the issues of

[1] The size of marketing communications market in 2022 URL: https://www.akarussia.ru/knowledge/market_ size/id10311 (date of access: 20.08.2023).

advancing the strategic management model (SMM) for print media. This research in which the authors engaged is dedicated to its examination.

Review of literature

In the past, the co-authors of this paper already researched similar issues. In particular, O.A. Shamina developed scientific and methodical fundamentals for SMM formation by small-sized enterprisers of the media industry, including print media [Shamina, 2022]. V.A. Plotnikov and his co-authors researched special features of strategic management organization for media enterprises in the environment of increased risks and threats to economic security at various levels of domestic economy provoked by the sanction clash of Russia and "the collective West" [Plotnikov, Shamina, Sharapova, 2022; Plotnikov, Shamina, 2022].

K.I. Bikineeva-Tyulebaeva found out the main differences between media management and management as such in her research [Bikineeva-Tyulebaeva, 2021]. D.A. Pletnev with his co-authors studied the factors of formation and implementation of company strategies being of pressing concern in 2022. They focused on sanctions as a tool of economic policy penetrating all levels of economy, ESG-agenda of modern companies, digitalization, cancel culture as applied to companies, new channels of product promotion, Vision Zero and participatory culture [Pletnev et al, 2022].

I.Y. Ruvenny dedicated his research to strategic management in digital economy. It is underlined in his paper that Russian managers are reluctant to use the tools and methods of strategic management striving for short-term profits. He also emphasizes the problems of goal setting and poor use of modern digital technologies. This scientist suggests using digital technologies to solve strategic management tasks [Ruvenny, 2022].

A.V. Khmelev assessed the economic feasibility of complete transition to virtual existence of modern print media and came to the conclusion that such a complete transition in the today's environment can hardly be called justified from the economic point of view [Khmelev, 2022]. There are also other research works and developments on the reviewed by us issues.

At the same time, currently, we have an insufficient number of research works dedicated to modeling of strategic print media management processes. Mass media perform important functions in the economy and the society, and they should be implemented efficiently and sustainably notwithstanding the negative factors and change of the sector and inter-sector competitiveness' configuration. Because of that advancement of the strategic print media management model is an important practical task that has not been solved in the available for us literature. This requires additional theoretical research.

Materials and methods

The following was used by the authors to carry out the research: federal laws of the Russian Federation, official data of regional statistic authorities, research and other materials published in print periodicals, monographs, theses, on the Internet as well as materials collected by the authors of the research in the course of the preliminary analysis of the reviewed issues, including from their personal experience of employment in editorial offices of print media.

In the course of the research, the following general scientific methods of learning were used, namely abstraction, generalization, comparison, analysis, synthesis, logical modeling, etc.

Results of research

The goal of the development of SMM for print media is to formalize and unify the strategic management processes in the said organizations for them to oppose the arising challenges more efficiently and to develop sustainably even in the unstable, high-risk and turbulent environment. As it is traditionally done in strategic management, it is first of all required to word the mission of print media, the basis of which is determination of the strategic goals.

The special features originate at the state of the strategy development as such, with its essence having special for the sector features. This strategy includes three main inter-connected elements (special strategies): creating media content; this content's promotion and distribution; encouragement of content and related services consumption. Let's review the said special strategies in more details.

1. The special strategy of media content creation includes several blocks. The first is focused on the strategic content analysis of print media, research of organizational procedures as well as the system of incentives for employees. The second block is related to goal setting and selection (wording) of the key efficiency indicators characterizing the level of strategic goals' achievement. The plan of measures required for the achievement of the strategic goals is worked out as a part of the third block. The fourth block includes calculation of the available resources for the strategy and their primary (planned) distribution.

2. The special strategy of print media content's promotion and distribution is similarly composed but it is focused not on production but promotion of the print media product. The ways and means of the content's distribution and promotion are analyzed in the first block of this special strategy as well as the system of employees' motivation for distribution and promotion. The goals and tasks of the second block are grouped in three main fields: sales, public relations, advertising. The third and fourth blocks of the reviewed special strategy are related to planning measures and their provision with resources as in the previous case.

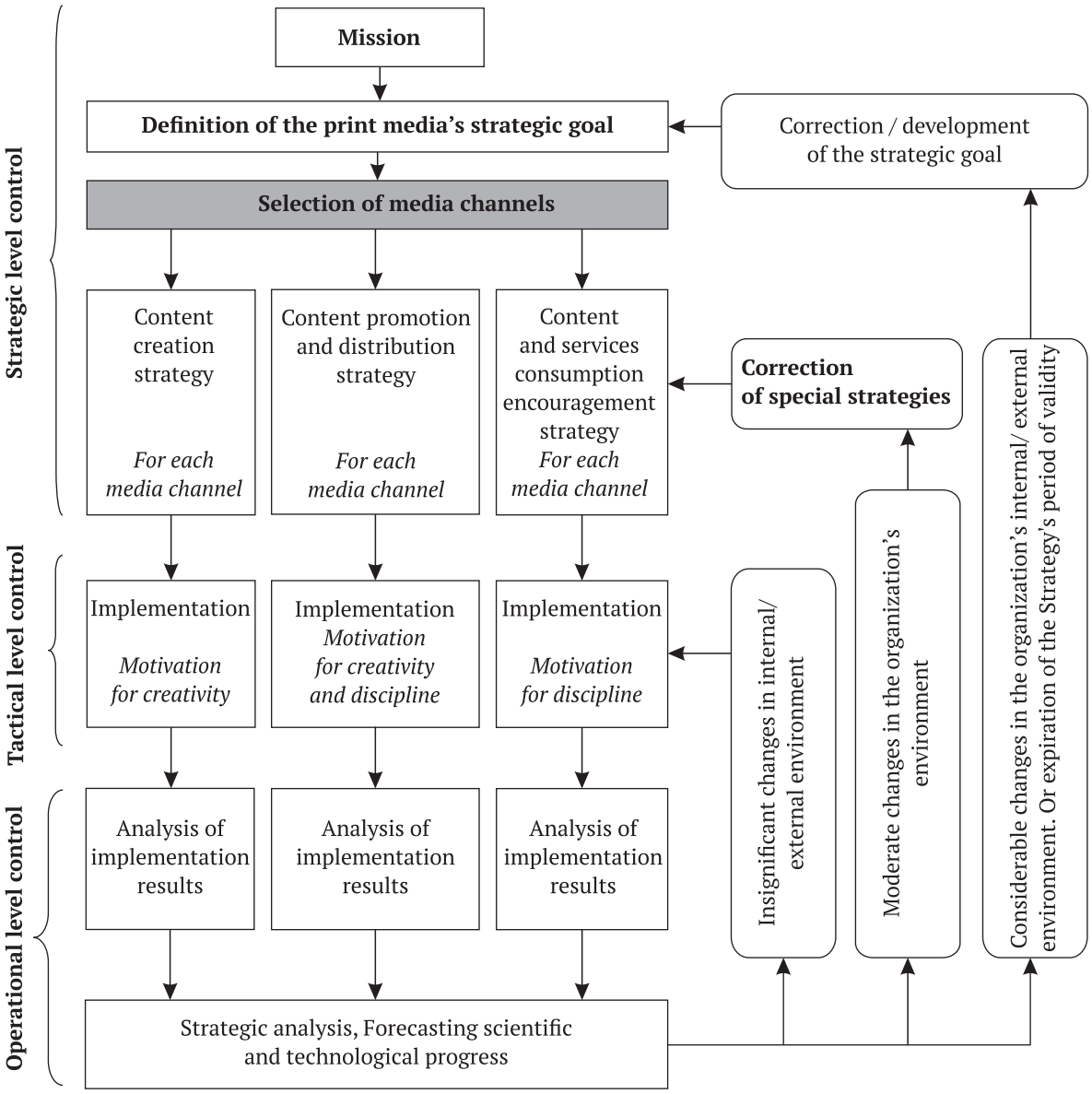
3. The special strategy of encouragement of content and related services consumption is in essence intended for formation and flexible maintaining of feedback of the print media and target markets. This strategy's structure is similar to the reviewed above, working with complaints, offers, comments, etc. is organized as a part of this strategy. They may come from readers, advertisers, partners, state and municipal authorities, etc.

After development of the strategy as a part of the SMM for print media, all special strategies and their measures are implemented. At the same time, special attention should be paid to the creative component besides the traditional control measures for the stage of implementation of organizations' strategies. The employees of print media are engaged in creative activities to a large extent, because of that it is required to motivate them for creativity not only by payments but to a large extent via the tools of nonmaterial incentives.

We singled out the process "Strategic analysis, forecasting scientific and technological process" (STP) in a separate block in SMM for print media. This is not just a tribute to the general trend of the socioeconomic system's technologization, to which we drew attention in the introduction to this paper but it is also brought about by the specific features of the industry. The media industry as a whole and print media in particular are very dependent on STP, including development of social, cognitive, information and communication technologies.

The general structure of the suggested strategic print media management model is presented in the diagram below. At the same time, it should be noted that this model is not static, it should

regularly change and be corrected in accordance with new, permanently originating requirements and limitations. In particular, they are related to implementation of the convergence measures, within which print media gradually "drift" into the virtual environment.



Block diagram of strategic print media management model[1]

Currently, as a rule, each print media has its website, accounts in social networks, messengers, photo hostings, some also have their mobile apps, etc. The analysis shows that information is very often just duplicated in all the media channels (i.e. official representations of print media on the Internet). There are no principal differences in the content placed in various media.

On the one hand, it has its benefits: money is saved when the content is developed and the editorial policy stays unified. The consumer can get practically the same information from Telegram, VKontakte, etc., on the website and in the printed version. But on the other hand, all media

[1] The block diagram was developed by Olga A. Shamina.

platforms have their special features. And such a universal approach does not allow to take them into account.

Thus, for example, the main users of the VKontakte are young people who are 25–35 years old, they were students when this social network originated and became popular, and they are used to it. They are mostly visuals who like selections and compilations, photo stories, infographics. They value the use of visual aids and methods, visualization of the main theses even in a strictly text content. In contrast to, for example, Odnoklassniki (Classmates) who were more focused on personal communications, the VKontakte users actively read the news feed and consequently, the frequency, the posting amounts, data visualization are important1. And these aspects should be taken into account in the content that is required to adapt for the channel via which it is distributed.

Consequently, it is required to differentiate the content-policy of each media channel. There is no doubt that the main one is the print media as such (a newspaper, a magazine). Auxiliary media channels of print media on the Web should attract additional audience, satisfying specific requirements, creating direct positive associations with print media.

Because of that, the model presented as the diagram has the "Selection of media channels" block. All individual strategies described above as a part of the print media general strategy should be developed as applied to each media channel. Sure, that will complicate the strategy planning processes but will make them more adequate and efficient.

Conclusion

The transformation of the media industry goes on under the impact of the scientific and technological progress, situational and fundamental trends of the socioeconomic development. And the said transformations, their content and orientation should be taken into account in print media strategies. To solve this difficult and complex task, the authors recommend to employ the developed and described in this article strategic print media management model.

References

Bikineeva-Tyulebaeva K.I. (2021). Main Differences of Media Management. *Global Science and Innovations: Central Asia*. Vol. 21. No. 12. Pp. 16-22. (In Russ.).

Bodrunov S.D. (2018). *Noonomy*. M.: Kul'turnaya revolyutsiya Publ. 432 p. (In Russ.).

Vertakova Y.V. (2017). Development of System of Indicative and Strategic Planning in Case of Implementation of the State Economic Policy at All Levels of Control. *Proceedings of the Southwest State University. Series: Economics, Sociology and Management*. Vol. 7. No. 4(25). Pp. 30–56. (In Russ.).

Volkova A.A., Gorshkova N.M. (2015). Peculiarities of the Functioning of Service Sector Companies: The Role of Strategic Planning in Organizing the Development of a Service Sector Enterprise. *Theory and Practice of Service: Economy, Social Sphere, Technology*. Vol. 23. No. 1. Pp. 80-83. (In Russ.).

Grishkov V.F. (2022). The Impact of Political and Economic Turbulence on the Economy of the Region (Based on Materials from the Leningrad Region). *Proceedings of the St. Petersburg State University of Economics*. Vol. 136. No. 4. Pp. 88-95. (In Russ.).

[1] Special features of the Vkontakte users. URL: https://www.demis.ru/articles/celevaya-auditoria-vkontakte/?utm_referrer=https%3A%2F%2Fwww.google.com%2F (date of access: 20.08.2023).

Ivanova A.A., Dzen M.N., Borkova E.A. (2022). Risk Management Outlook for Public Debt Management and Implications for Domestic Bond Markets Development. *Economy and Business: Theory and Practice*. Vol. 87. No. 5-2. Pp. 20-22. (In Russ.).

Kvint V.L., Bodrunov S.D. (2021). *Strategizing Societal Transformation: Knowledge, Technologies, and Noonomy*. Saint-Petersburg: S. Y. Witte INID. 351 p. (In Russ.).

Kotlyarov I.D. (2012). Taking Into Account Risk Reduction in the Assessment of Intellectual Property. *Issues of Risk Analysis*. Vol. 9. No. 1. Pp. 72-78. (In Russ.).

Krekotnev R.N., Kurbanov A.H., Pakhomov V.I. (2014). Risks of Public-Private Partnership in the Implementation of Projects for the Construction of Military Storage Infrastructure Facilities. *Scientific journal NRU ITMO. Series: Economics and Environmental Management*. No. 3. Pp. 256-266. (In Russ.).

Nazarov A.G. (2022). Problems of Quality Assurance of Strategic Planning of Industrial Enterprises. *Proceedings of the St. Petersburg State University of Economics*. Vol. 137. No. 5-2. Pp. 7-13. (In Russ.).

Pletnev D.A. et al. (2022). Factors of Formation and Implementation of Company Strategies in the Conditions of 2022. *Bulletin of Chelyabinsk State University*. Vol. 462. No. 4. Pp. 90-101. (In Russ.).

Plotnikov A.V. (2022). Modeling of Forms of Crisis Manifestation in the National Economy Under the Influence of Non-economic Shock (On the Example of Crises in Russia in 2020 and 2022). *Proceedings of St. Petersburg State University of Economics*. No. 5 (137), pp. 194-200. (In Russ.).

Plotnikov V.A., Seregin S.S. (2011). Management of Market Risks of Enterprises Based on the Use of Fuzzy Logic Methods. *Economics and Management*. Vol. 65. No. 3. Pp. 79-82. (In Russ.).

Plotnikov V.A., Shamina O.A., Sharapova O.A. (2022). Strategic Aspects of Personnel Management of Media Organizations in Modern Conditions, Taking into Account the Factor of Economic Security. *Economics and Management*. Vol. 28, no. 9, pp. 878-892. (In Russ.).

Ruvenny I.Y. (2022). Strategic Management in the Digital Economy. In: *Topical Issues of Economic Theory: Development and Application in Practice of Russian Transformations: Collection of Scientific Papers: Scientific Electronic Edition: Collection of Scientific Papers.* Ed. I.V. Degtyareva. Ufa: Ufa State Aviation Technical University Publ. Pp. 139-142. URL: https://www.ugatu.su/media/uploads/MainSite/Ob%20universitete/Izdateli/El_izd/2022-155.pdf (Access date: 28.08.2023). (In Russ.).

Rukinov M.V. (2020). Vectors of Technological Transformations and Prospects for the Safe Development of the Russian Economy in the Conditions of a New Technological Way. *Proceedings of the St. Petersburg State University of Economics*. Vol. 121. No. 1. Pp. 7-15. (In Russ.).

Khmelev A.V. (2022). Assessment of the Economic Feasibility of a Complete Transition to the Virtual Existence of Modern Print Media. *RSUH/RGGU BULLETIN. Series Economics. Management. Law*. No. 3. Pp. 64-74. (In Russ.).

Tsekhomsky N.V. (2022). Investment Support for Industrial Development Under Sanctions. *Theory and Practice of Service: Economy, Social Sphere, Technology*. Vol. 54. No. 4. Pp. 5-9. (In Russ.).

Shamina O.A. (2022). *Scientific and Methodological Foundations for the Formation of a Model of Strategic Management of Small Enterprises of the Media Industry*. Saint-Petersburg: Saint Petersburg State University of Industrial Technologies and Design Publ. 132 p. (In Russ.).

Plotnikov V.A., Shamina O.A. (2022). Personnel Risks of Media Organizations: An Approach from the Standpoint of the ESG Concept. In: *Finance, Economics, and Industry for Sustainable*

Development. NCSDESG 2022. Springer Proceedings in Business and Economics. Springer, Cham. Eds. A. Rumyantseva, H. Anyigba, E. Sintsova, N. Vasilenko. Pp. 271-281. URL: https://doi.org/10.1007/978-3-031-30498-9_24 (Access date: 28.08.2023).

Information about the authors

Vladimir A. Plotnikov
Professor of the Department of General Economic Theory and History of Economic Thought, St. Petersburg State University of Economics, Doctor of Economics, Professor (30-32, block A, Griboedov Canal Embankment, St. Petersburg, 191023, Russian Federation)
E-mail: plotnikov_2000@mail.ru
Olga A. Shamina
Senior Lecturer of the Department of Advertising, Higher School of Printing and Media Technologies, St. Petersburg State University of Industrial Technologies and Design, Ph. D. in Economics (18, Bolshaya Morskaya street, St. Petersburg, 191186, Russian Federation)
E-mail: shamina_oa@inbox.ru

DOI: 10.37930/2782-6465-2023-2-2-54-59

Igor N. Molchanov
Lomonosov Moscow State University (Moscow, Russia)

EDUCATION AND VOCATIONAL TRAINING AS A KEY VECTOR FOR FORMING HUMAN CAPITAL (NIS.2 AGE)

Abstract: the article reveals the issues of the functioning of human capital in the conditions of the emerging multipolar world based on materials reflecting the activities of the education sector in the EAEU countries. The scale of financing education and healthcare, the formation of a unified approach to organizing the work of the financial infrastructure are presented. Key indicators of the education sector, the features of the development of educational potential in the EAEU member countries are analyzed. Recommendations for improving the performance of the vocational education system, considering the growing interest of citizens from different regions of the world in obtaining vocational education in Russia, have been proposed.
Keywords: movement towards noonomy, integral association of countries, vocational training and professional development, educational potential of the populationn.

For citation: Molchanov I.N. (2023) Education and Vocational Training as a Key Vector for Forming Human Capital (NIS.2 age). *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 2, pp. 54–59. DOI: 10.37930/2782-6465-2023-2-2-54-59

莫尔恰诺夫I. N.
莫斯科大学（俄罗斯，莫斯科）

教育和培训是人力资本形成的关键因素(NIS.2时代)

摘要：以反映欧亚经济联盟成员国教育领域活动的资料为依据，文章揭示了多极世界形成过程中人力资本的作用问题。阐述了教育和卫生领域的投资规模、统一的金融基础设施运行规则的建立问题。分析了学历教育领域的关键指标，指出了欧亚经济联盟成员国教育潜力发展的特点。提出了在世界各地区民众对在俄罗斯获得职业教育兴趣提高的前提下改善职业教育系统活动的建议。
关键词：迈向智慧经济、多国一体化联合体、技能培训与提高、民众教育潜力

引用注释：莫尔恰诺夫I. N. (2023). 教育和培训是人力资本形成的关键因素(NIS.2时代)//智慧经济与智慧社会. 维捷新兴工业发展研究所论文选. vol. 2, no. 2, pp. 54–59. DOI: 10.37930/2782- 6465-2023-2-2-54-59

Modern geopolitical reality is characterized by a desire for multipolarity. The emergence of this phenomenon is reflective of a special historical transition period, essentially meaning «the beginning of the end of domination of capitalist Western countries» [Bodrunov, Desai, Freeman, 2022, p. 184].

In this context, Russia faces the main problem: «creating internal sources of economic development within a limited time period» [Khubiev, Tenyakov, 2022, p. 7]. Key vectors of Russia's transition to an updated socially oriented economic model include: achieving advanced rates of scientific and technological development, creating import-substituting industries, and establishing NIS.2 institutions. A systematic solution to these objectives is only possible with staffing support for the Russian economy which is transforming in the context of digitalization. However, this area has problems associated with the crisis state of human resources in science and education in different regions of the world.

Creation of a new conceptual vision of the Russian model of economic development actualizes the issues of studying the essential aspects of human capital and the role of university education in its formation. Features of human capital accumulation on the path to the NIS.2 economy are manifested in the process of objective aspirations of the population of different age groups to obtain education of a certain level and qualifications. In the composition of human potential as a fundamental scientific category, human capital takes center-stage position and is substantively related to intellectual capital and education, as the basic area of its formation.

Expansion of scientific knowledge is accompanied by the development of the categorical framework. Thus, the term «noointegration» arose, understood as «integration based on knowledge, common ultimate values (noovalues – eternal values, time-tested and forming the space of noonomy – and their core) and ethical and cultural principles, mutual understanding» [Arkhipova, 2023, p. 44].

Modern period in the functioning of the world economy is characterized by an increase in macroeconomic instability. The overcoming of this instability requires the maximum use of various abilities and components of human creative potential. In a human oriented environment, a person is considered as a multi-talented person, and labor has a creative nature. According to the conclusion of Doctor of Economics, Academician of the Russian Academy of Sciences S.D. Bodrunov, «even before the formation of nooproduction, creative activity that implements knowledge into new technologies actually changes the method of appropriation» [Bodrunov, 2019, p. 291].

Financial support for education and healthcare in the EAEU member countries. Human capital is characterized by indicators of the level of education and qualifications, life expectancy, and the health status of individuals. Financial basis for the formation of human capital in the EAEU countries is government spending on education and healthcare. The level of government spending (as a percentage of GDP) in the EAEU countries varies: on education – from 2.1% in Armenia to 6.1% in Kyrgyzstan; on healthcare – from 1.1% in Belarus to 3.9% in Russia (see Table 1).

Table 1

EAEU countries: government spending on education and healthcare in 2021, as a percentage of GDP

Indicators	Russia	Armenia	Belarus	Kazakhstan	Kyrgyzstan
Spending on education	3.6	2.1	4.5	4.4	6.1
Spending on healthcare	3.9	2.3	1.1	2.7	2.9

Notes: 1. For Russia – expenses of the consolidated budget of the Russian Federation and the budgets of public non-budgetary funds; for foreign countries – domestic government expenditures. 2. Adapted from: Russia and Countries of the World. Moscow: Rosstat, 2022. p. 143-144.

The current levels of government spending on education and healthcare in relation to GDP in the represented EAEU states are to a certain extent explained by differences in the composition of the revenue base of state budgets and the priorities of financing social sectors of the national economy of developing countries with market economies. Financial relations and possible areas of their development are the focus of interest for the supranational structures of this integration association [Molchanova, 2022a]. In accordance with the decisions made[1], measures are being taken to form the institutional structure of the EAEU common financial market.

Level of education of the population in the EAEU member countries. The EAEU countries are characterized by a high level of «population coverage with education»[2] in terms of its certain levels within the framework of ISCED 2011.[3] In Belarus and Kazakhstan, at levels 2-3 ISCED 2011 (secondary education), this figure exceeds 100 %[4]. The highest coverage of the population by level of education («primary», «secondary», «tertiary») is typical for Russia. This can be explained by the educational policy consistently pursued by the Russian state and the developed material and technical basis of educational institutions – secondary schools, colleges and universities (see Table 2).

Table 2

EAEU countries: population coverage with education (2020/21 academic year), in %

Indicators	Russia	Armenia	Belarus	Kazakhstan *	Kyrgyzstan
ISCED 2011 Level 1 (primary education)	99	91	94	100	99
ISCED 2011 Levels 2-3 (secondary education)	98	89	105	104	100
ISCED 2011 Levels 5-8 (tertiary education)	88	55	87	54	41
Number of students in tertiary (higher) education programs, 2020 (ISCED 2011 Levels 5-8), per 1000 population	41	37	41	59	48

Notes: 1. «*» – 2019/20 academic year 2. Adapted from: Russia and Countries of the World. Moscow: Rosstat, 2022. p. 151-154.

In Russia and Belarus, there is a high level of population coverage at the levels of tertiary (higher) vocational education (ISCED 2011 Levels 5-8). This confirms that vocational education institutions in these countries have significant personnel, scientific and technological potential. The results of activities of vocational education organizations are manifested in the scale of training of professionals for work in the sectors of the national economies of the EAEU member

[1] See: Resolution of the Supreme Eurasian Economic Council dated October 1, 2019 No. 20 «On the Concept of Forming a Common Financial Market of the Eurasian Economic Union» // Information and Legal System of Regulations of the Republic of Kazakhstan. URL: https://adilet.zan.kz/rus/docs/H19B0000020 (accessed on: 10.05.2023); Order of the Council of the Eurasian Economic Commission dated April 5, 2021 No. 4 (as amended on January 25, 2023) «On the Action Plan for the Implementation of the Strategic Growth Areas of Eurasian Economic Integration until 2025», clause 1.4 // ConsultantPlus. URL: http://www.consultant.ru/document/cons_ doc_LAW_384199/ (accessed on: 10.05.2023).

[2] Population coverage with education» is the share of the number of students at a certain level of education as a percentage of the total population at the age officially corresponding to this level.

[3] ISCED 2011 – International Standard Classification of Education.

[4] This is explained by the deviation of the actual age of students from the age officially corresponding to a given level of education.

countries – this is information on the number of students in tertiary (higher) education programs per 1000 population (see Table 2).

Priorities of the vocational education system in the EAEU member countries.

The priority areas for training professionals can be judged from information on the distribution of graduates from tertiary (higher) education institutions in Russia, Belarus and Kazakhstan by field of education (see Table 3).

The tertiary school of Russia has retained the teaching staff for the training of engineers and professionals to work in the basic sectors of the national economy, which is of utmost importance during the period of transformation of the sectoral structure of production and the accelerated increase in output of products that are in great demand in the national economy in the context of sanction restrictions on the import of goods and services from «unfriendly» countries.

Table 3

Russia, Belarus, Kazakhstan: distribution of graduates of educational institutions of the tertiary (higher) education system (ISCED 2011 Levels 5-8) by field of education (2020), in %

Field of education	Russia	Belarus	Kazakhstan
Humanities, Arts	4.4	5.2	4.2
Social Sciences, Journalism	11.4	3.4	2.1
Entrepreneurship and Law	27.4	33.0	20.2
Natural Sciences, Mathematics, Statistics, ICT	7.9	7.4	3.9
Engineering, Manufacturing, Construction, Agriculture	24.6	30.1	24.1
Education	8.3	9.8	25.1
Health and Social Security	7.6	6.8	11.9
Service Sector and other areas	8.4	4.3	8.5
Total:	100.0	100.0	100.0

Note: Adapted from: Russia and Countries of the World. Moscow: Rosstat, 2022. p. 155.

A priority role in disclosing the results of educational organizations in training professionals is given to the indicator «Number of students per 1000 population»,[1] which is calculated in per mille (see Table 4). Its value indicates the level of development of tertiary education in the country and indirectly characterizes the material, technical and personnel potential of the vocational education system.

Table 4

EAEU countries: number of students per 1000 population

Years	Russia	Armenia	Belarus	Kazakhstan	Kyrgyzstan
2010	65	50	65	68	57
2021	42	37	40	59	50

Note: Adapted from: Russian Statistical Yearbook. Moscow: Rosstat, 2022. P. 645.

[1] In Russia – students of vocational educational organizations studying in training programs for mid-level specialists, students of tertiary educational organizations, graduate students, since 2019 – including resident physicians and assistant trainees; for other EAEU countries – students in tertiary (higher) education programs (ISCED 2011 Levels 5-8).

The specific indicators of the number of students in the vocational education system of the EAEU member countries are quite high, despite their slight decrease during the 2010s, which was due to the transition to the Bologna Process of higher education (bachelor's + master's degrees) (see Table 4). In 2022, in the changed geopolitical environment, Russia announced the need for a new stage in the development of the system of vocational, and primarily tertiary, education. The transition to a multipolar world initiates the need to strengthen the fundamentality and other basic principles of training that have historically been inherent in domestic tertiary education. Specialist programs are receiving impetus for development; enrollment for these programs is significantly expanding due to the growing need for engineering personnel. A significant argument in favor of the decision taken is the potential accumulated by Russian tertiary education and the need for its more targeted use to prepare professionals for work in industry and other production sectors of the national economies of Russia and other EAEU member countries, as well as neighboring friendly states in the Eurasian space.

The demand for education at Russian universities by citizens from different regions of the world. A long-range objective for leading Russian universities is to develop strategies to attract citizens of foreign countries to study in Russia. Establishing quotas for the admission of foreign students is practiced. Admission plans of colleges and universities have a tendency to expand the training of citizens of foreign countries. This approach is in line with global practices and long-term development strategies developed by leading universities in different regions of the world, and corresponds to the internationalization of the learning environment and the increasing mobility of youth [Molchanova, 2022b]. The task of Russian tertiary education is to strengthen its influence and strengthen its position in the international educational space.

The goals of public administration and financial regulation are: creating the most favorable conditions for the life of all members of society; the most complete satisfaction of the various needs of students in obtaining education at the appropriate level and field (specialization) of education. This vector of transformations in the training and education of the younger generation poses new challenges for social factors in terms of the reproduction of human capital. Of particular relevance are the issues of implementation by all participants of economic relations of an educational policy that is coordinated and focused on long-term social needs. It becomes obvious that the evolution of the education sector, objectively associated with changes in both domestic and foreign policy conditions, is characterized by a combination of interests of the state, organizations and households, which reflects the diversity of globalization trends and economic development priorities in a multipolar world.

It is necessary to provide professional guidance to students, to create an incentive system and a set of moral and financial incentives for tertiary education teaching staff in order to bring the structure of personnel training in line with the dynamically changing demands of the labor market. It seems timely to develop an updated concept for the development of Russian tertiary education, and focus the creative efforts of academic staff, the entire professional community on the fundamental vectors of the formation and accumulation of human capital.

References

Arkhipova V.V. (2023). Integration Processes in the World Economy: A Nooapproach and Development of Eurasian Space. *Economic Revival of Russia*. Vol. 75. No. 1. Pp. 35-49. DOI: 10.37930/1990-9780-2023-1-75-35-49. (In Russ.).

Bodrunov S.D. (2019). *General Theory of Noonomy*. Moscow: Kulturnaya revolyutsiya Publ. 594 p. (In Russ.).

Bodrunov S.D., Desai R., Freeman A. (2022). *Beyond the Global Crisis: Noonomy, Creativity, Geopolitical Economy*. Saint Petersburg: S.Y. Witte INID Publ. 368 p. (In Russ.).

Molchanova N.P. (2022a). Regional Integration of the EAEU Countries: Financial Vector. In: *New Industrial Society of the Second Generation (NIS.2): Problems, Factors and Development Prospects in Modern Geo-Economic Reality. Proceedings of the VII St. Petersburg Economic Congress (SPEC-2022)*. Moscow: S. Y. Witte INID Publ. Pp. 539-547. (In Russ.).

Molchanova N.P. (2022b). Prospects for the Development of Cooperation Between Russia and Foreign Countries in the Field of Vocational Education. In: *Russia in the 21st Century: Education as an Important Civilizational Institution for the Development and Formation of Russian Cultural and Historical Identity. Proceedings of the XXX Moiseev Readings – Scientific and Practical Conference*. Moscow: Publishing House MNEPU Academy. Pp. 364-371. (In Russ.).

Khubiev K.A., Tenyakov I.M. (2022). On the Creation of Internal Sources of Economic Development. *Economic Revival of Russia*. Vol. 75. No. 1. Pp. 5-23. DOI: 10.37930/1990-9780-2023-1-75-5-23. (In Russ.).

Information about the author

Igor N. Molchanov

Doctor of Economics, Professor of the Department of Political Economy, Faculty of Economics, Lomonosov Moscow State University; Professor of the Department of Public Finance, Faculty of Finance of the Financial University under the Government of the Russian Federation (1 Kolmogorov ul., Moscow, 119991, Russia)

E-mail: molchanov@econ.msu.ru

DOI: 10.37930/2782-6465-2023-2-2-60-66

Zenfira R. Khabibullina
S.Y. Witte Institute for New Industrial Development (INID) (St. Petersburg, Russian Federation)

FROM A CREATIVE WORKER TO A NOONOMY HUMAN[1]

Abstract: the main provisions of the theory of noonomy and the new industrial society of the second generation (NIS.2) are presented in the paper. It is emphasized that the contours of a new technological space (noonomy in S.D. Bodrunov's terminology) will be achievable only in the course of progressive development of human creative qualities, where the human will be simultaneously personified as the starting point and the end result of global civilizational transformations. "Noonomy" and "the third industrial revolution" (J. Rifkin), and "the fourth industrial revolution" (K. Schwab) are compared in the form of a system of steps on the way of theoretical knowledge. It is substantiated that the qualitative changes occurring between the creative worker and the owner of capital in the modern production process can become a transitional stage to the formation of nooproduction in the future, and the intellectual creative function can be a guide to the construction of a qualitatively new model of social development.
Keywords: human, creative worker, knowledge, economic evolution, goal setting, nooproduction, technological transformation, socioeconomic system, noonomy, third industrial revolution, fourth industrial revolution.

For citation: Khabibullina Z.R. (2023). From a Creative Worker to a Noonomy Human. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 2, pp. 60–66. DOI: 10.37930/2782-6465-2023-2-2-60-66

哈比布林娜 Z. R.
维捷新兴工业发展研究所(俄罗斯,圣彼得堡)

从创新工作者到智慧型经济人

摘要:本文介绍了智慧经济学理论和第二代新型工业社会(NIS.2)理论的基本原则。文章强调,新的技术社会(博德鲁诺夫S. D.称之为»智慧经济学»)的轮廓只有在人类创造性素质快速发展的过程中才能实现,同时,人本身将体现为世界文明转型的起点和最终结果。文中把智慧经济学与 «第三次工业革命»(杰里米·里夫金)和 «第四次工业革命»(克劳思·施瓦布)进行了比较,将这些阶段视为理论认知过程的系统化步骤。作者论证了,在现代生产过程中,创新工作者与资本所有者之间发生的质变可能会成为过度到未来智慧型生产的过渡阶段,而智力的创造功能则是构建本质上新的社会发展模式的推动力量。

[1] This paper was previously published in the Bulletin of the Institute of Economics of the Russian Academy of Sciences (Khabibullina Z.R. From a creative worker to a noonomy human // Bulletin of the Institute of Economics of the Russian Academy of Sciences 2021 No. 2, pp. 97-106.). The purpose of the repeated publication is to familiarize the broader readership with the ideas contained in the paper.

关键词: 人、创新工作者、知识、经济演变、目标设定、智慧型生产、技术转型、社会经济体系、智慧经济学、第三次工业革命、第四次工业革命。

引用注释: 哈比布林娜 Z. R. (2023) 从创新工作者到智慧型经济人//智慧经济与智慧社会. 维捷新兴工业发展研究所论文选.vol. 2, no. 2, pp. 60–66. DOI: 10.37930/2782-6465-2023-2-2-60-66

The contemporary society and the world economic system are changing incessantly. These changes are so fleeting that when intruding in practically all sectors of public life, they qualitatively transform many phenomena and processes. The constantly increasing importance of knowledge (the so-called technological application of science in the production process) should be mentioned as one of the most noticeable and discussed changes of the recent decades. The systems of artificial intelligence, the Internet of Things, e-cottage, Industry 4.0, smart factories and other breakthrough solutions and projects are implemented under its impacts. Most definitely, the "chief culprit" of such changes – a human, to be more exact a human-creator – will not be able to stand aside and avoid the transforming fate.

The human, being a carrier of a highly intelligent creative component, starts reviewing not only the field of one's being but, which is much more important, considerably modifying oneself, determining one's new place, role and functions on the threshold of transition to a new milestone of the technological progress. To put it differently, the creative humans thanks to their intrinsic incentive launch the required and, one wants to believe, irreversible process of formation of new forms of inter-relations and their participation, the natural result of which should be the principally new version of social structure based on the principles of cooperation.

Such kind of transformation will require answers to numerous and rather difficult questions, to which the authoritative academic community still can't give unambiguous answers for a number of objective reasons. This is understandable because to forecast the future, the horizons of which are far from unambiguous both in the immediate and far-off future, and fairly misty, and the area of research controversial, means to risk when starting to think about the issues of further civilization development, the prerequisites of which are only originating now.

One of such researchers who seriously engages in theoretical and methodical substantiation of a qualitatively new model of material production that should develop beyond the laws of economic activities, is the President of the Free Economic Society of Russia, corresponding member of the Russian Academy of Sciences S.D. Bodrunov.

Professor S.D. Bodrunov covers a wide range of issues in his works, each of which requires careful and detailed analysis. Such issues as the following are in the field of the scientist's view: qualitative change of the character of production relations in the environment of growth of the knowledge importance and rapid development of innovative technologies; large-scale shifts in the structure of employment, naturally leading to gradual worker's withdrawal from direct participation in material production; production's transfer from the industrial via new industrial to nooindustrial method of management; withering away of hired labor and the property institution in future; philosophy of rational consumption and as a consequence forcing out simulative wants of the society by the high ones – noowants; priority of human creative potential development, etc.

This far from the full list of the researched by him issues (one can get acquainted with works by S.D. Bodrunov in more detail reading [Bodrunov, 2016; Bodrunov, 2018; Bodrunov, 2019; Bod-

runov, 2019, pp. 4-8; Bodrunov, 2020; Bodrunov, 2019], and the fairly recently published book *Noonomy. The Trajectory of Global Transformation* [Bodrunov, 2020] will become a real find for those who having no economic and social-philosophic background, would like to master the basic principles of the noonomic thought during a fairly short period of time) allows to say that the Russian economist continuously researches the model of a new type of the society with the Human in the center of it as a free creative individual.

Other public figures are also speaking about the necessity of critical reinterpretation of the established system of management of the economy. Thus, recently, the issue of inadequate reflection of the national wellbeing level by purely cost (market) evaluation has been widely discussed. It is the issue of GDP as a fairly "specific" (if we can call it that) macroeconomic indicator that fixes only the speed of economic growth but does not reflect the main thing – the level of social development. The "Achilles heel" of GDP is that it is in essence a solely quantitative (expressed in currency terms) index, not adjusted to calculating the qualitative parameters of the society's wellbeing (the total of social, ecological, humanitarian parameters of life activities).

Nowadays, the use of the GDP indicator is objectively criticized in many reports by the UN, WEF, OECD and others as well as in academic works. In particular, the Nobel Prize winners J. Stiglitz and A. Sen jointly with J.-P. Fitoussi point at the fact that in the contemporary environment, GDP is an inadequate indicator as a measure of wellbeing in time, especially its economic, social and environmental aspects [Stiglitz, Sen, Fitoussi, 2016, p. 46]. They are for transferring the attention from the system of indicators focused on production to the system with the wellbeing of the present and future generations in the center, i.e., wider measurement of the social progress [Stiglitz, Sen, Fitoussi, 2016, pp. 50-51], as achievement of the standard of a high quality of life. As it is not difficult to guess, the views of the Western experts coincide with the developed by S.D. Bodrunov provisions as to the main aspects.

It should be acknowledged that such a course of thought is timely and necessary. The gradual transfer of the society to the new, higher stage of technological development requires from humans a more conscious attitude to themselves, their activities, the environment, perception of the world. Such a trend in its turn naturally restructures not only the established character of economic activities and forms of management but will also require searching for new ways of achieving and weighing the really important things for the harmonious development of the society, making non-market (non-material) assessment criteria for social processes more important than market (material) criteria.

Jeremy Rifkin, the President of the Foundation on Economic Trends, theoretician of post-capitalism, sees the lines of the new model of social structure in building a new model of interaction, in which "survival is less about competition than cooperation, and less about the search for autonomy than the quest for embeddedness" [Rifkin, 2014, p. 268].

The scientist advocated the idea of the inevitable socialization of the economic system because of the increased importance of creativization of labor [Rifkin, 2014; Rifkin, 1996], which will surely require revision of many phenomena and processes. He is sure that entrepreneurship and cooperation will not be considered as opposing each other but will be reviewed as a directive for restructuring the economic, social and political life in the 21st century [Rifkin, 2014, p. 179].

The economist sees the concept of the future social structure in the definite change of the very model of market capitalism: human striving for continuous maximization of personal profits

should be replaced by the wish to work jointly to achieve socially important goals, wellbeing for all. In essence, he is speaking about formation of the principally new forms of social and labor relations and ties, in the result of which hired workers will leave the classical capitalist company and after that unite in self-managing cooperatives based on solidarity, co-participation and public control. Thus, the economic power and dependence should be replaced by the equality of opportunities, just distribution and ethics of debt.

The founder and the chairman of the World Economic Forum in Davos Klaus Schwab adheres to a similar position noting that the contemporary economic world "stands on the brink of a technological revolution that will fundamentally alter the way we live, work and relate to one another" [Schwab, 2016, p. 8]. The scientist is right to pay attention to a whole number of changes the contours of which are becoming more and more evident on the today's labor market [Schwab, 2016; Schwab, 2018], to wit: in the period of digital technologies and advanced science development, the highest demand is for highly educated and intelligent individuals, with the creative component being to a considerable extent predominant in their activities.

K. Schwab writes the following on the issue: "Shaping the fourth industrial revolution to ensure that it is empowering and *human-centered* [italics are added by Z. Khabibullina] rather than derisive and dehumanizing, is not a task for any single stakeholder or sector or any one region, industry or culture. The fundamental and global nature of this revolution means it will affect and be influenced by all countries, economics, sectors and people. It is, therefore, critical that we invest attention and energy in multistakeholder cooperation across academic, social, political, national and industry boundaries" [Schwab, 2016, pp. 9-10].

At the same time, one should note that K. Schwab (in contrast to J. Rifkin and S.D. Bodrunov) sees shaping of the new model of market relations predominantly in transformation of the economic system as such – in moving from classical "shareholder capitalism" to socially oriented "stakeholder capitalism". According to K. Schwab, making labor creative should help to alter the content of capitalist production relations (let us note in brackets – not their disappearance!). In this connection, we'd like to understand, does "stakeholder capitalism" promoted by K. Schwab mean some intermediary stage with a possibility for the social structure to transfer into non-capitalism, or is it interpreted by the researcher as nothing more than another variety of the capitalism system? The answer to this question is important because the place allotted for the carrier of creative labor in the process of activities – a human – will depend on that.

There is no definite answer to the question being of interest to us in the developed by K. Schwab theory of the "fourth industrial revolution". At least, we have not managed to find it in any definite form. It is evident that K. Schwab discusses possible variants of labor and capital interaction in a strictly economic format. In particular, he characterizes the objectively changing character of contemporary labor relations as "on-demand economy", in which the creative worker's potential (his competences, experience, goal setting) is actually taken into the global virtual space and starts functioning there. At the same time, the German economist warns that the effect of a creative worker's participation in the so-called "human cloud" cuts both ways.

On the one hand, there is an illusion of "the ideal combination of a lot of freedom, less stress and greater job satisfaction" [Schwab, 2016, p. 41]. On the other hand, he gives a warning of "silent offshoring" [Schwab, 2016, p. 41] – the world of precariat leading to pitiless drive to the depth of unregulated virtual hard labor [Schwab, 2016, p. 41], with complete deprivation of labor rights, social guarantees and rights to inviolability of rest time.

S.D. Bodrunov offers a slightly different scenario of human civilization development. The Russian economist sees the horizons of the society's transfer to a qualitatively new stage of the technological progress – the space of noonomy – in the inevitability of human's withdrawal from the production process as such, to be more exact, in human's elevation above the production process, the production system. He writes on the issue that the human "will no longer stay 'inside' it. Because the property relations are "inside" it, and there are none in the *noosociety*. On the other hand, there is participation in the production process by labor 'inside' it (when labor is an element of the production process!). And there will be no such participation either! A human will stay *outside this system* [italics are added by Z. Khabibullina]. The society will control this system but will not stay inside it" [Bodrunov, 2019, p. 7].

Professor S.D. Bodrunov develops the promising theory of "noonomy" revealing its content as "the *noneconomic* way of economy's organization for satisfaction of the requirements, carried out by a human who has gone beyond material production. To put it differently, noonomy is an economic system differing from economy by the *lack of human relations in the process of material production*" [Bodrunov, 2018, p. 171]. He concludes from that: "The gist of the noostage of civilization development is in the fact that not individuals enter into relations with each other in the process of material production but two different sectors of civilization construction enter into relations with each other – production (nooproduction coming to technosphere) and the human society" [Bodrunov, 2018, p. 171], forming the basis for "the 'elimination' of economic relations between people in technological adjustments of the self-acting production" [Bodrunov, 2018, p. 273].

Are we witnessing the movement in the direction of such relations' development today? We think that we do – there is movement in this direction. Let's examine it in more detail. We can witness movement to establishment of production relations that considerably differ in their form from the traditional methods of interaction already today in some sectors of activities (especially highly intellectual). The success and competitiveness of a modern company more and more often start depending on a new-type worker's potential, the worker for whom the uncertain future is not a restrictive factor as such professionals are starting to acquire a special privileged status on the labor market. Their position no longer "fits" in the classical relations of hired labor and capital.

The new employment forms (freelancing is not the only example) question the form of hired labor in future. Today, the creative human component has already been practically withdrawn from direct participation in the production chain at the fully automated high-tech production facilities, the professional's activity is limited by performing as an outside observer and regulator of the reproduction process. In this environment, the owner of capital more and more often prefers the strategy of parity relations when dealing with a creative worker. Partner relations in their turn develop the "technology of trust". However, though the relations between the participants are still regulated by market laws as before, purely economic regulating tools are beginning to be considerably supplemented (let's note in brackets – sometimes even being replaced) by noneconomic ones.

We are speaking about building the system of relations where values and motives not directly related to monetary rewards come to the forefront in case of creative workers [Buzgalin, 2017; Buzgalin, 2020]. Such phenomena as mass collaboration, sharing economy, open source, collaborative consumption, copyleft, gig economy, crowdsourcing, etc. can serve as illustrative examples. Thanks to them, the change of the system of incentives may turn out to be the reason of transformation of numerous economic sectors, and not only labor but ownership, cost, consumer as well.

Unregulated creative work, self-organization of activities, opportunities for self-development and self-awareness, flexible forms of management, etc. are the priorities. In a nutshell, sustainable phenomena threatening to unconditionally replace the driving forces of socioeconomic development at a certain moment, are maturing in the depth of real events taking place now. Aren't they the harbingers of the new world order being conceived? Aren't they the ones undermining the fundamentals of the economic system?

Currently, we are speaking not just about certain opinions on the issue. There is no doubt that the new quality of labor refers to a qualitatively new level of the individual factor of production development. In this connection, one can't fail to acknowledge that in the nearest historical period many aspects of life activities should undergo a large-scale restructuring. At least, there are already outlined preconditions for this process. At the same time, it's not possible to write off the fact that the market self-regulating mechanism is a fairly "tenacious system" that constantly adapts to changes in the environment and tries to use the main sources of development in its own interests (the creative worker is not an exception either).

On the other hand, it is required to understand that the Western economic model is not adequate for the originating conditions of the new times. Such a system simply can't react to many challenges of the contemporary times (economic crises, social protests, unemployment, social exclusion, economic inequality, COVID-19 pandemic). Exactly because of that more and more Western researchers stand up for the critical revision of the system-forming principles of market fundamentalism, justly criticizing the economic course of development. And exactly because of that capitalism in the developed countries has become socialized to a large extent.

Finally, we'll quote S.D. Bodrunov, his words that in our opinion objectively reflect the real state of the contemporary socioeconomic space as well as the time when "the mankind stands on the threshold of one of the most important road forks in history: either to turn to Homo sapiens, or to the dead end, into the technetronic society" [Bodrunov, 2018, p. 118], with all the negative consequences proceeding from this process.

In order to choose the right trajectory for its further development, the mankind should stick to the logic of civilization development pictured as a system of verified steps in transition processes, basing on the theoretical noonomic research. The author of this paper thinks that it is very important to underline exactly this aspect. Only deep and comprehensive progress in the development of human creative potential will make possible the transfer from the economic world to the world of noonomy as the highest historical form of strategic social development.

References

Bodrunov S.D. (2016). *The Coming New Industrial State: Reloaded*. St. Petersburg: S.Y. Witte INID. (In Russ).

Bodrunov S.D. (2018). *Noonomy*. M.: Kul'turnaya revolyutsiya Publ. 432 p. (In Russ.).

Bodrunov S.D. (2019). *General Theory of Noonomy*. M.: Kul'turnaya revolyutsiya Publ. (In Russ.).

Bodrunov S.D. (2019). On Noonomy. *Economic Revival of Russia*. No. 1. Pp. 4–8. (In Russ.).

Bodrunov S. D. (2020). *Noonomy: The Trajectory of Global Transformation*. St. Petersburg: S.Y. Witte INID. (In Russ.).

Buzgalin A.V. (2017). Creative Economy: Private Intellectual Property or Ownership by Everybody of Everything? *Sociological Studies*. No. 7. Pp. 43-53. (In Russ.).

Buzgalin A.V. (2017). Creative Economy: Why and How Private Intellectual Property Can Be Limited. *Sociological Studies*. No. 8. Pp. 20-31. (In Russ.).
Rifkin J. (2014). *The Third Industrial Revolution; How Lateral Power is Transforming Energy, the Economy, and the World*. M.: Alpina Non-Fiction Publ. (In Russ.).
Stiglitz J. E., Sen A., Fitoussi J.-P. (2016). *Mismeasuring Our Lives: Why GDP Doesn't Add Up: The Report*. Commission on the Measurement of Economic Performance and Social Progress. M.: Gaidar Institute for Economic Policy Publ. (In Russ.).
Schwab K. (2016). *The Fourth Industrial Revolution*. M.: Eksmo Publ. (In Russ.).
Schwab K., Davis N. (2018). *Shaping the Fourth Industrial Revolution*. M.: BOMBORA Publ. (In Russ.).
Bodrunov S.D. (2019). Prospects of Transitioning to a New Model for Socioeconomic System Organization (Noonomy). *Global Journal of Human-Social Science*. Vol. XIX. Is. XI. Vers. I. Pp. 1–9. [Electronic source]. URL: https://globaljournals.org/GJHSS_Volume19/1-Prospects-of-Transitioning-to-a-New.pdf. (Access date: 14. 07.2023).
Rifkin J. (1996). *The End of Work: The Decline of the Global Labor Force and the Dawn of the Post-Market Era*. NY: G.P. Putnam's Sons.

Information about the author

Zenfira R. Khabibullina
Senior Research Fellow of the S.Y. Witte Institute for New Industrial Development, Ph.D. in Economics (16, Bolshaya Monetnaya street, St. Petersburg, 197101)
E-mail: ruzen7@mail.ru

DOI: 10.37930/2782-6465-2023-2-2-67-76

Anatoly F. Mikhailov
Vladimir Malyavin's Center for Cultural Exchange and Education "Sredotochie" (Moscow, Russia)

CHINESE STRATAGEMIC THINKING AND ITS ORIGINS IN THE CULTURAL TRADITION OF CHINA

Abstract: the article presents an original view of the Chinese strategy of success and the meaning of the key 36th stratagem of the ancient Chinese canon. This understanding was revealed to the author of the first translation into Russian, Vladimir Malyavin after many years of studying the Chinese art of Tai Chi Chuan and is of fundamental importance for grasping the essence of the Chinese intuitive approach to building a successful strategy in life, when a person encounters different circumstances along the way. A true strategy is not a mental activity based on ancient book texts, but the cultivation of a special tuned state of integrity, centering and suspense, which allows a person to act intuitively in the only right way, not choosing, but following the potential of the situation, keeping calm in any circumstances, without fear of change and increasing periods of uncertainty.
Keywords: thinking, stratagem, strategy, theory of conscious human evolution, Russian cosmism, Panhuman, noohuman, noonomy, meritocracy.

For citation: Mikhailov A.F. (2023). Chinese Stratagemic Thinking and its Origins in the Cultural Tradition of China. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 2, pp. 67–76. DOI: 10.37930/2782-6465-2023-2-2-67-76

米哈伊洛夫 A. F.
弗拉基米尔-马利亚温"中心点"文化交流和教育中心

中国传统文化中的谋略思维及其起源

摘要： 文章阐述了关于中国人成功策略的独特观点和中国古代经典三十六计的意义。本文所述看法是该书第一个俄文版的译者在经过多年习练中国太极拳技艺后领悟到的，对理解中国人在生活道路上遇到各种情况时依靠直觉确立成功策略具有重要意义。真正的策略完全不是依靠经典文字指导的思索，而是培养特殊的中心化的整体性镇定状态，这使得人能够以直觉方式确定唯一正确的行动方案，即，不是选择，而是顺应事情发展趋势，在任何情况下保持冷静，而不担心情况变化和不明确性的增加。
关键词：思考、谋略、策略、人的认识进化论、俄罗斯宇宙无际观、完人、智慧人、智慧经济学、精英政治。

引用注释：米哈伊洛夫 A. F. (2023). 中国传统文化中的谋略思维及其起源//智慧经济与智慧社会. 维捷新兴工业发展研究所论文选. vol. 2, no. 2, pp. 67–76. DOI: 10.37930/2782-6465-2023-2-2-67-76

Anatoly F. Mikhailov

Foreword

This article does not claim to be scientific and rigorous, relying on carefully verified quotes from trusted sources. This is rather a review of real-life experience and an attempt to tell the scientific community about many years of observations that emerged as a result of communication with bearers of the Chinese cultural tradition, doctors of traditional Chinese medicine, martial artists and masters of health practices. Insufficient knowledge of the Chinese language did not prevent the author from perceiving information, as they say in China, "from heart to heart" – in an effort to get to the very essence of a deep cultural tradition based on an original vision of the world. This vision cannot be comprehended without practicing the Chinese systems of psychosomatic cultivation and the art of Tai Chi Chuan. Please do not judge harshly in case of possible inaccuracies in the quotes given and in the translation of some concepts, including the inability to sometimes cite the sources of the information – the lessons were often obtained in oral conversations with Chinese teachers and in accordance with their experience and traditions of the school.

In this short essay, the author tried to present seemingly disparate theses and episodes of research work, which can be perceived as marginal notes during a journey into the depths of Chinese wisdom.

Perhaps the most valuable contribution of Chinese civilization to the treasury of human experience over time will be the practical understanding of the "Great Limit – Tai Chi" in the process of conscious evolution – from homo sapiens to Noohuman [Bodrunov, 2020, p. 5, 6, 8, 10], to Panhuman – harmoniously developed and perfect, ready for the Great Unity.

Introduction

In modern society, much attention is paid to the study of Chinese stratagems and issues of strategizing, or strategic thinking, which allows one to retain the initiative and achieve success in military affairs, politics and diplomacy. The most famous treatise of an unknown author, "The 36 Stratagems", was rediscovered and published in China in 1941, although the first mention of it dates back to the 5th century. The first translation into Russian in 2000 was made by the famous sinologist, Professor V.V. Malyavin, having published the book "Thirty-Six Stratagems. Chinese Secrets of Success".[1]

Without any prejudice to the importance of the first 35 Chinese stratagems, in this article we will dwell on the characteristics of the last – the 36th stratagem and its role in people's lives.

Stratagems in Chinese culture

Natural stratagem of Chinese thinking is worthy of close attention and study for the adoption of this phenomenon by other peoples. It is an amazing phenomenon of traditional Chinese culture, incorporating the heritage of the great thinkers of the Celestial Empire. Such culture-bearers as Sun Tzu and Sun Bin had a special influence on the formation of this foundation. Natural stratagem should refer to an intuitive reading of the potential of the situation and a subconscious understanding of how to act in the only correct way in the current situation without mental reflexivity and previously accumulated knowledge and experience. In most cases, one has to observe and hear about rational stratagem, based on deep knowledge of tradition, literary sources and numerous interpretations. Of course, you can make a strategically correct

[1] Moscow, White Alfar Publ., 2000. 188 p.

decision, and it can be beneficial, but, most likely, one hundred percent hitting the target will not be achieved.

For a better understanding and "tuning" to the successful use of ancient Chinese thought by the modern reader, we will quote Vladimir Malyavin from the preface to the translation of the book "Guiguzi". He writes: "The key to the mystery of power in China lies not in the definitions of concepts or in some wise unfathomable books. It lies in complete clarity of consciousness, giving peace, serenity and impeccable balance, which, according to the author, "Guiguzi", corresponds to "the meanness and directness" – zhongzhen (中 正)" of all activities, emphasizing: "The future and the most distant is the measure of today (emphasis added – A. M.)".[1]

It is believed that the legacy of Sun Tzu, Sun Bin and the mysterious author of "Guiguzi" helps to build a successful strategy for dealing with a crisis, business and everyday life. Many books have been written about this. To successfully master stratagemical thinking, in their oral instructions Chinese masters sometimes advise viewing life itself as one big crisis with constant changes – periods of peace, growing uncertainty, and turmoil. In China they like to say: "The worse, the better", meaning the catharsis and the opportunity to remember the main things. At the same time, they recall the saying: "When everything is fine with a person, he will not raise his eyes to the sky". Similar sayings are found in the English language: "Don't have thy cloak to make when it begins to rain".

Chinese masters proceed from the fact that *there can be no stability at all*, there is only an alternation of cycles *with periods of relative calm*. And if you accept them as *inevitable*, then you can learn to follow the impulse and change in tune with the dynamic world. The famous phrase "May you live in interesting times", often attributed to Confucius, does not correspond to reality, because changes (interesting times) are constantly present in the world, as affirmed by the Chinese cultural tradition. Correct understanding: "May you live in an era of turmoil". Troubled times sometimes happen, and the support in them is not the reason, but the heart, and the connection with Heaven is important. They are, in fact, necessary for periodical disillusionment of people, awakening a sensitive waking state and restoring harmony with nature.

More than once I have heard how Chinese masters interpret Buddha's words about suffering in a non-standard way. Instead of the traditional statement of the fact that a person's entire life is suffering, they say that life is constant transformations, changes, and one can learn to follow them, changing in tune with the dynamics of the world, receiving joy and satisfaction from this, and also acquiring the ability to calmly perceive periods of growing uncertainty (turmoil), being balanced and peaceful in crisis situations.

It is not for nothing that in China, among the 36 stratagems, it is the last one that is distinguished, which is sometimes called "mother", and, as a rule, it is translated as "Retreat" or "Fleeing". Vladimir Malyavin also previously used these words when translating, but after many years of practicing Tai Chi, he came to the conclusion that this is *"Following"*, and in oral lectures he always talks about this, but this becomes clear only from bodily practice. Apparently, this means "following the Will of Heaven" first and foremost, which is a very important factor in the Chinese tradition. Here again we find a very important and deep intersection with the traditions of Russia and the Orthodox religion, where living according to the will of God is the holy duty of the disciples of Jesus Christ, as is directly stated in the famous "Lord's Prayer". Semyon Eryshev writes

[1] The Secret Canon of China. Guiguzi. 36 Stratagems. 100 Chapters of the Military Canon / comp., trans. and research by Vladimir Malyavin. Moscow, Ripol Classic Publ., 2016. 448 p.

about the similarity of the concepts of "the will of Heaven" and "the will of the Father in Heaven" in his dissertation [Eryshev, 2021], which he defended in 2021 at the Moscow Theological Academy (MTA) under the guidance of Professor Archimandrite Platon (Igumnov).

The peculiarity of the Chinese martial art Tai Chi Chuan is that "the soft conquers the hard". Using soft power requires special sensitivity, shifts in paradigm of thinking, and sophisticated training methods. As a result, a person consciously cultivates otherness in himself, traditional Chinese Gongfu (art), which allows him to feel confident in unpredictable life situations, calmly perceive uncertainty and follow changes, metamorphoses of life, feeling lightness in the body, a certain suspense and readiness to start moving at any moment in advance, while remaining calm. From a physiological point of view, the study of the Tai Chi Chuan phenomenon can make a significant contribution to the development of human science in the future.

In Taoist sources from Lao Tzu we find the following words: "Man models the Way of earth; Earth models the Way of heaven; Heaven models the Way of Tao; Tao models the Way of nature" [Tao te Ching, 2016, p. 16]. At the same time, they say that man and Heaven are on the same side…

"Following" stratagem in the daily life of the Chinese

In everyday life, it is recommended to follow the potential of a situation from a neutral position of non-involvement. This makes it possible to take adequate actions on a whim, intuitively – from a state of peace and a trusting attitude towards life.

It is worth paying special attention to this ability of the Chinese people, apparently inherited from their ancestors, to be fundamentally in a neutral, holistic state, which allows them to feel what is happening directly, without self-reflection, from an integrated perception by the entire human essence. This skill allows you to adequately read the potential of the situation and promptly provide the necessary reaction or remain calm. As for peace, I often heard the expression in China that peace at rest is not true peace, but remaining in peace in the market square is considered a true achievement, a sign of wisdom and mastery.

We can distinguish two levels of stratagem thinking in Chinese society: the everyday level and the elevated professional level, which is cultivated by martial artists, especially in Tai Chi Chuan.

Everyday level is manifested in the natural communicativeness of eastern society, where there are *no claims to personal boundaries*, and one unwritten rule applies – *give in*. This rule provides an initial strategic advantage and the opportunity to make the necessary strategic and tactical move in accordance with the current situation. A clear manifestation of this phenomenon can be seen in parks and the outskirts of large cities, where people relax after a working day, as well as on the provincial roads of the Celestial Empire.

In city parks and in rural areas, where outdoor areas for sports are provided everywhere, in the evening there are crowds of people who clearly do not want to sit at home alone watching TV, they need to spend their leisure time together. Many of them play board games, some just communicate with neighbors, but most groups engage in various types of physical activity – dancing, aerobics, Tai Chi and others. It must be emphasized that, in addition to the natural manifestation of collectivism, people take particular pleasure in moving synchronously, repeating the movements of the instructor, and the instructors are constantly changing from among the participants. This is reminiscent of a flock of birds, where the birds take turns changing roles, leading the formation behind them. While Western people tend to express themselves through dance, in the East they enjoy synchronously following the movements of the group leader and repeating his movements.

It is interesting to note that on roads in the provinces, far from big cities, at intersections there are usually no traffic lights or the yellow traffic light is flashing, and almost no one pays attention to road signs. From the outside, the movement looks absolutely spontaneous and resembles Brownian movement; it does not obey any laws. Somehow people act and behave like a flock of fish or birds, not colliding, but moving in the right direction for each member. It's amazing for Europeans to see something like this, and if you have to participate in such a movement, you'll need some kind of tuning, without which it's very difficult, if not almost impossible, to be in the midst of such traffic.

When the author himself had to take the wheel for the first time in the outback of Zhejiang province, he stopped after a kilometer and was unable to drive further due to countless different road users: cyclists, motorcyclists, rickshaws, cars, buses, trucks – they all moved chaotically.

After standing for a while, and tuning in, as the wushu masters taught, relaxing, the author calmed down, deconcentrated his attention, began to look at everything at once and nothing in particular, noticing changes that were significant for himself, and slowly began to move, trying to give way first, if possible, and drove forward, when they gave way to him. Gradually everything got better, but this altered state of consciousness seemed unusual to the author at first, but it was thanks to it that it became clear why the strategy of giving in and following is winning, practical, natural and effective.

To maintain this skill in modern Chinese society – thanks to Professor Bai Rong from the city of Jingzhong – an interesting game was invented about 30 years ago. He suggested using a soft rubber membrane and a soft, heavy ball filled with rice or other cereals instead of a stretched fishing line in rackets. The Chinese call this game rouliqiu – soft power ball or Tai Chi racket (柔力球). This is an interesting pairs game, but you can also practice alone. You don't need to hit a flying ball, but take it smoothly as it moves, changing its direction in the desired way – with minimal effort and due to rotation of the body and movement of the hands along a rounded trajectory. There is no competition in the game, on the contrary, people enjoy working in pairs according to the Tai Chi principle, mutually yielding to each other and following the emerging changes in the game. It is very interesting to watch the game, and when learning this art, many difficulties arise, especially at the beginning – it is necessary to radically change the strategy of behavior, the principles of movement and the philosophy of interaction.

In martial arts, these skills go up to a high degree of cultivation. They allow you to save life in conditions of extreme uncertainty, a real threat to life, for long periods of time, around the clock. To address such open maximalist problems, of course, a serious level of training and high qualifications of the instructor are required.

In the practices of Taoism and Buddhism, the state of a *contemplative* is consciously identified and formed – a witness of everything that happens in a person's mind, which allows one to observe the processes in the body, psyche (emotions, feelings) and thinking from the side. This state makes it possible to consciously adjust behavior patterns and observe the observer, which is considered a high-level achievement.

These skills fundamentally reveal a person's potential and require separate description and understanding.

It can be noted that it is the masters of China and Russia who reach such high levels of mastery in martial arts, demonstrating absolutely amazing, incomprehensible capabilities. But while in China this is backed by a powerful literary heritage and schools with ancient traditions, then in

Russia, thanks to the talent of Mikhail Ryabko and his "System", by some miracle there is a revival of a kind of genetic memory of our epic heroes, ancient strongmen who demonstrated miracles of dexterity and remarkable strength. "System is not a historical name. It is not a fighting style, not a school of traditional knowledge. "System" is a semantic definition of the modern perception of the Slavic Tradition, and, more specifically, the East Slavic one. "System" is an image, a symbol of revival of the Slavic fighting tradition, its awakening, its renewal" [Serebryansky, 2006].

The heroes of Russian fairy tales also had the ability to "Go I Know Not Whither and Fetch I Know Not What". This is also very similar to the Chinese sayings of the Taoists, who said: "The one who transforms the path is like a blind man walking without a staff" [Malyavin, 2014]. In general, at some depth, our traditions intersect in surprising ways or have a common source. But in China the origins have been preserved, and in Russia there is only genetic memory, which only sometimes manifests itself.

Comparison of the thinking characteristics of Western and Eastern people

The mind of people with Western worldview is characterized by *binary thinking*. It is characterized by behavioral patterns known in biology: "fight or flight" or, in extreme cases, "freeze", when numbness sets in, and the body cannot act. In principle, in the freezing phase, a transition to superconscious mental activity is possible, which we will discuss a little later. In China, you can often hear: "The wise man does not choose," i. e. does not constantly face a choice between good and evil, does not think about the situation. This expression implies that the wise follow the potential of the situation – intuitively, in the only correct way, without judging it, without pining labels. We know the position of Rene Descartes *"Cogito ergo sum"* – "I think; therefore, I am". In the East, constant mental activity is not at all an achievement, much less proof of existence. They would rather say: "I see or realize, therefore I am". However, the people of the East, apparently, did not need to explain this and emphasize this formula.

The attribute of a wise person is clearly characterized by another statement from the legacy of Lao Tzu, as written by Vladimir Malyavin in the preface to the book about Tai Chi: "A wise ruler unties all the knots before they get tied" [Malyavin, 2011, p. 10]. It convincingly demonstrates the quality of the psyche of a wise person, capable of foreseeing and anticipating current events and showing helpful, courteous behavior. Such qualities of "Noble Men" – junzi (君子) at their extreme strive to return the world to the original harmony, which, according to Chinese concepts, lies at the basis of the universe and is disrupted by the actions of "petty people" – xiaoren (小人), not worthy of respect, thinking only about themselves. It should be noted that the ancient Greeks, on the contrary, believed that the basis of the universe was primordial chaos, and not the harmony of existence.

When we observe the behavior of people of eastern civilizations, especially China, we can conclude that they are calmer, they do not have a constant need for active mental activity, they are basically in an intermediate – "suspended", neutral state, from which they give a response that is appropriate to the circumstances. Basically, they are in a situation of uncertainty, which gives them a strategic advantage and intuitive stratagem thinking. This is why Chinese representatives most often abstain when voting at international forums. They reserve the right not to make judgments on every occasion or issue, preferring to remain calm, not to take action.

These findings were confirmed by our Chinese colleagues when, during a visit to China by a delegation of the Free Economic Society (VES) of Russia (April 2023), one of Chinese participants

in the scientific conference, co-founder of the "Huawei" corporation Victor Xu, compared the work of brain of people in China with a computer operating in *ternary code*. He recalled that the world's first such computer was manufactured and put into operation at Moscow State University in the 1980s. Indeed, in the process of practicing the martial art of Tai Chi and solving open problems in unpredictable circumstances, the brain feels like it chooses a neutral position of uncertainty, from which it calmly observes what is happening in a state of deconcentration of attention, activating all senses to the maximum, and itself, being at rest, it emits "0" or "1" impulses, roughly, as necessary, depending on the potential of the situation, or remains inactive.

It should be noted that in Western society the specialty of an osteopathic doctor has existed for about 150 years. For this profession – for the purpose of successful diagnosis and treatment – it is especially important to learn neutrality. This is a special controlled state of consciousness, consisting of a feeling of the integrity of one's body at a moment in time and aimed at increasing openness to receiving information about the body of another person without self-reflection and analysis, which allows the doctor to:

– improve tactile capabilities;

– receive more reliable information about the patient;

– minimize the introduction of subjective conjectures into the assessment of the patient's condition;

– increase the sensitivity of all channels for obtaining information [Mokhov, Aptekar, Belash, 2020].

Doctors acquire this ability during 4-5 years of training in the specialty and use it during work, but not everyone can maintain a similar attitude in everyday life.

This experience has not yet been properly appreciated in Western society, although it can introduce important skills into people's lives – to read the potential of a situation in a timely manner. It should be emphasized that osteopathy in Russia is recognized by the scientific community; medical universities are already providing training in this new specialty [Potekhina, Tregubova, Mokhov, 2018].

Possibilities for developing and studying the neutral state

From the above, we can conclude that the ability to calmly perceive the constantly changing world and its potential uncertainty can be developed by a person, but among Western peoples this is naturally characteristic of only a few. Perhaps research in this area will lead people of the future to a higher quality of life by unlocking potential human resources and studying the properties of the human psyche.

Among the Russian studies on this topic, it is worth noting the "relativistic concept of superconscious mental activity". [Klyuev, 2000]. It was developed by Ph.D. A.V. Klyuev, who for many years headed the laboratory for studying the behavior of pilots in extreme situations at the Interstate Aviation Committee (IAC). Based on this concept, the role of the pilot in aircraft accidents was determined. Scientists have come to the conclusion that a person intuitively acts with impeccable accuracy when he is completely in the "here and now" state, in the so-called "vertical time" mode – time seems to stop or slow down. These conclusions were based on an analysis of about 300 aircraft accidents according to transcripts of black boxes and flight recorders. Here is what he writes in his work: "Manifestation of intuitive superconscious mental activity is possible only if *total vigilance of consciousness* is maintained, that is, if the individual is fully aware of the current

situation, which is possible only if active consciousness is *in real (absolute) time – "here and now"*. "Here and now" – in a state of rest means a complete absence of thoughts, since any thought causes "wandering" of the consciousness, as well as the absence of emotions of any kind that cause anxiety in the consciousness. "Here and now" – when performing any actions, means that the active consciousness is entirely in the process of these actions, but does not evaluate them in any way and does not anticipate the result (emphasis added – *A. M.)"* [Klyuev, 2000].

The studies carried out suggest that, in principle, a person can intuitively follow in accordance with all stratagems at the same time – when revealing and understanding the role of "Following", that is, the 36th stratagem.

These data serve as a guide for further reflection and research in the field of theory and practice of strategizing, and also indicate the area of development of human science in order to form a more complete integral picture of the world and the role of man in it. A huge role in combining scientific and religious worldviews was played by the brilliant Russian nuclear physicist I.N. Ostretsov, who wrote the book "Introduction to the Philosophy of Nonviolent Development", which was highly appreciated by Patriarch Alexis in 2001 and gained recognition from colleagues in the Russian Academy of Sciences. In particular, he concluded: "Thus, in its technological growth, humanity has come to a point of "singularity", a way out of which cannot be found by replicating standard classical approaches. Inside the next "matryoshka" there was a void, i. e. the same thing happened in the social and technological structure of society as in physics" [Ostretsov, 2023, p. 73].

For our part, we draw attention to our modest research in this frontier area of human capabilities and the interaction of the human mind and his consciousness. We are certain that if a laboratory for metaphysiological research (LMPR) is created, it will be possible to put our *theory of conscious human evolution and the proposed methodology to the test*. It is outlined on Vladimir Malyavin's website "Sredotochie"[1], in the description of the project to create such a laboratory (LMPR) at Moscow State University. Then the potential capabilities of the individual and the prospects for his development will become clearer.

Opportunities for the development of modern society

To address the problems facing an individual and humanity in general today, to find a way out of the semantic impasse of modern civilization, it is necessary to show a scientifically based path of *transition from homo sapiens to Noohuman – Panhuman*. It is described in detail by the outstanding Russian orientalist Tatyana Grigorieva: "...why "Panhuman"? This is the most pressing problem. They say: a smart man finds a way out of a difficult situation, but a wise man does not get into it. Is it because there is no wisdom without compassion? It is the mind of the heart, not the economy, that will save the world from crises. In the meantime, the best minds are looking for a way out of the crisis and cannot find it, forgetting that "man is the measure of all things", good and bad. For Taoists, man is the "soul of things", and if the soul is not in good order, then everyone, the whole world, suffers. And therefore, it's time to think about how the view of man, say, by Confucius and Aristotle, differs and why there has been such interest in Confucian and Buddhist ethics lately. I don't know if there is a more important question than the question of a person's purpose and whether he is fit for this purpose. Or he will hang around between Heaven and Earth, imagining that this is Freedom" [Grigorieva, 2011, p. 7].

[1] https://sredotochie.ru.

There is confidence that this other Panhuman will be able to trust over time and directly connect to a single source and receive the necessary knowledge from the Great Mind as from the "heavenly Internet". The philosophers of *Russian cosmism* Vladimir Solovyov and Nikolai Berdyaev thought about this at the beginning of the last century. Over time, people will be able to step over their limitations, convert hidden powers by climbing up the ladder of existence, solving the problems facing humanity along the way, and moving towards Great Harmony.

"In this way, the ideas of representatives of Russian cosmism about the Panhuman can be realized, and the plans of modern thinkers about implementing the ideals of *Noonomy* [Bodrunov, 2018] and the transition to a *new human-oriented world economic order*. This, in turn, can pave the way for the necessary and long overdue transition from democracy to the rule of worthy and wise people – *Meritocracy*.

It is worth paying special attention to the life orientations that, according to Confucian concepts, wise people in China should have. These are the five Constant Virtues ("wuchang") inherent in the original human nature "Xing": benevolence – "Ren", propriety – "Li", righteousness – "Yi", wisdom – "Zhi", trustworthiness – "Xin", which are originally inherent in human nature. A person, joining the culture of the ancients (wen), reveals these qualities in himself (emphasis supplied – *A.* M.)" [Grigorieva, 2011, pp. 22-23].

Conscious cultivation of such qualities in society for people choosing a career as leaders and aspiring to be vested with power is the key to the success and prosperity of future generations around the world.

Conclusion

Relying solely on the intellectual, mental activity of the human mind will not allow solving those open problems that urgently confront humanity today, and the theoretical study of ancient Chinese treatises on strategy will not help here.

A solution can only be found in a thorough study of the conditions of a person who is in the face of mortal danger, when the price of a mistake is life. An example of this is Chinese martial arts, where a person's condition allows him to maintain a calm mind and a relaxed body in the face of mortal danger, and at the same time intuitively act with impeccable accuracy in a state of complete uncertainty and without relying on accumulated knowledge. These abilities make it possible to save life and effectively solve unforeseen life problems, particularly in aviation.

The development of an algorithm for tuning the human psyche, which will allow one to act on a whim, but consciously and in the only correct way, without choice, but preserving life, will reveal the potential capabilities of a person, thanks to which the path will open to the conscious human evolution and the transition from a reasonable person to a feeling and harmoniously developed person, capable of restoring the balance of spiritual and physical forms of life.

It is impossible to "run away" from change and uncertainty, since this is the inevitability of the world order. But we can learn to follow them and change in lockstep with the constant changes in the world. To do this, it is necessary to take the human science to a new level, to study man as a single whole – a connecting link between the spiritual and the material, forming, as we study, an adequate integral picture of the world, which in itself will become the answer to the questions "Who are we, why are we, and why is everything happening this way?"

References

Bodrunov S.D. (2018). *Noonomy.* M.: Kulturnaya revolyutsiya Publ. 432 p. (In Russ.).
Bodrunov S.D. (2020). Socialization: A Thorny Path Towards Noonomy. *Economic Revival of Russia*. Vol. 66. No. 4. Pp. 5-12. (In Russ.).
Grigorieva T.P. (2011). *China, Russia and the Panhuman*. Moscow: Novyy Acropol Publ. 472 p. (In Russ.).
Tao Te Ching (2016). The Book of the Way and of Virtue. Moscow, AST Publ., 383 p.
Eryshev S. (2021). *Relationship Between the Concepts of "Heaven" and "Man" in the Early Religious Philosophy*. Moscow Theological Academy. 114 p. (In Russ.).
Klyuev A.V. (2000). Relativistic Concept of Superconscious Mental Activity. *Journal of Applied Psychology*, no. 5, pp. 9–16. (In Russ.).
Malyavin V.V. (2014). A Preserved Place and the Coming Universality. *Development and Economy*. No. 9. Pp. 26-47. URL: http://www.intelros.ru/pdf/Razvitie_i_ ekonomika/2014_9/4.pdf (Access date 20.06.2023). (In Russ.).
Malyavin V.V. (2011). *Tai Chi Chuan: Classical Texts, Principles, Mastery*. Moscow: Knorus Publ. 521 p. (In Russ.).
Mokhov D.E., Aptekar I.A., Belash V.O. (2020). Fundamentals of Osteopathy. Moscow: GEOTAR-Media Publ. 400 p. (In Russ.).
Ostretsov I. N. (2023). *Introduction to the Philosophy of Non-violent Development*. Moscow: Kontseptual. 364 p. (In Russ.).
Serebryansky Y.A. (2006). *Russian Martial Art "System"*. Minsk: Knizhnyy dom Publ. 256 p. (In Russ.).
Potekhina Y.P., Tregubova E.S., Mokhov D.E. (2018). Osteopathy Is a New Medical Specialty. Assessment of Clinical Effectiveness of Osteopathic Manipulative Therapy in Various Diseases. *Medical News of North Caucasus*. Vol. 13. No. 3. Pp. 560-565.

Information about the author

Anatoly F. Mikhailov
Executive director of the ANCO Vladimir Malyavin's Center for Cultural Exchange and Education "Sredotochie" (40/7 Myasnitskaya str., bld. 1, Moscow, 101000, Russia)
E-mail: daotravel@mail.ru

DOI: 10.37930/2782-6465-2023-2-2-77-82

Sergey D. Bodrunov
S.Y. Witte Institute for New Industrial Development (Saint Petersburg, Russia)

FROM "SURVEILLANCE CAPITALISM" TO THE NOOPARADIGM OF SOCIAL DEVELOPMENT. AFTERWORD TO THE BOOK *THE WORLD SITUATION AND THE CHINESE ECONOMY IN THE NEW ERA* BY CHENG ENFU

For citation: Bodrunov S. D. (2023). From "Surveillance Capitalism" to the Nooparadigm of Social Development. Afterword to the Book *The World Situation and the Chinese Economy in the New Era* by Cheng Enfu. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 2, pp. 77–82. DOI: 10.37930/2782-6465-2023-2-2-77-82

博德鲁诺夫S. D.
维捷新兴工业发展研究所(俄罗斯,圣彼得堡)

从 "监督资本主义"到社会发展的智慧范式。程恩富《新时代的世界形势与中国经济》一书后记。

引用注释:博德鲁诺夫S. D. (2003)从 "监督资本主义"到社会发展的智慧范式。程恩富《新时代的世界形势与中国经济》一书后记。.vol. 2, no. 2, pp. 77–82. DOI: 10.37930/2782-6465-2023-2-2-77-82

In recent years, the struggle between two paradigms of development has been intensifying in the world: 1) strengthening of the unipolar (and in many respects - forceful, based on "rules" and the requirement of widespread obedience to them) order established by the centers of financial capital by any means (information pressure, economic coercion, pseudo-democratic procedures of "democratic" "international" institutions controlled by these centers, value-psychological processing of public opinion, political manipulation, etc.); 2) transition to multipolarity within the framework of preservation and development of international law, consensus mechanism of decision-making, equality of participants of the world economic process on the basis of respect and real consideration of their interests, needs and values.

In this regard, a new book by the well-known Chinese scholar Cheng Enfu, Academician of the Chinese Academy of Social Sciences, Director of the Research Centre for Socio-Economic Development of the Chinese Academy of Social Sciences, and Chairman of the World Political Economy Association, is very interesting. For many years Professor Cheng Enfu has been consistently and actively studying the processes of economic development in different countries, including Russia (he is, incidentally, a member of the International Committee of the Free Economic Society of Russia). This allows him, a person with a broad outlook and deep understand-

ing of economic processes, to make important generalizations and put forward thoughtful and well-reasoned ideas.

Academician Cheng Enfu's work is well known in Russia. He has a long-standing scientific co-operation with the S.Y. Witte Institute for New Industrial Development (INID) (St. Petersburg) and the Free Economic Society of Russia. He participates in various scientific forums organized by the Voluntary Economic Society, the Moscow Academic Economic Forum, the S. Y. Witte INID, as well as in the development of general scientific issues. Professor Cheng Enfu took part in the international collection "A(O)nthology of Noonomy", recently published in Russia and the USA; in his article Cheng Enfu points out the affinity between the concept of intellectual economy developed by his scientific school and the theory of Noonomy, emphasizing that intellectualization of economy is an advanced stage in the evolution of economic society, the further development of which inevitably leads to the destruction of the economic social structure and the transition to Noosociety.

Enfu's new book "The World Environment and the Chinese Economy in a New Era" presents the reader with the results of the study of topical problems of the development of the Chinese and world economy from the standpoint of "Chineseised" Marxism, of which the author is a prominent representative.

Readers familiar with the official line of Soviet Marxism, which is largely oriented towards dogmatic reproduction and commentary on Party guidelines overloaded with Marxist terminology (for the sake of scientificity), sometimes transfer their previous impressions to Chinese Marxism. But such perceptions are far from the truth (partly in relation to Soviet Marxism as well). Of course, Cheng Enfu speaks as a supporter of the leadership line of the Chinese Communist Party. At the same time, he does not limit himself to referring to official Party decisions, but conducts a scientific search for solutions to the difficult problems facing the Chinese economy domestically and internationally during the period of aggravation of the contradictions of world development, not hiding their acuteness and seeking to develop recommendations for their resolution.

Our Chinese colleague is characterized by a critical view of the modern capitalist economy, and this is not just by pointing out the contradictions of capitalism from a Marxist perspective. In his book (and this is its great cognitive value) we see a thorough analysis of the historical development of these contradictions, an understanding of their specificity due to the influence of the latest economic and technological trends, and a serious argumentation of the ideas and proposals put forward.

Cheng Enfu pays special attention to the methods of monopolistic control of the United States (as the center of financial capitalism and the "leader" of the corresponding development paradigm in the world economy) through the struggle to maintain the monopoly of the dollar and the monopoly of intellectual property, which is an essential part of the latest technological developments. Hence, the author draws a conclusion with which it is difficult to disagree: the most urgent task is the co-operation of countries wishing to get rid of US hegemony and its monopolistic dictate.

Cheng Enfu's view on the formation of so-called supervisory capitalism in Western countries is extremely interesting. The powerful digital platforms that have emerged in the West, occupying a monopoly position, use it to collect and appropriate users' personal data, using this information (in particular, through big data processing systems) to manipulate their consumer behavior and,

in fact, all aspects of their behavior and to control their private life and, further, their public life. The simulation of democracy is taking place, which is accompanied by the growth of social inequality with the departure from the policy of social reformism.

But in our opinion, the most interesting for the Russian reader is the book's study of the nature of "socialism with Chinese specifics". Cheng Enfu makes an important political economy emphasis on the fact that economic relations in the system of Chinese socialism are brought in line with the level of productive forces, so the main economic regulator of resource distribution is the market. To be more precise, in this (!) case it can be an effective regulator and in fact it becomes one. However, socialism would not be socialism if it were reduced to the market. The author is alien to the superstitious adoration of the market (inherent in rather limited representatives of the economic mainstream of the beginning of the century, including our compatriots (even after its fetishization was abandoned by many Western "inventors")); he shows the contradictions, problems and limitations inherent in the system of market self-regulation, especially in the modern era. The author convincingly argues that the modern market mechanism cannot function effectively without state regulation, which is not deified, but also has its own limitations and contradictions. The author believes (and in this he is very convincing) that only an organic (and we would add – competent, meritocratic in the specific Chinese sense) combination of these two regulators can form an efficient economic system.

Many colleagues have the right to ask a "simple" question: even under capitalism, state regulation is widely used, so how does Chinese socialism differ from capitalism?

While these economic systems seem to be similar in appearance, a deeper analysis reveals a completely different "internal content". Both the market and state regulation are just tools for implementing economic policy. But in favor of whom?

Cheng Enfu points out two fundamental differences. Firstly, under capitalism the property of private capitalist monopolies dominates, while under socialism it is public property. And it is precisely the property relations that determine the goals of social production. Hence, secondly, on the basis of public ownership, the fundamental question of who and in whose interests carries out state regulation of the market is solved differently than under capitalism. That is why, according to Cheng Enfu, the market system can function much more effectively under socialism than under capitalism. And practice as a whole confirms the author's conjecture (rather, a shrewd scientific vision!) about the reasons for the more intensive growth of the Chinese economy with the beginning of the application of market methods than in countries with higher starting positions that "gave birth to and nurtured" these methods.

We would advise you to pay attention to the way Cheng Enfu looks at the problem of achieving the goals of socialist development in the People's Republic of China, the key word here being "development". We have repeatedly opposed the indiscriminate application of the concept of "economic growth", pointing out that it can be simulative, disproportionate, destructive to social development, etc. We have insisted on prioritizing economic growth over development. We insisted on prioritizing the understanding of economic activity as economic development - with goals determined by positive values within a noocriteria framework. Cheng Enfu, looking at the problem of development, does not treat China's current socialist system as something frozen, canonized, once and for all given. For him, it is important to see the prospect of Chinese socialism moving to new frontiers, the prospect of solving the problems that Chinese society faces today.

What does he see as these new frontiers?

The first is the deepening of the social character of property, which is associated with our (in the theory of Noonomy) understanding of the process of transformation of the institution of property as "diffusion of property" [Bodrunov, 2021, p. 5-14]. Cheng Enfu notes that in the decisions of the Communist Party of China it is formulated as follows: "...to rely on the people in development and share the fruits of development with the people, and to create more effective institutional mechanisms so that the entire population of the country can feel the achievements in joint participation in enterprise activities and joint development". Cheng Enfu considers one practical way to tackle this task to realize his proposal: distributing a portion of dividends from state-owned assets to the entire population through an individual social insurance card. Another way - development of mechanisms of joint use and ownership of enterprises. It should be noted that China is a world leader in the "sharing economy", which is developing rapidly in the world. Another measure that should smooth out the emerging growth of social stratification in China, which is inevitable (it is important for us to be aware of this - our home-grown apologists of the "mainstream", advocating the "free" market, thus advocate the strengthening of social inequality and stratification of society) when using market and capitalist methods of development: the use of progressive taxation of income while limiting tax rates on labour income.

And we have something to learn here - instead of the populist "Sharikov's" proposal to "take more from the rich" by introducing a progressive scale of taxation on any income, the approach proposed by a Chinese colleague seems to be more rational: to give priority to high taxes on non-labour income: "rentier" income, winnings, stock exchange gains, etc., rather than labour income: investment, savings, etc.... So far, Russia has done exactly the opposite - it has recently introduced an income tax on savings income (there was a moratorium on it during the pandemic, but from 2023 it has been cancelled), and citizens who have earned their money and kept it on not at all "fancy" deposits in Russian banks (where else should they keep it?), which do not even cover inflation, have to shell out money in favor of those who did not save (and not always - could not). Chinese eco-economists consider this approach wrong both from the point of view of strengthening in the public consciousness a positive attitude to labour and justice, which is very important in the Chinese value system. In the author's opinion, all this should lead to the realization of the principle of joint capacity building and the prosperity of the Chinese people.

Another aspect of strengthening the national character of ownership is overcoming the monopolism of Chinese Internet companies. This problem (common to any technologically advanced society) is proposed to be solved in the version of socialism with Chinese specifics through various forms of joint access to the benefits provided by digital platforms. The development of forms of collective production and ownership is also proposed as a way of progressive development of the agricultural sector. Here Cheng Enfu consistently adheres to the principle of forming co-operative farms on the basis of their economic interest in joint activities, with such associations being completely voluntary.

Cheng Enfu advocates a rebalancing of the balance between external and internal resource circulation in favor of a gradual shift towards the domestic market. This should stimulate a more complete satisfaction of the needs of the Chinese population, the development of own research and development, overcoming the continuing technological dependence on Western countries in many areas, while maintaining a sufficiently high level of own technologies.

In the field of international economic relations, the theoretical developments of Cheng Enfu, who critically analyses the approaches of Wallerstein's school of world-system analysis [Wallerstein, 1990; 2006] and S. Amin [Amin, Arrighi, Frank, Wallerstein, 1982; Amin, 2007; 2017], dividing the world economic system into the "center" and "periphery" with a layer of "semi-peripheral" states. Cheng Enfu believes that such a division was valid for a certain historical period, but at present it is impossible to place the PRC under any of these three categories. In this respect, the author agrees with the ideas expressed in our recently published monograph *Regularities of the Noonomy Foundations Formation as Future Social Order: To Know and Operate* [Bodrunov, Glaziev, 2023], which gives a detailed analysis of the formation of new centers of world development in the framework of the transition to the integral world economic mode - the material basis of the new industrial society of the second generation as a transitional stage from economy to noonomy and from economic society to noo-social order. Without denying the achievements of the "world-systemists", we have significantly expanded our understanding of the modern fragmentation of the world economy and categorization of local economies in the last decade, which makes it inevitable to search for a new understanding of globalization and the role of various "strata" of economic space in it (as well as in its destruction), etc.

Enfu defines China's position in the world economic system as "quasi-central". Why?

China has long ceased to be a periphery of the world economy, dependent on the countries of the center. But it has not moved to the center of the world capitalist economy, because it has not become a hegemonic power that uses its dominance to exploit the countries of the periphery, which is the main feature of the center in the system of "world-analysis". China offers all countries a different system of relations - relations of equal co-operation, based on the concept of moving towards the formation of a "community of common destiny of mankind". This is a fundamentally different view of the fate of humanity and a different approach to building relations between countries.

In conclusion, we would like to draw attention to possible difficulties in perceiving the text of Academician Cheng Enfu's book. It is not simple. And it is typical of the texts of our Chinese colleagues. It may seem that there is a lot of repetition in the book, when the same, at first glance, ideas are repeated several times with minor variations. However, one should take into account the traditional Chinese way of presenting ideas, where small nuances in the construction of phrases and the context in which they are placed make the idea presented play with new colors and meanings. One has to think about such texts, sometimes reading and reading, "digging" into their meaning. To some extent, this is caused by the influence of the Chinese hieroglyphic writing system, when the meaning of certain characters can change depending on what other characters they are surrounded by. The Russian translation is not able to fully convey these peculiarities. But still careful reading gives an opportunity to catch many nuances. And I am sure that readers who are able to tune in to the "Chinese" version of the material will gratefully absorb the ideas and thoughts of this outstanding scientist.

During the visit of a delegation of the Free Economic Society of Russia to Beijing in April 2023 as part of the three-day Russian-Chinese dialogue of scientists, where the problems of society development in the global context were discussed, a landmark meeting of Russian scientists with the director of the Renmin University of China, Professor Lin Shangli, took place. At this meeting, the Chinese colleague said that today the most important task of the Chinese social science circle of scholars is to develop a new concept of the development of Chinese society for decades

to come. He emphasized that this is an equally important task for Russian society and urged us to "learn to understand each other and work together on these tasks". We can state that both the book and the ideas of Academician Enfu are a good help in developing our mutual understanding and, in general, in this great work.

References

Bodrunov S. D. (2021). Genesis of Noonomy: Scientific and Technological Progress, Diffusion of Ownership, Solidarism. *Economic Revival of Russia*. No. 1 (67). Pp. 5–14. (In Russ.).

Wallerstein I. (1990). World-Systems Analysis: The Second Phase. *Review*. Vol. 13. No. 3. Wallerstein I. (2006). *World-systems Analysis: An Introduction*. Translation by N. Tyukina. Moscow: Territoriya buduscshego Publ. 248 p. (In Russ.).

Amin S., Arrighi G., Frank A. G. and Wallerstein I. (1982). *Dynamics of Global Crisis*. New York: Monthly Review Press. 254 p.

Amin S. (2007*). The Liberal Virus: Permanent War and the Americanization of the World*. Moscow: Evropa Publ. 168 p. (In Russ.).

Amin S. (2017). *Russia and the Long Transition from Capitalism to Socialism*. St. Petersburg: INID Publ.; Moscow: Kulturnaya revolyutsiya Publ. 148 p. (In Russ.).

Bodrunov S. D., Glaziev S. Y. (2023). *Regularities of the Noonomy Foundations Formation as Future Social Order: To Know and Operate*. St. Petersburg: S.Y. Witte INID Publ.; Moscow: Tsentrkatalog Publ. 340 p. (In Russ.).

Information about the author

Sergey D. Bodrunov
Dr. Sc. (Econ.), Professor, Corresponding Member of the Russian Academy of Sciences, Director of the S.Y. Witte Institute for New Industrial Development (INID), President of the Commission of the Union of Economists, President of the Free Economic Society of Russia, (Bol'shaya Monetnay Str. 16, St. Petersburg, 197101, Russia)
E-mail: inir@inir.ru

Scientific publication

NOONOMY AND NOOSOCIETY

ALMANAC OF SCIENTIFIC WORKS OF THE S.Y. WITTE INID

Vol 2, No. 2
2023

The journal uses materials of the S.Y.Witte Institute for New Industrial Development (INID) presented at scientific seminars and conferences of the S.Y.Witte INID and represent a concentrated collection of publications on the concept of a new industrial society of the second generation and the theory of Noonomy developed by the S.Y.Witte INID together with the Russian and international scientific community

Editorial and publisher's address:
16 B. Monetnaya St., St. Petersburg, 197101
Phone: +7 (812) 313-82-68, e-mail: noonomy@inir.ru

Signed for publication on August 10, 2023.
Format 60×84/8. Offset paper.
Printed sheets 10,38. Conditional printed sheets 9,65.
Circulation 1000 pcs. Order 10955/2

6+

Free price

Xi-Print Limited Liability
36 Babushkina St., St. Petersburg, 192029

S.Y. WITTE INSTITUTE FOR NEW INDUSTRIAL DEVELOPMENT (INID)