

NOONOMY AND NOOSOCIETY
ALMANAC OF SCIENTIFIC WORKS OF THE S.Y. WITTE INID
Vol 2, No. 1 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

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Almanac of Scientific Works of the S. Y. Witte
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DOI: 10.37930/2782-6465-2023-2-1-9-18

Alan Freeman

University of Manitoba (Winnipeg, Canada)

CREATIVITY AND LABOR IN THE MENTAL ECONOMY COORDINATE SYSTEM¹

Abstract: the paper considers the question of searching for a new strategy of civilizational development based on the analysis of objective processes taking place in the world. An attempt has been made to synthesize the key provisions of the theory of noonomy and the theory of mental objects, which originate from the understanding of the future society as a system, in the center of which should be the human creative potential that cannot be replaced by machine production. A number of qualitative changes are being recorded in the socio-economic sphere, allowing for a qualitative transition to a knowledge-intensive method of social reproduction.

Keywords: noonomy, creative economy, mental objects, progress of human qualities, knowledge-intensive production, irreplaceable labor, crisis of capitalism.

For citation: Freeman A. (2023). Creativity and labor in the mental economy coordinate system. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 1, pp. 9–18. DOI: 10.37930/2782-6465-2023-2-1-9-18

弗里曼 A.

马尼托巴大学(加拿大, 温尼伯)

心理经济坐标系中的创造与劳动

摘要: 作者以世界上正在发生的客观过程为基础论述了探索文明发展新战略的问题。作者试图把智慧经济学理论的主要原理与精神性客体理论的主要原理相结合。这些原理的出发点是, 即将到来的未来社会的核心将是无法被取代的人的创造性。作者还指出了社会经济领域发生的一些质变, 这些质变正在推动社会再生产方式向技术密集型过度。

关键词: 智慧型经济、创造型经济、精神性客体、人素质的提高、技术密集型生产、不可被替代的劳动、资本主义危机。

引用注释: 弗里曼 A. (2023). 心理经济坐标系中的创造与劳动//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. 1, pp. 9–18. DOI: 10.37930/2782-6465-2023-2-1-9-18

This is an auspicious event. It is the right moment to embark on a programme of international collaboration. One step we hope can be undertaken is to establish practical programmes of research and education that will support the Noonomy project.

¹ This article was prepared based on the report at the international scientific seminar of the S.Y. Witte Institute for New Industrial Development (INID) on "Genesis of Noonomy: Knowledge. Mental objects. Creativity" (05.04.2023).

I begin with a correction: I previously suggested that ‘mental economy’ is the appropriate translation for the Russian word ‘ноономика’, which I no longer consider valid. This misunderstanding arose from a problem of translation: the English term ‘Noonomy’ is misleading: ‘Noonomics’, the translation spontaneously adopted by interpreters at the SPEC conference, would be less vulnerable to misunderstanding. This is a complex topic and we can return to it later.

A second correction: ‘Creative Industries’ is not an invention of Alan Freeman. It is a tradition of research and policy-making dating back to the 1990s, and spanning many countries; it is a major policy concern of the United Nations. It started in Australia, was adopted in the UK, and is now the concern of many other governments, especially China. It has an extensive tradition of literature and research, of which my own work forms only one strand. So, it is important for Noonomy to engage with it. However, if it is to be properly engaged with, this must be done on the basis of a proper study of it; therefore, we need to establish viable teams who will conduct this work.

Finally, my personal work – on the theory of mental objects – is not restricted to the creative industries but spans the entire range of productive activities in which mental activity of one kind or another is involved. This, I hope to convince you, is a better way to understand what is loosely called ‘knowledge-intensive’ production, and the best basis for realising its human potential. In particular, I hope to convince you that it offers a practical basis for measuring noonomic activity over time and comparing it between nations.

Of course, there will be many other suggestions which I hope to hear.

I will introduce four research questions that I believe require an effective international collaboration. These are:

1. Is the term ‘knowledge intensity’ well-defined?
2. If not, is there a suitable and better alternative?
3. How should we practically measure either knowledge intensity or its alternatives?
4. How can we produce reliable comparative statistics of either ‘knowledge intensive production’ or the alternative which I believe superior: ‘mentally intensive production’?

The aim of these questions is to create authoritative sources of evidence to inform political and business decision-making.

I address the problem that I believe central to the above discussions: what is production?

I pose three challenging questions.

– What do software companies sell? In 2022, two of the top three companies in the world were Apple and Microsoft. What is *use-value* of their product?

– What do media companies sell? The combined sales of the ‘big seven’ media companies (Time-Warner, Disney, Bertelsman, etc) are larger than world sales of oil. What is the use-value of their product?

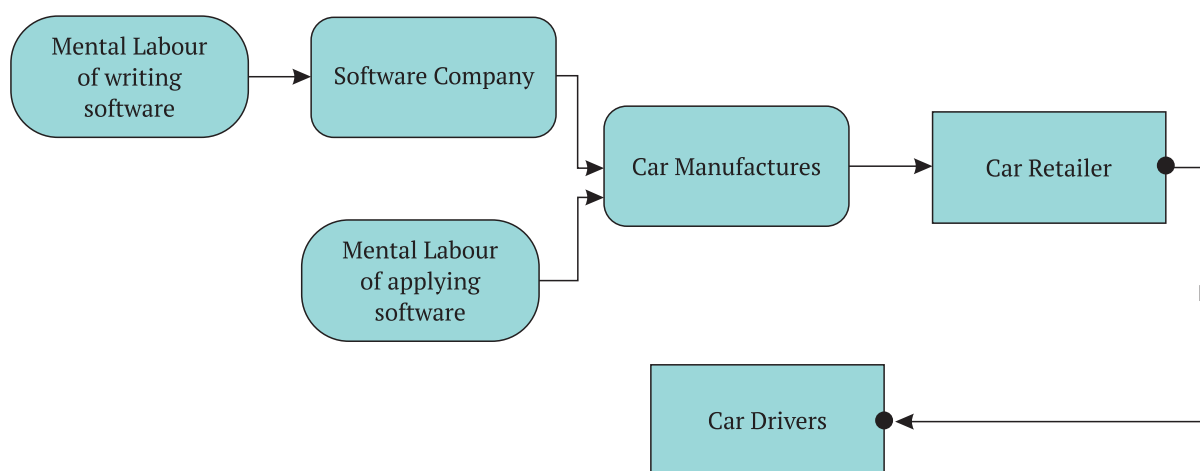
– Can we rightly characterise these outputs as ‘knowledge’? Or is some other, more precise terminology required for a true science of Noonomy?

To begin, note that mental objects can figure both as outputs and inputs. So, for example, high-tech manufacturing is highly dependent on software and indeed, modern cars cannot even start without it. But software is itself produced. ‘Intensity’ should therefore refer both to its function as an input and its status as an output, and these are distinct things. The same applies to outputs such as design, which plays an ever-increasing role in modern production, and of course, science.

Such inputs are of two types, as with any normal manufacturing process: when they are *purchased* as when an architectural company hires a team of designers, a car company buys pro-

prietary software, or when a pharmaceutical company purchase the results of a genomic study conducted by a specialist laboratory. Or, these companies may *hire labour directly to create these inputs*.

The relation between these two types of input is governed by the division of labour, as both Smith and Marx insisted. One of the first tasks of any empirical investigation is to study how this division operates. That is why we have to study, carefully, the relation between the output of a software, design or science-based specialist organisation, and its function as an input when purchased by another company. We have to study this alongside the use made of any such product by consumers, or by the government.



I begin with the *output* of mental objects because it sheds more light on their nature, in that mental production appears in its pure form when it figures as an output. Already, by merely stating this fact, we get a glimmer of the extent of the problem: in order to be sold as a product, software cannot be treated as embedded in the human brain. It is sold in a form in which it is fully alienated from its human origin, but in which humanity is stamped indelibly upon it in such a way that it cannot be usable while so dissociated. It has become a mental object.

I approach the issue via a yet more general question. The modern capitalist economy is now dominated by enterprises that do not sell any material or ‘tangible’ object, loosely termed ‘services’. What do they sell? There are two answers I believe do not stand up to examination.

The first inadequate answer is the claim that these products have no use: we do not ‘need’ to watch films, listen to recordings, visit galleries or live in beautiful buildings. It is vital not to confuse ‘need’ with ‘use’. Use is what people (or businesses) actually do: if the output of one industry enters the activity either of another producer, or the reproduction of a person, then it has a use-value.

To rid ourselves of the ultimately elitist prejudice that we must discount such uses because they are ‘not needed’, we must leave behind us the notion that ‘creative production’ is limited to art. Indeed, the whole point of the ‘creative industry’ revolution was to break free of this idea.

The biggest source of creative production is software, and more generally, ICT, which most certainly does have a use. Not only that, all forms of modern engagement between humans that depend on ICT, from telephones to television and beyond to the modern online world, have uses, including artistic activity. These cannot be reduced to the narrow category of ‘art’, though in my view they have vastly expanded the potential for human artistic self-expression.

We may personally find the uses made of this potential repugnant. That is beside the point. It is not the economists' job to tell people what they need. It is the people's job to tell economists what they need. The market may be a bad instrument for achieving this; in that case the solution is to provide a better means to ascertain real needs; however, I think we have to combat the elitist and reactionary notion which prevails in many academic and cultural circles, that in the absence of a genuine 'democracy of consumption needs' we should substitute a 'dictatorship of the academy' to decide what they are entitled to demand.

That said, we must now turn to the incorrect idea that 'art' is not produced, which I believe stems, however well-meaning, from the questionable roots just mentioned, together with an attachment to Smith's idea, rightly criticised by Marx, that only 'tangible' or physical objects may be repositories of value (which is just another way of saying they are produced). Software is produced; television is produced; movies are produced; music is produced; painting is produced. Design is produced. Scientific theories are produced. These are all branches of production. The problem is not *whether* they produce but *what* they produce. The answer is that they produce mental objects.

If we think software is useless, we should all strip our computers and cellphones free of it and, presumably would all be the better for it. We should probably rip all the telephones out of our walls too, and it is doubtful if we should even allow electricity to enter since it has no tangible form. If something has a use, then a payment for it, like any other payment, must be considered the purchase of a useful product, like any other product, and therefore, making and distributing it constitutes a system of production.

A second inadequate answer is that the payments received by these producers constitute some kind of rent, and not a payment for use. If we think there is a rental component, this may be true but means only that it is a normal commodity in that its price may include a monopoly element: that is, it may be overpriced in which respect it is no different from, say, a car which sells for \$50,000 in one country and \$5,000 in another. Personally, from my 60 years of experience in the software industry, I think the current price for the use of most new software is more or less correct, that is, corresponds to the integrated contribution of labour to its value. To put it another way, it pays for its workers and yields a profit which, whilst larger than its zombie comparators, is no greater than that in any sphere of advanced technology.

Finally, the notion that the only 'true' production is the manufacture of tangible objects leads to the startling conclusion that we already live in an economy already transformed into a totally parasitic caricature of 'true' industrial capitalism. By 2000 only 14% of the labour force of the United States was engaged in Material Production (that is, Manufacture, Construction, Extraction, and Agriculture). In China, only 10% of the workforce is engaged in manufacture and this is declining. In all the world's countries, the proportion of the labour force engaged in material production has been declining since 1950. This is a huge historical trend, and any serious study of the modern economy must provide a meaningful account of it. If we do not recognise it as a genuine expansion of capitalist commodity production, we must provide an alternative account.

The concept of 'mental object' achieves two ends. First, it lets us classify the use value of the non-material industries more precisely than the all-encompassing (and outdated) term 'services'. This is one of the most confused concepts in economics, probably because it is the oldest. Indeed, it is feudal in origin and was originally used to describe the directly personal relation between, say, a lord and a servant. Attempts made by economists to 'modernise' the term are absurd to the point of being comical. It needs a proper replacement. The concept of mental object achieves this.

Chart 1: proportion of employees in the service industries in industrialised countries

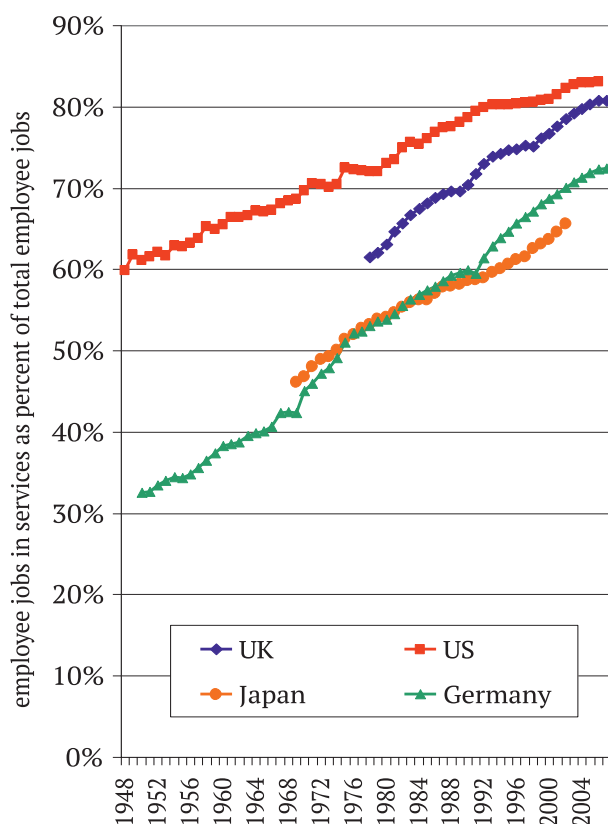
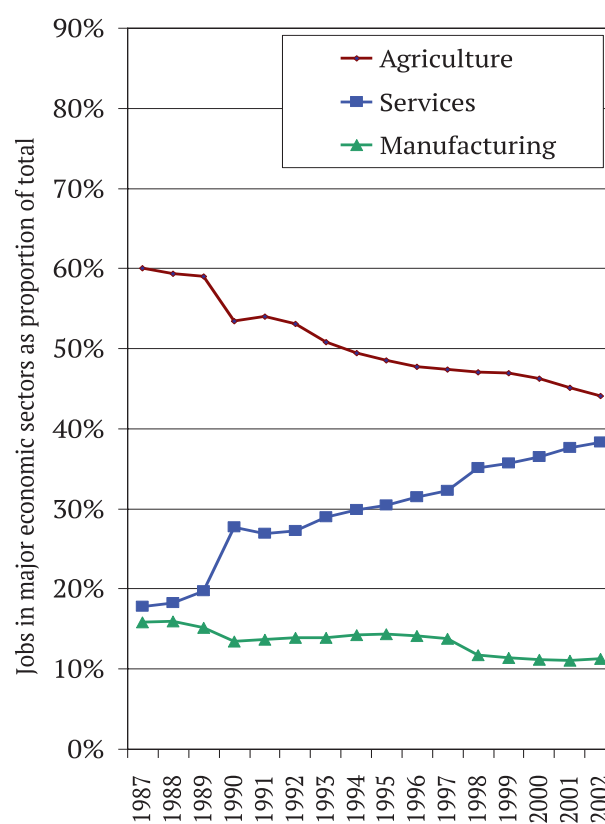


Chart 2: proportion of employees in major sectors, China



Second, this concept lets us define, within the material sectors, the extent of ‘mental intensity’ which, in my opinion, should be preferred to that of ‘knowledge intensity’.

So let us start by classifying the so-called ‘service industries’.

Some of them – notably transport – bring about some change in material circumstance even though their product is not material. These are not necessarily knowledge-intensive by nature. However, it is within these industries that we find those which either produce, or reproduce, mental content.

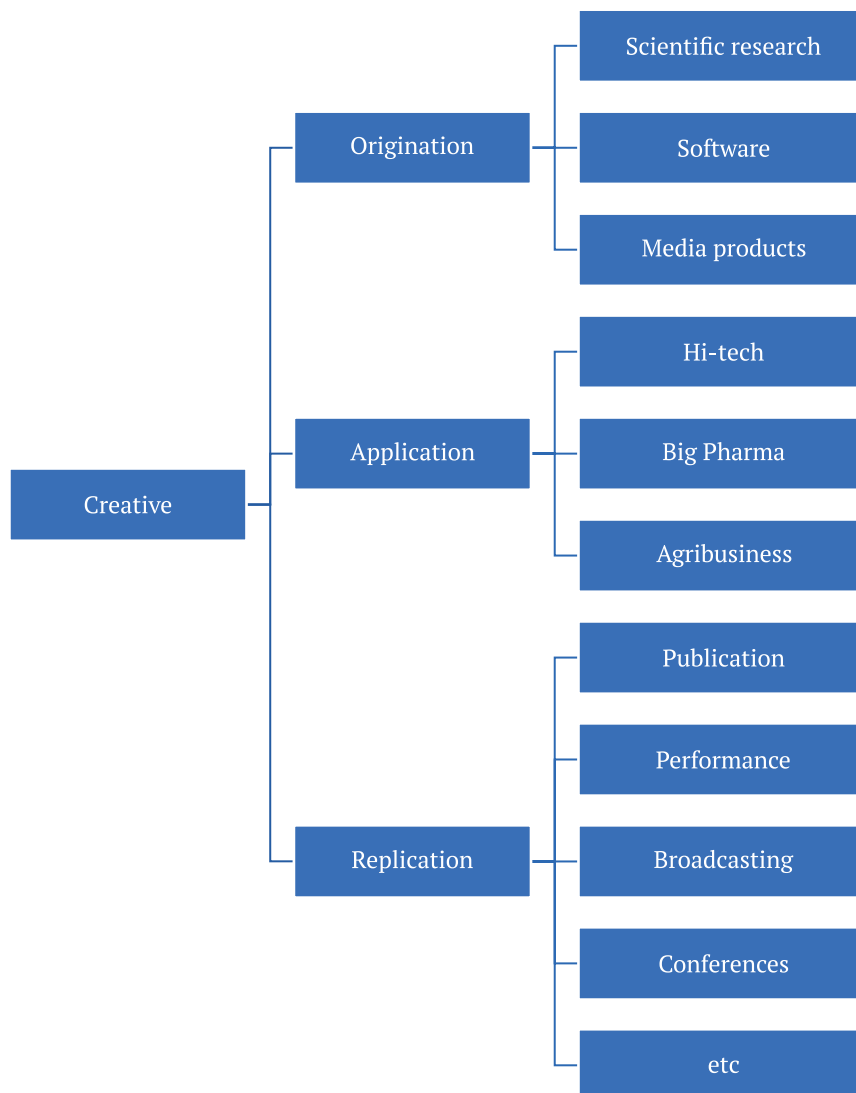
Some services, such as finance, do not create new commodities even though they do create no uses, which is why Marx described them as ‘unproductive’. We will deal with this later; for now, let us concentrate on the *use* of these outputs, not their function within the accumulation of capital.

So, what exactly is a mental object? It is a use-values that is independent of its material form. A computer programme can be implemented on any machine. A film can be viewed in a cinema, online, on celluloid, or CD. A scientific theory or formula is communicated by academic papers, in schools, in books, videos, or even by personal instruction.

Not least, a mental object can take the material form of a thought or an idea in a human brain. The difference is, however, that in this form it becomes *active* instead of *passive*; it determines *actions*.

Because a mental object is *communicable*, a vital distinction arises. The ‘world’ of mental production – under capitalism, the mental economy – has three components. The ‘creative’ component produces mental objects. The *technical* component *puts them to use*. The ‘mechanical’ component *reproduces* them.

Thus, in the first branch of production, new mental objects are originated – writing a programme, discovering a theory, composing a symphony, writing a book. In the second, the object is *interpreted* or *applied*. The scientist makes a new drug, constructs an apparatus, or makes a device. The orchestra performs the musical piece; the computer implements the programme. In the third branch of production, the object is *replicated* in vast quantities – drugs appear in chemist shops, devices are mass-produced, musical recordings are distributed in either a material form such as a record, a tape or a disc or – increasingly – in simple electronic form. Not least, it enters *education*: it is reproduced in textbooks, schools, universities, and moreover in the practical *apprenticeship* in employment through which theoretical knowledge becomes real human capability, for which private capital constantly disclaims responsibility because it puts an end to the historical foundation of industrial capitalism, namely the separation of the producer from the means of production. In the brain of the mental practitioner, the means of production are once again re-united with the producer, depriving capitalism of its most powerful instrument of domination.



This is my principal difference with the concept of the ‘creatosphere’ as defined by Professor Buzgalin. I think the concept is of great value in identifying the *future potential* of creative labour. In particular, I agree with the notion that it is wrong, and anti-human, to seek to *restrict* the availability of creative products or (more generally) mental objects. They should, in a future society, be made available either free or at minimal cost, to as many people as possible.

However, this cannot be achieved if we do not recognise the *real cost of replication*, which society has to meet. The appearance of ‘freedom’ of access to mental products is an illusion, arising from the separation of their production from their reproduction. The cost of reproduction is much smaller than the cost of production, but it is a real cost and demands real work. Perhaps the clearest indication of this fact is the ever-growing centrality of education to social and productive progress, above all the systematic elevation of the age of free universal education. But it would be absurd to propose this should be done without paying teachers. To the contrary, in order to provide *all* humans with education to age 21 and beyond, a vast *expansion* of spending on education is required.

This, the *replication* of mental objects is now becoming the principal source of employment for millions of people – and provides them with an income. If we wish to provide genuine free access to these creative products, therefore, this responsibility has to be taken on by public agencies who must actually pay for these costs, and provide these people with an income.

It is true that restrictions such as Intellectual Property arise from a ‘morbid phase’ of capitalist development in which the institution of private property becomes a giant fetter on capitalist progress, which was not the case in the industrial age. IP inverts the original promise of the industrial age, to provide humanity with a hitherto inconceivable magnitude of material products, vastly augmenting the possibilities to raise humans out of poverty by continuously cheapening these products. In that time, there was no contradiction in principle between the institution of private property and trade without restraint, so ‘free trade’, however hypocritically used, became the watchword of liberal capitalist ideology. Now, the principal demand of Late Capitalism is to restrict the *replication* of ideas.

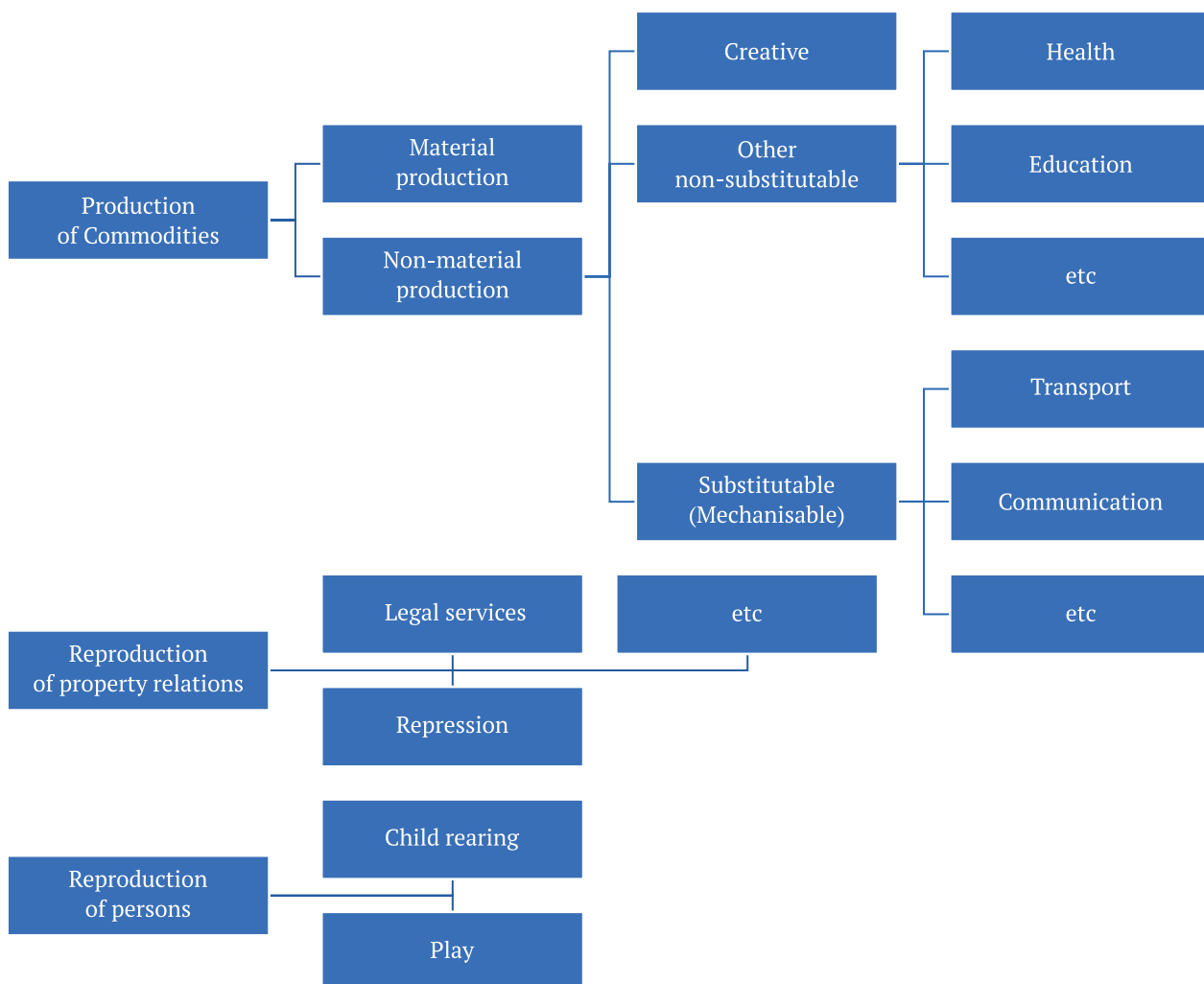
The resolution of this contradiction, however, requires us to recognise that replication is a real cost. It should be met by the state or other public bodies. It cannot however be overcome by pretending that this cost does not exist or does not need to be met.

So much for the production of mental objects. What about their use? Here we encounter the sphere where the notion of ‘intensity’ comes to the fore, and becomes measurable. Our starting point is the definition of *industries* and *occupations*. The notion of ‘branches of industry’ dates back to Smith’s notion of the division of labour: the activities of capitalist production are *specialised* which increases their productivity. Modern accounting pays enormous attention to classifying industries and there are international standards (ISIC) which has the great advantage that it makes it possible to compare their performance, intensity, innovative behaviour, and so on, both between nations and over time. However, the classification system itself is out of date and even somewhat reactionary.¹ In particular the notion of services itself is hopelessly out of touch with modern reality.

¹ It includes, for example, the notion of a primary division of production into Three main parts (primary, secondary and tertiary) being Extraction/Agriculture, Manufacture, and Services. This goes side by side with the colonial Rostowian idea that ‘progress’ consists of the transition from the primary to tertiary, in which the ‘advanced’ countries specialise in tertiary while the rest of the world specialises in primary. This goes together with the Ricardian notion of Comparative Advantage which tells the Third World that its place in the international economic order is to specialise in primaries and products of cheap labour, on the grounds that this is what it does best.

My research suggests a primary division between Material and Non-Material production. Among the latter, which of course is the focus of our interest, our primary distinction is between those that employ *substitutable* (mechanisable) labour, such as transport, in which the proportions between machinery and labour constantly shift in the direction of machinery. Here is where we find Marx’s ‘rising technical composition of labour’ as the dominant rule, and where humanity is steadily suppressed. Next, we find two types of ‘non-substitutable’ labour. These are those in which the presence and interaction of humans with each other is *desired*. The classic examples are health, child care, education, and so on, where though in principle, machinery can substitute (e.g., ‘mechanical nannies’) it just isn’t what people want. Then we have creative production, in which the nature of the labour itself makes it impossible for machinery to replace it. This is mathematically provable (Turing stopping theorem, undecidability of the second-order predicate calculus, etc.)

These second two, I believe, are critical to Noonomy because they represent the true future of a genuinely human system.



Let me finish, having laid the basis for my own ideas on a note of questioning. Noonomy is a new branch of human knowledge, and a new branch of human practice. But as such, it cannot absorb, uncritically, concepts that it has merely taken over from its predecessors. There are three

notions that I believe must be carefully interrogated if we wish to lay an adequate foundation for such a new system of thought. These are the concept of 'service' that I have already mentioned. The second is the notion of knowledge itself; the third is the notion that we must distinguish 'art' from 'production'

Let us note that many human activities do not consist of production – for example, play. Some of these will become more valued and more widespread with progress towards new forms of society. But following the view of Sergey Bodrunov, with which I agree, production will continue, because 'work' will continue – and the function of work is to produce. The issue to address is the nature of this work. In this important sense 'production', like labour, is transhistorical.

By the way, I think we can agree that work is another word for labour.

So, all production involves work. But does all work produce? This could have different answers in different forms of social organisation. This presentation concerns only the here and now; the notion of 'mental objects' is the outcome of a study of present reality, the necessary starting point for any new society we may desire or imagine.

In particular I consider market societies - in Marx's terms, commodity-producing societies.

Even in such societies, not all labour produces: for example, with Marx, I do not consider the labour of real-estate or finance to be productive. They do not sell commodities, but levy private taxes: respectively, rent and interest.

Notwithstanding, Marx strongly argues, and I agree, that *any labour which produces commodities is productive*. He thus disputed Smith on a very important point, which is that production *does not have to be material*. Smith has a *material* concept of production: he argues that only 'tangible' objects have value. Marx however gives the example of a private school, which provides the *intangible* use-value of education. The school, he argues, sells this use to clients. It is therefore productive, just as much as if it were selling books or nails. In the outmoded and wrong terminology of contemporary economic parlance, it is a 'service'.

Nevertheless, it is a sufficient concept to reveal a critical *historical characteristic* of postwar industrial society which is, quite simply, that most work no longer produces material objects.

Let us now consider the contrary proposition, strongly defended by Marx, that any labour that produces commodities is productive. This is also the view of the modern national accounting system. I agree with this.

This means the term 'art' is highly ambiguous. Originally and until surprisingly late in the 19th Century, it was not distinguished from science. The term 'artisan' refers to a worker who employs special skills to make things. The separation of art from science took place only with the onset of mass production, that is to say, the generalised substitution of machinery for human labour.

This separation brought about the bourgeois conception of art as something freely undertaken, which of course, was an option only available to quite well-to-do people. But when we look more closely, we find that the well-to-do relied on an army of labourers who relied on their patronage. Commercial art was born, along with the fiction that art can exist without labour.

Modern artistic production in contrast is organised by capitalist producers who hire labour and sell things. That is, it consists of the sale of commodities. As such it is a form of production. This is not to say 'art' is by its nature productive – so for example if I draw a pretty picture and send it to my friends, or sing in a choir, this is clearly quite different from, say, what Disney or Apple do.

It is therefore mistaken to confuse art with creative production. In fact, the bulk of creative production takes place in the software industry, in the great IT-driven revolution which is transforming all other forms of production. A great mass of creative labour takes place as Professor Bodrunov notes in science, and is invading all spheres of material production including for example car manufacture, construction, agriculture (in the creation and design of ‘designed’ products such as Canada’s Canola) is there.

On the so-called accumulation of knowledge.

Most mistakes that are made, when it comes to the effective understanding of mentation as a human activity, arise from the confusion between merely quantitative accumulation, which is characteristic of material objects, and mental acquisition, in which each new understanding wipes out what was previously considered to be ‘known’ and replaces it by something entirely different.

This ‘entirely different’ new understanding does not simply ‘contain’ what was previously thought to be true but dismisses it as a mere appearance: thus, with the entire idea that the sun goes around the earth.

Therefore, the true measure of knowledge is the depth of our awareness of ignorance.

Since this is unmeasurable by definition, the entire notion that knowledge merely accumulates like a pile of mud or gold, is nonsensical and should be abandoned.

Information about the author

Alan Freeman

Director of the Geopolitical Economy Research Group, University of Manitoba (66 Chancellors Cir, Winnipeg, MB R3T 2N2, Canada).

E-mail: Alan.Freeman@umanitoba.ca

DOI: 10.37930/2782-6465-2023-2-1-19-26

Sergey D. Bodrunov

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

CREATIVE ACTIVITY AS AN OPEN PROBLEM: NOONOMY APPROACH AS A METATHEORY¹

Abstract: The paper gives a detailed idea about the phenomenon of creativity as an element of economic and, more broadly, socio-philosophical research. A comparative analysis of noonomy and the concept of "mental economy" by A. Freeman is carried out. The author emphasizes the fundamental difference between noonomy and the economy of mental objects both in terms of volume and content. The key role of a person as a carrier of creative potential during the transition to a qualitatively new level of technological development, socio-economic relations and institutions is shown. In the theory of noonomy, knowledge-intensive industrial material production is characterized as a self-acting system under human control. Self-motivation becomes the essential feature of creativity. Labor as an economic phenomenon and an element of production is transformed into activity – this is how the transition to a post-economic way of meeting social needs is carried out, from which a new post-economic reality is born – the space for noonomy.

Keywords: noonomy, metaknowledge, mental economy, needs, economic problems, industrial material production, creativity, self-motivation.

For citation: 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. 19–26. DOI: 10.37930/2782-6465-2023-2-1-19-26

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)

尚需进一步研究的创造性活动 与作为元理论的智慧经济学方法

摘要: 文章阐述了创造性活动不只是经济学还是社会哲学的研究对象。作者把智慧经济学的基本思想和观点与弗里曼 A. 的进一步发展的心理经济学进行了比较分析, 论证了智慧经济与“心理对象”经济二者之间在对象和范围方面存在着原则性区别。文章指出, 在向实质上新的科技水平、社会经济关系和制度迈进过程中, 人作为创造能力的载体开始发挥关键作用。文章着重强调了在智慧经济理论中, 人控制之下的自动系统是知识密度高的工业化物质生产的特点。自我激励成为人的创造力的主要特征。作为经济现象和生产要素的劳动, 转化为认识活动。以此过程中实现向满足社会需求的新的后经济方式过渡, 正式在这个过程中产生新的后商品经济环境, 即智慧经济环境。

关键词: 智慧经济、元知识、心理经济学、需求、经济问题、工业化物质生产、创造、自我激励。

¹ This article was prepared based on the report at the international scientific seminar of the S.Y. Witte Institute for New Industrial Development (INID) on "Genesis of Noonomy: Knowledge. Mental objects. Creativity" (05.04.2023).

引用注释:博德鲁诺夫 S.D. (2023). 尚需进一步研究的创造性活动与作为元理论的智慧经济学方法// 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. 1, pp. 19–26. DOI: 10.37930/2782-6465-2023-2-1-19-26

The phenomenon of creativity is a complex problem that mankind has been grappling with for millennia. It has been studied by philosophers, psychologists, theologians and economists. It is not the task of our study to analyse this entire heritage. The topic will be a seemingly narrower problem, which our colleague Alan Freeman talks about. It is an economic view of creativity that approaches the real problems of the market economy. At the same time, the range of sciences that deal with this phenomenon underlines the need to study it not only with narrowly defined methods, but also holistically, with a metatheoretical approach.

The first aspect – *creativity as a market phenomenon* – is mainly viewed in modern literature through the prism of rather boring and trivial topics of the *creative business* and *creative industry*, focusing on the areas classified as such in international statistics. These are the various areas of show business, fashion, games, design and so on.

Is this formulation of the question sufficient? It seems not. Even without going into the fundamental problems of the metatheoretical discourse in which the phenomenon of creativity should be considered, and remaining at the level of practise analysis, we must note that the most massive areas in which *labour* can be (and partly is) *creative* are not only the arts (even in their market segment), but also science, education and production (insofar as it becomes knowledge-intensive in the transition to NIS.2). And this is only a minimum. This aspect of the analysis is important and we will return to it. This topic is dealt with separately at the annual congresses “Production, Science, Education”, which are dedicated to the study of problems of development and integration of production, science and education, analysing the potential of these spheres as subspaces of creative activity. At the same time, it is emphasised that under the conditions of the dominance of the neoliberal model of capitalism, their creative character is *distorted* by the processes of commercialisation and bureaucratisation. But that is not all. Man is a maker, a demiurge, a creator by nature, and all his activity is inseparable from creation. This also applies to the economy, where it is present to varying degrees in different areas, right down to the areas where it is central.

One of the acknowledged leaders in the sociological study of the phenomenon of creativity, Richard Florida, has shown in a series of papers exploring the ‘creative class’ that the habitat of this class in developed countries is about 40% of the workforce.

But creative activities cannot be reduced to the ‘creative industries’ in the economy either. Alan Freeman does not reduce the problem of creativity in the economy to these ‘creative industries’ either. We should note, however, that he has put a lot of energy into researching the theoretical and practical problems of the latter and has come to significant conclusions, and not just scientific ones (note our colleague’s work as an advisor to the Greater London government on these issues, which speaks to his deep knowledge of the subject).

The above comments are important. And why? Because the *phenomenon of creativity* in the modern economy is not exotic, but *central to the future development of production and society*.

It has already been mentioned that modern production is becoming more and more *knowledge-intensive*. But what does knowledge have to do with production? Creativity.

First, creativity in the process of *creating production technologies themselves, creating knowledge-intensive production* is R&D and know-how, and most importantly – basic science; second, creativity is an *essential part of the process of knowledge-intensive production management*; third, creativity is directly in the process of production as the *work* of highly skilled specialists possessing *expertise* and *knowledge about the use of knowledge*, i.e. *creative potential*.

Professor Freeman also has this crucial observation in his views. With regard to the creative product, he states that its “distinguishing characteristic ... is the *qualified* nature of the labour required to produce it”. He immediately adds: “Therein lies the surplus value...”. So, Professor Freeman does indeed recognise the connection between the *creative and knowledge components of labour* – as one grows, so does the other, and as the knowledge component of labour in the production of a product diminishes, so does the creative element of the labour process.

And here there is no contradiction with the concepts of knowledge-intensive product, knowledge-intensive production, where the share of labour decreases, because we are talking about labour exclusively as a specific component of production – human labour. The machine that replaces human labour does not replace *labour as an activity*, but only *replaces* human labour with the labour of a technical device. So, we clearly separate human labour from the substitute labour of mechanical devices: the former contains a creative element, the latter does not.

“But,” opponents will say, “is there no room for creativity in other areas of human activity?” Freeman writes about this too. Of course, there is. But it is the development of *industrial*, material production, the transition to higher-mode technologies, that *increases the knowledge capacity* of social production and provides for *the growing role of knowledge as a factor of production*, becoming its *main* factor (!), its main resource, which is the fundamental *distinguishing feature* of the new quality of industry in the age of NIS.² The creative process is not simply inseparable from the process of discovering, processing and transforming knowledge into technology and other components of production, including labour – it is the *creation, awareness and appropriation of new knowledge, metacognition* – these processes become important factors in increasing the share of *creative industries* in the modern economy.

To illustrate our point about the application of knowledge in production, we would like to make an observation. Professor Freeman writes in an article, “In summary, knowledge is not ‘applied’ to the production process as an external factor, but is ‘embedded’ in materials, tools and the labour that integrates them before production begins. Bodrunov thus comes closer to the true state of affairs when he writes that the development of the technosphere today is not conditioned by the tools of production and their skilful application, but by the power of knowledge embedded in these tools and underlying the ability to apply them and increase the efficiency of production.

All he had to do was to leave out the word ‘today’. What changes in the modern economy is not the existence of mental content or the ‘addition’ of something that has actually always been there, but the way in which that mental content relates to production [Freeman, 2021, pp. 214-215].

It is strange that Alan Freeman should reproach me for what I have repeatedly stated. Indeed, look at the ‘Bodrunov Cross’ – that is exactly the point! Another thing is that I have always emphasised what Professor Freeman (as well as many other researchers) has overlooked: Looking at industrial development on the basis of changing technological modes or ‘development paradigms’ (according to C. Perez) leads to the question – what is their limit, new quality, etc.?

The present phase is a transitional one, and although Knowledge is an integral part of all components of production, it has *always* been *there*. Moreover, the share of knowledge (and the

creative component) has been *steadily increasing*. Now, however, knowledge is becoming the most *important factor* in the development of production. It takes precedence over the availability of resources, materials, energy and so on. So, the role of the creative element in work and thus in the economy is noticeably increasing. There has always been *growth*, but *today*, in the present phase, there is a leap in growth.

On this point, then, we are in complete agreement with Professor Freeman, as on a number of other points on which he interprets the ideas of Noonomy in his own way. As for his criticism of my ideas, taken from the relatively modest contribution of Noonomy, the problem lies either in the lack of elaboration of my theses in the book itself, or in the subtleties of translation, or in the scattering of my theses over several hundred articles and dozens of other works. I accept the criticism with gratitude – it is my own fault; it is time, as Professor A.V. Buzgalin advises, to write a big book, to systematise all aspects of the theory of Noonomy, to eliminate gaps and unclear formulations if possible.

Another quote from Freeman. He criticises post-industrialists and writes: “...Labour indispensable by machines does not mean ‘labour without machines’, but a new relationship with machines in the broadest sense of the word”. A remarkable observation! The only caveat is that the post-industrial masters refer to a ‘post-industrial’ society and mean that it will remain economic. In the theory of Noonomy, we convincingly demonstrate that social development is on the way to a *new quality* of industry, including the gradual reduction of the share of *human labour* (in the sense of political economy) in social production, with a simultaneous *qualitative* transformation of *labour nature* into knowledge-intensive and above all creative activities, moving into *activities that are not labour*, towards a post-economic, non-economic society that remains industrial in the way it satisfies human needs but is based on the *conscious* creative and skilled participation of people in the management and development of the industrial process (i.e. on the basis of that very ‘special relationship with machines’ referred to by our colleague Professor Freeman, who calls such a process not the end of industry but a new kind of industry).

The conceptual generalisation of these profound changes affecting all areas of society in the wake of the development of high technology and the transition from *reproductive labour* to primarily *creative activity* (changes not only in production, science, education, etc., but also in socio-economic relations, institutions and culture) is what we see today in the theory of Noonomy. At INID, the theory of the New Industrial Society of the second generation (NIS.2) was proposed more than 10 years ago as a conceptual synthesis of the changes taking place.

The NIS.2 theory provided answers to the questions raised by the development of high technology and addressed, among other things, the place and role of creative labour in this process. However, it was *not sufficient* to address many of the broader challenges of theory and practise. We are thinking of the challenges related to the phenomenon of creativity as an object of *social philosophical* research and not only and not so much *economic* research.

Let us return to the ideas of Alan Freeman and his seminal work on creativity. Here we will focus on two very important features of creativity that our colleague mentions: 1 – on the characterisation of creativity as a ‘non-processable activity’, 2 – on the activity in which ‘mental objects’ are present.

Given the depth of the account of the phenomenon of creativity in terms of these definitions, we would like to present our own view. The first characterisation is the least objectionable. Indeed, it has been known since Karl Marx and his colleagues, and perhaps even earlier, perhaps

since the musings of Leonardo da Vinci, that future society must reach a stage of development in which machines take over all the functions of reproductive, non-creative labour, while man develops in the 'realm of freedom' which, in Marx's words, is 'beyond material production itself'. Of course, we accept this. In the theory of Noonomy we speak of a *self-acting industrial system* under human control.

But let us consider the problem of creativity a little more comprehensively: If creativity is 'non-machine' labour, then it must have certain characteristics that are qualitatively different from 'machine' labour. What are these exactly? Without wanting to pre-empt the analysis of the concept of 'mental objects', it should be noted: in the works of our and foreign philosophers, sociologists and economists of the second half of the 20th century, *self-motivation* is mentioned as the most important characteristic of creative work. The motivation to work in the field of creativity is the *work* itself – work as such becomes a *need*. In a *non-economic* society, where self-motivation becomes the material basis for the satisfaction of needs and where *labour as an economic phenomenon and as an element of production is transformed into activity and creative work – into creative activity – self-motivation becomes the only motivation for this activity*.

This characteristic throws all the usual axiomatics of modern economics, at least its neo-classical version – the mainstream – off the chessboard of history. Recall that in the latter (with some exceptions specifically laid down in behavioural economics) labour is a *burden* and *value is money*. In the case we are considering (the gradual evolution towards 'intelligent' production and creative activity as predominant), everything changes: labour – which becomes more and more creative and gradually loses its economic meaning by turning into a non-labour creative activity! – becomes more and more a *non-economic* need, while consumer goods become a means of human development as a creative, cultural person. Thus, the transition to a new, post-economic way of satisfying needs is taking place, from which a new *post-economic reality* is emerging. Thus, we enter the space of *genesis of Noonomy*, a qualitatively new world in which the economic is replaced by a *post-economic mode of human existence*.

We have spent many years developing and expanding the concept of Noonomy, we and many colleagues have published hundreds of articles and many books in different languages, and we have discussed its ideas more than once in our seminar. Moreover, our colleague and good friend Professor Alan Freeman is one of the authors of a joint book with him and Professor Radhika Desai [Bodrunov, Desai, Freeman, 2022]. Without going into the detailed disclosure of the basic ideas of the theory of Noonomy, let us move on to a detailed analysis of the *phenomena and categories* that our colleague writes and talks about and which take on a *new meaning* in the light of the theory of Noonomy. This analysis complements our joint book in many ways, and today's discussion can be included in its second edition.

Let us first concentrate on the concept of 'non-machine labour'. This definition of creative activity is, in our opinion, very 'productive' in characterising this specific type of labour activity in an *economic* society. It has something in common with the classical definitions of creative labour in the works of twentieth-century scientists and even with the features of the world of the future in the Programme for Building the Material Base of Communism adopted at the 22nd Congress of the CPSU in 1961, as well as with numerous representations of this world in the works of Soviet futurologists, first and foremost the famous scientist Professor Ivan Efremov. It is relevant in the light of the ideas of the great scholar Christopher Freeman (Alan's father), one of the pillars of science (along with Schumpeter, Schmitt, Kondratiev, John Galbraith and Sergey Glazyev), whose

ideas formed the *basis of the theory of Noonomy*. Finally, it corresponds to the high-tech production characterised by twenty-first century scientists.

In this context, we at INID speak rather of *intelligent production*, in which knowledge plays a *decisive* role. We speak of *knowledge-intensive* production of *knowledge-intensive* products as an inseparable feature of the new second-generation industrial society. This is not a matter of taste or choice of terms: The task of replacing human labour with machine labour while increasing the role and share of ‘non-machine’ labour will only be solved as a consequence of *the transition to NIS.2* in all its rich features – and in no other way. By choosing the term knowledge-intensive production, we not only give a comprehensive understanding of this type of work as a *creative process* in the course of *the industrial process*, but we link the most important factors that ensure this process: knowledge, the process of its assimilation and implementation and, above all, the ‘flow’ of the creative element of the activity into the machine!

The fact is that creativity as a phenomenon has a certain ‘objectification’, a ‘manifestation’ in human existence. Professor Freeman also agrees with this when he speaks of the *materialisation of mental objects*.

The creative process is not *machineable*. We (at INID) hold to this view, unlike those who are already prepared to argue that the artificial intellect is capable of being a creator! But creative work enables the creation of *non-creative* products. Moreover, *every product is originally the result of a creative act*, a chain of creative acts, a creative process aimed at changing reality. And then this process of creating a product and magnifying it becomes *machineable*. Incidentally, a machine is not a creation of God, but a creation of man, the result of the materialisation of the same creative act! There is an elusive limit, a threshold, beyond which a creative process that cannot be *machineable* becomes a *machine* process.

One has to be familiar with production (and here we refer colleagues again to the legacy of C. Freeman): Any innovation that emerges from the creative appropriation of reality gradually becomes *machineable* as technologies and other production processes evolve (again, through the creative understanding of that reality), but – and this opens up a *new space for humans to grasp new knowledge and a new act of creativity*.

In this context, let us talk about the concept of the *mental object*, to which Alan Freeman attaches great importance in his work, and about the phenomenon (and the corresponding concept) of the *mental economy*. Alan suggested to me in our discussions that we use this term instead of the concept of *Noonomy*, since both are about the mind.

We agree that these concepts are based on nooconception of human existence and activity, on changing the world around us through knowledge. However, mental economy and Noonomy are *essentially different*, they do not coincide in *content* or *scope*.

The phenomenon of the *mental object* remains largely undefined. Professor Freeman defines it as “...a reproducible entity that manifests itself in various physical forms, with a recognisable identity independent of those physical forms”, and yet “...the physical form of the mental object can be transformed from one form to another” and the “mental object itself becomes part of the essence of the form.” [Freeman, 2021, p. 209].

The *mental object*, then, is a certain product of the mind, if you like, the result of the creative act, which exists in the space of the mind and is transformed, one might suppose, into other objects which have an object-being in the process of human activity. At any rate, this term can be interpreted in this way in the language of social philosophy. In a sense, this term captures an im-

portant aspect of creative activity, probably its outcome. But it can hardly claim to be a systemic quality of creative activity that is not limited to the 'production of mental objects'. Moreover, according to our understanding, the mental object is not even an unconditional attribute of creative activity, of creativity as a phenomenon.

The emphasis is on the primacy of production, on the qualitative changes in its content resulting from the growth of its knowledge capacity, and not on some attributes of the human mind, which is capable of creating and producing 'mental objects' and not on corresponding changes in the content of labour, which is only one of many components of the social production process, and the *change in its content* is only the *consequence of the growth of its knowledge capacity*. Therefore, we agree that the concept of 'intellectual object' is very useful for the study of the phenomenon of creative activity, and the study of this phenomenon is useful for the study of the qualitative changes in society that we are currently experiencing. But a *holistic* characterisation of these changes *cannot be reduced* to either of these terms, mental objects or creative activity.

What is needed is a *comprehensive characterisation*, which integrates the different sides and aspects of the transformations being experienced into a *system*. It is this approach, this metatheory that we discuss, putting forward the concept of *genesis of Noonomy* based on the development of a new industrial society of the second generation, which allows us to conceptualize and summarize the particular characteristics of the changes described in the works of domestic and foreign scientists, including the works of Professor Freeman.

We note that our esteemed colleague from China, President of WAPE and member of the Chinese Academy of Sciences, Professor Chen Enfu, has directly stated in our joint book *Anthology of Noonomy* [Enfu Cheng, Siyang Gao, 2021] that the concept of *intellectual economy* being developed by his colleagues and him, based on the idea of intellectualisation and raising the creative level of labour, *is incorporated into the ideological framework of the theory of Noonomy*.

All the more reason why we cannot agree with the identification of the terms *mental economy* and *Noonomy*. First, Noonomy is no longer an *economy*, but a *post-economic* form of satisfying social needs. Secondly, *Noonomy* is a *smart economy*. It is not just a post-economic world in which all existing aspects of social existence change. We have just noted that it is changing production, which is becoming knowledge-intensive. But above all, *humanity is changing* from being an economic human being to being a cultural human being, a creative human being, a creator. Humanity as a whole is moving from the ZOO – to the NOO-era [Bodrunov, 2018]. And this era is also the era of creativity, infinite creativity – based on infinite knowledge. Thirdly, these transformations cause *changes in the system of social relations and institutions* that mediate the transition to the post-economic reality.

The emergence of Noonomy presupposes the unity of four processes: *technological progress, the spread of property, the socialisation of the economy and society, the progress of solidarism*. This 'quadriga of Noonomy' presupposes, in the process of further development of its elements, the *phenomena* we have discussed today, but it *cannot in principle be reduced* to the progress of non-machine labour and the economy of spiritual objects.

The characterisation of the fundamental differences can be continued, but in this case, it is important to emphasise that the concept of transition to NIS.2 and further progress towards Noonomy is not an academic thought experiment, but a *theoretical account of humanity's global choice* between ZOO and NOO. And this choice is not speculative, but purely practical. The global financial and economic crisis of 2008-2010, the Covid-19 pandemic, the intensification of extreme

political conflicts and the escalation of geopolitical and economic processes – all of which Prof. Desai has studied in depth – are bringing us to the brink of survival. Civilisation is approaching the tipping point of its development, the bifurcation point we spoke of many years ago. And it is only possible to prefer positive development to chaos and regression if one has a holistic scientific picture of the objective trends of progress.

In our view, the concept of Noonomy, the various aspects of which we are discussing here, can provide such an objective picture. And I am sincerely grateful to all those who contribute to this picture with their input, their colours!

References

- Bodrunov S. D. (2018). *Noonomy*. M.: Cultural Revolution. Publ. 432 p. (In Russ.).
- Bodrunov S. D. (2018). From ZOO to NOO: Man, Society and Production in the Conditions of a New Technological Revolution. *The Questions of Philosophy*. Vol. 7. Pp. 109–118. DOI: 10.31857/S004287440000232-0 (In Russ.).
- Bodrunov S.D., Desai R., Freeman A. (2022). On the other side of the global crisis: Noonomy, Creativity, Geopolitical Economy. Monograph. St. Petersburg: S.Y. Witte Institute for New Industrial Development. 368 p. (In Russ.).
- Freeman A. (2021). Mental Objects as a Productive Force: Towards a Critique of Noonomy. In: *Anthology of Noonomy: Fourth Technological Revolution and Its Economic, Social and Humanitarian Consequences*. St. Petersburg: INID Publ. Pp. 207–265 (In Russ.).
- Cheng Enfu, Gao Siyang (2021). Knowledge-Based Economy as a form of noonomy and its socio-economic impact. In: *Anthology of Noonomy: Fourth Technological Revolution and Its Economic, Social and Humanitarian Consequences*. St. Petersburg: INID Publ. Pp. 178–206 (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 Moneta Str. 16, St. Petersburg, 197101, Russia)

E-mail: inir@inir.ru

DOI: 10.37930/2782-6465-2023-2-1-27-33

Natalia G. Yakovleva

Institute of Economics of the Russian Academy of Sciences (Moscow, Russia)

THE HUMAN POTENTIAL OF THE CREATIVE ECONOMY¹

Abstract: the article discusses some aspects of the discussion held at the international seminar held by the S.Y. Witte Institute for New Industrial Development (INID) on the problems of creativity, knowledge and their role in the progress of the economy and society. On the one hand, the creative economy is based on creative activity, defined through the concept of “mental object”. On the other hand, there is noonomy, which is based on the NOO-principles of future existence, where an economic person becomes a cultural person. Using the example of the sphere of education, the article presents the contradiction faced by creative spheres and activities at the stage of late capitalism – the contradiction between the chronotope (time-space) of creativity and the world of alienation (in particular, the market and capital).

Keywords: human potential, creative economy, noonomy, mental objects, non-mechanized labor, culture.

For citation: Yakovleva N.G. (2023). The human potential of the creative economy. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 1, pp. 27–33. DOI: 10.37930/2782-6465-2023-2-1-27-33

雅科夫列娃 N. G.

俄罗斯科学院经济研究所 (莫斯科, 俄罗斯)

创造型经济中人的能动性

摘要:文章以相互对照的方式探讨了维捷新兴工业发展研究所主办的创造力、知识及他们的作用国际研讨会上发表的一些观点。作者阐述了创造性经济,其基础是由“心理活动对象”决定的创造性活动;同时阐述了智慧经济,其基础是“经济人”转变为“文化人”的未来社会的智慧型原则。文章以教育领域为例,说明了资本主义晚期不同创造领域和创造活动遇到的矛盾,也即创造时空与异化世界之间的矛盾(包括市场、资本)。

关键词:人的能动性、创造型经济、智慧型经济、心理活动对象、不可被机器取代的劳动、文化。

引用注释:雅科夫列娃 N. G. (2023). 创造型经济中人的能动性//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. 1, pp. 27–33. DOI: 10.37930/2782-6465-2023-2-1-27-33

¹ This article was prepared based on the report at the international scientific seminar of the S.Y. Witte Institute for New Industrial Development (INID) on "Genesis of Noonomy: Knowledge. mental objects. Creativity" (05.04.2023).

The progress of creative economy has not been the focus of domestic economic science so far, although the development of high technologies and the progress of human potential of the most advanced countries, including China, one of the leaders in this process, has long become one of the dominant topics in world economic science. Meanwhile, for Russia, a country that has always been distinguished by a high level of creative potential of its nationals, this topic is one of the most relevant both in theoretical and practical terms. In this regard, the discussion that took place at the international seminar held in April this year by the S.Y. Witte Institute for New Industrial Development (INID) on the problems of creativity, knowledge and their role in the progress of the economy and society seems significant and important. Director of INID, Corresponding Member of the Russian Academy of Sciences Sergey Dmitrievich Bodrunov and his Canadian colleague Alan Freeman made key presentations at the seminar. Both reports disclosed theses summarizing a number of publications of these authors in recent years [Bodrunov, 2018a; 2018b; 2020a; Freeman, 2016; 2021; 2022].

First of all, as already stated, the author completely agrees with the focus of A. Freeman and S.D. Bodrunov on the relevance of knowledge-intensive economy, creative economy, and not only in terms of immediate interests. These topics are strategically relevant. The future lies in chronotope¹ (time and space), where creative activity will play an increasingly dominant role as an attribute of the creative economy and, moreover, of those global transformations in the economy and society that we are witnessing.

Answering the question about the nature of creativity, Alan Freeman emphasizes the importance of such attributes of the latter as *non-mechanized labor*² and the *mental object*³. Let us dwell briefly upon the nature of the latter below. The category of “mental objects” is associated with a reference to the study of the world where unusual phenomena exist. Indeed, poetry and formulas, music and technology are something that has multiple tangible embodiments and exists in each of them. Let us clarify: the same formula – $E = mc^2$ – exists in the form of a range of different embodiments (in the form of paper texts, records on electronic media, in the memory of millions of people, etc.). As such, mental objects are familiar to us, although we are not fully aware of how unusual they are. So in this sense, the emphasis on their features in the works of Alan Freeman seems to be quite fruitful.

While noting the importance of referring to these categories, S.D. Bodrunov, however, shows that they are necessary, but not sufficient for an adequate theoretical portrayal of global transformations that we are experiencing today due to the progress of creative activity. The reason for this is that the transformations of the 21st century cover all areas of social production and affect not only the structure of labor, but also technologies, social and economic relations, politics, culture – all areas.

¹ Chronotope is a category that is used in various sciences, ranging from physiological studies to literary criticism, and denotes the unity of time (chronos) and space (topos). Recently, this category has been especially often used in the socio-philosophical works of L.A. Bulavka-Buzgalina, Professor at Moscow State University [Bulavka-Buzgalina, 2014]. As applied to socio-economic research, chronotope is the unity of social time and space, which is determined by the system of certain social and economic relations.

² “...creative work is defined by ‘irreplaceability’: it cannot be mechanized or replaced by machines” [Freeman, 2016, p. 37].

³ A. Freeman states that mental activity produces “mental objects” that can “exist in certain forms (speech, thought, recording, broadcasting, etc.) and become part of existence of such a form. For example, “the function of a book is to reproduce, transmit and preserve information published in it. Thus, the text of a book is part of what the book itself is, the printed representation of a mental object, its “content”. And vice versa, the book becomes part of existence of a mental object that exists only in the ideal form of all its specific representations” [Freeman, 2021, p. 207].

These transformations are generalized by S.D. Bodrunov by introducing the categories of the “*New industrial society of the second generation*”, which is based on *knowledge-intensive production*¹, and *Noonomy*². The latter category reflects a new quality of social life where the economic is replaced by a non-economic way of meeting human wants³. In the world of noonomy, “*homo economicus*” becomes a “*homo culturalis*”, the imperative of ZOO is replaced by the imperative of NOO [Bodrunov, 2018a].

At first glance, Alan Freeman makes a different emphasis. By analyzing the space of economy where creative activity is widespread (the so-called creative economy), he, as noted above, concludes that mental objects are created in this space. This formulation seems to be narrower than the approach of S.D. Bodrunov, but it has an important aspect that overlaps with the fundamental thesis on the NOO-principle of future life.

What is this overlap?

In our opinion, both the phenomena described by the category of “mental objects”, and the world classified by S.D. Bodrunov as NOO space, have another name: in both cases, *we are talking about the world of culture, the world of the ideal*. Interpretation of the ideal as not only the material world reflected by the human mind, and translated into forms of thought⁴ (a formula that was widely used by Soviet textbooks with a reference to one of the sayings of the classics of Marxism), but also a representation, a reflection of physical phenomena in other physical phenomena, arising as a result of human activity, – this is the most important achievement of creative Soviet Marxism, first of all – the achievement of Evald Vasilyevich Ilyenkov⁵.

Other creative Marxists of the USSR (first of all, N.S. Zlobin [Zlobin, 1980] and V.M. Mezhujev [Mezhujev, 2006]), interpreted these phenomena as culture. Moreover, on these grounds, they concluded that culture is a special world in which unalienated social relations are formed, the phenomenon of “everyone’s ownership of everything” arises, and relations of dealienation develop [Bulavka-Buzgalina, 2018].

What are the consequences of such articulation of the problem?

¹ “A new type of production is emerging – knowledge-intensive production, which provides, on the basis of knowledge-intensive technologies, the production of a knowledge-intensive industrial product that is able to satisfy the growing wants of people, including, in contrast to the large-scale production of standard first-generation industry products, in the form of a customized product for the consumer. This type of production cannot be established without a high level of knowledge of all its components, materials, labor, process flow and, we emphasize this specifically, the technologies used. Knowledge in an explicit, “pure” form comes to the fore and will forever remain the main resource for industrial-technological and social development” (see: [Bodrunov, 2018a]).

² “... noonomy then acts as one of the basic elements of noosociety, as a kind of global universal “*nomos*” (law, system, order), which determines the non-economic way of human economy management and the satisfaction of human wants, guided by cultural imperatives, and not by economic rationality.” (see: [Bodrunov, 2020b]).

³ “... the point is that economic activity that satisfies human wants will be determined primarily by non-economic criteria, since the wants themselves will take a non-economic form” (see: [Bodrunov, 2018a]).

⁴ “...the ideal is nothing else than the material world reflected by the human mind, and translated into forms of thought” [Marx, 1955, p. 19].

⁵ See article “Ideal” by E.V. Ilyenkov in the “Philosophical Encyclopedia” (V. 2. Moscow, Soviet Encyclopedia. p. 219-227): “The ideal is not an individual psychological, much less physiological, fact, but a socio-historical fact, a product and form of spiritual production. The ideal is realized in various forms of social consciousness and the will of man as a subject of social production of material and spiritual life. <...> A man exists as a person, as a subject of activity directed at the surrounding world and at himself, since and as long as he actively produces and reproduces his real life in forms created by himself, by his own work. And this work, this actual transformation of the surrounding world and oneself, taking place in socially developed and socially legalized forms, is exactly that process – beginning and continuing completely independently of thought, – within which, as its metamorphosis, the ideal is born and functions, the idealization of reality, nature and social relations takes place, the language of symbols is born as the external body of the ideal image of the external world. Here is the whole mystery of the ideal, and here is the key to it.”

First. Creativity as a space-time for creation of cultural phenomena can and must, by its very nature, lie on the other side of the relations of alienation, in particular the market, private ownership and capital. This connection is described by the theory of noonomy in a special author's categorical interpretation. So, in a series of works devoted to the ways of genesis of this new world, S.D. Bodrunov characterizes the "quadriga of noonomy" [Bodrunov, 2021], which includes such elements as progress in science and technology, development of solidarity, socialization and diffusion of ownership. The first phenomenon is the essence, the material basis for the development of the other three, which, in turn, are categories that reflect the objective processes of dialectical removal of market competition, exploitation, private ownership and ownership in general (the latter is one of the arguments used by S.D. Bodrunov for attributing noonomy to the world of post-economics).

The second consequence, which is due to the need to address the realities in which creative activity is currently developing, i.e., the practices of late capitalism¹. First of all, the creative business that Alan Freeman talks and writes about is growing more and more actively in this space. In this regard, the question naturally arises: *how can and should the contradiction between the chronotope of creativity and the world of alienation (in particular, the market and capital) be resolved in the modern world?*

Let us show what the answer to this question can be on the example of education, emphasizing, on the one hand, the depth of this contradiction and highlighting ways to resolve it, on the other. The area of education in this case was chosen for a good reason: firstly, it is one of those spaces of social activity for which creativity is an attributive characteristic. It is in this area, first of all, that creative potential is formed as the most important quality of human potential in general². Secondly, in this area the market and private ownership are not dominant: education is one of the few spaces of late capitalism where the creation of not only private but also public goods is widespread³, where access to these goods, to co-creation [Batishchev, 1969] is ensured largely free of charge, where the public sector plays an almost dominant role.

Accordingly, in education, the market and capital turn out to be socio-economic forms that are preserved, but are in conflict with the content of labor in this area. This contradiction reflects the phenomena of commercialization and, moreover, the financialization of education, subordinating this area to alien goals and values.

Thus, "commercialization of education involves the increasing subordination of all the components of the educational process, the interests, motives and values of its participants, the management of educational organizations (both public and private) not only to market conditions,

¹ The concept of "late capitalism" was introduced in the works of E. Mandel and F. Jameson [Jameson, 1991; Mandel, 1978], as well as A.V. Buzgalin and A.I. Kolganov, who, in particular, define late capitalism as "a stage in the development of the capitalist mode of production, where its progress (technological development, economic growth) requires the use of elements of post-capitalist relations: responsible regulation of the economy; provision of a wide range of goods and services free of charge for the consumer in such areas as education, health care, etc.; redistribution of part of capital profits to employees and socially disadvantaged groups, etc." [Buzgalin, Kolganov, 2015, p. 52-53].

² For more details, see article: [Yakovleva, 2022b].

³ According to a number of researchers, education in general is an area of creating public goods. So, for example, N.A. Pruel states that "the specifics of education can only be derived from its definition as a good that contributes by its own production to reproduction of more developed members of society" [Pruel, 2002, p. 19]. "While sharing the reproductive approach to education proposed by N.A. Pruel, we, however, consider it important to emphasize that education only becomes the area of creation and use of public goods if and when socio-economic relations adequate for this content of education are formed in this area, namely, relations of public ownership and non-commercialized free access to education" [Yakovleva, 2021a, p. 83].

but also to the specific goals of obtaining commercial (capitalist) result, not education as such”¹ [Yakovleva, 2021a].

Financialization of education is a relatively new phenomenon in the research field, however, in our opinion², it already has manifestations (especially in the countries in the center of the capitalist system) and consequences. So, “financialization of education develops to the extent that financial capital and financial institutions determine the main components of the educational process and its management, primarily economic relations and institutions in this area. In particular, during the financialization process of education, financial institutions and financial market conditions determine: the goals of educational organizations; their investments and their main channels for obtaining funds, including tuition fees (for example, student loans); motives for the activities of students and teachers. It is not hard to see that the development of education financialization is in conflict with the development of education as an area for the formation and development of creative qualities of the majority of members of society” [Yakovleva, 2022a].

“During the development of neoliberal model of late capitalism, changes are taking place in the area of education, which result in the fact that an increasing transformation of education from a public good into a commercial service has become one of the features of market economy at neoliberal stage. These transformations are in contradictory interrelation with changes in the education area, due to the progress of productive forces and, in particular, the development of knowledge-intensive production and the transformation of creative work from an exceptional instance into one of the main areas of employment. This progress necessitates an increasingly intensive (i.e., involving both quantitative growth and qualitative improvement) development of education, which is accessible to every member of society and is provided at all stages of human evolution (“Lifelong Education for All”)” [Yakovleva, 2021a, p. 116].

Moreover, even the means of developing education in this case become mechanisms that hinder the progress of education as an area of co-creation, progress of the NOO-world (in this case, we use the categorical framework of S.D. Bodrunov). An alternative to this process is the relief of relations in the education area from restrictions of social alienation to the extent that relations of education socialization develop. To clarify, the latter involves the development of at least four areas³. First, socialization implies a progressive orientation of education primarily towards the progress of human potential, and not only towards market conditions. Secondly, the task is to develop the universal accessibility of education, which in the future should become “lifelong education for all”. Thirdly, the prerequisite for completing the first two tasks is the progress of egalitarian model of education while abandoning the elitism of the latter. Finally, fourthly, the education area itself should be built on the principles of self-government and debureaucratization.

The author has repeatedly turned to the study of these problems, so let us return to the analysis of the reports presented at the seminar and note that the resort to education area allows us to show exactly how the movement towards the NOO-world takes place. Therefore, it is no coincidence that it was the subject of regular consideration at the congresses devoted to the future progress of production, science and education (PSE), held under the auspices of INID for more

¹ For more details about the process of commercialization of Russian education, see: [Yakovleva, 2023].

² For more details about the characteristics of the financialization process of education and its manifestations, see: [Yakovleva, 2019].

³ For more details about these areas, see: [Yakovleva, 2021b].

than five years¹. The fundamental problem of the genesis of noonomy was actively discussed at these congresses, again for a good reason.

The developments of Alan Freeman put little attention on the education area, in contrast to the area of commercial art and other areas of creative business, actively analyzed by this author, since the market, business, etc. are phenomena that are still necessary for education at present, but are strategically alien.

So, it would seem that a purely academic dispute about categories turns into significantly different approaches to the development of creative economy and, moreover, post-economy. And this is an important aspect demonstrating not only the theoretical but also the practical value of this discussion.

References

- Batishchev G.S. (1969). The Active Essence of Man as a Philosophical Principle. *The Problem of Man in Modern Philosophy*. Ed. by I.F. Balakina, B.T. Grigoryan, S.F. Odueva, L.A. Shershenko. Moscow, Nauka Publ., pp. 73-144. (In Russ.).
- Bodrunov S.D. (2018a). From ZOO to NOO: Man, Society and Production in the Context of a New Technological Revolution. *Problems of Philosophy*. No. 7, pp. 109-118. (In Russ.).
- Bodrunov S.D. (2018b). *Noonomy*. Cultural Revolution Publ., 431 p. (In Russ.).
- Bodrunov S.D. (2020a). Socialization: The Thorny Path to Noonomy. *Economic Revival of Russia*. No. 4, pp. 5-12. (In Russ.).
- Bodrunov S.D. (2020b). *Noonomy: The Trajectory of Global Transformation*. Monograph. Moscow, INID Publ., Cultural Revolution Publ., 224 p. (In Russ.).
- Bodrunov S.D. (2021). The Genesis of Noonomy: STP, Diffusion of Property, Socialization of Society, Solidarism. *Economic Revival of Russia*. No. 1 (67), pp. 5-14. DOI 10.37930/1990-9780-2021-1-67-5-14. EDN ICUTMD. (In Russ.).
- Buzgalin A.V., Kolganov A.I. (2015). *Global Capital*. In 2 vols. Vol. 2. Theory: The Global Hegemony of Capital and its Limits ("Capital" re-loaded). Moscow, 3rd ed., revised and extended LENAND Publ., 904 p. (In Russ.).
- Bulavka-Buzgalina L.A. (2014). What is the Time of the "Future"? Chronotopes of the USSR. USSR – The Era of Transitivity. *Culture: The Search for the Future. Navigation – Mayakovsky*. ed. L.A. Bulavka-Buzgalina. Moscow, KomKniga / URSS Publ., pp. 25-54. (In Russ.).
- Bulavka-Buzgalina L.A. (2018). Dissociation: from Philosophical Abstraction to Socio-Cultural Practices. *Problems of Philosophy*. No. 6, pp. 169-179. (In Russ.).

¹ Proceedings of the annual congresses "Production. Science. Education": Production, Science and Education in Russia: Overcoming Stagnation: Proceedings of the II International Congress (PSE-II) / under the general editorship of S.D. Bodrunov. Saint Petersburg, S.Y. Witte INID Publ., 2016. 716 p.; Production, Science and Education in Russia: New Challenges: Proceedings of the III International Congress (PSE-III) / under the general editorship of S.D. Bodrunov. Saint Petersburg, S.Y. Witte INID Publ.; Moscow: Cultural Revolution Publ., 2017. 880 p.; Production, Science and Education in Russia: Systematic Approach: Proceedings of the IV International Congress (PNO-IV) / under the general editorship of S.D. Bodrunov. Moscow: S.Y. Witte INID Publ., 2018. 540 p.; Production, Science and Education in Russia: Technological Revolutions and Socio-Economic Transformations: Proceedings of the V International Congress (PSE-V) / under the general editorship of S.D. Bodrunov. Moscow, S.Y. Witte INID Publ., 2019, 480 p.; The Genesis of Noonomy: STP, Diffusion of Property, Socialization of Society, Solidarism. V. 1-3: Book of reports of the Joint International Congress SPEC-PSE-2020 / under the general editorship of S.D. Bodrunov. Moscow, INID Publ., 2021; Production. Science. Education: Scenarios for the Future (PSE-2021) / under the general editorship of S.D. Bodrunov. Saint Petersburg, S.Y. Witte INID Publ.: CenterCatalog Publ., 2022. 424 p.

- Zlobin N.S. (1980). *Culture and Social Progress*. Moscow, Nauka Publ., 303 p. (In Russ.).
- Marx K. (1955). *Capital*. Vol. 1. Moscow, Political Literature Publ., 723 p. (In Russ.).
- Mezhuyev V.M. (2006). *Idea of Culture. Essays on the Philosophy of Culture*. Moscow, Progress-Tradition Publ., 408 p. (In Russ.).
- Pruel N.A. (2002). Education as a Public Good: Reproduction, Distribution and Consumption. *Author's abstract of the dissertation for PhD in Social Sciences*. 22.00.03. St. Petersburg, 296 p. (In Russ.).
- Freeman A. (2016). Twilight of the Machinocratic Approach: Irreplaceable Labor and the Future of Production. *Issues of Political Economy*. No. 4, pp. 37-60. (In Russ.).
- Freeman A. (2021). Mental Objects as a Productive Force: A Contribution to the Critique of Noonomy. In: *Anthology of Noonomy: Fourth Technological Revolution and Its Economic, Social and Humanitarian Consequences*. Saint Petersburg, INID Publ., pp. 207-265. (In Russ.).
- Freeman A. (2022). Twilight of the Machinocratic Worldview: Irreplaceable Labor and the Future of Production. In: *Beyond the Global Crisis: Noonomy, Creativity, Geopolitics*. Saint Petersburg, S.Y. Witte INID Publ., pp. 255-330. (In Russ.).
- Yakovleva N.G. (2019). Social Consequences of the Financialization of Education. *Sociological Studies*. No. 12, pp. 104-114. DOI: 10.31857/S013216250007744-1. EDN QESSJE. (In Russ.).
- Yakovleva N.G. (2021a). Contradictions of Transformation of Education in Modern Economy: Political and Economic Approach. *Author's abstract of the dissertation for PhD in Economics*. 08.00.01. Moscow, 307 p. (In Russ.).
- Yakovleva N.G. (2021b). Contradictions of Transformation and the Genesis of a Socially-Oriented Model of Education (Political and Economic Approach). *Issues of Political Economy*. No. 3, pp. 183-197. DOI: 10.5281/zenodo.5554163. EDN EWSIFL. (In Russ.).
- Yakovleva N.G. (2022a). Contradictions of Transformation of Education in Modern Economy (Political and Economic Approach). *Author's abstract of the dissertation for PhD in Economics*. 08.00.01. Moscow, 41 p. EDN JWASCH. (In Russ.).
- Yakovleva N.G. (2022b). Education: Role in the Formation of Human Potential, Technological and Socio-Economic Modernization of Russia. *Russian Economic Journal*. No. 4, pp. 30-47. DOI: 10.33983/0130-9757-2022-4-30-47. EDN CIPKPD. (In Russ.).
- Yakovleva N.G. (2023). Russian Education: Global and National Challenges to the Formation of Human Potential. *Standard of Living of the Population in the Regions of Russia*. Vol. 19, No. 1, pp. 36-46. DOI: 10.52180/1999-9836_2023_19_1_3_36_46. EDN GNWDCQ, (In Russ.).
- Jameson F. (1991). *Postmodernism, or, The Cultural Logic of Late Capitalism*. London; New York: Verso. 460 p.
- Mandel E. (1978). *Late Capitalism*. London; New York: Verso. 618 p.

Information about the author

Natalia G. Yakovleva

Doctor of Economics, Associate Professor, Leading Researcher at the Center for Institutes of Socio-Economic Development of the Institute of Economics of the Russian Academy of Sciences (Nakhimovskiy Prospekt, 32, 117218, Moscow), Associate Professor at the Center for Modern Marxist Studies of the Faculty of Philosophy of Lomonosov Moscow State University (Building 4, Lomonosovskiy Prospekt, 27, 119192, Moscow).

E-mail: tetn@yandex.ru

DOI: 10.37930/2782-6465-2023-2-1-34-43

Andrey I. Kolganov

Lomonosov Moscow State University (Moscow, Russia)

THEORY OF NOONOMY AS AN INTERDISCIPLINARY THEORETICAL PLATFORM¹

Abstract: the article examines the possibilities of the theory of noonomy as a theoretical and methodological basis for conducting complex interdisciplinary research. These opportunities are created by the nature of the theory itself, as interdisciplinary, based on the interaction of solving research problems in different fields, and research in one area forms the basis for research in other areas. It shows a number of directions of this kind of research in technological, economic, axiological, cultural, etc., spheres, as well as the interdependence of conclusions, which is formed by relying on the theory of noonomy. This provides the theory of noonomy with both a serious prognostic potential in relation to the prospects for the development of human civilization, and the possibility of developing practical recommendations on the basis of the received scientific basis to overcome dead ends and forks of the threatening civilizational crisis.

Keywords: noonomy, interdisciplinary research, technology, knowledge, culture, economics, creativity, solidarity.

For citation: Kolganov A.I. (2023). Theory of noonomy as an interdisciplinary theoretical platform. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 1, pp. 34–43. DOI: 10.37930/2782-6465-2023-2-1-34-43

科尔加诺夫A. I.

莫斯科大学(莫斯科, 俄罗斯)

智慧经济理论是跨学科的理论纲领

摘要:文章研究了智慧经济学作为跨学科综合研究的理论基础和方法论基础的可行性问题。这种可行性源于该理论本身的跨学科特点。跨学科特点形成的基础是不同领域的研究课题的相互影响,并且一个领域的研究成果可以作为另一个领域研究的基础。文章揭示了存在大量这类研究的一系列领域,诸如经济学、价值论、文化及其它领域,以及研究结论之间的基于智慧经济学理论的相互联系。这使智慧经济理论具备了对人类文明发展前景的重要预报以及在科学研究基础上给出实践导向的作用,能够帮助人们克服人类文明发展面临的进入死胡同或错误岔路的危机。

关键词:智慧经济学、跨学科研究、技术、知识、文化、经济、创造、团结主义。

引用注释:科尔加诺夫A. I. (2023). 智慧经济理论是跨学科的理论纲领//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. 1, pp. 34–43. DOI: 10.37930/2782-6465-2023-2-1-34-43

¹ This article was prepared based on the report at the international scientific seminar of the S.Y. Witte Institute for New Industrial Development (INID) on "Genesis of Noonomy: Knowledge. mental objects. Creativity" (05.04.2023).

Introduction

The theory of noonomy is one of the currently extremely rare theoretical concepts, which, firstly, are of a historical nature (i.e., they address the development of their subject in historical terms by highlighting its specifics at various historical stages). It involves application of the method of materialistic understanding of history to the contemporary era, demonstrating the emerging civilizational forks. Secondly, the theory of noonomy not only has a prognostic potential, but also, in its content, is aimed at generating deep forecasts for the development of civilization. Thirdly, it is interdisciplinary in nature, starting from the study of technological development patterns and the substance of human activity, through the study of social and economic relations determined by this development, the evolution of forms of ownership, human wants, the role of knowledge and culture, the social structure, the role and functions of the state, up to socio-philosophical and ideological findings. It is this last feature of the theory of noonomy that will primarily be the field of special focus in this article.

All three distinctive features of the theory of noonomy as specified above make it possible to define it also as a methodological basis for conducting application-specific research in various areas. Another task of the article is to show the potential of noonomy in this capacity.

Materials and Methods

The theory of noonomy is based on the study of development trends of productive forces in the society, including the physical environment of production and the structure of human activity. This represents its materialistic nature, while we should keep in mind that the opposition of the material and the ideal is absolute/unconditioned only as part of the fundamental philosophical question. Therefore, material and non-material production are closely intertwined and mutually penetrate each other, while retaining, however, the paramount importance of material production. As Cheng Enfu rightly noted, “all non-material labor involves the transformation of the material to a certain extent and is an activity to create an objective world” [Cheng Enfu, Gao Siyang, 2021, p. 194].

But at the same time, the conclusions reached by the theory of noonomy in themselves have a prognostic potential regarding the prospects for the development of human productive forces. They allow us to understand the objective trends in the evolution of processes and technology (including possible groundbreaking leaps in their development) and at the same time provide guidelines for the conscious choice of development dimension – a kind of «social contract» for improving processes and technology and for the appropriate education of a person.

The man-made world of the technosphere has not only improved our lives, but also created numerous risks and hazards associated with the abuse or irrational utilization of the power of modern technology. The risks associated with the destruction of the natural habitat as a result of human activities have been under the closest attention for decades. It was not until fairly recently that the humanity faced new technological hazards, one of which has been the use of artificial intelligence (AI).

A number of experts are sounding the alarm in this regard, up to proposals to ban any use of AI. Like any technology, AI can be dangerous if used in violation of certain regulations. Thus, the danger lies not in the AI technologies themselves, but in their misuse. But the risks are not at all in the “rebellion of machines”, but in something completely different. The independence of AI is extremely exaggerated and as viewed by the experts it acts as an outsized response to the rules and standards for the use of AI that have not yet been developed.

What are the actual risks associated with the use of AI?

The risk is the transfer of decision-making functions to self-learning bots. For example, even now bots are being delegated the functions of making decisions on issuing loans to bank customers or rejecting loans. However, such risks are only realized if the developers deliberately excluded the transparency of the procedures and algorithms applied for such decision-making, and did not provide for an appeal procedure in case of errors. The hazard is multiplied if bots are delegated with decision-making that can have irreversible effects. But in some cases it is rather a boon – say, for computer-aided supervision over production processes, where a person is not able to quickly follow everything.

State-of-the-art bots are able to provide search, selection, classification and processing of information, up to primary inferencing on this basis. These functions can also be dangerous if the bot's algorithm is a "black box". What information does the bot rely on and what information is excluded? Self-learning procedures do not provide a guarantee against errors, but only reduce their likelihood, depending on the qualifications of technicians who adjust the bot's self-learning process. As for transferring the inferencing function to bots based on the information they collect, then the "black box" principle is the most dangerous here. In this case, there are no guarantees against the substitution of the information analysis with just a "correct" selection of ready-made logical judgments already contained in the information being collected, based on the self-learning rules of the bot. The notorious case where the ChatGPT bot was used to prepare the graduation thesis is a vivid example.

In the most general terms, the hazard of AI bots lies in the temptation of a person to refuse the creative processing of information, relying only on the function of its selection and systematization delegated to the bot. Probably, the bot can discover the simplest relations between the collected data, for example, through the generation of a correlation model. But it is not able to independently define the initial conditions for such a model, nor can it interpret the results obtained. AI cannot use fuzzy logic procedures or the logic of contradictions (dialectics) – not every human is able to master these intelligent technologies since they are not algorithm-based.

Therefore, excessive reliance on the power of AI is similar to the rejection of independent walking in favor of movement in a wheelchair – a kind of voluntary «intellectual inactivation». This misuse of AI will narrow our cognitive abilities instead of expanding them. This is where the real hazard lies, but it lies in ourselves, not in AI technology. Consequently, the response to risks and threats must be sought, first of all, in the correct adjustment of our interests and wants. It is this direction of the search for responses to technological challenges that the theory of noonomy makes focus on. Just as the threats of disturbance of natural environment due to unrestrained consumption of natural resources in pursuit of economic (market) results can only be stopped by reconfiguring our wants and refusing to focus primarily on making profit, from the standpoint of the theory of noonomy, so the risks of using AI require us to think about why and for what purpose we use it.

The theory of noonomy allows us to correctly navigate not only technological trends and related risks, but also changes in the economic system of society under the influence of technological development. First of all, these changes are associated with the growing contradictions in the current model of the capitalist economy, which is most clearly manifested in the role of financial capital. Financial capital has long ceased to be just one of the isolated functional forms of capital; in a certain sense it has become a self-contained factor that has a huge and often destabilizing

effect on the entire capitalist economy. The focus on financial results that are not related to real-world production entails far from harmless consequences: diversion of investments and skilled labor resources from the real economy to the financial sector; generation of distorted economic signals for decision making in the real sector; erosion of any and all criteria for making economic decisions in favor of the pursuit of financial success. "...Growing financialization contributes to the accelerated movement of civilization towards a global crisis," concludes S. Bodrunov et al. [Bodrunov, Desai, Freeman, 2022, p. 166]. A way out in the short term can be found: by changing the priorities of decision-making towards achieving the results of real-world production and meeting real wants; by establishing control over the financial sector in order to turn it into a mechanism that renders services to production, and does not play a self-contained role. But it should be kept in mind that current financial capital is an objective product of the natural-historical evolution of the capitalist economy. Therefore, in the long run, the final solution lies in the plane of transition of production activity away from its subordination to economic criteria in general.

This tendency, noticed and formulated in the theory of noonomy – the tendency to liberate production activity from subordination to its economic goals – also manifests itself in the evolution of ownership relations. Such a phenomenon as ownership and use without a full set of ownership rights is making its way and is embodied in the sharing economy, the proportion of which is growing. Indeed, why should one burden oneself with property if one can satisfy one's wants even without this burden? Jeremy Rifkin noted the emergence of this trend quite a while ago in his book "The Age of Access" [Rifkin, 2000]. At the same time, the author of the work warns about the commercialization of all and every manifestation of human life: yes, people and companies are freed from property, but along with this, they have to pay for every step, for every vital function.

Simultaneously, and for quite some time now, other trends have also made their way: towards dilution of the bundle of ownership rights (diffusion of ownership), towards the transition from individual and narrow-group to collective forms of ownership. Finally, a rather broad segment of free access has emerged in the area of intellectual products, which has been causing debates about the balance between free access and protection of intellectual property rights for more than a decade [Lindberg, 2008; Vetter, 2009].

The role of market relations is also changing with the changing layout of present-day production. The principle of unrestricted competition and the entrepreneurial spirit supported by it, which made it possible to ensure the tremendous progress of the productive forces during the 19th and 20th centuries, no longer cope with the forces created by them. Not only the range of global problems (environmental crisis, militarism and weapons of mass destruction, moral degradation, etc.), but also the very interests of capitalist economy existence – the far it goes, the messier it gets – require the adjustment of market relations by non-market mechanisms, among which a prominent place is occupied by planning. The trend towards the use of planning in a market economy has been developing for more than two centuries, and especially significant experience in this area has been accumulated in the second half of the 20th century in Europe [Rosser J., Rosser M., 2004; Estrin, 1983], Japan [Moriguchi, 1980; Khlynov, 1997], and in newly industrialized countries [Kuznets, 1990; Balassa, 1990].

Another important trend at the confluence of technological trends and economic relations is the development of so-called trust technologies. The higher the level of trust in production, the lower the transaction costs associated with protection from the opportunistic behavior of

counterparties. In the long run, an increase in the level of trust and its consolidation in the form of a strong tradition will make it possible to eliminate such transaction costs in full. Obviously, technologies alone (like blockchain) are not sufficient for this purpose; it is also necessary to weaken that self-centered motivation created by the market economy that provokes opportunistic behavior.

Along with the evolution of technology, changes in the structure of labor and the nature of economic relations, the social structure of society is also evolving. Not only the composition and proportion of social classes and social groups are changing, but the criteria for social class division are also changing. Along with the growing role of knowledge in the production process and the growing share of creative functions in human activity, the importance of education and qualification factors as principles of social stratification is increasing. However, at the same time, the old dividing lines related to property ownership, capital accumulation and income level retain their significance – the hundreds of millions of substantially disadvantaged population prevent us from ignoring the relevance of this division. All the more urgent is the issue of overcoming such fault lines in human society, because failure to do this will raise difficulties in opening the path of development for each person, and the old class conflicts will be a drag on humanity. Clearly, intellectualization of labor and gradual replacement of man from the direct production process as a whole will raise the issue of interaction between society and the sphere of production in a different way. But with that goal in mind we must first overcome the problem of poverty and backwardness.

The development of modern technologies inspires fear for the future of not only the natural habitat, but also for the nature of man himself. Various forms of intervention in human nature (genetic engineering, gender correction, cyborgization, etc.) are ultimately dictated by individualistic egoistic motives – both among those who are thoughtlessly ready to undergo such intervention, and among those who turn it into business. No less dangerous than interference with the inherent nature of humans is the impact on their social nature. Here are both the technologies of political and ideological manipulation, and the manipulation of human wants, and the imposition of false, simulative wants – from focusing on a reckless increase in consumption to tricking people with the illusion of achieving “personal growth” without any of their own efforts and widespread emergence of various sects based on sophisticated psychological abuse.

The theory of noonomy emphasizes that at present civil society is at one of the most important crossroads in its development, and the future of human civilization depends on the chosen path at this fork.

Continuously added complexity of technologies that can only be developed with reliance on deep fundamental and applied research, and can only be applied with a high level of personnel qualification, determines the increasing role of knowledge in material production. Sometimes this proposition is overemphasized, taking it to the point of absurdity (by some supporters of the concepts of “post-industrial society”) and putting forward the idea that knowledge sidelines the material factors of production and almost replaces them. However, modern knowledge-intensive technologies cannot exist without those physical production assets in which human knowledge is implemented.

The latter is clearly substantiated by the fact that the production efficiency and the level of labor productivity, with an approximately equal quality of work force, depend to a critical extent on the capital-labor ratio of production. The Russian economy may be said to bump into this prob-

lem. The low level of capital-labor ratio and low rates of technical modernization of production result in inability of existing good intellectual potential and creative abilities of the persons engaged to compensate for weakness in terms of material production factors. The Russian economy needs a wide-scale replacement of obsolete and non-competitive equipment. At the same time, it is necessary to raise the capital-labor ratio in Russian industry at least three to four times¹, since this leads to a significant gap in labor productivity when compared with the economies of developed countries [Zaitsev, 2016, p. 84-86]. Moreover, knowledge implementation in the production assets in Russia dramatically lags behind its state in Western countries: investments in the production assets are ahead of our investments in research and development by 28.6 times, and in developed countries – no more than 6 times. As a result, the share of industrial value added in Russia's GDP is more than two times behind its value in the United States, Germany, and France, and the share of high-tech exports in GDP is 7–12 times lower [Gasarov, 2014]. Whereby, there are 4.7 workers per machine tool in Russian mechanical engineering, and 0.8 in the EU countries, and labor productivity is six times lower than in the EU².

However, the theory of noonomy does not reduce the progress of human activity solely to technological knowledge, both learned by man and implemented in the production assets. Along with changes in technology, the structure of human activity and the growth of labor productivity based thereon and the enhancement of opportunities to meet human wants, the problem of sustainable consumption criteria arises. The scale of human production activity has become such that, as noted above, it entails the depletion of resources of our planet and the progressive destruction of the habitat. Therefore, an unlimited increase in consumption becomes disastrous for the very existence of mankind, especially if the consumption race is spurred on by manipulating the consumer for the sake of increased sales through the formation of delusive, simulative wants.

But how do we put this race to an end? Historical experience has shown that introduction of external coercive restrictions will not be successful. This means that these restrictions must be internal in nature and act as reasonable self-imposed limitations. What can encourage a person to voluntarily change the structure and scope of their wants? One of these factors is knowledge. A person who not only possesses knowledge, but also considers knowledge as a value essential for usual day-to-day activities, organizes its consumption in a different way. Consumption ceases to be the goal and reason for existence. This shift in a person's consciousness, in turn, depends on the cultural practices and values the person has learned.

The wants and consumption patterns of a person engaged in creative activities are changing. The amount of consumption, the race to meet even more sophisticated wants imposed by the market, cease to be an end in itself for such person. On the contrary, consumption acts as a means of providing conditions for creative activity.

The growing role and importance of creative activity in the modern economy resulted in the creation of the “creative class” concept. However, the focus of attention of sociologists engaged in this topic has often turned out to be clearly shifted in the wrong direction. Well-known studies

¹ Digitalization and IoT will Allow Mechanical Engineering to Make a Breakthrough (2018). Corporate Information Systems, Industrial Automation, TOP News. August 20, 2018. URL: <https://www.connect-wit.ru/j-son-partners-consulting-ekonomicheskije-effekty-ot-tsifrovizatsii-i-vnedreniya-iot-v-mashinostroenii-v-rossii.html> (Accessed: January 20, 2022).

² Economic Effects of Digitalization and the Introduction of IoT in Mechanical Engineering in Russia (2018). Analytical Report, by J'son & Partners Consulting, August 17, 2018. URL: https://json.tv/ict_telecom_analytics_view/ekonomicheskije-effekty-ot-tsifrovizatsii-i-vnedreniya-iot-v-mashinostroenii-v-rossii-20180817013305 (Accessed: January 3, 2021).

by Richard Florida offer some criteria for affiliation with creative class that are very vague and far from the essence of the studied phenomenon: lifestyle, hobbies and other casual behavioral attributes [Florida, 2002; 2005].

For Richard Florida and many of his followers, the creative class predominantly consists of representatives of professions that primarily serve the interests of speculative financial capital, ensure the production of simulative goods and the manipulation of public opinion. This was noted even by his teacher, Peter Marcuse [Marcuse, 2003, p. 40-41; Peck, 2005].

This use of the potential of creative labor – often not for development purposes, but to market illusive goods, simulacrums only intended to draw money from the pockets of consumers – is a real problem for the modern economy. When a significant part of the creative potential is spent on such activities that contribute little to the development of real production and the satisfaction of rational wants, and sometimes cause harm to people, then this implies a de facto deduction from our actual production potentialities and a waste of human potential. Should we proudly look at the achievements in providing profiteering in the financial market [Buzgalin, Kolganov, 2019, p. 21-23]?

It is only possible to get rid of such a counterproductive orientation of human potential by refusing to subordinate creative activity to the criteria of economic rationality. Only this can be the basis for transformation of a “homo economicus” into a “homo culturalis”. And this, in turn, requires a transition from economy to noonomy [Bodrunov, 2018, p. 249-250].

Findings and Discussion

Thus, how can we summarize the solution to the problem of sustainable use of the achievements of new technological wave, and any new technologies that have already emerged or are destined to emerge in the future (including AI technologies covered by the author in more detail)? The theory of noonomy sees a way out in abandoning economic rationality in resolving the problems in the development of production and consumption. The new rationality, which, in contrast to growth of financial performance, ensures the solution of real problems of human life and development, requires new criteria.

These criteria are not selected recklessly, they are not imposed on society arbitrarily, and do not represent some kind of moralizing like “for all the good things, and against all the bad things.” The theory of noonomy focuses on the objectively increased role of cognition and knowledge in the production process, on the trend to transform “homo industrialis” into “homo eruditus”. And this knowledge makes it possible to form a new rationality, that is, a rationality based on knowledge, on understanding the desired results and consequences of decisions made in the area of production and consumption. But knowledge by itself is still not sufficient to establish a new rationality, since the human mind can use its ability to comprehend reality not necessarily for good. While the focus on good intentions and results is achieved through a shift from economic interests to cultural values. It is the level of culture that becomes a key factor for the power of knowledge, combined with cultural imperatives, to form the desired new rationality, and for “homo economicus” to be replaced by “homo eruditus” and “homo culturalis”.

Thus, there will be a transition from an economic society to a post-economic one, where the place of economy will be taken by noonomy (“the sphere of reasonable order”, as translated from Greek). According to Bodrunov’s definition, “... noonomy is a way to meet the wants in a society

where there is an “insight”; where there is no relation to production or production relations; where there is no relation to property and ownership relations; where there is no economy and the economy is impossible” [Bodrunov, 2019, p. 16].

Along with this transition, the structure of society also changes. The growing role of knowledge in material production is developing along with the gradual abandonment of man’s direct participation in the production process. Thus, human society is separated from the sphere of production (as well as from the technosphere in general, which becomes the sphere of autonomous technical entities), and social relations, for the most part, cease to be relations of production. Society and production are becoming relatively isolated spheres of civilizational existence, but human society retains the functions of control and governance of production development. “At the noophase, nooproduction, being separated from a person and from society, remains subordinate to society in terms of its goals and objectives,” is emphasized in “Noonomy” [Bodrunov, 2018, p. 180].

Cultural evolution also corresponds to this development. Moral imperatives and the ideological envelope in which they are enclosed are changing. Since the structure of human wants is undergoing a change and the pursuit of accumulation of material wealth recedes into insignificance, the goals of human development associated with the growing importance of creative activity come to the fore. This, in turn, leads to the formation of new ideological paradigms. The “war of all against all” based on the competition for resources that ensure the increase in consumption, is being replaced by the ideology of cooperation and solidarity in the joint efforts to address specific tasks to ensure decent life and human development. The ideology of solidarism, which once acted as wishful thinking or even a hypocritical disguise for social class strife, thus acquires an objective basis for its spread and consolidation.

A man is transformed, first of all, into a creative person, and not “human capital”, not into a self-investment project for the sake of better self-commercialization. The “creative class”, today mostly focused on serving the interests of financial tycoons – both directly in the financial market, and in the area of bureaucratic management, and in the area of manipulating the market and people’s wants, and in the area of ideological manipulation – will become fully a class of creative individuals serving the shared cause and the common good.

Summary

The article gives only a cursory outline of those areas of research which can rely on the interdisciplinary potential of the theory of noonomy. But even this brief description shows the enormous possibilities that noonomy opens up as a complex, comprehensive theory that includes interaction and entwinement of various levels and subjects of study, so that the study of one subject creates the basis for understanding the patterns of another. Being a strictly materialistic theory, noonomy nevertheless shows the relation between the development of material surroundings of human life and the development of spiritual life, which, in turn, has a huge impact on purely material processes. Noonomy reveals actual contradictions and impasses that threaten the existence of human civilization, and in the search for ways out of these contradictions is not limited to slogans and wishful thinking, but reveals the options for moving forward towards a better future in the objective trends of the present. At the same time, noonomy opens up the horizons of the future, making a comprehensive forecast for the development of human civilization.

References

- Bodrunov S.D. (2018). *Noonomy*. Moscow, Cultural Revolution Publ., 432 p. (In Russ.).
- Bodrunov S.D. (2019). Noonomy: Ontological Theses. *Economic Revival of Russia*. No. 4 (62), pp. 6-18 (In Russ.).
- Bodrunov S.D. (2022). Formation and Resolution of the Civilizational Crisis: Noonomy. In: *Beyond the Global Crisis: Noonomy, Creativity, Geopolitical Economy*. Saint Petersburg, S.Y. Witte INID Publ., pp. 19-168. (In Russ.).
- Buzgalin A.V., Kolganov A.I. (2019). Social Structure Transformations of Late Capitalism: from Proletariat and Bourgeoisie towards Precariat and Creative Class? *Sociological Studies*. No. 1. Pp. 18-28.
- Gasanov M.A. (2014). Institutional Traps of the Welfare Economy in Russia and Prospects for New Industrialization. *Modern Problems of Science and Education*. No. 5. URL: <http://www.science-education.ru/ru/article/view?id=14611> (Accessed: January 3, 2021) (In Russ.).
- Zaitsev A. (2016). Cross-country Differences in Labor Productivity: the Role of Capital, the Level of Technology and Natural Rent. *Economic Issues*. No. 9 (In Russ.).
- Khlynov V. (1997). National Planning of a Market Economy: The Experience of Japan. *International Journal of Management Theory and Practice*. No. 2 (In Russ.).
- Digitalization and IoT will Allow Mechanical Engineering to Make a Breakthrough (2018). *Connect: Corporate Information Systems, Industrial Automation, TOP News*. August 20, 2018. URL: <https://www.connect-wit.ru/j-son-partners-consulting-ekonomicheskije-effekty-ot-tsi-frovizatsii-i-vnedreniya-iot-v-mashinostroenii-v-rossii.html> (Accessed: January 20, 2022) (In Russ.).
- Economic Effects of Digitalization and the Introduction of IoT in Mechanical Engineering in Russia (2018). Analytical Report. *J'son & Partners Consulting*, August 17, 2018. URL: https://json.tv/ict_telecom_analytics_view/ekonomicheskije-effekty-ot-tsifrovizatsii-i-vnedreniya-iot-v-mashinostroenii-v-rossii-20180817013305 (Accessed: January 3, 2021) (In Russ.).
- Cheng Enfu, Gao Enfu (2021). Intellectual Economy as a Form of Noonomy and its Socio-Economic Consequences. In: *Anthology of Noonomy: The Fourth Technological Revolution and its Economic, Social and Humanitarian Consequences*. Saint Petersburg, INID Publ., pp. 178-203 (In Russ.).
- Balassa B. (1990). Indicative planning in developing countries. *Journal of Comparative Economics*. Vol. 14, Issue 4. P. 560-574.
- Estrin S. (1983). *French Planning in Theory and Practice*. London; Boston: George Allen & Unwin. VIII, 215 p.
- Florida R. (2002). *The Rise of the Creative Class: And How It's Transforming Work, Leisure and Everyday Life*. New York: Basic Books.
- Florida R. (2005). *The Flight of the Creative Class. The New Global Competition for Talent*. New York: Harper Business, HarperCollins.
- Kuznets P. (1990). Indicative planning in Korea. *Journal of Comparative Economics*. Vol. 14, Issue 4. P. 657-676.
- Lindberg V. (2008). *Intellectual Property and Open Source: A Practical Guide to Protecting Code*. Sebastopol, CA: O'Reilly Media, Inc. 386 p.
- Marcuse, P. (2003) Review of the rise of the Creative Class by Richard Florida. *Urban Land*. Vol. 62, No. 8. Pp. 40-41.

- Moriguchi Ch. (1980). Japan's Recent Experiences of Quantitative Economic Planning. *Revue économique*. Vol. 31, No. 5 (Le VIII^{ème} plan). P. 853-856.
- Peck J. (2005). Struggling with the Creative Class. *International Journal of Urban and Regional Research*. Volume 29, Issue 4, pp. 740-770.
- Rifkin J. (2000). *The Age of Access: The New Culture of Hypercapitalism, Where All of Life is a Paid-for Experience*. New York: Jeremy P. Tarcher/Putnam. 344 p.
- Rosser J.B., Rosser M.V. (2004). Whither Indicative Planning, the Case of France. *Comparative Economics in a Transforming World Economy*. Massachusetts: The MIT Press. P. 179-201.
- Vetter G.R. (2009). Commercial Free and Open Source Software: Knowledge Production, Hybrid Appropriability, and Patents. *Fordham Law Review*. Vol. 77. P. 2087-2141.

Information about the author

Andrey I. Kolganov

Dr. of Sc. (Econ), Chief of the Laboratory of Comparative Study of Socio-Economic Systems, Economic Faculty of Lomonosov Moscow State University, Head Researcher, Institute of Economy of the Russian Academy of Sciences (Leninskiye Gory, house 1, building 46, Moscow, 119991, Russia)
E-mail: onaglo@mail.ru

DOI: 10.37930/2782-6465-2023-2-1-44-47

Ruslan N. Pavlov

Central Economics and Mathematics Institute (Moscow, Russia)

THE ROLE OF IDEOLOGY OF SOCIAL ENTREPRENEURSHIP IN THE PROCESS OF GLOBAL TECHNOLOGICAL AND ECONOMIC TRANSFORMATIONS

Abstract: the paper considers some peculiarities of genesis of social entrepreneurship as a new form of organizing entrepreneurial activity aimed not at maximizing the owners' profits, but at realizing social tasks within a context of deriving the ideological fundamentals of its development. As it is shown in the paper, in most part the ideology of social entrepreneurship depends on the balance between its social and economic missions. In terms of the formation approach, it is shown that the ideology of social entrepreneurship is formed at the stage of the transition from the stage of socialism-precursor to the new multilevel democratic level of mature socialism. Also it is mentioned that in terms of dividing social entrepreneurship into two sides, – namely the superstructure and the basis, the essence of social entrepreneurship as the socialistic democratic model can be rather well laid within a new basis, which conflicts with a new paradigm of economic relations of modern capitalism.

Keywords: social entrepreneurship, political economy, mainstream, production relations, ideology.

For citation: Pavlov R.N. (2023). The role of ideology of social entrepreneurship in the process of global technological and economic transformations. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 1, pp. 44–47. DOI: 10.37930/2782-6465-2023-2-1-44-47

巴夫洛夫 R. N.

俄罗斯科学院数理经济学研究所 (俄罗斯, 莫斯科)

全球技术经济转型过程中社会型企业经营思想的作用

摘要: 文章论述了作为企业经营活动新组织形式的社会型企业经营活动的一些特点, 这种社会型企业经营活动的目的不是以企业所有者利益最大化为目标, 而是以实现社会目标为目标。作者希望以此揭示其发展的思想基础。文章指出, 社会型企业经营思想在很大程度上取决于其自身的社会目标和经济目标二者的平衡。从社会形态发展规律角度看, 社会型企业经营思想在从“预备期社会主义”向新的多层次的民主模式的“成熟社会主义”过度阶段形成。作者指出, 如果把社会型企业经营划分为上层建筑和经济基础, 那么作为社会主义民主模式的社会型企业经营的实质在于其新的经济基础, 这种新的经济基础与现代资本主义经济关系范式相矛盾。

关键词: 社会型企业经营、政治经济、主流、生产关系、思想

引用注释:巴夫洛夫 R. N. (2023). 全球技术经济转型过程中社会型企业经营思想的作用//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. 1, pp. 44–47. DOI: 10.37930/2782-6465-2023-2-1-44-47

Over the past few decades, trends have been observed in the development of capitalism that could be characterized as processes of capitalism socialization. This is largely due to the fact that new entities emerge in the area of entrepreneurial activity, which are called social enterprises, that is, enterprises that operate not for profit, but for the purpose of achieving a certain social effect. In terms of their activities, these enterprises are in conflict with conventional commercial enterprises, since in terms of surplus value here, if generated, then it is reinvested in further social projects, and not appropriated by top managers or owners of the enterprise. In addition, these enterprises enjoy active government support, and are not abandoned at the whim of market forces, as is the case with conventional commercial enterprises. The fact that these enterprises actually differ from conventional commercial ones in the nature of their activities cannot be concealed even by representatives of the neoliberal group from the National Research University Higher School of Economics (NRU HSE), when they try to portray these enterprises as self-sustaining, functioning at the expense of sustainable commercial effect, the best guarantee of which is income generation mainly from the sale of goods and services, and not grants and charity, which, however, are not excluded as additional financial resources [Social ..., 2011]

All this allows us to say that social enterprises have their own ideology which determines their behavior, long-term development strategy and creates those foundations for the social mission of these enterprises that distinguish them from conventional commercial enterprises operating on the principles of profit maximization and appropriating surplus value by the bourgeois class. It is for this reason that the well-known foreign researcher Charles Leadbeater called social entrepreneurship “the mainstream of dissenters” [Leadbeater, 2007], because it does not fit into any of the frameworks that representatives of the neoliberal groups in economic science propose for it.

Currently, some researchers who have tried to analyze the ideological roots of social entrepreneurship believe that in fact any social enterprise is based on the implementation of two missions: social and economic. The social mission of social enterprises refers to the creation of value for “public good”, while their economic mission refers to the creation of value for “private benefit”. While commercial enterprises are focused only on their economic mission, the hallmark of social enterprises is their social mission in addition to the economic one, and it is the balance between social and economic missions that ultimately determines the strategy of a social enterprise and its potential to exercise social functions. According to R. Stevens, N. Moray and J. Bruneel [Stevens, Moray, Bruneel, 2015], these two phenomena may be limited in time, since the relative balance between social and economic missions may differ over time due to institutional pressure, and here, apparently, we are talking about political pressure, since in Russia at present the leading role in the study and real-world implementation of social entrepreneurship legislation is attributed to the National Research University Higher School of Economics, which traditionally adheres to neoliberal values and its researchers usually put the economic values of development (that is, the economic mission) before social ones. In this regard, in other countries, social enterprises are in a better position, especially in those countries where social mission is put before the economic one, such as the UK, the USA, Germany and China. [China..., 2012]

According to R. Stevens, N. Moray and J. Bruneel [Stevens, Moray, Bruneel, 2015], social enterprises are driven by individuals with a pro-social value position who are not guided by private benefits. These social entrepreneurs are altruistic in their activities and put social values ahead of profitability.

If we evaluate the position of social entrepreneurship with reference to modern transformations of socio-economic development, then we can use the periodization of recent history of economic relations proposed by well-known Marxist D. Laibman. According to this periodization, it turns out that social entrepreneurship should be attributed to the stage, which he called “socialism-precursor”, characterized, in particular, by the following feature: the capabilities and consciousness of the people’s forces are historically limited, since they are imbued with a proprietary-individualistic ideology and practices of society, from which they emerged, though mitigated by the experience of cooperation in the production process, collective efforts and solidarity – in part, but not completely [Laibman, 2013]. All these features can be found in many social enterprises. They also introduce elements of a new system for evaluating the enterprise efficiency into economic practice. It is known that the efficiency of social enterprises is measured in terms of creating social value, not economic value. In this respect, this system is the forerunner in the formation of such a mechanism as Multilevel Democratic Iterative Coordination (MDIC) which forms the basis of the core of a mature socialist society, according to the concept of D. Laibman, which, in accordance with his theory, is the stage following the period of “precursor socialism” [Laibman, 2013]. In addition to other important parts of coordination of socio-economic processes, this system, in particular, includes criteria that characterize the achievement of a number of social goals by enterprises: development of the employees themselves; overcoming the manifestations of gender or racial stratification and oppression inherited from the past; achievement of the set goals regarding environmental impact; development of relations with the local community, with other enterprises, etc. This entire list is exactly the area of influence of social entrepreneurship and, accordingly, is the subject of evaluation, as judged from some publications in this area [Young, 2006]. In this regard, referring to the period of “socialism-precursor”, social entrepreneurship also has attributes of genesis of the next stage – “mature socialism” and therefore, of course, contributes to its formation. Thus, it is most likely possible to define the mode of production represented by social entrepreneurship as transitional from the capitalist order to a new form of economic relations, where the values of solidarity and the welfare society already dominate, rather than individualistic and private ownership interests. Time will tell whether to call this stage “mature socialism” or in some other way. Today, only one thing can be stated: the current state of capitalist relations has already reached the stage when, in order to preserve this paradigm and eliminate all its contradictions, the state has to introduce a number of elements that are not characteristic of it – elements of planning, developing the social sector and reducing a significant level of social tensions caused by growing social inequality [Young, 2006]. However, over time, all these quantitative changes can develop into qualitative ones, and as for the role of social entrepreneurship ideology in the process of global technological and economic transformations, it consists in establishing the values of a new integral society based on the values of solidarity and cooperation in the public ideology, and a multi-level democratic system, which D. Laibman wrote about. If we apply his concept to social entrepreneurship as a transitional phenomenon, then we get the following picture: the basis, that is, the baseline, of social entrepreneurship is the socialist model which can be considered the forerunner of a multi-level democratic system being the core

of a mature socialist society. Its major elements are cooperation, collective efforts and solidarity. At the same time, the superstructure represents the forms and trends of the capitalist paradigm that are becoming history, namely: the proprietary-individualistic ideology and practices of society from which social entrepreneurship emerged, that is, business structures inherent in the capitalist paradigm, namely, positions such as CEO, CFO and other positions in the enterprise management structure, that are typical of a conventional commercial enterprise being the basis of the capitalist order.

References

- Laibman D. (2013). Mature Socialism: Design, Prerequisites, Transitions. *Alternatives*. No. 1. URL: <http://www.intelros.ru/readroom/alternativi/al-2013/19011-zrelyy-so-cializm-structurs-predposylki-perehodnye-periody.html> (Accessed: October 23, 2017). (In Russ.).
- Moskovskaya A.A. (ed.) (2011). *Social Entrepreneurship in Russia and in the World: Practice and Research* (2011). National Research University Higher School of Economics. Moscow, HSE Publishing House. P. 16. (In Russ.).
- Leadbeater C. (2007). Mainstreaming of the Mavericks. *The Observer*. March 25. URL: <https://www.theguardian.com/society/2007/mar/25/voluntarysector.business> (Accessed: January 24, 2023).
- Stevens R., Moray N., Bruneel J. (2015). The Social and Economic Mission of Social Enterprises: Dimensions, Measurement, Validation, and Relation. *Entrepreneurship Theory and Practice*. Vol. 39, Issue 5. P.1051-1082. DOI: 10.1111/etap.12091.
- Young R. (2006). For What It Is Worth: Social Value and the Future of Social Entrepreneurship. *Social Entrepreneurship: New Models of Sustainable Social Change*. Oxford: Oxford University Press. Pp. 56-73.
- China Social Enterprise Report (2012). *BSR*. URL: https://www.bsr.org/reports/FYSE_China_Social_Enterprise_Report_2012.PDF (Accessed: January 24, 2023).

Information about the author

Ruslan N. Pavlov

Candidate of Economics, Senior researcher of the Central Economics and Mathematics Institute of the RAS (117418, RF, Moscow, Nahimovsky pr., 47)

E-mail: pavlovru@mail.ru

DOI: 10.37930/2782-6465-2023-2-1-48-53

Nizami S. Askerov

Dagestan State University (Mahachkala, Russia)

ON THE WAY TO A NEW POLITICAL ECONOMY IN THE CONTEXT OF GLOBAL TRANSFORMATION

Abstract: the article is devoted to the analysis of the fundamental concepts of modern economics, which come into conflict with their new vision in the context of global transformation. In this regard, the concept of “homo economicus”, the principle of methodological individualism, new cultural values of civilization are considered. In the conditions of the influence of conservative traditional values on the economic behavior of business entities, the model of a solidary economy is considered as corresponding to the peculiarities of the regions of Russia. The digitalization of the economy and the increasing role of institutional factors are considered as factors influencing a new approach to the definition of the subject of modern political economy.

Keywords: digitalization of the economy, new political economy, conservative and traditional values, solidary economy.

For citation: Askerov N.S. (2023). On the way to a new political economy in the context of global transformation. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 1, pp. 48–53. DOI: 10.37930/2782-6465-2023-2-1-48-53

阿斯科夫 N. S.

达吉斯坦国立大学 (俄罗斯, 马哈奇卡拉)

在国际转型形势下走向新的政治经济模式

摘要: 作者分析了现代经济学的一些基本观点, 这些观点与世界转型形势下的新观点相矛盾。为揭示这一问题, 作者探讨了“经济人”观点、个人主义方法论原则、文明的新文化价值观。文章阐述到: 在传统保守价值观对经济主体的经济行为发挥影响作用的条件下, 联合经济模式是符合俄罗斯各地区特点的经济模式。文章还讨论了经济数字化和作用正在增强的体制影响着关于当今政治经济学研究对象的新观点。

关键词: 经济数字化、新的政治经济、传统保守价值、联合经济。

引用注释: 阿斯科夫 N. S. (2023). 在国际转型形势下走向新的政治经济模式//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. 1, pp. 48–53. DOI: 10.37930/2782-6465-2023-2-1-48-53

In the context of global transformation and aggravation of contradictions between different civilizations, there is an objective need to rethink the existing theories, concepts, convictions, to identify the distinctive features of the Russian economic system and build a new political and economic concept corresponding to it.

Let us examine some of the fundamental concepts of modern economic science and the debatable issues of a new vision of the subject of political economy.

Current Western market economic systems relied on the concept of “economic man” (“homo economicus”), the principles of methodological individualism, profit maximization, etc. in their development. The economic model of “homo economicus” considers a person as a rationalizing individual aiming all its efforts at maximizing profits (benefits) on a fully informed basis and pursuing exclusively its own egoistic purposes. However, institutional economic theory focuses on the need to take into account non-economic factors and irrational motives in the economic behavior of business entities. “It is essential to take into account the manifestations of irrationality and non-market motivation associated with circumstances of a moral order, people’s expectations, their trust, feelings, and others, the effect of which does not correspond to the lack of these phenomena in explanatory economic models” [Manakhova, 2022, p. 253].

The modern theory of behavioral economics, while criticizing the “homo economicus” model, explores the motives for making counterproductive decisions by business entities; the target function of maximizing the utility of economic agents is questioned. Proponents of behavioral economics believe that in real life utility maximization is unattainable due to limited human cognitive abilities. People are gullible and careless, they act on the spur of the moment and are limited by time, they do not know how to weigh their own capabilities and are subject to information overload, etc. – all this determines non-market motives in economic behavior.

In their studies of the impact of human nature on the economy, well-known scholars J. Akerlof and R. Schiller associated irrationality with such psychological forms of manifestation as trust, justice, abuse, narratives, and money illusions [Akerlof, Shiller, 2009]. The researchers emphasize that the sense of justice is one of the important factors in the functioning of a market economy, where this feeling disappears, the nature of the irrational framework changes. This aspect is important for developing economic systems.

The principle of methodological individualism is another methodological basis of Western economic theory, which is implemented in conjunction with such basic mainstream postulates as the rational-choice model and the maximization principle. At the same time, “individualistic values are opposite to the collectivist values characteristic of a traditional society. Although in most current theories of modernization it is considered that individualism is the criterion of a modernized society, however, in recent decades we have seen a development leap of a number of Eastern societies (China, Hong Kong, Korea, etc.), where collectivist principles continue to dominate the economic behavior of business entities” [Askerov, 2018, p. 66].

Recourse of the new political economy to the principles of methodological holism is quite understandable in the context of changing attitudes towards modern mainstream in domestic economic science.

Another aspect related to new trends in political economy is the intensifying contradiction between the logic of capital development and the cultural values of civilization. In this regard, it

should be noted that the publication of the Decree of the President of Russia on the strengthening of traditional values in Russia is not accidental.¹

At the same time, on the one hand, as Karl Polanyi said, “until our own time markets were never more than accessories of economic life” [Polanyi, 2002, p. 82]. Otherwise, the market organization of the economy is not the only and most efficient economic mechanism, and the fundamental concepts of the liberal economic theory of “limited resources” and “unlimited wants”, which form the basis of a market economy, have limited research and methodological potential [Askerov, 2015, p. 152].

Business entities face a number of non-market factors in their practical activities. The territory of the Russian Federation is inhabited by dozens of different indigenous peoples with their inherent non-market – unique national, spiritual and moral features. Thus, only in the Republic of Dagestan more than thirty indigenous peoples with specific cultural characteristics live together.

At the same time, traditional and religious values observed in the Russian regions come into conflict with neoliberal values of the capitalist economic system, where the motives of profit maximization and “unconscious resource growth” dominate. Under these conditions, the solidarity economy aims to focus not on profit maximization, but on the well-being of the human community through achieving harmony with the environment, the model of which will be examined below.

In the modern context, there is a breakdown of the existing system of world economic relations, a global institutional transformation and the formation of a new model of economic relations. External manifestations of transformation may seem to include the intensifying confrontation between the old core and the new centers of global development, the role of one of which is claimed primarily by the Chinese-Russian Union [Mierin, 2022, p. 23]. However, a deeper analysis of the ongoing processes makes it possible to identify true cause-and-effect relationships due to changes in the system of institutional and economic relations, the formation and development of the global digital network economy.

An alternative to the capitalist system of economic relations can be other ways of organizing the economy, such as, for example, social and solidarity economy. The use of the solidarity economy model can help preserve the territorial integrity and interethnic concord in Russia, strengthen its positions and role in the world arena, Eurasian integration and a new round of socio-economic development of all its regions. In addition, according to N.Y. Danilevsky and his supporters, Russia is not a “European” country either geographically or culturally and historically, but is something original. The multifaceted Russia is characterized by the widest institutional-social and moral-ethical potential. In particular, the mechanism of interrelations and interactions between ethics and economics (the use of a system of trusting relationships, mutual assistance, cooperation, etc. in the economy) can significantly improve the political and social climate at the macro-economic national level.

These aspects are elaborated in the theory of behavioral economics, whose representatives have identified new patterns, for example, systematic, repetitive deviations in the behavior of real people from the behavior of rational economic agents (economic man) described by the theory of “economics”. Value system, goals, wants, interests, motives are attributive characteristics of peo-

¹ On the approval of Fundamentals of State Policy for the Preservation and Strengthening of Traditional Russian Spiritual and Moral Values (2022): Decree of the President of the Russian Federation No. 809. URL: <http://publication.pravo.gov.ru/Document/View/0001202211090019> (Accessed: March 24, 2023).

ple that affect their actual economic behavior, their innovative, production and consumer activity [Dyatlov, Ananyev, 2015, p. 63].

The changing reality in modern context requires a change in the methodology of cognition with a clear increase in interdisciplinarity and the applied use of empirical research to adjust the models of economic behavior of market agents, bringing them closer to reality [Manakhova, 2022, p. 250]. For example, in the multi-ethnic North Caucasus region, the system of institutional and economic relations is associated with moral and ethical potential. However, this aspect has not yet found sufficient reflection in Russian scientific and social ideas. The interrelation and interaction of ethics and economy in this region (trusting relationships, traditional motives, mutual assistance, etc.) have a significant potential that can change the political and social climate at the macroeconomic, national, all-Russian level.

Conservative traditional values dominate in this region: respect for elders, joint and solidary involvement in public, collective work, etc. In the mountainous territories, ethnic societies have survived as structurally related systems, and not as multitudes consisting of atomized units. Of particular importance are such aspects of economic relations as interpersonal dealings, social capital, trust, cooperative and collective activities. A prominent place in the system of social relations is occupied by informal rules and informal institutions characteristic of the specific economy of the entire North Caucasus region. The dominant positions are occupied by the agricultural sector and the informal economy; community initiatives and community development funds are well-developed, where profit maximization is not the principal motive, and they interact on the basis of equality of their participants, solidarity between members and economic independence. Models and principles of the actors of the solidarity economy, typical for the North Caucasus region, can be formalized and transformed for use in the all-Russian space.

Given these aspects, in the context of global changes taking place in recent years, it is necessary to “develop a new paradigm of international cooperation and form a broader view of what is happening, and political economists will have to comprehend these processes and build a new political and economic picture of the world” [Mierin, 2022, p. 25].

In domestic economic science, there is an intensification of developments on a new paradigm of political and economic education. The leading position in this matter is occupied by representatives of the St. Petersburg school, who propose to single out a Eurasian political economy as a separate area. One of its representatives defines the subject of the Eurasian political economy as “institutional and economic relations regarding the production, distribution, exchange and consumption of material and non-material benefits, patterns and mechanisms for the integration and functioning of the institutions of the Eurasian Union in the context of transformational transition from an industrial-market economy to a digital network economy” [Dyatlov, 2015, p. 11], which we find hard to disagree with. Therefore, during the transformation period, in the structure of the new political economy, the concepts of “homo economicus” and “rational choice” will have to be supplemented with non-material, social, traditional factors and behavioral patterns of business entities. The result of this new approach may be changes in the theories of money, value, ownership, capital, etc.

It should be noted that the new nature, the new subject of political economy, is due to the new quality, the new content of the factors of production. So, if we look into the history of economic thought, during the period of traditional political economy, as is known, land, labor and capital were determined as factors of production. K. Marx, in turn, singled out personal and material

factors of production. In particular, the material factor of production included land and capital, and the personal factor included labor. Neoclassicist A. Marshall singled out “entrepreneurship” from the latter as a separate factor in the organization of production and its management. Later, against the background of scientific and technological progress, representatives of institutionalism singled out another new factor of production – information, the peculiarity of which, unlike other factors, is its limitlessness.

Modern “economics” is based on the assumption of limited resources, factors of production. We observe a contradiction in the so-called fundamental fact of economic theory about the “limited resources”, since innovations, as an integral component of the “entrepreneurship” factor and the result of human intellectual activity, are unlimited.

Information, in turn, is also a product of the entrepreneur’s innovative, intellectual abilities. In general, the information and innovation factor are an integral part of the personal factor (as defined by K. Marx), which includes both physical and mental labor. Innovation and information together are the result of mental labor. Since at the present stage innovation and information are presented mainly in the form of a digital product, I believe that they should be combined into a single factor of production under the common name “digital”. Digital economy, digital ruble, digitalization are all the results of intellectual production, human intellectual activity, and digital transformation is a key element in the global transformation taking place today.

Global transformation, in turn, is associated with two major political and economic processes: a) growing confrontation between Western and Eastern civilizations and reorientation of Russian economic thought and economic activity towards the East; b) surging digitalization of economic processes. Both of these factors affect not only the contents of the science of political economy, but also its subject matter.

Reorientation to the East with its dominant conservative traditional values necessitates a scholarly understanding of the new system of political-economic and business ties and relations. It would seem that the first factor has the most significant impact on global transformation processes. However, the observed large-scale and intensifying digitalization of the economy and, accordingly, economic relations allow us to conclude that digitalization is the fundamental basis for global transformation in modern times.

This is affected by the nature of the new “basic economic unit” of society [Hessin, 2017, p. 115]. Under the conditions of commodity production and the capitalist system of relations, the commodity acted in this capacity (according to K. Marx). Today, it is necessary to find a new basis, a common denominator for such phenomena as innovation, information and digitalization, otherwise, to find a new “basic economic unit” of society. It seems that in the context of digital economy, the digital product will act as the latter. Digital product is a consequence of the functioning of the knowledge-driven economy, the data economy. The new basic economic unit of society could be called the brief concept of “digital”. Against the background of modern information boom, the “digital” begins to act as a mathematical tool of producing bitcoins, cryptocurrencies, and the digital ruble. It also underlies the production of software products that transform the system of economic relations in any area of human activity. “Digital” enters space, households, medicine, education science, human psychology, social relations, i.e., the entire range of social relations.

In view of the aforesaid, due to the paramount importance of the information resource in the modern system of economic relations, the subject of a new (modern) political economy can be formulated as a system of institutional and economic relations in the context of transformation

of the industrial economy into a digital one. What is new in modern political economy is to take into account the “digital” factor in the system of economic relations between entities.

In conclusion, it must be admitted that, from a historical perspective, the factors of information and digitalization as subject areas of political economy require much more attention from researchers.

References

- Askerov N.S. (2015). Political Economy – Research Methodology of the Russian Economy and Its Regions. *Herald of Dagestan State University*. Vol. 30, No. 5, pp. 148-154 (In Russ.).
- Askerov N.S. (2018). Modernization of the Economy of the Multiethnic Region. *Issues of Political Economy*. No. 3, pp. 58-70 (In Russ.).
- Dyatlov S.A. (2015). Interdisciplinary Approach to Definition of the Subject of Research of the Euroasian Political Economy. *Bulletin of St. Petersburg State University of Economics*. Vol. 96, No. 6, pp. 7-11 (In Russ.).
- Dyatlov S.A., Ananiev A.A. (2015). Eurasian Political Economy as a Theoretical Foundation of the New Integrational Unity: Its Essence, Organizational and Institutional Forms. *Issues of Modern Economics*. Vol. 56, No. 4, pp. 63-67 (In Russ.).
- Manakhova I.V. (2022). Man in the XXI Century: A New View of Behavioral Economics. *Scientific Works of the Free Economic Society of Russia*. No. 3, pp. 249-258 (In Russ.).
- Mierin L.A. (2022). Transformational Processes of World and National Development: View of Modern Political Economy. *Bulletin of St. Petersburg State University of Economics*. Vol. 138, No. 6, pp. 22-29 (In Russ.).
- Polanyi K. (2002). *The Great Transformation: Political and Economic Origins of Our Time*. St. Petersburg: Aleteya Publ. 320 p. (In Russ.).
- Hessin N.V. (2017). The «Basic Economic Unit» and its Methodological Importance for Political Economy of Socialism. *Issues of Political Economy*. No. 3, pp. 115-131 (In Russ.).
- Akerlof G., Shiller R. (2009). *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism*. Princeton University Press. 261 p.

Information about the author

Nizami S. Askerov

Candidate of Economic Sciences, Associate Professor, Head of the Department of Political Economy of the Federal State Budgetary Institution of Higher Education “Dagestan State University” (367000, Russia, Republic of Dagestan, Makhachkala, ul. M. Gadzhieva, 43-a)

E-mail n.s.askerov@mail.ru

DOI: 10.37930/2782-6465-2023-2-1-54-62

Oleg N. Tsukanov

Bauman Moscow State Technical University (Moscow, Russia)

ON THE CONDITIONS FOR THE FORMATION OF NOOSOCIETY IN RUSSIA

Abstract: It is emphasized that the transformation of modern society into a noosociety is impossible without a noodevelopment strategy that takes into account the interaction between a human, nature and society according to the law of movement (fluctuation) of contradiction. The necessity of adopting a state ideology in Russia is substantiated. It is explained why only the ideology of noodevelopment can be such an ideology. The author notes that its adoption is the main condition for the formation of a noosociety in Russia, and argues that there are objective prerequisites for it. The author gives an interpretation of the concept of noodevelopment ideology. The main tasks of noodevelopment are formulated, which must be solved at the first stage of the transition towards a noosociety. The author elaborates on the concept of a scientific and educational society as a form and carrier of the synthesis of science, education and upbringing - the basis for the formation of a noosociety. It is emphasized that people with a harmonious combination of scientific-technical and humanitarian cultures play a decisive role in this process, and therefore it is necessary to expand the scope of education at the interdisciplinary level. It is explained why the second most important condition for the formation of a noosociety in Russia after ideology is the creation of a dual-circuit monetary and financial system.

Keywords: law of movement (fluctuation) of contradiction, noosociety, noonomy, ideology of noodevelopment, scientific and educational society, scientific-technical and humanitarian cultures, project-target approach, dual-circuit monetary and financial system.

For citation: Tsukanov O.N. (2023). On the conditions for the formation of noosociety in Russia. *Noonomy and Noosociety. Almanac of Scientific Works of the S.Y. Witte INID*, vol. 2, no. 1, pp. 54–62. DOI: 10.37930/2782-6465-2023-2-1-54-62

楚卡诺夫 O. N.

莫斯科鲍曼技术大学

在俄罗斯形成智慧经济所需条件

摘要:文章强调,没有智慧型发展战略现代社会就不可能过渡到智慧社会,这种发展战略的特点是需 要考虑到人、自然与社会在矛盾运动规律作用下的相互影响。作者论证了俄罗斯确立国家意识形态 的必要性,并说明了为什么俄罗斯的国家意识形态只能是智慧型发展思想。作者指出,在俄罗斯确立 国家意识形态是形成智慧型经济的重要条件,而俄罗斯具备所需的客观条件。作者具体阐述了智慧 型发展思想的内容,指出了向智慧型社会迈进的第一阶段必须完成的基本任务。作者还阐释了科学 教育型社会是科学和教育结合的载体和形式,是形成智慧型社会的基础。作者强调,在智慧型社会的 形成过程中,具备技术和人文素质的人具有决定性作用,因此,必须在跨学科基础之上扩大对人进行

培养的学科领域。作者说明了在俄罗斯建立金融双轨制度是继意识形态之后的第二重要的智慧社会形成条件。

关键词: 矛盾运动规律、智慧社会、智慧经济、智慧发展思想、科学教育型社会、技术文化和人道文化、预定目标法。

引用注释: 楚卡诺夫 O. N. (2023). 在俄罗斯形成智慧经济所需条件//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. 1, pp. 54–62. DOI: 10.37930/2782-6465-2023-2-1-54-62

Introduction

As defined by the Corresponding Member of the Russian Academy of Sciences S.D. Bodrunov, noosociety is a society “which material basis of existence and satisfaction of people’s wants is noonomy”, which is based “on the non-economic type of satisfaction of human wants formed through a new quality of production, where a person will become, in accordance with Marx’s foresight, “beyond the actual material production” [Bodrunov, 2019a, p. 15] its “supervisor and controller” [Bodrunov, 2019b, p. 356].

The fundamental difference between the economic system in the noosociety and the existing economic system is “the absence of relations between people in the process of material production”, and, accordingly, noonomy is “a non-economic way of organizing the economy to meet the wants, which is carried out by a person who has gone beyond the limits of material production” [Bodrunov, 2019b, p. 357].

“During global transformation of modern society into a noosociety, the principal source of production development will be knowledge, not material resources; the currently dominant simulative wants will recede into the background, displaced by the want for knowledge; humanity will face the need to shift from consumption of natural resources to rehabilitation of geo-biocenoses; traditional categories and laws of the economy (value, ownership, money) will lose their common meaning, if not disappear at all” [Bodrunov, 2019b, p. 356].

S.D. Bodrunov notes that “new industrial society and economy of the 21st century should become a “negation of negation”, a dialectical sublation of both late industrial system described by J.K. Galbraith, and information and post-industrial trends examined by D. Bell and his followers” [Bodrunov, 2018, p. 68]. Culture and lifelong education in such a society will become preconditions for efficient production activity, and the leaders will be those who tune in to knowledge-intensive production, the progress of human qualities and the solution of problems of noodevelopment, and not conventional economic growth.

Global transformation of modern society into a noosociety is impossible without a noodevelopment strategy [Bodrunov, 2019c; Bodrunov, Kvint, 2021; Bodrunov, Kvint, 2022]; this strategy should take into account the interaction of man, nature and society according to the law of movement (fluctuation) of contradiction, which the author of this article calls the “law of cycle”.

Research Methodology

The law of cycle is not the well-known law of cyclicity, but the law of internal – quantum – nature of any cycle, including the cycles of consciousness and thinking, which are still not deeply understood.

This law expresses the fact that any interaction of any energy-informational spheres of the universe in any system is ensured by quanta, the structure of which is cyclic, that is, in order to preserve the integrity and basic features of the system, reverse action processes necessarily begin at some point [Tsukanov, 2019, p. 180].

According to the law of cycle, the movement of contradiction always occurs between two opposite poles when the magnitude of the opposite forces changes with a periodic change in the direction of movement, depending on which of these forces is dominant.

The law of cycle is a universal law that reflects three dialectical laws: the law of unity and struggle of opposites, the law of transition of quantitative changes into qualitative changes (when quantity goes beyond the limits of measure) and the law of negation of negation as the law of development of nature, society and thinking.

Therefore, the basic tool for analyzing systems, processes, phenomena and events based on the law of cycle is dialectical logic.

This analysis includes the following steps [Tsukanov, 2019, p. 182]:

- 1) establishment of interdependent poles of the cycle;
- 2) determination of opposite forces and the rate of their change;
- 3) identification of phase patterns;
- 4) study of the influence of other cycles on the cycle under consideration.

Any cycle has red lines, the crossing of which means the destruction of the cycle, and, consequently, the destruction of the corresponding system.

For example, Russia has now been brought by external forces and the internal forces engaged by them to the “red line”, beyond which it cannot retreat, because this is a matter not only of its existence, but also of the existence of all mankind.

Findings and Discussion

Modern geopolitical reality is a hybrid war of civilizations.

The movement of global contradiction is now observed in the struggle between China and the United States as two ideological poles with powerful economies.

China, as a state with a communist ideology enshrined in its Constitution, uses world capital, based on its utility value for the development of the country, creating special economic zones for this purpose with strict control; moreover, its controlling authorities are neither administrative nor judicial agencies. In other words, capital in China does not shape any political and economic agenda, it has no real power. Through this, “the Chinese economy today is already working two orders of magnitude, i.e., 100 times more efficiently than the American one...half of the gross domestic product is invested in new capital formation, in development” [Glaziev, 2020]. Chinese financial system creates just enough money for economic development, and their creation does not have an inflationary effect.

As noted by Academician of the Russian Academy of Sciences S.Y. Glaziev, Russia has “vast opportunities and reserves, and, if viewed scientifically, we see and understand how to activate these reserves and ensure rapid economic development”, but “we have no ideology, which means that the libertarian ideology dominates here, everyone defends his/her own interests, but in fact money talks” [Glaziev, 2020].

Article 13 of the Constitution of the Russian Federation states that Russia “recognizes ideological diversity” (para. 1), and “no ideology can be established as a state ideology” (para. 2).

At the same time, provisions in many of its other articles meet the definition of the ideology of liberalism.

Having rejected the state communist ideology, the Russian government built a kind of social system in the form of state-monopoly capitalism. The principal of our economy is the financial capitalocracy.

However, in order to ensure advanced rates of economic development, Russia needs, according to S.Y. Glaziev, “ideology of a common cause, common good” [Glaziev, 2022].

Thus, our country has an objective long-felt need to adopt the *state ideology*. Such an ideology can only be the ideology of noodevelopment, because only this concept is an ideology that unites society in the entire range of political, economic, cultural, historical, social and humanitarian values.

Besides, there are objective prerequisites for its adoption as the state ideology of Russia.

Since the noodevelopment of society is an objective process of transition to a new industrial society of the second generation. This process already proceeds at a great pace: the priority is the development of science-driven and knowledge-intensive production which is integrated with science and education into a single circuit, i.e., there is a process of creating nooproduction; culture and lifelong education are becoming the main factors in improving the quality of labor resources and labor productivity; cultural imperatives acquire the status of principal ones in determining human wants. This is what creates the objective prerequisites for the transition from economic man to man of culture.

S.D. Bodrunov notes: “Either society will not be able to adjust the capabilities of technical revolution towards its own improvement, will become engrossed in false goals and values, will exacerbate the negative trends of modern civilization up to the loss of its own essence by a man, or humanity will be able to reformat the current civilizational attitudes ... We are talking about transition to the phase of reasonable economic management, to the noophase. At this phase, nooproduction, separated from man and society, remains subordinate to society in terms of its goals and objectives. With the development of noosociety, with the transition to nooproduction and noowants, there is a transition from economic rationality to noorationality, so, this new nature of rationality and, accordingly, the new certainty of development goals become of paramount importance and act as the basis for changing the nature of social relations, which are becoming more and more non-economic” [Bodrunov, 2019a, p. 14].

The ideology of noodevelopment as a form of worldview, as viewed by the author of the article, is a system of the following ideas for scenario of the future (according to S.D. Bodrunov):

1) knowledge-intensive material production becomes the basis of society; science actually becomes a direct productive force; and culture and lifelong education become essential conditions for efficient production activity;

2) simulative wants fade into the background, replaced by the want for knowledge; the economic way of satisfying wants is replaced by a non-economic way; and the system of wealth inequality is sublated by the system of inequality of skills and abilities;

3) humanity is moving from consumption of natural resources to rehabilitation of geo-biocenoses; the traditional categories and laws of the economy (value, ownership, money, etc.) are losing their common meaning, if not disappearing at all.

Adoption of the state ideology of noodevelopment means choosing the path of movement not just towards a socialized society, but to a noosociety where labor becomes free in form and scope.

The author of this article formulates the major tasks of noodevelopment that need to be addressed at the first stage of movement towards a noosociety as follows:

1. Integration of industrial, scientific and educational systems based on industrial (technological) research and educational complexes.

2. Increasing the area of production through the establishment of innovative international strategic alliances.

3. Improving the quality of labor forces, labor productivity and production efficiency, primarily through expanding the area of lifelong education.

4. Increasing the role of mind transfer as the mind of people with noospheric thinking, along with the creation of new knowledge.

5. Expansion of the life sphere of human as an individual, reduction of his role as an official; decrease in the role of an official as an administrator, but increase in his role as an analyst, forecaster and manager.

The process of noodevelopment should objectively form a scientific and educational society as the basis for the formation of a noosociety.

Academician of the Russian Academy of Natural Sciences A.I. Subetto defines a scientific-educational society as a society where:

1) the law of priority development of human quality, the quality of educational (public teaching) systems in society and the quality of public intelligence is observed;

2) education performs the function of the basis of non-material and material reproduction, and science becomes a direct productive force and management force;

3) actual synthesis of science and political power is ensured, the main quality of which is the management of socio-natural evolution, accompanied by an ascent along the quality levels of both science and political power in the process of further social evolution [Subetto, 2016, p. 30].

Objectively, academic consortia “Vernadsky”, which are strongly supported by regional authorities, should make a great contribution to the formation of a scientific and educational society.

The project for their creation was proposed by the rector of Moscow State University in 2018 and supported by the President of the Russian Federation. Consortia integrate the capabilities of leading universities, academic institutions, scientific organizations and high-tech companies for the purposes of socio-economic and innovative development of regions, efficient utilization of the most recent advances in education, science and technology. Project objectives:

1) enhancing the unity of the all-Russian educational environment;

2) establishment of centers for training qualified personnel, taking into account the requirements of digital economy and the objectives of regional development;

3) use of innovative and scientific infrastructure of leading universities for the benefit of developing the workforce capacity of the regions.

In the process of establishing a scientific and educational society as a form and carrier of the synthesis of science, education and upbringing, people with a harmonious combination of scientific-technical and humanitarian cultures play a critical role.

Without the rapprochement of these cultures, it is impossible to solve the interrelated and interdependent global problems of mankind, posed by the progress in science and technology.

Scientific-technical culture provides knowledge and transformation of natural objects. Its features include: proficiency in mathematical tools; disciplined knowledge acquisition; accurate

calculation; logically derived assumptions; handling of idealized objects; focus on formalized languages.

Humanitarian culture ensures the harmony of the culture of knowledge, feelings, communication and creative action. Its features include: intellectual wealth of a person; spiritual wants and abilities; humanistic value system in professional activity; continuous need for self-development as a social personality.

To expand the scope of people with a harmonious combination of these cultures, it is necessary to expand the scope of education at an interdisciplinary level.

Chairwoman of the Moscow Confederation of Industrialists and Entrepreneurs, State Duma Deputy E.V. Panina, in her closing speech at the Moscow International Engineering Forum on November 26, 2019, said: “We have moved to the stage of development where a lot of training needs to be given at the interdisciplinary level.”

The monograph [Kuznetsov, Kuznetsov, Bolshakov, 2018] examines the problem of synthesis of interdisciplinary knowledge not as a stand-alone issue, but as one of the sides of the single problem of designing sustainable development based on the fundamental laws of conservation and development in the “Nature – Society – Man” system, but the synthesis occurs in the “Space – Time” system.

In the noosociety, the priority will be the noosynthesis of products, defined by the author of this article as an automated (computer) synthesis in generalizing parameters (generalizing coordinates) according to the principle “from qualitative characteristics of a product to its manufacturing technique” [Tsukanov, 2019, p. 181].

In the noosociety, along with the development of digital technologies, entirely new analog technologies based on quantum computers and nature-like (convergent) technologies will be evolving, the development of which is the main area of research efforts at the National Research Center Kurchatov Institute.

Its president, Corresponding Member of the Russian Academy of Sciences, M.V. Kovalchuk, in his speech at the “New Knowledge” Marathon on May 22, 2021, emphasized that “we live in a revolutionary period where humanitarian and natural science knowledge merges and, moreover, humanitarian knowledge turns into technologies” [Kovalchuk, 2021]. But he also emphasised that the knowledge of how to technologically reproduce natural systems can be used to purposefully interfere with human life and, worst of all, to interfere with the process of human evolution.

This knowledge is used in two tiers: biogenetic and cognitive.

Nano-biotechnology is the basis for creating artificial living systems with desired properties, including those that do not exist in nature. But a self-reproducing artificial cell can be used both for medical purposes and in the military as a discriminatory weapon of mass destruction.

Cognitive technologies of influencing the psychophysiological sphere of a person can be used to form a given idea of reality, control person’s life systems as desired, create integrated human-machine systems driven externally, and control individual and public consciousness.

Since the synthesis of science, education and upbringing involves the arrangement of education on an integrative basis, its most important prerequisite is the use of a project-target approach to the arrangement of education.

With this approach, the goals, scope and methods of education are considered as an innovative project on an integrative basis; the goals have backbone, modeling and criterion functions in the design process; the principle of integrity is implemented.

Accordingly, the main goal of education should be the formation of a society of holistic individuals capable of designing and shaping the noospheric future; and the criteria framework intended for management of target indicators characterizing the level of achievement of goals should be established based on the goal of ensuring the noospheric quality of life of society and its social groups, human and family quality.

The use of a project-target approach to the arrangement of education makes it possible to overcome the organizational disunity of teachers in the preparation of basic educational programs and configure them as a set of interrelated modules, to ensure interdisciplinary and subjective integration, systemic integrity of teaching forms and methods, a high level of project culture, the formation of a communicative and creative personality willing to increase social and professional mobility.

To achieve the main goal of education, knowledge of noospheric psychology is required [Shvanyova, 2005], which studies the socio-historical nature of human mental development and the evolution of personality in the global process of evolution of our civilization. This knowledge shapes a holistic personality by integrating present-day developments of various sciences (genetics, quantum physics, synergetics, psychophysiology, pedagogy, etc.).

Where psychological and psychophysical tools are used as a means of forming a mentally resilient personality in its continuous intellectual and spiritual evolution, then it is not the material-sensual “Ego” of a person that comes to the fore, but its spiritual and moral “Self”.

As an academic discipline, noospheric psychology aims to build competencies that ensure the development of abilities to adequately use cultural criteria in professional activities and put new ideas into practice that meet the requirements of society’s noodevelopment.

Since the role of forces and trends uncontrolled by man is growing in modern individualized society, those manifestations of the human spirit that inspire people to socio-political activity are weakened. Therefore, the topical problem of education and upbringing is the problem of basic education in political life of society.

Winner of the “Leaders of Russia. Politics” Contest M.A. Dreval at a meeting of the Supervisory Board of the ANO Russia – a Land of Opportunity on March 26, 2021 (attended by V.V. Putin) proposed the idea of creating a modern and technologically advanced knowledge platform that would be based on the unique educational experience and traditions that existed in the Soviet Union.

V.V. Putin, in his Address to the Federal Assembly on April 21, 2021, said: “The activities of the Knowledge society must be restarted on a modern digital platform. Government officials, business leaders, scientists and popular science communicators, media industry experts speak today at the federal educational marathons of the renewed Knowledge society.”

In order to provide conditions for the transition of civilization into the era of its noospheric-cosmic history, the Russian Space Society was established on October 25, 2017. To achieve this goal, it has already implemented more than 90 projects in the fields of culture, upbringing, education, science, ecology, etc. using a project-target approach to managing the future.

After ideology, the second most important condition for the formation of a noosociety in Russia is the creation, if not a *sovereign, then a sufficiently independent and efficient monetary and financial system*.

In the USSR, unprecedented rates of economic growth were observed during the period of the dual-circuit model of currency circulation – the basis of the so-called Stalinist economic system [Starikov, 2014].

Circulation of non-cash rubles took place in the first circuit, and cash rubles circulated in the second circuit. The basis of this model is total prohibition for converting non-cash money into cash and strict foreign trade monopoly of the state. The circuit of non-cash money made it possible to organize the optimised, streamlined development of all sectors of the national economy, to ensure the sovereignty of the country and satisfy basic needs of the population. The authorities set prices for staple goods and services below cost and regularly reduced them to zero, while prices for “luxury” goods and services, on the contrary, were set much above cost, which made it possible to compensate for losses from lower prices for staple goods and services. Therefore, the USSR had free education, health care and housing.

Now there are people in the Russian government who understand that a return to such a system on a modern technological platform will finally allow us to implement a strategy of advanced development [Glaziev, 2019], ensure the sovereignty of the country and prevent its disruption.

V.V. Putin, in his greeting to the attendees of the BRICS Forum on June 22, 2022, said: “Together with BRICS partners, we are developing reliable alternative mechanisms for international settlements... – We are exploring the possibility of creating an international reserve currency based on the basket of BRICS currencies.”

Russia is objectively the main actor in the restructuring of the world financial system, where modern global “pyramid scheme” is being destroyed and a multipolar system of international relations is emerging.

S.Y. Glaziev notes: “Within the new world economic order, wars are now fighting for consciousness, for the minds of citizens of different countries, and, unlike the war of the last century, the current war is a war, first of all, for dominance in the public consciousness. Therefore, the main battle line is the information-cognitive front. Here the issues of ideology are the main ones. The second most important battle line is the monetary and financial front” [Glaziev, 2022].

Summary

1. In the context of modern geopolitical reality in Russia, there is a need to adopt a state ideology that unites society in the entire set of economic, cultural, historical, social and humanitarian values.

2. Such an ideology can only be the *ideology of noodevelopment*, and it needs to be adopted, for which there are objective prerequisites – this is the main condition for the formation of noosociety in Russia. The author’s interpretation of *the concept of noodevelopment ideology* is given. The *tasks of noodevelopment* are formulated, which must be addressed at the first stage of transition towards a noosociety.

3. For the formation of a noosociety, it is objectively necessary to establish a *scientific and educational society* as a form and carrier of the synthesis of science, education and upbringing, for which it is necessary to expand the sphere of people with a harmonious combination of scientific-technical and humanitarian cultures by expanding the scope of education at the interdisciplinary level.

4. For the purposes of synthesis of science, education and upbringing, it is necessary to widely introduce a *project-target approach* to the arrangement of education.

5. The main goal of education should be the formation of a society of holistic individuals capable of designing and shaping the noospheric future. To achieve this goal, universities should teach a course in noospheric psychology.

6. To ensure the advanced development of Russia, its sovereignty and integrity, a *dual-circuit monetary and financial system* needs to be created.

References

- Bodrunov S.D. (2018). *Noonomy*. Moscow: Cultural Revolution Publ., 432 p. (In Russ.).
- Bodrunov S.D. (2019a). Noonomy: Ontological Theses. *Economic Revival of Russia*. No. 4 (62), pp. 6-18 (In Russ.).
- Bodrunov S.D. (2019b). *General Theory of Noonomy*. Moscow: Cultural Revolution Publ., 504 p. (In Russ.).
- Bodrunov S.D. (2019c). *Noonomy: The Trajectory of Global Transformation*. Saint Petersburg: S.Y. Witte INID Publ. 240 p. (In Russ.).
- Bodrunov S.D., Kvint V.L. (2021). *Strategizing Societal Transformation: Knowledge, Technologies, and Noonomy*. Saint Petersburg: S.Y. Witte INID Publ. 351 p. (In Russ.).
- Glaziev S.Y. (2019). *Breakthrough in the Future: Russia in New Technological and World Economic Structures*. Collection of the Izborsky Club. Moscow, Book World Publ., 768 p. (In Russ.).
- Glaziev S.Y. (2020). *New Chronology of Fomenko and the Fight Against the Crisis*. URL: <https://glazev.ru/articles/165-interv-ju/84410-novaja-khronologija-fomenko-i-bor-ba-s-krizisom> (Accessed: December 24, 2022) (In Russ.).
- Glaziev S.Y. (2022). *Russia is Fighting for the Preservation of Mankind*. URL: <https://glazev.ru/articles/153-geopolitika/103254-rossija-vojuet-za-sokhranenie-chelovechestva> (Accessed: December 24, 2022). (In Russ.).
- Kovalchuk M.V. (2021) *Speech at the “New Knowledge” Marathon*. URL: <https://smotrim.ru/video/2300656> (Accessed: January 26, 2023) (In Russ.).
- Kuznetsov O.L., Kuznetsov P.G., Bolshakov B.E. (2018). *Synthesis of Interdisciplinary Knowledge and Sustainable Development in the “Space-Time” System*. Moscow, Publishing House of the Russian Space Society. 276 p. (In Russ.).
- Starikov N.V. (2014). *Stalin’s Economy – Structure and Principles*. URL: <https://nstarikov.ru/ekonomika-stalina-ustrojstvo-i-prin-47114> (Accessed: December 28, 2022) (In Russ.).
- Subetto A.I. (2016). *The Coming Noospheric Synthesis of Science and Power (Eight Propositions-Theorems)*. St. Petersburg: Asterion Publ. 44 p. (In Russ.).
- Tsukanov O.N. (2019). On the Noospheric-Cyclical Methodology of Scientific Research and Teaching. In: *Noospheric Education in the Eurasian Space: A Collective Scientific Monograph*. St. Petersburg: Asterion Publ., pp. 178–184 (In Russ.).
- Shvanyova I.N. (2005a). *Noospheric Psychology: Psychology of Destiny*. Book 1. Moscow; Lipetsk: Beauty Line Publ., 206 p. (In Russ.).
- Shvanyova I.N. (2005b). *Noospheric Psychology: Counseling of the Individual and Society*. Book 2. Moscow; Lipetsk: Beauty Line Publ., 186 p. (In Russ.).
- Bodrunov S.D., Kvint V.L. (2022). *Strategizing Societal Transformation: Knowledge, Technologies, and Noonomy*. Oakville, MO: Apple Academic Press. 228 p.

Information about the author

Oleg N. Tsukanov

Professor at Bauman Moscow State Technical University, Doctor of Technical Sciences, Associate Professor, Corresponding Member of the Russian Academy of Natural Sciences (5/1 2-nd Baumanskaya ul., Moscow 105005, Russia)

E-mail: tsonzz@mail.ru

INFORMATION

on presentation of monographs by Russian and foreign authors on the theory of noonomy at the Renmin University of China (Beijing, PRC)

On April 14, 2023, at the initiative and invitation of the Chinese side, the book series on the theory of noonomy was launched at the Renmin University of China in Beijing.

The main event was the international presentation of the monograph *Noonomy* by S.D. Bodrunov, Director of the S. Y. Witte Institute for New Industrial Development, the President of the Free Economic Society of Russia (VEO of Russia), the President of the International Union of Economists (IUE), Corresponding Member of the RAS, and a press conference dedicated to the publication of the book in Chinese language in the People's Republic of China.

The “Noonomy” monograph, immediately after its first edition by Moscow's Kulturnaya Revolutsiya Publishing House in 2018 in Russia (simultaneously in Russian and English), was welcomed internationally; in the same year its author was awarded the World Political Economy Association (WAPE) Award for Outstanding Contribution to the Political Economy of the 21st Century. The Chinese edition, undertaken at the initiative of the Chongyang Institute for Financial Studies by China Financial Publishing in Beijing, is the eighth foreign edition of this monograph, which demonstrates the continuing great interest in the theory proposed by the author in the international academic community.

The event also included the presentation of some other monographs on the theory of noonomy:

- Strategizing Societal Transformation: Knowledge, Technologies and Noonomy (by V.L. Kvint, S.D. Bodrunov), published by the S. Y. Witte INID, St. Petersburg, Russia, 2021;

- Strategizing Societal Transformation. Knowledge, Technologies and Noonomy (by V.L. Kvint, S.D. Bodrunov), Apple Academic Press, CRC Press, Taylor and Francis Group, New York/Toronto/London, USA/Canada/Great Britain, 2023;

- Regularities of the Noonomy Foundations Formation as Future Social Order: To Know and Operate (authors: S.D. Bodrunov, S.Y. Glaziev), published by «TsentrKatalog», Moscow, 2023;

- Anthology of Noonomy: The Fourth Technological Revolution and its Economic, Social and Humanitarian Consequences (authors: S.D. Bodrunov, S.Y. Glaziev, O.N. Smolin, J. Galbraith, Enfu Cheng, Siyang Gao, A. Freeman, L. Gabriel, A.I. Kolganov, H. Brigos, R. Desai, A.I. Porokhovskiy), published by the S. Y. Witte INID, St. Petersburg, 2021;

- Anthology of Noonomy: The Fourth Technological Revolution and its Economic, Social and Humanitarian Consequences. Technology and Socio-economic Progress: Traps and Opportunities for the Future (by Sergey Bodrunov (Ed)), published by Brill, Leiden-Boston, Netherlands-USA, Studies in Critical Social Sciences, vol. 223, 2023.

The presentation was organised by the Chongyang Institute for Financial Studies of the Renmin University of China and the Free Economic Society of Russia in cooperation with the S.Y. Witte Institute for New Industrial Development (INID) and the Russian-Chinese Research Centre for Humanitarian Exchanges of the Renmin University of China.

The presentation was moderated by Professor Wang Wen, Executive Dean of the Chongyang Institute for Financial Studies of the Renmin University of China and Co-Chairman of the Expert Business Council of the International Union of Economists and the Free Economic Society of Russia on Russian-Chinese Cooperation Development.

The presentations were delivered by Vladimir Kvint, Head of the Department of Economics and Financial Strategy at the Lomonosov Moscow State University, Member of the Management Board of the Russian Economic Union, Foreign Member of the Russian Academy of Sciences, and Sergey Glaziev, Minister for Integration and Macroeconomics of the Eurasian Economic Commission, Vice President of the Russian Economic Union, Academician of the Russian Academy of Sciences.

The presentation also included speeches by former Chinese Ambassador to Kyrgyzstan, Latvia, Kazakhstan and Ukraine, Dr. Yao Peisheng, member of the Chinese Academy of Social Sciences, Director of the Institute for Chinese Borderland Studies, Academician Xing Guangcheng, Director of Strategic Studies Division of the China Centre for Modern World Studies under the International Department of the CPC Central Committee, Li Dingxin, and the Chairman of the Board of the Confucianism Scholars Public Organisation Jiang Yanbin.

S.D. Bodrunov gave a detailed report on the topic of presentation and presented donated copies of Chinese edition of *Noonomy* to representatives of libraries of major Chinese universities – Renmin University of China and Tsinghua University. Zhang Yiheng, executive editor of Chinese edition of *Noonomy* («China Finance Publishing House») said that the book will also be donated by the publishing house to more than thirty libraries of China's leading universities in 20 provinces of the country.

The presentation included a large press conference dedicated to the publication of S.D. Bodrunov's book and introduction of the Chinese scientific public to the theory of noonomy; the press conference was attended by representatives of the Chinese mass media, its results were widely covered by Chinese media CGTN, Shenzhen Satellite TV, Hubei Satellite TV, People's Pictorial, Chinese Journal of Social Sciences, Caijing Magazine, Hainan Network Radio and Television Station, News Daily, Tianmu News, portals 52hrtt.com, Cj.sina.com.cn, K.sina.com.cn, Sohu, Qq.com and others.

The following is a transcript of the presentation (abridged, unauthorised translation from Chinese and English).

Host Wang Wen: Dear Vice-President E. Cantao, Dear Chairman S. Bodrunov, Dear Mr. S. Glaziev, Dear guests and media representatives!

Today is an important day for our Chinese scientific community, because since the end of the pandemic, for the first time in more than three years, we are hosting the largest Russian scientific delegation. Let us meet its representatives: Mr. Sergey Bodrunov, Corresponding Member of the Russian Academy of Sciences, President of the Free Economic Society of Russia, President of the International Union of Economists. He is also the Director of the S. Y. Witte Institute for New Industrial Development and author of the book presented today.

My long-time friend, academician of RAS Sergey Glaziev. He is also the Vice President of the Free Economic Society of Russia and a member of the Integration and Macroeconomics Board of the Eurasian Economic Commission (EEC).

There are many Russian scientists present here, one of them being Professor Vladimir Kvint, head of the Department of Economic and Financial Strategy at the Moscow School of Economics of Moscow State University, he is well known in China, as his books have been published in our country.

On the Chinese side the following people are present: E. Cantao, Professor, Vice-President of the Renmin University of China; Yao Peisheng, former Chinese Ambassador to Kyrgyzstan, Latvia,

Kazakhstan and Ukraine; Professor Xing Guangcheng, Member of the Chinese Academy of Social Sciences and Director of the Border Research Institute of China; Li Dingxin, Director of Strategic Research, Centre for Modern World Studies of the International Department of the Central Committee of the Communist Party of China; Mr Jiang Yanbin, President of the Russian Association for the Development of Confucius Culture.

Today we are presenting Professor S. Bodrunov's book "Noonomy." It has become very well-known among scholars in Russia and in many European and American countries. Last September, I had the honour of visiting the Free Economic Society of Russia, where our Chongyang Institute for Financial Studies of the Renmin University of China signed an agreement on strategic cooperation with the Free Economic Society of Russia; then Mr. Bodrunov presented me with the English version of the book. And I am glad that I have read it; it is very rich in content, so I took the initiative to make a presentation of the book for the Chinese academic and business circles. Mr. Bodrunov agreed and today's press conference is devoted to the book.

Let me give the floor to Professor E. Cantao, Vice-President of the Renmin University of China.

E. Cantao: Dear Mr. Sergey Bodrunov, dear Mr. Sergey Glaziev, dear guests and friends, I am very pleased to be with you at this wonderful campus of the Renmin University of China and to participate in the presentation of the new book *Noonomy*.

First of all, on behalf of the Renmin University of China, I would like to welcome cordially all the participants in the presentation and press conference!

I would like to express my heartfelt gratitude for your many years of care and support for the development and construction of the Renmin University of China!

The Free Economic Society of Russia, the oldest civil society organisation in Russia, with which the Chongyang Institute for Financial Studies of the Renmin University of China has signed a cooperation agreement. This is the first in-depth strategic cooperation agreement signed by Chinese and Russian analytic centres since the pandemic, and it is important for promoting expertise and information exchange between Chinese and Russian academic and analytical circles.

As an important driving force of the Chinese thought, the Renmin University of China will continue to promote bilateral cooperation and exchange between Chinese and Russian analytic centres, laying a solid foundation for deeper and broader cooperation between China and Russia.

Noonomy can also be called the «smart» economy. Noonomy has similarities with the digital economy. Driven by the 4th Technological Revolution, the smart economy is a multi-dimensional organic integration of social progress, human development and natural development. A concept that uses smart technology to advance knowledge and innovation in the economy, is leading to greater economic vitality, higher production efficiency and the expanded employment opportunities. As a new economic form, the smart economy represents a major change in the original model of economic development and governance. In general, noonomy has the following characteristics:

Firstly, it improves people's livelihood and well-being. Noonomy is people-centred. On the one hand, it removes resource and space constraints by enabling people to benefit equally from livelihoods such as health care and education; on the other hand, it provides many new formats for digital services related to people's different vital needs for food, clothing, accommodation and transport, which effectively contribute to the dynamic optimisation of supply and demand and to achieving organic compliance.

Secondly, noonomy is practical, e.g. it increases the efficiency of urban management and contributes to building smart cities. With help of digital technology, through the interconnection,

interchange and interaction between things and things, things and people, and people and people, it can greatly enhance the ability to collect urban information, real-time feedback and service anytime, anywhere, effectively solve particularly large urban management problems.

Thirdly, noonomy formulates a new industrial model and improves the efficiency of the production chain. Above all, noonomy is the key to the industrial modernisation and transformation of my country, promoting the transformation of traditional industries into high-tech, smart, digital and green industries. Noonomy can also realise the intelligence of the manufacturing and service side and contribute to improving the efficiency of production and the production chain performance.

Fourthly, it can help green development and ensure harmonious coexistence between man and nature. Noonomy creates beneficial links between environmental protection, economic development and social progress. Through the widespread use of new energy, new materials and technologies, it promotes economic and social development in a way that uses resources efficiently and in a recyclable way.

In short, “Noonomy” is a future-oriented economic model that will be the new engine and new driving force of future economic development. We should fully understand the significance of smart economy for the country’s economic transformation and support the high-quality development of noonomy in every possible way. The Renmin University of China has always monitored the transformation and development of new technologies, formats and models, and has achieved a number of successes at the forefront of applied economy, digital economy and noonomy research. Going forward, we will continue carrying out serious research and put more wisdom and effort into transforming the economy and evolving the times. Thank you!

A video about the book “Noonomy” in Chinese is shown.

A video about the book “Strategizing Societal Transformation: Knowledge, Technologies and Noonomy” in Chinese is shown.

Host Wang Wen: I give the floor to Professor Vladimir Kvint.

Vladimir Kvint: Colleagues, we are observing how theory turns into practice, we are witnessing that noonomy has to find its own way to develop the future economy and the future of the world economy, this kind of thinking forms the basis of Professor Bodrunov’s book. At the beginning we see that we should use the theory and method of strategic statement, the course of our cooperation is the course of our interaction, it is the theory and method of noonomy and formulation of the strategic plan.

Human economic development throughout the twentieth century is a road «from people». At the end of the twentieth century, we have become primitive about the role of economic development, which is to satisfy people’s primary needs: to eat better, sleep better and work more efficiently. But people’s desires go far beyond these primitive needs. To satisfy their intellectual development needs, to increase people’s intellectual needs – otherwise there would be no human beings. Cows may eat well and sleep well, but they have no intelligence.

We need to develop our IQ, so that people’s lives can be worth living. As Professor Bodrunov’s book says, it is more in line with some earlier theories, i.e. the interaction between society and the planet (Academician Vernadsky’s view). This kind of noonomy is not only about ecology and environmental protection, but also about the ecology of people themselves. How to do this is what is called «strategic science». Everyone is familiar with this terminology; I just want to underline

that it is by no means the same term. Strategy cannot be predicted. Strategizing uses predictions to formulate strategies based on them and then implement them many years later.

Both strategy formulation and implementation are important, but this process has to be controlled, i.e. both practice management and strategic planning formulation are important. This is one of its three integrated functions, and I am very happy to talk about this in China because China is absolutely the leading country in terms of strategic planning since the great Deng Xiaoping. China has a 100-year strategy and now, under the leadership of President Xi Jinping, it is formulating and implementing a plan of «two 100-year goals». Now it is a good time to implement noonomy and to determine how to use theory of strategizing to implement it.

Our approach in the theory of strategizing has gained understanding and support in China. It is a methodology of strategizing. How to formulate and implement it? As Professor Bodrunov says, understanding and managing, theory and methodology, and putting them into practice – that is the position of the authors in this book. It is the relationship between economic and non-economic development that Professor Bodrunov proposes.

How does this theory relate to strategizing?

At the initial prediction stage, we need to implement this strategy and related platforms and projects through the implementation of strategizing tools. We need a social economy that will come out of the scientist's office and be implemented through a strategy formula.

We propose that this is how noonomy formulates our strategy, we choose the direction to use these advantages, they can balance economic, intellectual and emotional wealth and allow us to live in harmony with nature. At the same time, we have analysed some global trends and selected some trends to analyse the noonomy society to see how these trends affect each other – positively or negatively. We need to find a harmonious combination of the different areas in order to manage noonomy. Looking at the formulation of different strategies, we ask the question – where is the country's development strategy and the company's strategy? How do they relate to each other? Ultimately, noonomy cannot be implemented unless the national level can move to the company level, because any strategy is just a document, it may not exist in the places that create material benefits and serve people.

We are now working with Shanghai University on a research project that aims to train new strategists focused on human social development. Professor Bodrunov's thoughts are in all our books. These books have also been translated into Chinese.

We have recently formulated a strategy for Kuzbass, the industrial centre of Siberia, which is only 400 kilometres from northern China. We were developing it taking into account the principles of noonomy, i.e. the non-economic depth of the social order.

We hope to work with China to translate the theory of noonomy into strategy and dedicate ourselves to future development. Thank you!

A video about the book “Regularities of the Noonomy Foundations Formation as Future Social Order: To Know and Operate” in Chinese is shown.

Host Wang Wen: And now I give the floor to Mr. Glaziev.

Sergey Glaziev: Dear colleagues, I would like to remind everyone that the theory of noonomy is the result of long-term studies of evolution, and the result of the long-term evolution of human society. As its author S. Bodrunov noted in his book, it is a fundamentally new process of industrialisation, an economic model created on the background of a new technological order. Today

we have already talked about the long-term cycle, which is a new technological scheme that will bring a new economic paradigm to the development of noonomy, which will also become a major factor in our economic development. The development of robotics, artificial intelligence, and bio-engineering research will bring industry and manufacturing to a new level of development. Within this level of development, people will enter a new paradigm of creativity.

In our joint book we explain the image of noonomy. This paradigm represents a new economic phenomenon that is constantly evolving. We also clarify the relevant connections, including non-economic methods and non-state paradigms. It is a fundamentally new economic paradigm as well as a fundamentally new system of development and governance, including an economic recovery mechanism.

Today, China and other East Asian countries are also committed to developing such a system. This should help realise the liberalisation associated with globalisation by developing market economies, monitoring countries and related currency flows, so that states and governments, becoming coordinators of relevant interests, take the interests of the private sector into account. The government should also create the most comfortable conditions to stimulate the creativity of citizens.

The reason why this press conference is being held in China today is because China is implementing very long-term reforms, and we are proceeding from this idea, including the idea of economic governance reform, and it has to be said that China has achieved excellent results in this. Indeed, we have seen non-economic goals, including improving people's standard of living. Improving people's well-being is not only about material well-being, but also about creating the necessary conditions for people to realize their self-esteem and living conditions, including protecting the environment and supporting related technological progress, human culture and so on. We, as creators of appropriate economic theories in Soviet times (similar achievements were mostly available in the USSR), see the problems of economic activity, efficiency of production, effective evaluation of all necessary methods of stimulating people's creativity. We also see the potential dangers connected with this. We are not against the digital development, but we do not want to be in full control of the artificial intelligence.

We have put forward a number of proposals on how to gradually move from strategic management of the economy to comprehensive improvement of well-being, the creation of a harmonious human society and the use of noonomy as a new paradigm for achieving this goal. This book explains a more comprehensive view of how such a scientific paradigm can objectively and gradually reinforce a number of laws of economic development and formulate related strategies for further improvement of people's lives. Thank you!

A video about the book "Anthology of Noonomy: The Fourth Technological Revolution and its Economic, Social and Humanitarian Consequences" in Chinese is shown.

Host Wang Wen: I give the floor to Mr. Bodrunov, author of book "Noonomy" and editor of "Anthology of Noonomy: The Fourth Technological Revolution and its Economic, Social and Human Impact."

Sergey Bodrunov: Dear friends and colleagues, it is difficult to present the essence of the theory of noonomy in a few minutes. This big comprehensive theory is revealed in many books, even in dozens of books, including my co-authorship with other scholars. More than 400 articles have been published on this topic in recent years in various journals, including foreign ones. It is very

important to note, that I am the editor of the book «Anthology of Noonomy: The Fourth Technological Revolution and its Economic, Social and Humanitarian Consequences», the book itself is the work of a large international team of authors, the result of collective work. For the first time I wrote about noonomy in 2009, and the first monograph on it was published in 2019. Today many people are already writing about noonomy, revealing all of its sides and aspects, with reviewing its fragments. The development of this theory is very, very important for us, because we have laid the foundation, and this process remains ongoing.

Three days ago, I received copies of “Anthology of Noonomy: The Fourth Technological Revolution and its Economic, Social and Humanitarian Consequences”, published in the Netherlands and the USA. I think dozens of copies of the book will soon be received by the Chongyang Institute of Financial Studies of the Renmin University of China and the Chinese Academy of Social Sciences, because one of the authors of the book is Professor Cheng Enfu, a world-renowned expert and a good friend of mine. He formulates the theory of smart economy, and I will note that smart economics and noonomy are very close ideologically as theories of intelligent management of social development. Professor Cheng believes that noonomy is a powerful driver of the development of the smart economy. We have many colleagues who are actively engaged in research into the field of management of societal development.

I will focus today on some important features and perspectives of the theory of noonomy.

If we look closely, we will realise that building a new type of society is a very important movement forward, towards a new stage of civilisation, so noonomy is not even theoretical, but rather a practical work. It is very important, however, that it is also based on fundamental theoretical insights, based on the views of many great theorists – from Adam Smith, Marx to contemporary scholars of today. This is the «theoretical mind of technical progress».

During preparation of the theory of noonomy, I analysed in great detail many works by authors, many concepts based on Schumpeter’s ideas, Galbraith’s ideas, those of Academician Glaziev, etc. It is a powerful comprehensive theory, covering all the fundamental aspects of the world civilisational development, and one author is unable to develop it comprehensively in every direction. There are quite a lot of consequences and applications of the theoretical platform of noonomy. And we have started inviting colleagues-scholars from different countries for further development of the theory and promotion of new directions. So, we have big plans. Next year we are planning to write a joint book with a renowned expert, Alan Freeman, on the mental economy, which deals with the problem of intellectual property rights today but not tomorrow. Why? In the book we show why property diffusion can be achieved and why it will be driven by intellectual property. That is, if you talk about the main factor of production and development, in modern society, it is knowledge, followed by intellectual property. But you can hardly keep it as property. And we will show that. The economy is the economic road leading to a non-economic society, digitalisation, intelligence, etc., as A. Freeman said, «the development of the creative process», and here we can present new developments and show this way.

Another important aspect is geopolitical economy. And so, with another author, Professor R. Desai from Canada, we are thinking to describe how noonomy sees the world and how it affects the global political environment.

Scholars who are involved in geopolitics and geostrategic research can confirm that our achievements are linked to social development strategies. Not only from an economic point of view, but also in connection with the way how the development of scientific and technical pro-

gress and society drives the development of civilisation. The books we have co-authored with Mr. Kvint and with Mr. Glaziev address the range of these issues. It is about strategizing the societal transformation on the principles of noonomy and the formation of an integral society, about the formation of a new economic paradigm and new centres of development.

The cost is another effect of the development of the current economic situation, which may be obtained in the future. We often talk about, and there are dedicated experts, who will confirm that this is a very important factor. And in noonomy, value is an important factor. It can demand that we stop what is interfering with our lives. Aristotle once said that value draws the dividing line between the economy and the household.

Today's global economy has no limits, it is wrong and fraught with many problems, which means it needs to be organised and managed. Aristotle also showed that there is a difference between economics and chremastics, and the watershed between them is the notion of limit. Don't you know why so many things are produced? Many needs are simulative. And meeting them is a waste of resources. We are just beginning to realise true values.

Much will be revealed in our next book, and more importantly, we will see the development of our ideas in some book by subsequent authors – and hopefully live long enough to read that book. Thank you!

Host Wang Wen: Professor Bodrunov's reflections on the future of the economy and emerging innovation thinking deserve serious study. This is facilitated by the publication of the book in Chinese. I give the floor to Ms Zhang Yiheng, editor of *Noonomy* in Chinese.

Zhang Yiheng: Good afternoon! As the responsible editor of the book, I am very pleased to participate in today's press conference to celebrate the release of *Noonomy* in China. First of all, on behalf of China Financial Publishing House, I warmly congratulate Mr. Bodrunov on the publication of the book! At the same time, I would like to thank the author and translator of this book, the Chongyang Institute for Financial Studies at the Renmin University of China, for choosing us to publish the book.

Established in May 1956 and directly managed by the People's Bank of China, our publishing house is a professional publisher, mainly publishing financial literature, periodicals and audiovisual electronic products. The publisher has made tangible contributions to supporting China's financial reform and development, popularising financial knowledge among the public, promoting international economic and financial exchange and promoting advanced financial culture.

Speaking of the book *Noonomy*, as the responsible editor, I reread it three times before its publication, and this can be compared to a sip of water after a long drought. The author of the book, Dr. Bodrunov, in the face of environmental problems and current limited resources, put forward the question, «What is the source of happiness?» «Why should technology and culture be integrated?». The answers to these lead to multiple definitions of «noonomy». The author proposes to use scientific and technological progress to introduce rationality in the management of the economy, to improve the current state of the chaotic and lawless global economic development.

Our agency has contacted 30 renowned university libraries and provincial libraries in more than 20 provinces nationwide to distribute the book, including the Renmin University of China and Tsinghua University, as well as libraries in Shanxi Province, University of International Business and Economics, Shanghai University of Finance and Economics, Guangzhou Campus of Hong Kong University of Science and Technology, etc. They are interested in the book and will receive it.

Once again, I would like to thank Dr. Bodrunov and the Chongyang Institute for Financial Studies of the Renmin University of China for the trust placed in China Financial Publishing House. Thank you!

Host Wang Wen: I give the floor to Ambassador Yao Peisheng.

Yao Peisheng: Dear Mr. Bodrunov, Dear Mr. Glaziev, Dean Wang Wen, guests from China and Russia!

I am honoured to present to Chinese readers the book “Noonomy” by the renowned Russian economist Sergey Bodrunov.

Among similar works, this book is particularly valuable.

Why? Its value lies in the fact that the author has put forward his own ideas and solutions for today’s most complex problems, as all areas of human society are undergoing unprecedented dramatic changes today.

Many years ago, Mr. Bodrunov put forward the following ideas in his writings: Significant changes in technology are approaching humans at an accelerated pace, dramatic growth, especially severe overburdening of the natural environment, is essentially an injury to human nature. Personally, I call this crisis the «alienation of the technological revolution». Mr. Bodrunov believes that in today’s world, where rapid change can lead to chaos, people must fully exercise their subjective initiative and use systemic concepts to comprehend the essence of social and economic change and socio-cultural transformation, and that technological progress itself requires such transitions. He appealed to maximising the positive outcomes of the fourth technological revolution while minimising the negative impacts of technology.

As the first reader, I would like to promote the book widely and suggest that the Chongyang Institute for Financial Research hold special seminars in the future to attract as many readers as possible to the book. I sincerely congratulate Mr. Bodrunov on the successful publication of the book *Noonomy* in China, I am sure that it will arouse great interest among the Chinese readers. Thank you!

Host Wang Wen: Next I would like to invite to deliver his speech Professor Xing Guangcheng, member of the Chinese Academy of Social Sciences and Director of the Institute of Borderland Studies of China.

Xing Guangcheng: Dear Russian guests, dear Chinese friends, I am very pleased to be able to attend the presentation of the new book. In my opinion, it is not just a book, and its title *Noonomy* is not just a title, it is full of wisdom and deserves special attention, because many new concepts and ideas are put forward in it. I haven’t had a chance to read it in full yet, but after reading just a few chapters, I saw a lot of thoughts that I would like to discuss.

The preface says that we want to build a «smart» society, a noosociety, and we propose a «smart» economy. Noonomy is an important part of a smart society, which depends on the trend of human society development. There are many issues to discuss here. For example, we talk about ‘running towards a basic economy’, which means that we have not realised noonomy as a whole? The question is, what is our current social state? The future is in the smart economy, but what kind of economy do we have now? Is it a non-smart economy, or are we already moving towards a smart economy? This is an important question.

The future intelligent society will go beyond the animal nature of human beings and even eliminate the idea of technological superiority. Then another question arises: if we remove the animal nature of humans and remove technological development as an important driver of hu-

man society, how do we bring humans to what we call a higher state, the intelligent society? I think economists, and not only economists, should discuss this question with sociologists and natural scientists.

«Smart» economy – what does «smart» mean? Is it the economy or the people? It's about people here. What is the main topic of the book? I think that only people have intelligence, but does that intelligence have «proportions»? There is a fully rational society, there is a human society that is not yet fully rational, and in the development of human society we sometimes seem to be very intelligent and insightful, but we do very stupid things, even ruin ourselves. For example, Japan is dumping nuclear waste into the ocean – is this wisdom? I do not think it is wisdom. This is not an economic issue, but a matter of common destiny of the mankind.

This book has given me a lot to think about. As I just said, I haven't fully read this book yet, but the points made on these issues are indeed worthy of study in China and elsewhere in the world.

The book is divided into five parts, I don't know why the publisher didn't translate the fifth part. The fifth part is exactly what interests me most as a scholar. Will Russia be able to close the gap to become a leader? Russian scientists have put forward such a very good theory, but how will Russia build a smart society? I really want to know the answer to this question. Thank you!

Host Wang Wen: I give the floor to Li Dingxin, Director of Strategic Research, Centre for Modern World Studies, International Department of the CPC Central Committee.

Li Dingxin: Dear Mr. Bodrunov, Academician Glaziev, respected scientists, experts and guests from China and Russia!

This book is full of original thoughts and differs from current books which focus on explanation and interpretation. It has a high theoretical density and relatively complex ideographic features of the Russian language itself; it incorporates the author's understanding of the new industrial society of the second generation and the new economic model, which corresponds, as the author says, to «the long-term deep thinking of Noonomy».

Since the 1920s, the Chinese have most often referred to the saying of Secretary General Xi Jinping: «Don't forget the original intention and keep the mission firmly in mind». Innovation is at the heart of academic research. There are a lot of valuable thoughts for the stage of planning in this book. Such an academic approach or, to use our familiar words, 'the spirit of doing business and entrepreneurship' is worth learning. After all, compared to stages of implementation and application, it is better to correct an error and take the right decision at the stage of planning. The book is about the harmonious coexistence of man and nature. Throughout the history of world modernisation, industrialisation and urbanisation, environmental damage has been a common problem. Chairman Xi Jinping has stated that «clear waters and green mountains are as valuable as gold and silver mountains» – and here is the solution to the fundamental problem of this concept.

This concept is deeply rooted in people's hearts and has been integrated into our system, politics and culture. Today, under its leadership, the Chinese people are making every effort to build a Chinese-style modernisation, in which man and nature coexist in harmony.

The author of the book also places environmental factors in an important position. He sees the concept of noonomy as an integrated concept and the environmental factor as one of its sub-factors. Nowadays, with the uncertain future of the global ecological environment and climate change, this secondary line may become the main one, this innovative idea coincides with the philosophy of «harmony between man and nature» in Chinese culture. As Mr. Bodrunov said,

the very idea of moving to noonomy means improving the vision of the future way of life and protecting the world, in which we live, both as biological and social actors.

It is also a book that advocates building a beautiful human-centred society, in which people are more important than money, and helps humanity share a common destiny. The author of the book believes that the mission of noonomy is to rely on knowledge and understanding of the inevitable, rather than simply relying on capital to promote economic and social development, to enter the stage of wisdom, or, as Marx said, «the realm of freedom», or to overcome the impending crisis of global civilisation. With the transition to noonomy, elements such as markets, money and capital and their respective real relations will disappear. In the words of the book, «the absurd concept of human capital will no longer exist and humanity will be valued more».

As it was pointed out in the report of the 20th National Congress of the Chinese Communist Party, one of the major changes in the country in the past was that materialism was too inflated. Of course, if one pursues only material pleasures without a healthy spiritual pursuit and a rich spiritual life, becoming the type of «one-dimensional» man described by sociologists, the rich and colourful human nature degenerates. This too is the tragedy of man. We do not pursue only material abundance, but the richness of the human spirit, which is the all-round development of man. At present the modernisation that China is building is a modernisation that coordinates the material and the spiritual components. It is an unprecedented new form of human civilisation. And so the ideas of noonomy are important. Thank you!

Host Wang Wen: Mr Jiang Yanbin, President of the Russian Confucius Cultural Development Association, concludes our press conference.

Jiang Yanbin: I am very happy to participate in the presentation of books. The reason why this book has attracted so much attention in the world is because of its uniqueness. The development of society requires the leadership of different aspects of the political system, just as the development of the economy does.

In my opinion, writing this book is a service to humanity. Professor Wang Wen and his team translated this book and recommended it to China, which is a contribution to the development of our Chinese economy and society. Thank you for bringing us a new round of views that also guide social development, thank you for presenting cutting-edge and inspiring theories from foreign countries and Russia to Chinese audiences and Chinese readers.

Host Wang Wen: I thank all the participants of the press conference!

DOI: 10.37930/2782-6465-2023-2-1-74-77

S.D. Bodrunov

S.Y Witte Institute for New Industrial Development (INID), (Saint Petersburg, Russian Federation)

FUNDAMENTAL SCIENTIFIC IDEAS ARE CHANGING

THE PRACTICAL FACE OF SOCIETY

**(Reflection-essay on the publication of a book by V.L. Makarov, V.V. Okrepilov, A.R. Bakhtizin
Scientific Solutions of Complex Economic and Social Problems Using Supercomputers)**

There are books that ‘fly by’ like birds – they can even be alive, impressive for a moment – but they disappear behind the horizon of the mind almost immediately after the last page is closed. An aftertaste remains: sometimes pleasant, sometimes difficult, sometimes lasting and sometimes not. And then there are books that are groundbreaking, that reveal deeper levels of thinking and give direction to the development of ideas. And they often stay with us as readers for a long time – or even forever – after you have put the book on the shelf with the other books you have read.

The recent publication of a joint monograph by the members of RAS, Academician Valery Leonidovich Makarov, Academician Vladimir Valentinovich Okrepilov and Corresponding Member Albert Raufovich Bakhtizin, is certainly an enrichment for the latter and therefore important not only for the promotion of the subject presented in it, but also for Russian economics as a whole.

And I think that is no exaggeration. Why do I think so?

I will start a little from a distance.

I will mention four moments from my biography – moments that have defined ‘the paths we choose’; moments when books, articles and ideas from eminent experts have been highly decisive.

First. The author of this essay, by virtue of his, if I may say so, ‘scientific background’, is not so much an economist as a mathematician. And I started my scientific and educational career as a fifth-year student, as a mathematician; I was studying in the Faculty of Mathematics, dealing with quite deep mathematical problems and was actually dedicating my life to them. But then, as one of the promising students, so to speak, I was sent to the university’s Faculty of Economics, where I was to teach and take the exams of the second and third year students in the subject that was exotically called at the time: “Organisation of machine processing of economic information”.

Here I was confronted for the first time with the kind of problems that were close to the practice of economics and that could and should not be solved simply with mathematical methods, which we were taught well, but with methods that were instructed very hastily (according to today’s understanding), namely with electronic computing devices.

What seemed to me, a purely theoretical mathematician and programmer, to be something speculative suddenly turned into practical problems, because my first students and I were both assigned to solve problems of practical use in the field. So, I became ‘familiar’ with these tasks.

What ‘saved’ me? The good books! My elders gave them to me to read for a few days and nights. I cannot remember the names of these comrades or the authors of the books, but I remain forever grateful to them – they not only helped me with this task, they helped me fall in love with it! And this thing has become ‘mine’.

I suppose I was not the only one who got help. A lot of time has passed since then.

In the 80-90s I worked in a systems programming research laboratory that solved much more complicated and quite different problems in the field of mathematical modelling, complex systems and so on. The ideologists in the formulation of the problems solved in our laboratory were the first students and followers of the very people who for many years determined the path of development of Soviet science in the field of electronic computer technology and its application to national economic tasks – great specialists, academics Lebedev, Glushkov, Burtsev. Their names were mentioned ‘in one breath’ in our environment. Their works, their books – priceless books! – were read until they threatened to fall into disrepair. And, it should be noted, one of the clients of our work was the Central Economic Mathematical Institute (CEMI) of the Russian Academy of Sciences, which to a large extent provided the scientific basis for the development of these ideas. The materials provided to us by our colleagues at CEMI were a great help in developing technical solutions.

The second thing that influenced my views was my ‘acquaintance’ with CEMI. The contact with the work of the colleagues – economists and mathematicians ‘in one’ – convinced me that basic knowledge is not an entertainment for ‘the particularly gifted’, but a basis for practise, for the solutions needed in the daily routine of industry, management, education...

Life has not stood still. Since the late 1990s, I had the opportunity to head the Aerospace Equipment Corporation, then the largest integrated enterprise in the Russian aerospace instrumentation and rocket-and-space industry, which was on the list of Russia’s top 10 strategic enterprises, including 35 plants and design offices and dozens of companies with the appropriate profile. And, of course, one of the most important tasks was to ensure the development of computer systems for aerospace, whose performance and physical characteristics could be important for use in aircraft and other transport systems. Together with a large group of involved specialists from various institutions, institutes, including the Academy of Sciences, the corporation had to deal with problems that made it possible to find ways to put many currently known solutions into practise. Fruitful cooperation with specialists under the leadership of (now) Academician V.B. Betelin played a major role, if not the main role, in this work, which was absolutely applicable, but based on fundamental scientific knowledge. Use of their ideas. Their work.

This was, if I may say so, the third moment of my preoccupation with this subject, which is so important for our national economy. The moment when I became aware of the profound importance of such tasks for our country. And – books! articles, reports! – Those in which these problems were identified, studied and solved. We know that many results of this work help our country today in various fields.

And the fourth point is our interaction today with the authors of the monograph in the framework of joint activities in the International Union of Economists and the Free Economic Society of Russia (VEO of Russia); by the way, we happen to be colleagues in the Dissertation Council at the Moscow State University, which also allows me to see their attentive attitude to scientific thinking – both their own and that of their young colleagues.

There are many different aspects here.

For example, the Free Economic Society of Russia pays a lot of attention to the study of processes in the economy aimed at improving the quality of life of the population. Academician Vladimir Valentinovich Okrepilov has worked intensively on these issues – both practically and theoretically. Together with him we work in the Free Economic Society and the Industrial Council at the Governor of St. Petersburg. Not only do we have close ideas about how to develop the city,

but, most importantly, we also work together practically. I am very familiar with Academician Okrepilov's ideas. For example, when I had the opportunity to work out programmes for the development of the city as Chairman of the Committee for Economic Development of the Government of St. Petersburg, we relied on his developments to improve the quality of life of the population.

As for Valery Leonidovich Makarov, I know him very well as a great specialist on the most important issues of the development of the innovative economy, digitalisation and the development of intelligent production systems – anyone who is even remotely involved in these issues. His fundamental work in mathematical modelling, knowledge economics and many other areas influences the research of his colleagues today.

And, of course, a special place in promoting ideas on the application of methods of mathematical modelling based on supercomputer technology in the scientific community belongs to Albert Raufovich Bakhtizin, who is not only an eminent scientist but also an organiser of science, who heads the Central Institute of Economics and Mathematics as its director and works closely with his scientific supervisor Valeriy Leonidovich Makarov. Their creative unity is fruitful. Their joint work is always an event. I would like to mention that last year their joint book was awarded as “Book of the Year” by the Free Economic Society of Russia.

This event from my biography is not an isolated case, but I think it is exemplary. Thus, continues the chain of events that enables us, the interested readers, to become acquainted with the books, works, reports, articles and, above all, the ideas produced by the authors of great works, which include the authors of the new monograph. These ideas, which, when put into practise, develop society, help everyone.

In this context, I would like to note the following.

Anyone who has the opportunity to read the book *Scientific Solutions to Complex Economic and Social Problems Using Supercomputers* will gain invaluable knowledge in this field. Help. Support. An impetus to develop their own ideas.

The book is very multifaceted and at the same time very, as they call it, ‘tightly knit’.

On the one hand, it gives an insight into the technological possibilities of solving the most important problems in the field of Big Data with the help of modern technical ultra-high-speed systems and technological solutions.

On the other hand, the book is a strong foundational work and at the same time offers practical knowledge in two, one could say, forms.

The first deals with the analysis of solutions based on various technical systems, methods and models. At the same time, the authors present in detail and comprehensively – something rarely found in monographs of this kind – the theoretical foundations and methodological development of agent-based models and describe in detail the software platforms for implementing these models. It is also noteworthy that the authors do not disregard the historical context of the topic when presenting complex mathematical and software constructions. This allows the reader not only to get a handbook on agent-based modelling (which is important in itself), but also to delve into the history of the development of ideas and methods and gain a systemic understanding of the subject. Make the ideas your own.

In another sense, we can talk about the practical application of the proposed approaches to address an extremely important task today: building a socially oriented economy, which is where the President has directed us, and indeed where our Constitution has directed us in its new guise.

What is a socially oriented economy? I would put it simply: it is an economy that is geared towards the continuous improvement of the quality of life of the people, of society.

S.Y. Witte Institute for New Industrial Development (INID), where the author of this essay has been working for many years to develop the theory of Noonomy, pays substantial attention to this aspect of civilisational development. The socialisation of the economy is one of the fundamental components of the quadriga of Noonomy. In the process of forming a new industrial society of the next generation, the transition to a new technological mode, the core of which is, among other things, communication and digital technologies, together with scientifically based rational mechanisms of their application in the economy and social construction, should ensure, above all, the solution of the problems of social development and the achievement of economic parameters that will make it possible to realise the potential of noodevelopment. And precisely this task is one of the important practical applications of the basic methods proposed in the first part of the analysed book.

This is a truly fundamental academic approach: basic knowledge – idea – methodology – technological solutions – practical application to solve a major problem.

This is how books are written. This is how books should be written. And this is what you need to learn – even from such an example.

That is why I said at the beginning of my essay that the publication of this book is a big event in our science community.

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 Monetnaya Str. 16, St. Petersburg, 197101, Russia)

E-mail: inir@inir.ru

On 31 March 2023, the VIIIth St. Petersburg International Economic Congress was held: «Industrial Policy in the Face of Challenges of Global Transformation: Theory and Practice of Transition to a New Stage of Industrial Development (NIS.2)».

The Congress was organised by the S.Y. Witte Institute for New Industrial Development and held within the framework of the Congress of the Free Economic Society of Russia and the Meeting of the International Union of Economists.

The Congress was opened and a plenary report was made on topic «Russia's industrial policy in the face of challenges of global transformation: challenges of theory and practice of transition to a new stage of industrial development (NIS.2)» by Professor **S.D. Bodrunov**, S.Y. Witte Institute for New Industrial Development Director, President of the Free Economic Society of Russia, President of the International Union of Economists, RAS Corresponding Member, Doctor of Economics.

The President of Congress S.D. Bodrunov began his report by analysing the ongoing complex geopolitical and economic situation in the world, which has triggered a series of global contradictions and clashes and a restructuring of economic and political institutions. The speaker emphasised that, despite the obvious preconditions for changing the obsolete system of relations, «the 'subjective factor' of economic life continues to remain unchanged» – in economic forecasts and recommendations, in political decisions, in the process of teaching economic disciplines, and in the lives of ordinary people.

S.D. Bodrunov is convinced that long-term strategic planning, technological independence, socialisation of the economy, active industrial policy and reindustrialisation based on advanced technologies of the VI social order should become an integral part of the Russian national economy.

According to S.D. Bodrunov, technological breakthrough, development of knowledge-intensive material production, «formation of a system of socio-economic relations guaranteeing priority development of high-tech production, focused on the progress of human qualities within a sustainable, sovereign national system» will help solve these problems. Concluding his report, S.D. Bodrunov stressed that the transition to a new industrial society of the second generation (NIS.2) and further to noonomy, can only be like this.

All the following reports from the plenary session also responded to the challenges of the day:

Aganbegyan A.G., Head of the Department of Economic Theory and Policy at the Russian Presidential Academy of National Economy and Public Administration, RAS Academician, Doctor of Economics, Professor;

Bakhtizin A.R., Director of the Central Institute of Economics and Mathematics of the Russian Academy of Sciences, Corresponding Member of the Russian Academy of Sciences, Doctor of Economics, Professor;

Glaziev S.Y., Vice-President of the Free Economic Society of Russia, Minister for Integration and Macroeconomics of the Eurasian Economic Commission, RAS Academician, Doctor of Economics, Professor;

Dementyev V.E., Head of the Macroeconomics and Institutional Theory Research Area at the Central Economics and Mathematics Institute of the Russian Academy of Sciences, Corresponding Member of the Russian Academy of Sciences, Doctor of Economics, Professor;

Kryukov V.A., Director of the Institute of Economics and Organisation of Industrial Production of the Siberian Branch of the Russian Academy of Sciences, RAS Academician, Doctor of Economics, Professor;

Murychev A.V., member of the Presidium of the Russian Economic Union, Vice-President of the Russian Union of Industrialists and Entrepreneurs (RUIE), Doctor of Economics, Candidate of historical sciences;

Okrepilov V.V., President of the St. Petersburg regional public organisation of the Free Economic Society of Russia, Scientific Director of the Institute for Regional Economy Problems of the Russian Academy of Sciences, RAS Academician, Doctor of Economics, Professor.

At the end of the Congress plenary session there was a presentation of new editions of the S.Y. Witte INID, among which the American edition of the book *Strategizing Societal Transformation: Knowledge, Technologies, and Noonomy* by V.L. Kvint and S.D. Bodrunov and the monograph *Regularities of the Noonomy Foundations Formation as Future Social Order: To Know and Operate* (authors: S.D. Bodrunov, S.Y. Glaziev).

The Congress included 1 international plenary conference, 7 seminars, 1 round table and 2 online seminars.

More than 300 speakers from many Russian regions, as well as from near and far abroad countries, representing various research and educational institutions, public authorities, social movements, and the business community spoke at the Congress. More than 800 people watched the Congress online.

A video of the plenary session presentations is available on the website of the S.Y. Witte Institute for New Industrial Development: [//inir.ru/spec-2023/](https://inir.ru/spec-2023/)

*Executive Director of the S.Y. Witte Institute
for New Industrial Development (INID)*

A.A. Zolotarev

On April 05, 2023, in the Fireplace Lounge of the «House of the Economist» (22A, Tverskaya St., Moscow) an international scientific seminar of the S.Y. Witte Institute for New Industrial Development (INID) on «Genesis of Noonomy: Knowledge. Mental Objects. Creativity» was held in the Kaminsky Hall of the «Economist House» (22A, Tverskaya St., Moscow).

The seminar continued a series of international scientific seminars organised for a number of years by the S.Y. Witte Institute for New Industrial Development. The seminar continued the series of international scientific seminars held over the years by the S.Y. Witte Institute for New Industrial Development in scientific centres in Russia, China and Europe.

Keynote speeches were made at the seminar:

Alan Freeman, Member of the Geopolitical Economics Research Group, Professor at the University of Manitoba (Canada). The topic of the presentation was “The Mental Economy: Aim and Programme for International Research and Cooperation”;

S.D. Bodrunov, Director of S.Y. Witte INID, Doctor of Economics, Professor, Corresponding Member of the Russian Academy of Sciences. Report topic: «Creativity as an Open Challenge: Noonomy as Metatheory».

Participated in the discussion:

Artner Annamaria, PhD, Senior Research Fellow at the World Economic Institute and Professor at Milton Friedman University (Hungary);

Buzgalin A.V., Doctor of Economics, Professor, Head of the Centre for Modern Marxist Studies at the Faculty of Philosophy, Lomonosov Moscow State University;

Desai Radhika, PhD, Director of the Geopolitical Economy Research Group and Professor at the University of Manitoba, Canada;

Kolganov A.I., Doctor of Economics, Professor, Head of the Laboratory for Comparative Studies of Socio-Economic Systems, Faculty of Economics, Lomonosov Moscow State University;

Lobastov G.V., Doctor of Philosophy, Professor, Department of Philosophy, MAI;

Melegh Attila, PhD, Professor, Director of the Institute for Population Studies, Institute of Sociology, Corvinus University in Budapest, Hungary

Pavlov M.Y., PhD in Economics, Associate Professor at the Faculty of Economics, Lomonosov Moscow State University;

Chen Hong, PhD, Professor, Hainan University of Education, Institute of Marxism (PRC);

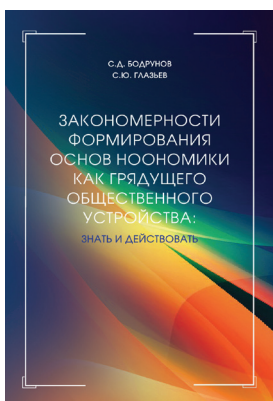
Khabibullina Z.R., Ph.D. in Economics, Leading Researcher at the S.Y. Witte INID;

Yakovleva N.G., Doctor of Economics, Leading Researcher at the Institute of Economics of the Russian Academy of Sciences.

The transcript of the seminar will be published in the proceedings: Bodrunov S. D. (ed.) (2024) *The New Industrial Society: Origins, Reality, Future. Noonomy*. Vol. VIII (Selected materials of seminars, publications and events of the S. Y. Witte Institute for New Industrial Development (INID) on the concept of a new industrial society of the second generation and noo-industrial development of society). Collection of scientific works. St. Petersburg: S.Y. Witte INID.

*Executive Director of the S.Y. Witte Institute
for New Industrial Development (INID)*

A.A. Zolotarev



Regularities of the Noonomy Foundations Formation as Future Social Order: To Know and Operate

S.D. Bodrunov, S.Y. Glaziev

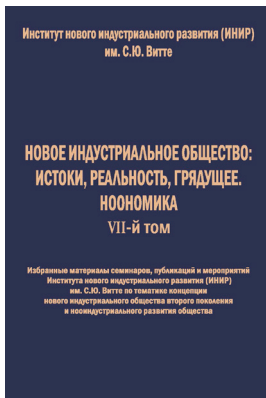
St. Petersburg: S.Y. Witte INID; Moscow: Tsentrkatalog, 2023

The modern period of the world development was marked not only by the surge in Science & Technology Progress, the beginning of a new technological revolution, qualitative changes in material production of the level corresponding to this time, but also by the aggravation and strengthening of conflicts in the world. The relevance of this monograph is due to the need to identify the causes of these events and patterns of long-term socio-economic development in general, as well as the already aware-need of society to create mechanisms to manage this development and to educate and train specialists in all areas of activity.

This monograph is a theoretical work (with a view to practical implementation), «produced» on a fundamental scientific basis, created and continuously developed by the authors of the book over several decades – following their own way in their research, but eventually coming to unity on the key and fundamental issues and provisions. The peculiarity of this work is the «joining together» of the authors' theories and concepts, which has given rise to a new scientific product and resulted in their substantial enrichment. The monograph breaks the «false mirrors» created by «mainstream» modern economic thought, analyzes the fundamental regularities of long-term socio-economic development as a process of changing of technological and world economic patterns; reveals the content and key events of the new patterns (including the evolution of production processes and the formation of a second-generation industrial society (NIS.2)); reveals the significant changes taking place in the economy and modern society, which anticipate the emergence of a new industrial society. Special attention is paid to the changes brought by Scientific & Technological Progress into all spheres of social life – in values, culture, human perception and motivation – which, on the one hand, threaten the existence of humanity and, on the other hand, open up unprecedented opportunities for its development, the long-awaited 'leap', in the words of the classics, from the realm of necessity to the realm of freedom. But in order to dispose of this emerging freedom not to the detriment, but for the benefit of human civilisation, it is also necessary for society to achieve a high level and culture of Knowledge.

The paper sets out the author's suggestions and recommendations for a quality and effective noo-transition (including taking into account Russian realities) and much more.

This monograph is recommended for researchers and specialists (theorists and practitioners), master's students in the field of State and Municipality Management, Economics, Political Sciences etc., for postgraduate students and a wide range of reader – i.e. for everybody who is interested not only in understanding reality but also in making a personal contribution to the growth of well-being and social progress.



The New Industrial Society: Origins, Reality, Future. Noonomy. Vol. VII (Selected materials of seminars, publications and events of the S.Y. Witte Institute for New Industrial Development (INID) on the concept of a second-generation new industrial society and noo-industrial development of society)

St. Petersburg: S.Y. Witte INID, 2023

The collection of scientific works of the S.Y. Witte Institute for New Industrial Development (INID) reveals the results of modern scientific research devoted to the adaptation of theories of the New Industrial Society of the Second Generation (NIS.2) and Noonomy to the modern realities of socio-economic development; outlines the directions of further improvement and transformation of these theories, and issues recommendations for using their provisions as a tool and methodological basis for progressive reforms of socio-economic development.

The collection of works is intended for university professors and researchers engaged in research of contemporary economic problems, doctoral students, postgraduates, bachelor's degree students, as well as undergraduate students studying in major 38.03.01 «Economics». The materials of the collection can be used by managers and specialists of the management apparatus of business organisations and government agencies in the design of development programmes and strategies.

Scientific publication

NOONOMY AND NOOSOCIETY
ALMANAC OF SCIENTIFIC WORKS OF THE S.Y. WITTE INID

Vol 2, No. 1
2023

Editors-in-Chief

L. A. Mozgunova
Z.R. Khabibullina

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 May 23, 2023.
Format 60×84/8. Offset paper.
Printed sheets 10,34. Conditional printed sheets 9,65.
Circulation 1000 pcs. Order



Free price

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