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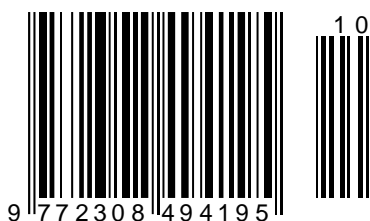
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HOW TO HELP RAISE THE STATUS OF AGRICULTURAL OPERATORS IN THE AGRICULTURAL VALUE CHAIN: DESIGN OF A ONE-STOP AGRICULTURAL SERVICE PLATFORM

Abstract: According to the NO.1 Central document in 2019, China's agricultural economy has entered a critical period of improving quality and efficiency, and we should consolidate the sound momentum for agricultural and rural development, capitalizing on the role of agriculture, rural areas and rural people as the ballast stone. And therefore, work must be done to deepen agricultural supply-side structural reform in this decisive period for completing the building of a moderately prosperous society in all respects. This paper analyzes several problems in the process of the development of agricultural production and agricultural e-commerce. And through studying, our company decide to design a one-stop platform combining the big data, cloud computing and agricultural Internet of things, in order to help agricultural operators, solve the capital problem and raise the status in this era of rapid development of the Internet. With the BAF platform, the information about supplying and demanding can be shared. And apparently, the inter-connection of the platform's function can help safeguard the users' economic interests and is beneficial to optimize the agricultural supply chain.

Key words: agricultural e-commerce, agricultural supply-side structural reform, agricultural supply chain.

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Introduction

Agriculture is the foundation of our national economy. The rapid development of mobile Internet and the continuous development and application of 5G technology make agricultural e-commerce become the booster of China's agricultural economic development and also bring new opportunities for the development of agricultural e-commerce in China. From 2014 to 2019, the NO.1 document of the central government mentioned the development of rural e-commerce for six consecutive years, stressing the need to build modern agricultural products sales and public service platforms, implement the digital rural revitalization strategy and develop a new Internet agricultural industry model to help farmers increase output and income. And then, rural modernization can be accelerated.

China's current agricultural e-commerce development is still in a single development stage, mainly based on agricultural e-commerce platforms such as fresh e-commerce platforms. But the proliferation of such platforms has only partly facilitated consumers and agricultural operators, the non-standard follow-up of the standardization of agricultural products, the imperfect control of the e-commerce platform and the fragmentation of the operation of the agricultural supply chain cause the income of agricultural operators to still be less, and the food safety of consumers is not guaranteed on some platforms. In addition, in the current development process of the agricultural economy, the characteristics of the agricultural financial cycle, long-term seasonality and high risks make its development degree lag behind. As a result, the operation of the agricultural supply chain cannot be carried out smoothly. Fragmentation of agricultural supply chain also makes the phenomenon of low-end agricultural value chain more serious, which makes the optimal allocation of agricultural resources difficult. In the agricultural supply chain, the production link is its weakest link. The agricultural operators have insufficient economic strength—the credit is low, the loan amount is small and scattered, and the lack of mortgage guarantees and other problems lead to financing difficulties. For financial institutions such as commercial banks, in the face of these agricultural operators with weak potentials and severely uneven cost-benefits, they chose to give up this market with the goal of making profits. So, in the current environment, it is extremely urgent to improve the status of agricultural operators, building a perfect

credit rating system for them and creating a good financing environment.

In recent years, along with the rapid development of the Internet industry, many domestic and foreign scholars have focused on the dimension of 'Internet platform to promote the development of agricultural production'. Their focus is mainly on the operation mode, system construction and case analysis of the agricultural product e-commerce platform. For example, Liu and Mcfarlane^[5] respectively analyzed the cases of agricultural product e-commerce development in Japan and the United States, and believed that the cooperation model of government, agricultural economic cooperation organization and third-party logistics company is conducive to the rapid development of agricultural products e-commerce; domestic scholar Luo Yi's^[7] research is based on the 'house platform' in Shanghai and the 'Freshdirect' platform in New York, which suggested that the development of domestic agricultural products e-commerce platform should focus on 'improving farmers' economic interests and serving consumers'; Wang Ke^[4] was quantitatively analyzing the agricultural product supply chain channels; Wen-Jie C^[10] proposed different opinions and suggestions on the development path of agricultural products e-commerce from different dimensions and different regions.

Compared with developed countries such as the United States and Britain, Japan and China are encountered the common problem of the asymmetry of land and population on the road of agricultural development. In terms of the development of agricultural e-commerce, Japan vigorously promotes brand effects, such as 'nearly 800 houses'. The brand feature of the website is to sign contracts directly with producers to purchase goods from the source to ensure the freshness and safety of agricultural products to the greatest extent. The price of the product has also been reduced, and such brand effect is widely favored by the public. It is also because of such direct product and brand promotion that made the annual sales of Japanese agricultural products e-commerce increase from US\$6.1 million in 2005 to US\$25 million in 2015, a 3.1-fold rise in 10 years. In terms of agricultural finance, Japan is a small country with a small agricultural economy. The agricultural financial system adopts a cooperative type and is highly government-oriented. It includes three levels: policy financial institutions, cooperative

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financial systems and agricultural insurance institutions. Such a "2+1" cooperative support model and Japan's strong legal system ensure the stable development of agricultural finance.

In summary, scholars' research on agricultural e-commerce has mostly focused on agricultural products e-commerce in recent years. From the construction of logistics transportation system, the supply chain structure of agricultural products to the brand building of agricultural products and e-commerce, the regional development of 'point-to-face', all having made detailed case studies and qualitative and quantitative studies. However, the research on the overall agricultural e-commerce is relatively small, and there is a lack of research on the construction of the credit system of agricultural operators, the quality and safety traceability system of agricultural products and innovative practice of multi-role interconnection of government, e-commerce platform, agricultural operators and consumers. So, this paper is based on the BAF one-stop agricultural service platform developed by BAF Science and Technology Service Company, conducting an in-depth analysis of the innovative development and integration of agricultural e-commerce platform, and providing reference for the development of agricultural e-commerce in China. From the perspective of improving the quality and efficiency of the agricultural supply system, promote the upgrading of the agricultural industry, enhancing the position of agricultural operators in the smile curve, innovating and optimizing the agricultural credit, using the Internet platform to guide small farmers to transform into new agricultural operators, strengthening the dynamic adaptation of medium and high-end agricultural demand and deepening the structural reform of the supply side of agriculture.

II. Materials

2.1 The definition of agricultural e-commerce and the development of related platforms.

The agricultural e-commerce platform is a comprehensive e-commerce platform that combines e-commerce in rural areas, urban agricultural e-commerce, urban agricultural products supermarkets and retail stores to integrate the main body of the agricultural product supply chain and match more accurate supply and demand information. Furthermore, it is conducive to consumers and relevant regulatory authorities to supervise from the source of agricultural suppliers to ensure the quality of agricultural products. In addition, the addition of urban agricultural e-commerce satisfies the individualized needs of consumers at different levels, attracting consumers to purchase agricultural products through the methods of leisure agriculture such mining, sightseeing and tourism, thus realizing the flow of information in the supply and demand of

agricultural products, logistics and capital flows are connected by the shortest path. At present, China's e-commerce platform is not comprehensive enough, mainly divided into agricultural products e-commerce, agricultural e-commerce and rural e-commerce.

Among them, the faster development is the agricultural products e-commerce, that is, the agricultural products e-commerce platform that focuses on the sales and distribution of agricultural products, instantly connecting suppliers and consumers, especially the e-commerce platform featuring direct production and direct supply of agricultural products. For example, ShiXun.com, which was launched in June 2015, is a vertical e-commerce platform for fresh ingredients based on the physical wholesale market. In addition, the momentum of fresh e-commerce is also particularly rapid, For example, fresh food e-commerce based on online retail and supported by high-traffic online shopping platform like Jindong fresh food, Yihaodian and so on. According to statistics, from 2012 to 2016, the transaction volume of China's fresh e-commerce market has soared from 4 billion yuan to 95 billion yuan.

2.2 Market feasibility analysis

As is shown in the Figure 1, the scale of rural Internet users has been expanding. The number grew from 178 million people in 2014 to 2.22 million people in 2018. And the Internet penetration has arrived 38.4% in 2018. Although the Internet users in rural areas account for less than 30 percent of the country's Internet users, thanks to a huge rural population and policy dividends, the development potential and prospect of rural e-commerce are still very broad. At the same time, it is obvious that the agricultural operators in China are adapting to the Internet age, and they are learning to increase their income through using the Internet. This situation provides amounts of opportunities for the development of agricultural e-commerce.

According to the information, in 2018, the national rural network retail sales reached 1.37 trillion yuan, a year-on-year increase of 30.4%; the national agricultural product network retail sales reached 230.5 billion yuan, an increase of 33.8%. It can be seen that in recent years, China's rural e-commerce has developed rapidly and played an increasingly important role in the road of rural revitalization. In terms of e-commerce development, e-commerce in the eastern region has developed rapidly in terms of regions. According to the data, online retail sales in the eastern region accounted for 77.3% of the country's overall online retail sales in 2018, an increase of 29.1% year-on-year. Secondly, online retail sales in the central region accounted for 13.6% of the country's overall online retail sales.

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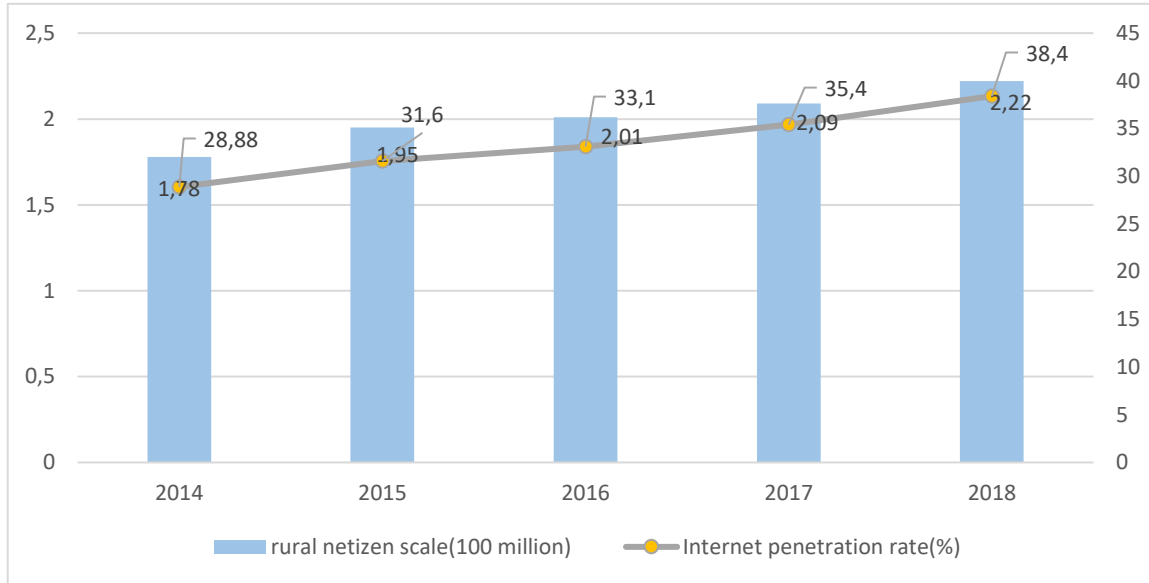


Figure 1- The scale of Internet users in rural areas and the Internet penetration in 2014-2018

With the rapid development of the Internet and the arrival of the 5G era, the advantages of agricultural e-commerce have become more prominent, and the scale of agricultural e-commerce is gradually expanding. As is shown in the Figure-2, it is expected

that the scale of China's agricultural e-commerce will exceed 1.2 trillion yuan by the end of 2019. The scale of China's agricultural e-commerce will exceed 1.6 trillion yuan.

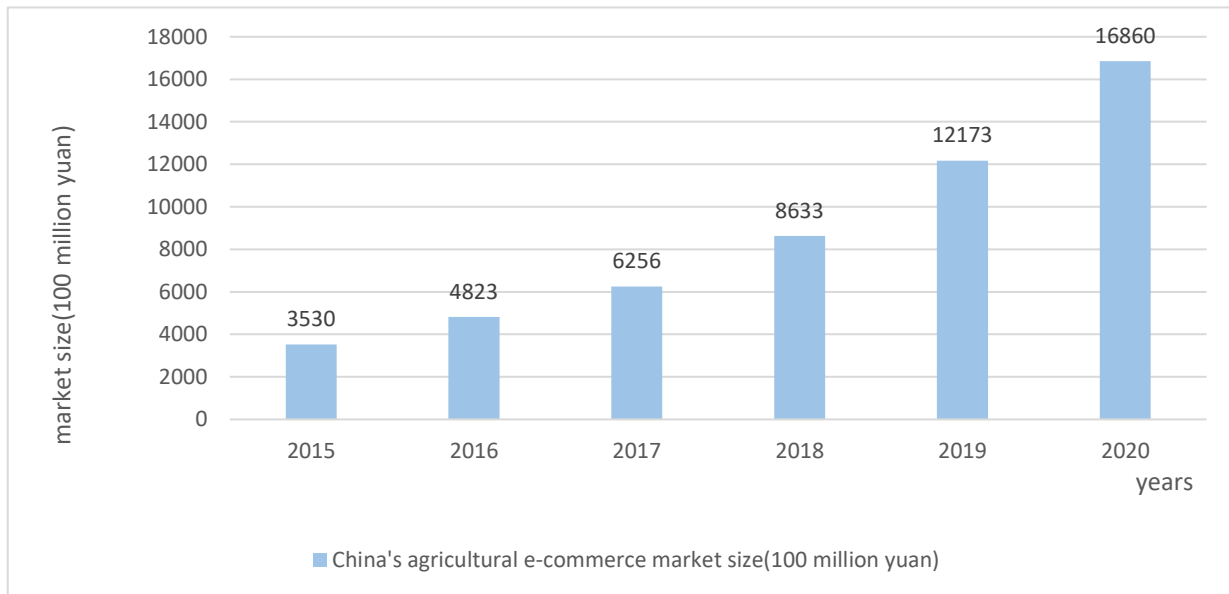


Figure 2-The scale of Chinese agricultural e-commerce market

Through the data from the table 1, the gap between the rural deposit balance and agricultural loans has gradually increased in 2005-2017. The rural deposit fund is high, the demand of rural credit loan is large. However, capital is not lending enough to meet agricultural operators' demand. Thus, the financing difficulties are the main problem in the process of agricultural production. And this problem has increasingly becoming an obstacle through the

development process in recent years. There are two reasons of the problem: the first is the number of farmers' demand of capital is small, and lacking of collateral makes security difficult. The second is the uncertainty of agricultural risks, and the Interest rates on farm loans are high. However, the average return on investment in agricultural area is not high. This also increases the financing cost of agricultural operator indirectly.

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Table 1. China’s rural financial capital development status in 2005-2017

| Year | Rural deposit balance (100 million yuan) | Rural loan balance (100 million yuan) | Total rural financial capital (100 million yuan) | The number of rural commercial bank | The asset scale of rural commercial banks (100 million yuan) |
|------|--|---------------------------------------|--|-------------------------------------|--|
| 2005 | 24606.37 | 11098.22 | 35704.59 | 6 | 3872.15 |
| 2006 | 28805.12 | 12704.75 | 41509.87 | 13 | 5534.29 |
| 2007 | 33050.26 | 14833.10 | 47883.36 | 17 | 6936.83 |
| 2008 | 41878.69 | 17065.28 | 58943.97 | 22 | 9291.55 |
| 2009 | 49277.61 | 19778.66 | 69056.27 | 43 | 18661.96 |
| 2010 | 59080.35 | 23043.70 | 82124.05 | 85 | 27670.20 |
| 2011 | 70672.85 | 24436.00 | 95108.85 | 212 | 42527.18 |
| 2012 | 85335.12 | 27261.00 | 112596.12 | 337 | 62751.73 |
| 2013 | 101268.71 | 30437.00 | 131705.71 | 468 | 85218.59 |
| 2014 | 120646.63 | 33394.00 | 154040.63 | 665 | 120610.27 |
| 2015 | 142835.48 | 35137.00 | 177972.48 | 859 | 152300.63 |
| 2016 | 165927.05 | 36627.00 | 202554.05 | 1055 | 201988.72 |
| 2017 | 191538.74 | 38898.00 | 230436.74 | 1351 | 247498.85 |

With the rapid development of China’s economy and gradual improvement of people’s living standards, consumers’ requirement of agricultural production’s quality is higher and higher. Under the condition that adequate food and clothing needs are satisfied, people pay more attention to the reasonable combination of dietary structure and the safety and nutrition of food. According to the

Consumer Protection Association, food safety has always been a major problem reflected by consumers. We can know from the Figure 3 that the complaint rate of food safety is as high as 68 percent. At the same time, green and pollution-free natural agricultural products have begun to win widespread favor of consumers. It is estimated that in 2021, China’s green food market will exceed 600 billion yuan, reaching 607.8 billion yuan.

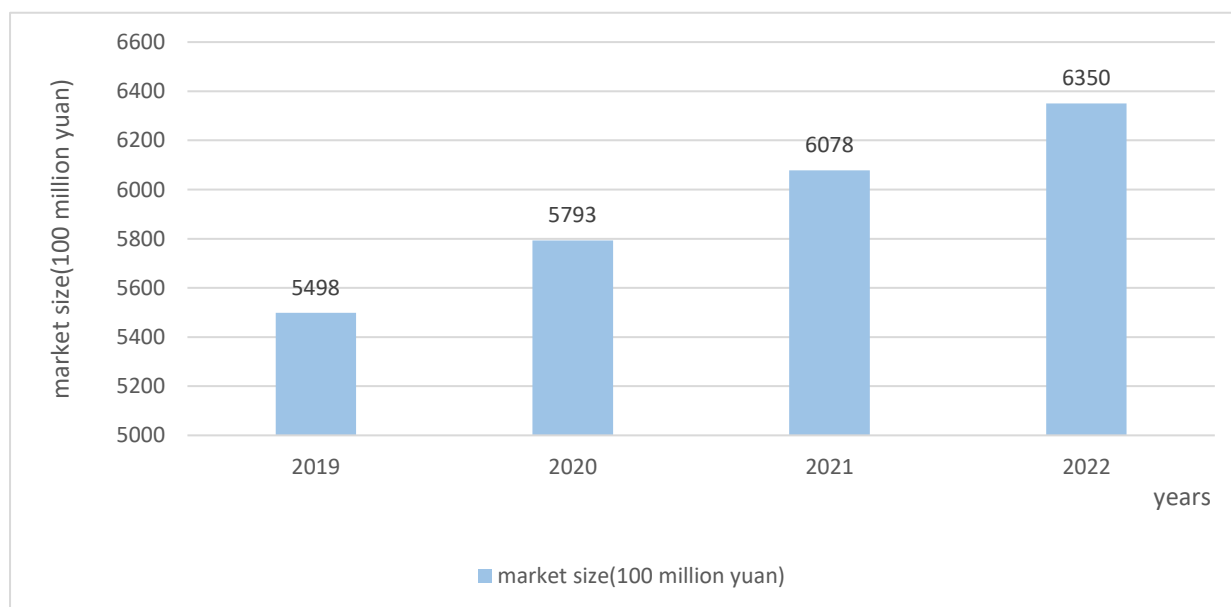


Figure 3-The forecast of green food market size

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2.3 The current situation of agricultural e-commerce in China

(1)Scale operation has not yet formed a general trend: The small scale of agricultural production in some areas and the dispersal of land have hindered the improvement of agricultural productivity and hindered the development of mechanization of production, which is not conducive to unified seed supply, mechanized operations, irrigation, fertilization, pest control and new material agriculture. Science and technology have virtually increased production costs, and the quality and safety of agricultural products are not effectively protected. Even in some places, scattered agricultural production has seriously affected labor productivity, but due to land dispersion, mechanized production cannot be smoothly carried out, and existing agricultural infrastructure cannot meet the needs of agricultural production.

(2)The rural financial system is not yet perfect: Agricultural production is greatly affected by natural factors, and there are many uncertain factors in the production process. However, China's agricultural production guarantee mechanism is still not perfect, which greatly affects farmers' production enthusiasm. What is more noteworthy is that the development of rural finance has been stuck in the policy-based financial stage for a long time. The problems of service coverage, supply scale and insufficient service quality have become prominent, which has caused many farmers to face problems such as "funding difficulties, expensive financing and difficult guarantees".

(3)Serious homogenization of agricultural products: Most of the more popular agricultural products on the current large-flow e-commerce platform are products with higher standardization, but among these products, the types are similar, lack of product innovation, and the innovation of agricultural products is poor, which is not conducive to e-commerce's further development of advantages. At the same time, this large-scale non-differentiation model and uncharacteristic brands make it difficult for these e-commerce platforms to form a fixed core customer base by establishing a brand image, and it is more difficult to increase the added value of products, which may eventually lead to bad competition among peers and reduce economic efficiency.(Cheng Chen and Ding Dong 2016)

(4)Logistics and transportation system needs to be strengthened: The risk of agricultural e-commerce

is not only in the production of agricultural products. In the process of transportation of products, the loss of product quality will inevitably increase the production cost and impair the economic interests of farmers.

In general, the problems faced by farmers at present are not only the sales of agricultural products on the e-commerce platform, but also the initial stage of e-commerce. In the future, what farmers will lack are financial financing support, timely delivery of market information, personal enterprise credit enhancement, value chain industry linkage, product image creation, product value-added and other aspects of agricultural production needs.

III. The design and implementation of BAF platform.

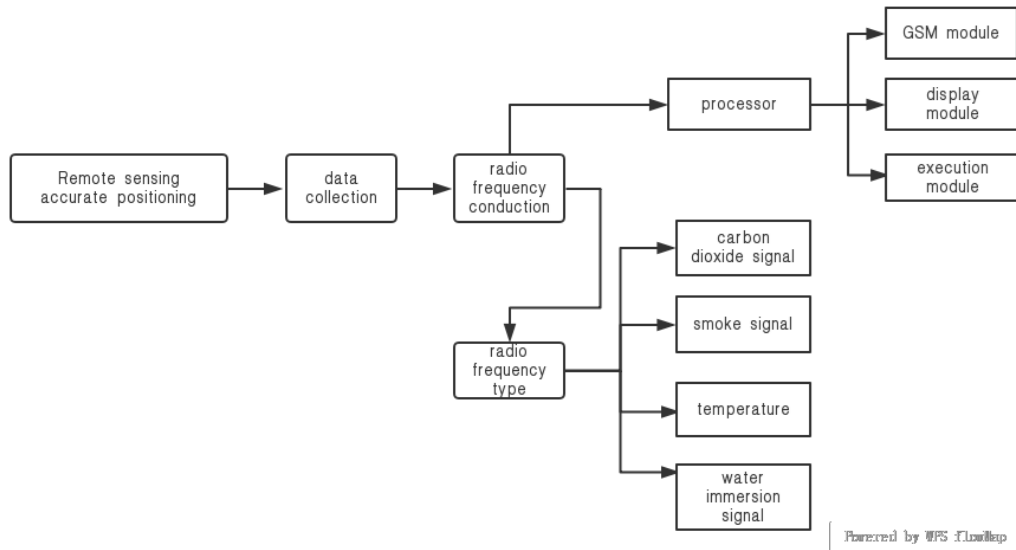
3.1 technologies application

3.1.1Intelligent Control System for Greenhouse

A fusion system of the Internet of Things and modern sensor information technology-- precisely locates crops by sensors, satellite positioning and RFID, collecting crop information and upload relevant information to the Internet for analysis and calculation. According to the technical characteristics of the Internet of Things, the control system can be divided into perception layer, transmission layer and application layer. In the perception layer, soil moisture, greenhouse temperature, carbon dioxide concentration, crop growth and other information are collected through satellite positioning, remote sensing technology, etc., and then these information will be digitized and transmitted to the agricultural equipment terminal, mobile terminal and application layer background with the help of the Internet and local area network of the transmission layer for real-time display. The application layer is the top link of the entire intelligent control system, through which agricultural operators can control greenhouse dynamics via platform operation in real time. For instance, control the photosynthetic temperature of greenhouse crops in 20-25°C, control the respiration temperature in 36-40°C and the carbon dioxide concentration at about 0.1%. Meanwhile, GSM module intelligent alarm system will be added into the intelligent control system to minimize some loss caused by natural or human factors. Such an intelligent greenhouse system based on Internet of Things technology can make agricultural production more efficient and intensive.

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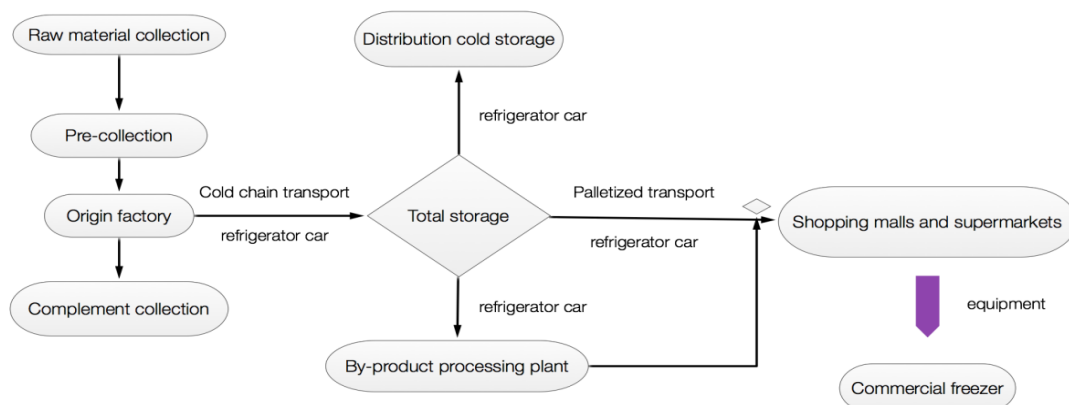


Picture 1-Control Paths of Intelligent Greenhouse

3.1.2 Cold chain logistics transport technology

Cold chain logistics transport technology is mainly divided into three links: raw material acquisition, circulation system and market control. Each link has certain operation process and transportation track. Furthermore, in the transport process, for medium and high-end products, using ecological cling film and chemical preservative packaging, for the low price of agricultural products, taking corrugated film bag and put into hard silicon window installation, keeping good air permeability. In

the palletization transportation in the process of distribution, optimizing the lightening process, trying to mechanize craft process, shortening the loading and unloading and stacking time; Strictly implement the product traceability mechanism to ensure the high efficiency of the cold chain logistics process. In terms of specific operation, digitize, intensify and mechanize the agricultural products. Attach the QR code to each box of products for the convenience of the inspection and supervision in the transportation process.



Picture 2-Cold Chain Transport Process

3.2 The implementation of BAF platform

Based on the above materials analysis and technologies application, our company has created a one-stop platform called Beneficial to all farmers(BAF) .BAF's technical basis is big data, cloud computing and application of agricultural

Internet of things' has two entrances: one is for agricultural operators, and the other is for amounts of consumers. The divided entrance can help us better manage and operate the platform.

For agricultural operators, we can provide optimal choosing functions of agricultural materials

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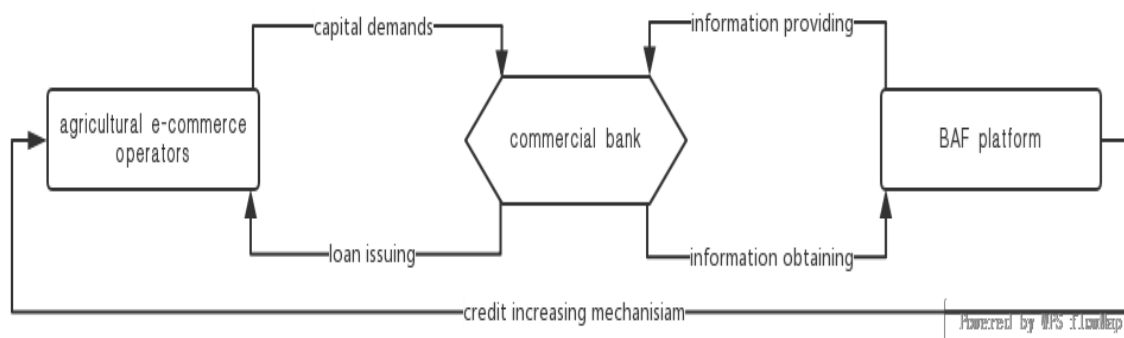
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and agricultural productive services, modern management of agricultural production, including the application of agricultural Internet of things, the function of agricultural operators' credit rating, policy guidance from government and expert technical guidance. For consumers, it is beneficial for them to trace agricultural products, and through BAF, they can learn about the whole process of producing and selling agricultural products. If they want to deeply understand the planting and picking process of crops, they can go to the place that plants crops and experience this process.

3.3 The innovative advantage of BAF platform

3.3.1 Featured financial services

It is worth mentioning that the function of agricultural operators' credit rating. As is shown in the interface, the agricultural operators can query their credit values, and then they can increase their credit values through binding Alipay, We chat to BAF. Also, the transaction records and consumers' appraisals will be used as the criteria of credit values. The higher the credit value is, the easier they get the loan. In BAF's mechanism, BAF is a platform that can help some financial institutions, like commercial bank obtain the agricultural operators' information about finance and credit. At the same time, farmers can get the capital through BAF's help from commercial bank. And the bank doesn't have to worry about the unsecured capital. In addition, farmers can purchase some financial products and innovative agricultural insurance through BAF.



Picture 3-Financial Service System

3.3.2 The selection of agricultural materials

Another innovative function is gathering numerous agricultural operators together and choosing better agricultural material suppliers through price comparison and service evaluation. When the agricultural operators have autonomous choices, the status of agricultural operators in the smiling curve can be improved. In the process of platform operation and promotion, we will encourage some agricultural production service suppliers to join in, and expand the space of sales for them. The win-win situation between agricultural materials suppliers and agricultural operators will be expected.

3.3.3 Tracing productions' sources

For consumers, they can not only learn about the route of logistic, but also know where the agricultural production comes from and which agricultural materials do farmers use in the process of planting. Such a transparent production process can guarantee the quality of products apparently. The whole-process cold chain logistics technology also reduces the quality loss of agricultural products in the

transportation process and effectively reduces the production cost. When the products are very popular, they can purchase these products by making an appointment.

These three main advantages on the BAF platform are dependent mutually. The supply of agricultural materials and the optimization of agricultural productive services provide a large number of trading subjects for BAF platform. On the one hand, the application of big data and the agricultural Internet of things extends and expands the supply of agricultural materials, on the other hand, it also provides data sources for the credit enhancement of agricultural operators and establishment of trace system. For government, massive amounts of information analyzed by using big data can help optimize relevant policies and promote the development of agriculture accurately.

IV. Discussion

In the initial stage of platform construction, the company will be in Hefei, Anhui Province as a pilot, to radiation to the surrounding areas of the way to

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develop, the main user groups for agricultural suppliers in agricultural developed areas, agricultural service providers, agricultural operators, urban agricultural retailers and agricultural consumers. Among them, agricultural suppliers, agricultural production service providers, agricultural operators, urban agricultural retailers can have access to their own credit rating system through the introduction of identity information, transaction flow and other information flow integration, and through the platform to commercial banks and other major financial institutions to apply for microcredit as well as easing the pressure on capital.

For agricultural products consumers, they can not only directly purchase, book high-quality, green, safe agricultural products on the platform, but also book some agricultural picking garden and farm experience projects, these projects are also conducive to the development of tourism economy in surrounding townships, for the improvement of agricultural value chain to provide an opportunity. However, compared with the existing agricultural e-commerce platform in the market, Huiwan agricultural platform still has some defects in the brand building and the improvement of the added value of products. In 2009 online operation, "cook butler", based on the Shanghai agricultural market e-commerce platform, in addition to operating a variety of fresh fruit, meat and poultry eggs and milk, it also makes use of some special group purchase packages, gift cards, fruit and vegetable gift boxes, farm music and other forms to create a "food butler" unique brand effect, enhancing the added value of products. Due to the small size of the region and the "point-to-point" cooperation between the platform and cooperatives, agricultural enterprises and farmers, supply and demand information can be more timely docking, and the quality and price of agricultural products can be more efficiently guaranteed. For the Huiwan agricultural platform, in the early stage of platform

construction, our main goal is to build a bridge between agricultural suppliers and agricultural operators, and strive to build the platform for agricultural production service providers of the preferred function, improving the position of agricultural operators in the smile curve so as to protect the quality of agricultural products from the source.

In this way, the added value of products may not be effectively improved for the platform, which is not conducive to the brand promotion of the platform in a short time. In addition, the arrival of the 5G era makes 5G Internet and agricultural e-commerce an opportunity, but in the consumer's live experience function, the world's AR technology chip temporarily does not support 5G port access, that is, the addition of 5G may not make its advantages of large bandwidth play. The user's visual sands and story experience may not be optimized.

Therefore, in the rising period of the platform, how to use technological advantages to seize more market share is also a problem in platform development in addition to giving agricultural operators credit promotion, credit guarantee opportunities.

V. Conclusion

BAF is an one-stop platform based on the big data and agricultural Internet of things mainly for agricultural operators, given attention to amounts of consumers. We expect the problem of capital can be solved by establishing credit rating system, and the next step is to increase the farmers' income. In addition, joining of agricultural materials suppliers and the agricultural productive service suppliers will optimize the agricultural supply chain of BAF platform and improve the status of agricultural operators.

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THEORETICAL APPROACHES TO THE ANALYSIS OF SOCIAL ORPHAN HOOD

Abstract: The article discusses the main theoretical approaches to the study of social orphan hood. The main conclusions of the theoretical study of the problem are that social orphan hood is the result of gaps in the ecosystem model of society.

Key words: orphan hood, social work, social development, ecosystem model, society.

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Introduction

The spread of the scientific approach to the analysis of the consequences of growing up of children without parents dates back to the middle of the 20th century - an increase in interest in these issues was associated with a sharp jump in the number of children left without parental care as a result of loss during the First and then Second World Wars. The publications of W. Golfard raised these problems, highlighting a number of emotional, behavioral, and intellectual problems that arise in the pupils of boarding schools. The English scientist John Bowlby, the founder of the theory of affection, in his monograph highlighted the issues of family education and the main idea was that in order to form a psychologically healthy personality, the child should be brought up in a family atmosphere, and the loss of emotional connection with the mother or the person replacing her leads to psychological disorders. J. Bowlby argued that “the problem is not rooted in the very essence of public education, but in the absence of conditions under which an orphan could establish an intimate, emotionally rich and stable relationship with the object of attachment, contributing to the formation of a healthy, active and socially adapted person”.

So, in the socio-psychological studies of inmates of boarding schools, the “insufficiency” of conditions necessary for the normal growth and development of the child is emphasized. To denote the functioning

(growing up, interaction, etc.) of a person in an “insufficient”, depleted environment, researchers use the concept of “mental deprivation” - “mental state that arose as a result of such life situations where the subject is not given the opportunity to satisfy some of its basic (vital) mental needs to a sufficient extent and for a sufficiently long time ”(J. Langmeyer, Z. Mateychek).

In the classic work *Mental Deprivation in Children*, J. Langmeier and Z. Mateychek called such forms of mental deprivation as:

1. Stimulus deprivation (sensory: a reduced number of sensory stimuli or their limited variability and modality);
2. Deprivation of meanings (cognitive: too variable, chaotic structure of the external world without clear ordering and meaning, which makes it impossible to understand, anticipate and regulate what is happening from the outside);
3. Deprivation of an emotional relationship (emotional: insufficient opportunity to establish an intimate emotional relationship to any person or the break of such an emotional connection, if one was created);
4. Deprivation of identity (social: limited opportunity for mastering an autonomous social role).

Researchers in boarding schools, according to researchers, are affected by all four forms of deprivation. So, Russian scientists A. M. Parishioners

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and N. N. Tolstoy describe the “depleted environment” of the orphanage, noting the insufficient number of visual, auditory, tactile and other stimuli (sensory deprivation). L. N. Galiguzova, A. E. Lagutina, S. Yu. Meshcheryakova, E. O. Smirnova, L. M. Tsaregorodtseva pay attention to the unstable, often changing composition of adults raising a child in an orphanage, the diversity and mismatch of behaviors and adult attitudes towards the child, a change of institutions that occurs against the will of the foster child (cognitive deprivation).

The instability and fluidity of the staff of the orphanage, too many children per teacher, make it impossible to establish deep emotionally close relationships between children and adults (emotional deprivation). Assessing the specifics of the functioning of residential institutions, we can characterize them as “closed” groups (M. Yu. Kondratyev).

I. B. Nazarova, M. Yu. Kondratyev, N. V. Repina state that social deprivation is inextricably linked with the concept of a “closed” group.

Let us turn further to a detailed consideration of the consequences that a long stay in a deprivation environment leads to.

An analysis of studies on growing up in conditions of mental deprivation allows us to formulate the main problems that characterize the development of pupils of residential institutions, namely: in the field of cognitive development, in the field of emotional and volitional development, in the field of personal development, in the field of social development.

Problems in the field of cognitive development. Cognitive development of inmates of boarding schools, according to Russian experts I. A. Korobeinikov, A. M. Parishioners, V. M. Slutsky, N. N. Tolstykh is distinguished by such a feature as a lag in a number of characteristics of verbal intelligence with sufficient formation of non-verbal forms of mental activity. This phenomenon is explained by the specifics of upbringing in the orphanage - the lack of full-fledged social ties that impede the “mediation” of an adult in the transfer of knowledge and experience, the installation of suppressing spontaneous personal and speech activity.

Problems in the field of emotional-volitional development. Based on a study of children of preschool and primary school age conducted by a group of Russian specialists (L. N. Galiguzova, I. A. Zalygina, S. Yu. Meshcheryakova, A. M. Prikhozhan, E. O. Smirnova, N. N. Tolstykh, L. M. Tsaregorodtseva) show a low level of development of self-regulation. Volitional development is characterized by insufficient development of the internal plan, which gives rise to situationality in behavior, orientation toward external control. In adolescence, the orientation toward external control is transformed into high suggestibility and a statement,

which is manifested in insufficient opposition to negative influence and manipulation.

Assessing some parameters of the emotional sphere of boarding school children, A. Kh. Pashina and E. P. Ryazanova come to the conclusion that orphans have a poorly expressed ability to adequately recognize the emotions contained in another's speech. In addition, it was revealed that the qualitative originality of the emotional sphere of the pupils themselves is impoverished. It is assumed that the consequence of the formed emotional coldness is the possible violation of marital and child-parent relations in the future.

Problems in the field of personal development. Researchers also note the specific development of the self-concept in pupils of residential institutions. It is distinguished mainly by low self-acceptance, self-esteem. I.F. Dementieva, I.G. Zhiritskaya, I. B. Nazarova, N.K. Radina, I.A. Yakovleva note among orphans a sense of their own inferiority, inferiority, and deprivation. V.S. Mukhina explains the peculiarities of the life of the closed institution by the phenomenon of “we,” which is characteristic of the personality of children in residential institutions, which characterizes the peculiar identification of the pupils with each other. The world of children from boarding schools is divided into “friends” and “strangers” (home). But within the “own” group, according to research, there is abuse, aggression.

E.O. Smirnova and A.E. Lagutina described the phenomenon of “alienation of their experience” among pupils of boarding schools, when individual episodes of life that have not been lived become events of life, are not assigned, are not part of psychological experience, and do not determine the future. V.S. Mukhina, A.M. Parishioners, N.N. Tolstykh distinguish the narrowing of the time perspective, characteristic of the personality of the pupil of the boarding school, when the child lives in the past, not focusing on the present and future. The group nature of belonging of things in the orphanage leads to the fact that in the orphanage there are no concepts of “own” - “alien”, respectively, there are no objects that the child could consider “his”. Due to the lack of personal things for the child, for which he would be responsible and to whom others would respect, the practical psychologist V.I. Slutsky remembers, it is difficult for the child to distinguish himself as a separate person who has independent value.

As noted by a large group of authors, a child in a boarding school is deprived of everything that is included in the concept of “home”: close adults, his “corner”, personal toys and other things that he could call his own (L.N. Galiguzova, S. Yu Meshcheryakova, L. M. Tsaregorodtseva).

Problems in the field of social development. I. B. Nazarova and N. K. Radina ascertain the presence of signs of perception of themselves as members of a

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marginal group among the pupils of boarding schools. One of the features of state education is the isolation of the life of orphans from the practice of making money. State support provides an opportunity for orphans to live "at the ready." The consequence of such a habit, in the opinion of V. S. Mukhina, is a dependent position, asking for benefits. The consumption of goods without any labor for their acquisition leads to a lack of frugality, responsibility. The consequences of the "depersonalization" of money received to support the pupils, from the point of view of N. K. Radina, are: faith in chance, luck, instant enrichment, financial games; excessive consumer activity (waste of money) and reduced financial control; increased sense of unpredictability of the future and a sense of hopelessness.

The social development of inmates of boarding schools is characterized by a distorted development of communication: contacts are superficial, nervous, hasty. M.I. Lisina, V.S. Mukhina, A.M.

Underdevelopment of communication entails a low level of social competence: inability to navigate in social situations, correctly determine the personal characteristics and emotional state of other people; choose adequate ways of communicating with others and implement these methods in the process of interaction. Russian specialist M. Yu. Kondratyev associates such upbringing with "closed" groups as such impoverished "open" social networks and difficulties in role-playing experimentation. Let us consider in more detail the manifestation of the specifics of the deprivation development of a person in age dynamics based on socio-psychological studies.

The study of orphans of infancy. The peculiarity of the development of children of the first year of life in children's homes, compared with peers growing up in a family, is noted by all authors who studied infant orphans (G.V. Khrulnova, L. N. Galiguzova, G. V. Gribanova, T. M. Zemlyanukhina, M. I. Lisina, S. Yu. Meshcheryakova, Yu. F. Polyakov, K. V. Soloed, T. V. Sokhina, L. M. Tsaregorodtseva and others.) Frequent personnel changes and the number of caregivers adults, and at the same time, the impossibility of establishing lasting emotional relations with any of the caregivers determine the unfavorable development of all for the baby in the child's home.

Cognitive development. Speaking of cognitive development, L. N. Galiguzova, M. I. Lisina, S. Yu. Meshcheryakova note passivity, little interest in the environment. Such an attitude inhibits the cognitive development of the baby. L. N. Galiguzova and S. Yu. Meshcheryakova reveal inability to act according to the pattern in infants of the child's house, which leads to delays in the development of speech, in mastering specific actions with objects. F. Polyakova and K.V. Soloed note a significant lag in the development of initiative actions in orphans.

Emotional-volitional development. Infants from a child's home express less emotion than children growing up in a family. Their emotional manifestations are poor and inexpressive. According to the observations of I.V. Dubrovina and A.G. Ruzskaya, they later than family children begin to differentiate the positive and negative emotions of an adult.

Personal development. In the conditions of upbringing in a family, in the first six months of life in infants, in the process of emotional communication with close adults, the foundations of personality and self-awareness are laid, which is manifested in their positive self-awareness, cheerfulness, initiative, exactingness, curiosity. Infants from the orphanage are deprived of full communication, they do not have stable emotional attachments, which, in the opinion of G.V. Khrulnova, entails a violation of personality formation. Attitude to the world is due to relationships with adults. In a baby in a child's home environment, these relationships are superficial, unbiased, poorly differentiated (L. N. Galiguzova, M. I. Lisina, S. Yu. Meshcheryakova, L. M. Tsaregorodtseva, etc.).

Social development. The pupils of the orphanage later than children from the family, the need for communication is manifested. Accordingly, communicative activity does not appear longer. Communication is sluggish. The revitalization complex, being the first social reaction, according to the observations of L. N. Galiguzova, G. V. Gribanova, S. Yu. Meshcheryakova, L. M. Tsaregorodtseva, is weakly expressed, arises with difficulty, it includes less diverse manifestations, it is characterized by insufficient duration and intensity, quickly fades with the disappearance of adult activity. T.V.Sokhina found that in situations of discomfort, orphans often show passive, somatic reactions and self-stimulation, while infants from the family, already possessing some ability to regulate adult behavior, attract him to eliminate discomfort.

The contacts of infants with each other also bear the imprint of the lack of a full relationship with an adult. The interest in peers arising in the first half of the year in the second half of the year is noticeably reduced: being close by, children often do not notice each other, do not engage in game interaction, are not sensitive to the initiative and emotional state of their peers, which leads to conflicts between them (L. N. Galiguzova, S. Yu. Meshcheryakova, L. M. Tsaregorodtseva, etc.).

The study of young orphans. The lagging lines identified in infancy in the development of boarding school children continue to be traced to the inheriting age stage - at an early age (B.I. Aizenberg, L.N. Galiguzova, T.M. Zemlyanuhina, V.I. Kondrashin, N.V. Kuznetsov, M.I. Lisina, S. Yu. Meshcheryakova, A.G. Ruzskaya, T.A. Finashina, L.M. Tsaregorodtseva).

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Emotional-volitional development.

Observations by L. N. Galiguzova, T. M. Zemlyanukhina, S. Yu. Meshcheryakova, L. M. Tsaregorodtseva for a young child show that his activity proceeds on a flattened emotional background, accompanied by apprehension and timidity. Orphans, unlike children brought up in a family, receive much less positive emotions from familiarizing themselves with toys and often experience conflicting and negative emotions. Negative emotions prevail, and they are manifested much more intensely.

Social development. In communication with an adult, as noted by L. N. Galiguzova, S. Yu. Meshcheryakova, L. M. Tsaregorodtseva, in an orphan child such indicators as attention and interest, emotional attitude, the number of communicative statements, and flexibility in attitude are reduced. Initiative of the child visibly affects the adult.

As at an earlier age, children's sensitivity to adult ratings lags behind the norm: children do not differentiate adult praise and censure. Business contacts with adults arise late and are carried out in a primitive form. The purpose of the communicative actions of children in the orphanage is physical and other directly emotional contacts with adults. There is an echo of the unmet need for emotional contact in infancy. The same researchers characterize the sphere of communication of orphans with peers as depleted. Children's contacts are often colored with negative emotions, in the games of children there is less initiative, openness, friendliness, and aggressiveness is frequent.

The study of orphans of preschool age. Among the socio-psychological studies, we were not able to find works studying the differences in development between pupils deprived of parents in preschool age and children orphaned in the first three years of life. In the studies below, the authors do not pay attention to the age of the child at the time of admission to the institution.

The study of orphan preschool children in the scientific literature is given more attention than young children (M.K. Bardyshevskaya, L.N. Galiguzova, S. B. Danilyuk, I. A. Zalysina, R. I. Kanunnikov, I. A. Korobeynikov, A. E. Lagutin, S. Yu. Meshcheryakova, A. M. Parishioners, V. M. Slutsky, E. O. Smirnova, N. N. Tolstykh, L. M. Tsaregorodtseva, etc.).

Cognitive development. The above-described features of the cognitive sphere of pupils of boarding schools (lagging behind in a number of verbal assignments and a sufficient level of development of non-verbal intelligence) were found by I. A. Korobeinikov and V. M. Slutsky on a group of orphans

- preschoolers. The specificity of cognitive development is associated by the authors.

With the conditions of a closed institution (lack of full-fledged social ties, suppression of personal and speech activity).

Emotional-volitional development. In the development of the emotional sphere, the same trends remain as at an earlier age. L. N. Galiguzova, I. A. Zalysina, S. Yu. Meshcheryakova, L. M. Tsaregorodtseva thus characterize emotional-volitional development: orphans are characterized by a passive, indifferent attitude to the environment; As a rule, vivid emotions and experiences do not cause the perception of fairy tales, filmstrips, and role-playing games. According to A.M. self-control.

Personal development. Russian specialist V. S. Mukhina analyzes the "picture of the world" that is emerging in the representations of a preschool child. The author emphasizes that the child's ideas are influenced by the characteristics of the culture and social environment in which the child is located. The tragedy of losing a family makes an orphan preschool child turn to his past when he lived in a family and everything was fine. It is possible that such a phenomenon as "alienation of one's own experience" is connected with the child's turning into the past, when individual episodes of life that have not been lived become events of life, are not assigned and are not included in psychological experience. A. E. Lagutina and E. O. Smirnov explain it by the lack of subjective meaning in the actions of the child: knowledge and behavior patterns remain formal, alienated and do not cause an emotional, subjective attitude. L. N. Galiguzova, S. Yu. Meshcheryakova, L. M. Tsaregorodtseva note the lack of a temporary perspective for orphans. Children live in the present, having no past and future, they do not know how to fantasize, dream, strive for something. According to A.M. Parishioners and N.N. Tolstoy, an orphan preschool child is characterized by a simple, one-dimensional, undivided idea of himself. Formed under the influence of estimates and expectations of adults, most often it comes down to a negative assessment.

Social development. Here, as at an early age, the emphasis by researchers is on the dissatisfaction with the need for emotional communication. Children eagerly respond to any initiative on the part of an adult. But it is precisely the intense need for attention and goodwill that is motivating for orphans. Inherent in children of this age raising in a family, the need for cooperation, respect, empathy is not typical for children left without parental care of parents of this age (L. N. Galiguzova, I. A. Zalysina, S. M. Meshcheryakova, E. O. Smirnova, L. M. Tsaregorodtseva). Contacts with peers continue to remain monotonous and unemotional, occur less frequently than in a group of children brought up in a family. L. N. Galiguzova, S. M. Meshcheryakova, L. M. Tsaregorodtseva describe the relationship between orphans and peers: "Other children are a monotonous background for their children, and if they come out of

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this background, it's more like competitors or rivals, but not as partners and comrades. ”

The game, being the leading type of activity at this age and reflecting the level of social development, in the preschool-orphan is the simplest form - the game-manipulation. The role play, according to the observations of A. M. Parishioners and N. N. Tolstykh, is not peculiar to the pupils of orphanages, when it is organized, an adult's initiative is necessary, without which it breaks up. In the game, orphan preschoolers hardly follow the rules and obey their behavior, do not adhere to the plot, as noted by L. N. Galiguzova, S. Yu. Meshcheryakova, L. M. Tsaregorodtseva.

Studying orphans of primary school age. Moving to primary schoolchildren, researchers evaluate readiness indicators for schooling. It is readiness for schooling that is a successful outcome of development in preschool age. Pupils of boarding schools demonstrate positive motivation for learning. However, behind such a seemingly strong side lies the same dissatisfaction with the need for attention. A.M. Parishioners and N.N. Tolstykh believe that the desire to please an adult, to earn his attention, hidden behind positive motivation, does not contribute to the formation of a teacher-student relationship in educational activities. Difficulties in the upcoming educational activities, according to I. A. Korobeinikov and V. M. Slutsky can also cause the underdevelopment of a number of structures of verbal intelligence, which is especially important in conditions of schooling, mainly built on verbal communications.

The researchers conclude that due to reduced arbitrariness, deformation of the emotional and personal sphere, preschoolers raised in a boarding school, on the threshold of the school, are not prepared for educational activities (L. N. Galiguzova, S. Yu. Meshcheryakova, A. M. Prikhozhan, N.N. Tolstykh, L.M. Tsaregorodtseva).

Cognitive development. At primary school age, the preservation of the characteristics of thinking identified in preschool age (uneven development of visual-effective and visual-figurative thinking) is observed (I. A. Korobeinikov, A. M. Prikhozhan, V. M. Slutsky, N. N. Tolstoy). On average, the general intelligence coefficient corresponds to the age norm.

Emotional-volitional development. Knowledge of the norms of relationships among students of a boarding school does not lead to following them in both verbal and real behavior. According to the data of L.P. Vygovskaya, A.M. Parishioners, N.N. Tolstykh, aggressive tendencies, the desire to blame others, the inability and unwillingness to admit their guilt, which is less characteristic of children from the family, are noticeable in behavior. Defects in arbitrary self-regulation of behavior that an orphan preschool child faces are expressed in their inability to plan and

control their actions independently, as noted by A.M. Parishioners and N.N. Tolstykh.

Personal development. K. Radina expands the knowledge of the components of the world of elementary schoolchildren. Studying the areas of the psychosemic space of children in boarding schools and children from the family, the author comes to the conclusion that younger orphans perceive the social world as more restrictive, overwhelming and threatening. The self-acceptance of younger orphans is significantly lower than the self-adoption of children from the family.

Social development. Previously acquired and uncompensated defects in communication with an adult are manifested in educational activities. The frustration of the need for communication, believes L. L. Kryuchkova, manifests itself in a pronounced desire to communicate with adults and at the same time aggressiveness towards them by younger schoolchildren and pupils boarding school.

Studying teenage social orphans. Judging by the number of works found, adolescence is of most interest to researchers. Among the works found, a significant number of studies by young scientists (S. V. Drokova, T. I. Dyakonov, Yu. B. Evdokimov, N. N. Kasyanov, N. N. Krygin, S. N. Krygin, O. G. Motovilin, S. N. Satysheva, O. V. Soloviev, E. G. Troshikhina, E. V. Tsokalo, S. V. Shchegoleva and others).

Cognitive development. The features of the intellectual development of orphans are practically neglected. Single studies, for example, of T.V. Dyakonova, state insignificant deviations of normal development (indicators of verbal and visual memory, figurative and logical thinking, attention are slightly reduced).

Emotional-volitional development. A. Kh. Pashina and Ye. P. Ryazanova illustrate distortions in the development of the emotional sphere by the example of teenage orphans. A significant effect on deviations in the emotional sphere of orphans is exerted by the insufficient and one-sided development of emotions among employees of boarding schools. Most accurately, pupils recognize fear and a neutral context. It can be assumed that it is these emotional states that are dominant in the life of orphans, because, according to the authors, the best person recognizes what is clearly recorded in his subjective experience. The qualitative originality of the emotional sphere of the pupils themselves is very impoverished.

Personal development. A significant number of works highlight the issues of emerging self-awareness, the teenager's ideas about himself, others, the world around him (O. G. Motovilin, A. M. Parishioners, N. K. Radina, N. N. Tolstykh, E. G. Troshikhina). According to N. K. Radina, the picture of the world formed by a teenager surrounding reality continues to be menacing and overwhelming. A dangerous and unpredictable world is reflected in the

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stories of orphaned teenagers about their lives. Disease or death occurs in about a third of orphaned teenage stories about their lives. According to O. G. Motovilin, pain and illness play a significant role in the views of a teenager - a social orphan - about his own body. A significant number of psychological studies are devoted to gender issues (N. N. Kasyanova, N. N. Krygina, N. K. Radina, S. N. Satysheva, E. Yu. Tereshenkova, T. I. Yufereva). Adolescence is a period when the development of a person as a representative of a certain gender group is most intense.

Social development. In adolescence, group affiliation becomes particularly significant. Communicating with peers from the family, the pupil of the boarding school acts as a representative of the lower-status group - the group of orphanages. The pupils assess the belonging to the orphanage as a factor of failure (S.V. Drokova, S.N. Krygina, I. B. Nazarova, N. K. Radina, S. V. Shchegoleva). S. N. Krygina notes that in a situation of communication with a peer from a family, a teenager from a boarding school is prone to a defensive response even in emotionally neutral, usually non-frustrating situations.

Within the group of pupils of the boarding school, the relationships are specific. M. Yu. Kondratyev notes that in the boarding institution the intragroup hierarchy among pupils is strong and stable. This means that each member of the group is rigidly assigned a status in the hierarchy. It was in adolescence that researchers first raised the issue of professional self-determination of pupils of boarding schools (I.F. Dementieva, V.I. Zolotukhina, O. E. Lebedev, A. N. Mayorov, I. B. Nazarova, N. K. Radina, G.V. Family, EE Chepurnykh, etc.). Orphans choose their profession and further vocational training in a different way than in children from the family. If adolescents from a family have a personalized choice of a profession and, accordingly, an educational institution, they are focused on the substantive aspect of their chosen profession, then orphaned adolescents are standardized and unified, while the important thing when choosing a profession is the desire to quickly gain economic independence and wealth.

Summarizing the features of choosing a profession and the institution of vocational education, N. K. Radina notes that at the two initial stages that determine the success of a person's professional socialization in society, the most important link of professional self-determination - subjectivity, the ability of a teenager to make conscious decisions about "Their" profession based on possible choices.

As a rule, it is in the older teens that the orphan leaves the boarding school and begins an independent life in an "open society". Analyzing the life plans of orphaned teenagers, Russian specialists N. N. Tolstykh and A. M. Parishioners note a less specific and definite character in comparison with children

from families. An active study of the development of pupils of a boarding school ends with the moment of transition of orphans to an "open" society. Studies on the topic of orphanage are riddled with anxiety for the future of a graduate of a boarding school (M.A. Aliyev, I.A. Bobyleva, T.V. Grishanovich, F.G. Kocherga, T. Yu. Kuznetsova, L.V. Lobanova, L. S. Malik, I. B. Nazarova, V. N. Oslon, N. K. Radina, N. A. Suprun, N. G. Travnikova, E. G. Troshikhina, A. B. Kholmogorova and others.). Predictions regarding the future lives of graduates of a boarding school are pessimistic: the researchers noted the particular complexity of the period of adaptation of a graduate of a boarding school to life in an "open" society.

Since 2007, the Republican Center for the Social Adaptation of Children has been constantly conducting research on the problems of children deprived of parental care. Specialists of the Republican Center for Social Adaptation of Children have been working for 12 years on the socialization, adaptation, and protection of the rights of orphans and children without parental care. During this time, 29 different studies were conducted, the results of which were reflected in government programs and projects. So, thanks to these efforts, much has been achieved. In particular, new programs are being introduced to prepare graduates for independent living, the legislation on guardianship and guardianship is being improved, the staff of a social worker in the houses of Muruvvat, Mehribonlik is included, the number of children returned to families has increased. A major achievement was the Program to improve the system of social support for children without parental care, approved by the Cabinet of Ministers of the Republic of Uzbekistan on August 12, 2016 under No. 263.

Numerous domestic studies have repeatedly proved that the education system in institutions for children without parental care does not create conditions for the harmonious development of the child's personality. So, the authors of the manual "Reintegration of inmates of institutions for children left without parental care in the family" note that the specific conditions of detention and residence of children in orphanages, Mehribonlik homes, Children's towns lead to:

- the absence of meaningful and continuous relationships of affection and love;
- insufficient manifestation of positive social-role orientations;
- a feeling of social alienation, neglect of society;
- emotional vulnerability and the need for constant care from adults;
- lag in the social development of the personality of the child;
- rejection of the social environment outside the walls of the Mehribonlik house, unsuccessful socialization in the future.

Specialists of the RCSCAD also note the negative impact of temporary visits to a boarding

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school. According to J. Bowlby Robertson, the separation effect occurs according to the following scenario. First, the children protest, cry, reject all kinds of care, then they go through the stage of despair - they calm down and go into themselves. And the last stage is alienation. During this period, the child is more lively and take care of the staff of the boarding school. There is an opinion that, unlike a child who was placed in a boarding school from birth, the development of the personality of a child who had a mother but at some point lost her goes on a neurotic type, when the protective mechanisms of the psyche come to the fore. J. Bowlby noted that the children separated from their mother adapt to new living conditions and even have a negative attitude towards her, do not want to recognize her, break the toys received from her.

The results of a study conducted by the RCSD in 2012-2013 became very important for the analysis of parent-child relationships in families that arranged their child for a while in a boarding school. According to the Regulation "On the House of the Child" and "On the House of Mehribonlik", in order to maintain the social status of the family, a child may be placed in an institution for one year. The purpose of the study

was the study of parent-child relationships in such families and experts note that placement in the Mehribonlik house negatively affects the mental health of the child. Children feel insulted by their parents, there is mistrust, aggression, child-parent relations are severely affected.

Conclusions

Furthermore, the child disappears a sense of security and stability. All this further leads to conflicts in the family and as a whole leaves an imprint on the child, which is expressed in:

- reduced parental responsibility, as parents get used to living without a child;
- deterioration in the quality of parent-child relationships;
- many parents have a negative attitude towards their children;
- the motivation for determining Mehribonlik's home is to provide "quality" education and the desire to take advantage of social benefits.

Consequently, the analysis of literature and modern research has shown that such a phenomenon as social orphan hood requires a very careful attitude and an integrated approach to solving this problem.

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THEORETICAL AND METHODOLOGICAL APPROACHES TO THE CONSIDERATION OF REHABILITATION MEASURES IN EQUESTRIAN SPORT

Abstract: In the article the authors pay attention to the restoration activities in equestrian sport. Restorative measures are necessary in equestrian sport for the rider and sports horse. The article provides a detailed classification of restorative means.

Key words: equestrian sport, rehabilitation measures, training process, exercises for muscle relaxation.

Language: Russian

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ТЕОРЕТИКО-МЕТОДОЛОГИЧЕСКИЕ ПОДХОДЫ К РАССМОТРЕНИЮ ВОССТАНОВИТЕЛЬНЫХ МЕРОПРИЯТИЙ В КОННОМ СПОРТЕ

Аннотация: В статье авторы обращают внимание на восстановительные мероприятия в конном спорте. Восстановительные мероприятия необходимы в конном спорте для всадника и спортивной лошади. В статье приводится подробная классификация восстановительных средств.

Ключевые слова: конный спорт, восстановительные мероприятия, тренировочный процесс, упражнения для мышечного расслабления.

Введение

Многолетняя подготовка конника связана с постоянным ростом тренировочных и соревновательных нагрузок. Выполнение больших по объему, интенсивности и психической напряженности нагрузок в 6-дневном недельном микроцикле, 2-разовых тренировок в дневном цикле, выступления в соревнованиях и сохранения при этом высокой работоспособности невозможно без использования восстановительных мероприятий

(педагогических, гигиенических, психологических) (Пигарева С.Н.,)[7].

Изученность научной проблемы в литературе. Вопрос о восстановлении конника и лошади очень важен не только с физической точки зрения, но и морально-психологической. Изучение научной литературы показало, что восстановительные мероприятия в конном спорте недостаточно изучены и не представлены комплексно для понимания сути процесса.

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Студент факультета спорта Стойлов Антон Юрьевич, кандидат в мастера спорта, профильная специализация «Конный спорт» изучил и проанализировал восстановительные мероприятия в конном спорте, взглянув на проблемы в комплексном методологическом подходе.

Методология научного исследования.

В своем теоретико-методологическом исследовании понимания восстановительных мероприятий конном спорте разделим восстановительный период на две части:

-первая часть – восстановительный период всадника;

-вторая часть - восстановительный период лошади. Эти две части физически и практически взаимосвязаны между собой с одной стороны, с другой стороны у каждого физиологического объекта этот процесс будет иметь свои особенности и различный временной промежуток восстановительных элементов.

В восстановительных мероприятиях спортсмена выделяют несколько групп средств.

Педагогические средства восстановления направлены на ускорение восстановительных процессов, обеспечение повышения уровня тренированности. К педагогическим средствам относятся рациональное построение тренировочного процесса, оптимальное сочетание нагрузки и отдыха на всех этапах подготовки, введение в занятие игровых элементов, упражнений для мышечного расслабления, изменение условий проведения занятий. Эти средства являются и основными, естественными и обязательными для всех тренирующихся на всех этапах подготовки. Только при этом условии могут оказать желаемый эффект любые вспомогательные средства (Малолетко Э.А)[4].

Психологические средства направлены на снятие нервно-психологического напряжения, что способствует быстрейшему восстановлению двигательной активности и физиологических функций организма [10]. Эти средства подразделяют на две группы: 1. Психолого-педагогические средства (индивидуальный подход тренера к спортсмену с учетом его личностных особенностей и конкретного состояния, применение отвлекающих факторов, создание хорошего морального климата в коллективе, учет совместимости при подборе спортивных пар, расселении спортсменов на сборах и пр., индивидуальные и групповые беседы, внушение уверенности в своих силах, использование цветовых и музыкальных воздействий); 2. Специальные средства, направленные на регуляцию и коррекцию психических состояний (гипноз, внушение, психорегулирующая тренировка и т.д.). Для

восстановления работоспособности также применяется широкий комплекс физических средств восстановления. Физические средства восстановления обладают высокой биологической и лечебной активностью, повышают защитные силы организма и устойчивость к действию различных неблагоприятных факторов среды, снимают усталость, ускоряют восстановление. Различают естественные факторы (солнце, воздух, вода) и сформированные (действующие с помощью специальных аппаратов), из числа которых в целях восстановления применяются главным образом гидро воздействия (различные души и ванны), тепло- и светолечение, кислородотерапию, электрические токи разной частоты и напряжения, различные виды массажа и бань. Физические факторы подразделяют на средства преимущественно общего воздействия (души, общие ванны, общий и гидромассаж, бани, ультрафиолетовое излучение) и локального воздействия (электропроцедуры, частичные ванны, тепловые процедуры, сегментарный массаж)(Ломтатидзе А.И)[3]. Если нет возможности использовать естественные силы природы, применяют искусственное ультрафиолетовое облучение (солярий) посредством специальных приборов, которые можно устанавливать в помещениях, где находятся спортсмены после тренировок и соревнований. Особенно важны эти процедуры в осенне-зимний период.

Следует заметить, что водные процедуры(души, ванны, бани) действуют на организм с помощью температурного и механического факторов. Регулируя температуру и давление воды, происходит физическое состояние. При проведении научного эксперимента были выбраны три температурных режима с целью прослеживания влияния водных процедур на организм. При температуре воды до 20°C душ считается холодным, 20–33°C — прохладным, 34–36°C — индифферентным, 37–38°C — теплым, 40°C и выше — горячим. Прием теплого душа (5–7 мин) после тренировки оказывает гигиеническое и успокаивающее воздействие и является обязательным компонентом тренировочного режима. Через 20–30 мин после тренировки, перед дневным отдыхом и ночным сном душ может быть более продолжительным — он снижает возбудимость, улучшает обмен веществ, функцию мышц и внутренних органов. Прохладные и индифферентные души тонизируют, горячие можно использовать при переохлаждении и после массажа. Для восстановления работоспособности используются пресные, газовые, ароматические, минерально-хлоридные ванны. Теплые ванны (36–38°C) оказывают

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успокаивающее и расслабляющее действие; их назначают перед сном, после тренировки или соревнований с большой нагрузкой, не чаще 2–3 раз в неделю.

Индиферентная (34–35°C) и прохладная (21–23°C) непродолжительные ванны тонизируют организм и повышают обмен веществ; они применяются преимущественно в тех случаях, когда у спортсмена в период восстановления преобладают тормозные процессы. Горячие ванны утомляют и (кроме случаев переохлаждения) не рекомендуются в целях восстановления. Более выраженным эффектом обладают контрастные ванны (2 ванны с разницей в температуре воды от 5–10 до 20°C). Они снимают утомление, тонизируют организм, повышают работоспособность. Из ароматических ванн наиболее широкое распространение получили хвойные ванны (с добавлением к пресной воде хвойного экстракта или таблеток). Они снижают возбудимость нервной системы, улучшают сон, нормализуют измененные вследствие утомления функции различных органов и систем. Бани (парная и суховоздушная — сауна) широко применяются для восстановления спортивной работоспособности. Парная (русская) и суховоздушная (финская) бани различаются по температуре и влажности воздуха. Парная характеризуется высокой влажностью (до 70–100 %) и сравнительно низкой температурой воздуха (40–60°C), суховоздушная — высокой температурой (до 70–100°C, иногда и более) и небольшой влажностью (в пределах 5–15 %). Сауна переносится легче, опасность перегревания, нарушения терморегуляции и функций организма в ней меньше. Поэтому она широко используется в спортивной практике. Оптимальной температурой в сауне надо считать 70–80°C, влажность — 5–15 %. Банная процедура не должна переутомлять спортсмена, она должна сопровождаться хорошим самочувствием, нормальным сном, чувством бодрости и прилива сил. Эффективность сауны увеличивается при сочетании ее с контрастными температурными воздействиями (прохладным или холодным душем или бассейном) в интервалах между заходами и последующим массажем. При этом необходимо соблюдать гигиенические рекомендации. Для быстрого снятия локального утомления мышц, особенно при их перенапряжении, используются также различные виды тепловых процедур: соллюкс, парафиновые, грязевые и озокеритовые аппликации, местные ванны и другие процедуры, улучшающие обмен, кровообращение и лимфоток в тканях, способствующие снятию чувства усталости, восстановлению функции мышц.

Спортивный массаж, как средство реабилитации после значительных физических нагрузок, а также после травм и заболеваний, находит широкое применение в современном спорте (Бирюков А.А.) [2]. Мощным восстановительным средством является ручной и аппаратный массаж, который способствует снятию чувства усталости и нервного напряжения, болевых ощущений, расслаблению и улучшению кровоснабжения мышц и, тем самым, восстановлению и повышению спортивной работоспособности (Пигарева С.Н., Штыканова П.М.) [6].

В системе подготовки спортсменов рекомендуется уделять большое внимание этому восстановительному средству и применять во всех циклах и на всех этапах тренировочного процесса. Массаж является простым, доступным и вместе с тем эффективным средством снятия утомления, повышения спортивной работоспособности. Классифицируют спортивный массаж следующим образом: по месту воздействия: общий и местный (с акцентом на группы мышц, несущие основную нагрузку при данной работе); по типу воздействия: самомассаж, восстановительный, сегментарный, предстартовый, точечный массаж. Предстартовый массаж используется в сочетании с растиранием. Восстановительный массаж выполняется спустя 30 мин – 4 ч после соревнований или тренировок и длится 25–30 мин, время зависит от степени утомления, общего состояния спортсмена. Сегментарный массаж на длительное время улучшает кровообращение, способствует расслаблению мышц, стимулирует процессы восстановления, повышает работоспособность. Он показан перед соревнованиями и в восстановительном периоде. Выполняется он в течение 15–20 минут в промежутках между тренировками или перед сном. Проводить массаж желательно в теплом помещении; перед массажем рекомендуется теплый душ. Самомассаж. Используя основные приемы массажа, самомассаж можно проводить при любых обстоятельствах, комбинировать с разминкой и различными тренировочными средствами, применять в бане. При самомассаже легко дозировать интенсивность и длительность воздействия.

Для обеспечения полноценного восстановления спортивной работоспособности важная роль принадлежит фармакологическим средствам, которые повышают защитно-приспособительные свойства организма (устойчивость к различным неблагоприятным факторам среды и стрессовым ситуациям), обеспечивают быстрое снятие общего и локального утомления, повышают

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работоспособность, ускоряют естественное течение восстановления, облегчают адаптацию организма к последующей нагрузке, предупреждают перенапряжение и перетренированность. Использование фармакологических средств физиологически оправдано и принципиально отлично от стимулирующих допинговых воздействий, поскольку происходит не предельная мобилизация и истощение функциональных резервов организма, а, наоборот, восполнение затраченных при больших нагрузках нервных, энергетических, пластических ресурсов и создание их необходимого запаса в организме. Многие фармакологические средства восстановления оказывают значительное воздействие на организм и при неправильном их применении, несоответствии состоянию организма, передозировке и пр. они могут оказаться небезопасными для здоровья и работоспособности спортсмена. Поэтому назначать и использовать фармакологические средства восстановления следует строго индивидуально с учетом возраста, состояния здоровья, уровня подготовленности, конкретных особенностей организма в тесной связи с планом, этапом и характером тренировки или соревнований. Назначать эти средства должен только спортивный врач с учетом медицинских показаний. В противном случае их применение недопустимо.

Все восстановительные процедуры (кроме общегигиенических процедур и самомассажа) может назначать только спортивный врач с учетом состояния спортсмена, индивидуальной его чувствительности, степени и характера утомления, вида спорта и этапа подготовки.

Восстановление спортивной работоспособности лошади и нормального функционирования ее организма после тренировочных и соревновательных нагрузок — неотъемлемая составная часть правильно организованной системы спортивной тренировки, не менее важная, чем рациональный режим нагрузок (Павельев И.Г., Белинский Д.В.)[5]. Восстановительные средства должны использоваться в полном соответствии с задачами и этапом подготовки, характером выполненной и предстоящей нагрузки. Педагогические средства обеспечивают повышение уровня тренированности с помощью направленного воздействия на процессы восстановления соответствующего режима тренировки. К педагогическим средствам относятся рациональное сочетание нагрузки и отдыха на всех этапах подготовки, переключение на другие виды деятельности, введение в тренировочное занятие упражнений

для мышечного расслабления (преодоление препятствий «клавиш» высотой до 50 см на свободном поводу, репризы рыси и галопа на свободном поводу, репризы шага, рыси и галопа в воде, шаговые проводки в лесу и поле), изменение условий проведения занятий. Эти средства являются основными, естественными и обязательными для спортивных лошадей различной квалификации на всех этапах подготовки. Только при этом условии могут оказать желаемый эффект любые вспомогательные средства. Психологические средства направлены на снятие нервно-психологического напряжения лошади, что, в свою очередь, способствует быстрейшему восстановлению двигательной сферы и физиологических функций организма. К психологическим средствам относятся: индивидуальный подход тренера и спортсмена к лошади с учетом ее особенностей и состояния, организация разнообразного отдыха (шаговые проводки в лесу, поле, плавание, выгул в леваде совместно с другим и лошадьми), применение отвлекающих факторов (музыкальное сопровождение занятия, оформление тренировочной площадки яркими предметами различной формы и подвижности), создание хорошего морального климата в отношениях «животное-человек», учет совместимости при подборе спортивной пары, размещение лошадей при транспортировке и на выезде с учетом индивидуальных особенностей животных, словесное одобрение и подкрепление лакомством желаемого поведения, выполнения команды (Уразаев Н.А.)[12].

Для восстановления работоспособности также применяется широкий комплекс физических средств восстановления. Физические средства повышают защитные силы организма и устойчивость к действию различных неблагоприятных факторов среды, снимают усталость, ускоряют восстановление. Физические средства подразделяют на средства преимущественно общего воздействия (водные процедуры, ультрафиолетовое излучение) и локального воздействия (электро процедуры, тепловые процедуры, массаж).

Отметим особенность водных процедур (душ, купание) действуют на организм с помощью температурного и механического факторов воды. При температуре воды до 20°C душ считается холодным, 20–35°C — прохладным, 36–38°C — индифферентным, 39–45°C — теплым, 50°C и выше — горячим. Теплый душ в течение 5–7 мин после тренировки оказывает гигиеническое и успокаивающее воздействие, снижает возбудимость нервной системы, улучшает обмен веществ, восстанавливает мышцы. Практический опыт

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показывает, что прохладные и индифферентные души тонизируют, горячие можно использовать при переохлаждении и перед массажем. Естественные природные факторы, в частности ультрафиолетовые лучи, способствуют нормализации функций организма лошади после физических нагрузок, снятию усталости, повышению работоспособности. Ультрафиолетовые лучи повышают иммунитет, регулируют обмен веществ, стимулируют функции центральной нервной системы. Для проведения восстановительных мероприятий для спортивных лошадей можно использовать солярий как источник ультрафиолетового излучения. Для быстрого снятия локального утомления мышц и сухожильно-связочного аппарата, особенно при их перенапряжении, используются различные виды тепловых процедур: прогревание лампой «соллюкс», «биоэлектрон», парафиновые, грязевые и озокеритовые аппликации на сухожильно-связочный аппарат, тепло влажные укутывания (солевые попоны).

Для восстановления работоспособности лошади применяется массаж, который является высокоэффективным и естественным стимулятором восстановительных процессов, который может применяться для лошадей в соревновательный период с учетом правил Ветеринарного Регламента Международной Федерации конного спорта (FEI). Массаж — это специальное механическое воздействие на кожу и глубоколежащие ткани с лечебной и профилактической целью (Агафонова М.Е.) [1]. В ветеринарной практике различают: массаж активный (шаговая проводка лошади для дозированной нагрузки при заболеваниях суставов, мышц и сухожильно-связочного аппарата); пассивный (выполняется руками или специальными инструментами). Восстановительные мероприятия для лошади следует включать в общий план подготовки спортивной пары в тесной связи с тренировочным процессом, отражать их в дневниках тренировки всадника, проверять эффективность с помощью методов комплексного контроля: медико-биологический контроль за тренировочной и соревновательной деятельностью; ежедневный ветеринарный контроль; педагогический контроль. Для ускорения восстановления, особенно при многодневных турнирах, ударных циклах тренировки и других интенсивных нагрузках для экстренного восполнения пластических и энергетических ресурсов организма лошади применяются также специальные легкоусвояемые подкормки, сбалансированные, содержащие смесь незаменимых аминокислот с

добавлением углеводов, минеральных солей, микроэлементов и витаминов.

Большая роль в обеспечении полноценного восстановления спортивной работоспособности принадлежит фармакологическим средствам, механизм действия которых связан как с повышением защитно-приспособительных свойств организма, ферментной и иммунологической активности, устойчивости к различным неблагоприятным факторам среды и стрессовым ситуациям, так и с быстреем снятием общего и локального утомления (Сидорова К.А., Котова А.А.) [9]. Широкий комплекс фармакологических средств восстановления может применяться преимущественно на определенных этапах подготовки — главным образом при многодневных напряженных соревнованиях, нескольких стартах в день, перед наиболее ответственными соревнованиями, на этапах наращивания нагрузок и освоения новых сложных двигательных задач, после ударных циклов тренировки, в переходном периоде после напряженного сезона. При этом целесообразно цикловое применение таких средств продолжительностью не более 3–4 недель с широким варьированием, как самих средств, так и методики их применения (количество, последовательность, продолжительность). Многие фармакологические средства восстановления оказывают значительное воздействие на организм животного и при неправильном их применении, несоответствии состоянию организма, передозировке и пр. они могут оказаться небезопасными для здоровья и работоспособности спортивной лошади (Тарнуев А.С., Калашников И.А., Дамбаев М.Д.) [11]. Поэтому назначать и использовать фармакологические средства восстановления следует строго индивидуально с учетом возраста, состояния здоровья, уровня подготовленности, конкретных особенностей организма лошади в соответствии с этапом подготовки. Назначать эти средства должен только ветеринарный врач (Стекольников А.А., Протасова Е.В.) [8]. Также следует отметить, что в конном спорте должно быть полностью исключено применение следующих групп лекарственных веществ для спортивных лошадей: фармакологические средства для других видов животных; незарегистрированные в Российской Федерации фармакологические средства. Также запрещено применение специализированных фармакологических средств для лошадей без учета индивидуальной чувствительности к ним, четко разработанных и утвержденных показаний и противопоказаний.

Заключение. Применение восстановительных средств и мероприятий должно осуществляться с

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учетом возраста, спортивного стажа, квалификации и индивидуальных особенностей юного спортсмена. Большие тренировочные нагрузки в разнохарактерных упражнениях

конного спорта требуют определенной системности и конкретной направленности использования восстановительных средств.

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REFINED FORMULAS FOR CHANGE OF TEMPERATURE AND PRESSURE OF GAS ALONG PATH IN THE DOWNLOADING WELL

Abstract: With the account of the linear change in soil temperature along the depth of the well and force of gravity, the formula of V.L. Shukhov is generalized for the route temperature change of the gas transported through the pipeline. Using a linear approximation of this formula, a refined Adamov formula for calculating the pressure in the injection well is proposed.

Key words: pipeline gas transportation, temperature gradient of the earth, heat exchange with the environment, Shukhov's formula, pressure drop, Adamov's formula.

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УТОЧНЕННЫЕ ФОРМУЛЫ ПУТЕВОГО ИЗМЕНЕНИЯ ТЕМПЕРАТУРЫ И ДАВЛЕНИЯ ГАЗА В ЗАКАЧИВАЮЩЕЙ СКВАЖИНЕ

Аннотация: С учетом линейного изменения температуры грунта по глубине скважины и силы гравитации обобщена формула В.Л. Шухова для путевого изменения температуры транспортируемого по трубопроводу газа. С использованием линейной аппроксимации данной формулы предложена уточненная формула Адамова для расчета давления в закачивающей скважине.

Ключевые слова: трубопроводный транспорт газа, температурный градиент земли, теплообмен с окружающей средой, формула Шухова, перепад давления, формула Адамова.

Введение

Тепло- и массообменные процессы, описываемые законами механики, физики и химии, обеспечивают существования биологических и социальных объектов. А потребности последних объектов отличаются разнообразием, включая от калории еды до

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солнечной и атомной энергии. Т.е. спектр задач тепло- и массообменных процессов достаточно широкий и изучение особенностей этих процессов способствует к улучшению энергообеспеченности различных отраслей производства и населения.

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Большие перепады температуры отрицательно влияют на работу трубопроводов. В связи с этим трубопроводы по возможности прокладываются под землей, т.к. интервалы суточного и годового изменения температуры в грунте намного меньше чем в атмосфере.

Известно, что центр земли характеризуется высокой температурой, т.к. земля является горящей звездой. Это тепло передается к приземной атмосфере, количество которого не 1000 раз меньше, чем земля получает от солнца. В разных частях поверхности земли градиент температуры ее имеет разное значение. Для региона Центральной Азии этот градиент составляет 0,3-0,4°C/м. Но такой градиент устанавливается после определенной глубины. Согласно источникам, верхний слой грунта (0,3-2 м) подвергается суточному изменению температуры. Годовое изменение может достигать от 2 м глубины до 10 м. Далее по направлению радиуса земли устанавливается практически линейное увеличение температуры согласно температурному градиенту региона [1]. Углубление теплиц или помещений для животных в холодном климате обусловлено этим фактором.

Использование почвы в качестве теплоотводящего объекта существовало в Иране, Китае, где летом ожидается высокая температура. В Марракеше начали использовать теплообменники земля-воздух – подземные воздушные туннели (ЕАНХ) [2]. ЕАНХ состоит из трех параллельных ПВХ-труб длиной 72 м каждая и внутреннего диаметра 15 см, погребенных на глубине 2,3-3,2 м. Каждая труба оснащена вентилятором, которые нагнетает воздух в дом. Исследованы изменение температуры и влажности вокруг труб с использованием программного обеспечения TRNSYS (тип 460) в течение 38 суток. Установилась среднесуточная температура 22 °C на выходе ЕАНХ. Максимальные температуры составило 19,8°C к 19-и часам. Устройства работает 45, 90 ваттными вентиляторами. Достигается значительное сокращение энергозатрат.

В работе [3] обсуждается эффективность системы подземного теплообменника на основе модели стационарного состояния системы с учетом длины трубы, температуры грунта, входной температуры воздуха и температуры окружающей среды. Зимой система позволяет увеличить температуру на 0.2-11.2°C в регионе Йезд и 0.1-17.2°C Хамадане зимой, и уменьшить температуру на 1.3-11.4°C и 5.7-11.1°C летом. В условиях Йезда система в среднем может работать 94 сутки, а в Хамадане 225 сутки в году. Этим достигается сокращение объема энергопотребления на 24.5-47.9%.

В работе [4] проверены термическое, механическое и морфологические характеристики

трех коммерчески доступных полимерных композиций с покрытием с высокой теплопроводностью (20-32 Вт/м К) в целях проверки пригодности этих материалов для использования в электронных оборудовании. Наполнители состоят из углерода в двух композитах в виде волокон с диаметром 10 мкм, длиной 120-350 мкм и в третьем композите – заполненном углеродом. Материалы имеют достаточный запас прочности на растягивание, изгибе и ударе по модули упругости. Полимерный состав РА66 показал равные с алюминием показатели. В целом, материалы показали соответствующие требованиям параметров по теплопередаче.

В работе [5] представлены результаты исследования работы циклонного сепаратора, используемого на комплексной установке по производству цемента. Целью исследования является достижение максимальной сепарации при минимальной температуре воздуха на выходе из циклона. Подаются две смеси с разной температурой – 850°C и 600°C. Авторами разработаны установка с сеткой, физическая и математическая модели с учетом турбулентности потока. Определены угол конфузора и длина вихревой установки, а потеря давления – по входным и выходным показателям.

В работе [6] численным моделированием изучается тепловое состояние крупных торговых объектов пищевой продукции. Методология моделирования и результаты исследований, представленные в этой статье, полезны для инженеров по энергетическому моделированию с использованием динамических имитационных моделей для проектирования и/или оценки энергетических характеристик крупных розничных магазинов продуктов питания. Методология может быть использована при проектировании новых объектов или при оценке эффективности крупномасштабных проектов модернизации. Это также представляет практический интерес для менеджеров по энергетике и объектам в крупных организациях розничной торговли продуктами питания, поскольку это поможет понять их энергоэффективности.

Практика показывает, что с увеличением размера исследуемого объекта и потоков массы и тепла увеличивается доля применения численных методов решения задач.

Тепло- и массообмен между турбулентным приземным пограничным слоем и водой, выброса антропогенных и природных газов в атмосферу изучены в работе [7]. Целью этой работы является определение потоков газа из воздуха в море или наоборот. Если известны флуктуации поверхностно-нормальной скорости w' и концентрации газа c' , то можно определить

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турбулентный вклад в потоке газа. Однако нет основополагающего фундаментального прямого подхода в общем случае, когда нельзя легко измерить w' и c' . Представлен новый подход, позволяющий выявить ключевые аспекты околоповерхностных турбулентного теплообмена из измерений, которые могут быть выполнены инфракрасной (ИК) камерой. Получено уравнение с входными данными, которые представляют собой температуру поверхности и тепловой поток, а также разработан метод решения для поверхностно-нормального напряжения, испытываемого во времени пограничными слоями на границе раздела. Поскольку температурные и концентрационные пограничные слои испытывают одни и те же движения приповерхностной жидкости, решение для поверхностно-нормальной деформации определяет поток газа или скорость переноса газа. Примеры иллюстрируют подход в случаях полного обновления поверхности, частичного восстановления поверхности и инсоляции. Рассмотрены перспективы использования подхода в течениях, характеризующихся срезанными границами или быстрой деформацией пограничного слоя.

В работе [8] проведен всесторонний анализ объектов выработки и использования тепловой энергии в городе Токио и его пригороде. Обсуждаются вопросы экономии энергии в процессах конверсии и транспортировки тепла, которые позволяют сократить объемы выброса углекислого газа – продуктов сгорания. Выявлено, что целесообразно перейти к передаче пара, чем выработать электроэнергию. При этом предполагается сократить потери энергии при сжигании трубопроводной транспортировке теплоносителя. Сокращение объема потерь энергии при сжигании топлива, который составляет 45,2%, способствует покрытия 13,8% общей потребности энергии, экономить около 600 млн долларов США и уменьшить объем выброса углекислого газа на 2200 тыс. тонн в году. Для этого предлагается позитивная корректировка трубопроводной сети в зависимости от расположения и мощностей объектов выработки и пользователей тепла. Данная мера способствует симбиозу решений экономических, в том числе по землепользованию, и экологических проблем градостроительства.

В статье [9] анализируется тепловой баланс территорий, расположенных вблизи рек и водоемов, место обитания рыб, сельхозугодий и пастбищ. Чтобы увеличить продуктивность рыбного хозяйства, берега целенаправленно озеленяются. Это приводит к уменьшению температуры воды и к возможной потере растительного покрова, что обосновывается анализом многолетних метеоданных по

пастбищем, неосвоенным участкам и коммерческих плантаций хвойных деревьев. Показали, что для отдельных участков солнечная радиация больше в 4-х и 6-х кратном размере, притом в спектре коротковолновых радиаций. А для растительности хороши длинноволновые и латентные потоки солнечных лучей.

Представленный выше обзор показывает обширную область применения тепло- и массообменных процессов и необходимость проведения исследований в этих областях. В трубопроводном транспорте газов температурный фактор имеет особое место [10]. По содержанию результатов данная статья близка к практике и обновляют результатов работ [11,12].

Ниже предлагаются варианты аналитического решения задач по изменению температуры и давления газа по глубине закачивающей скважины, которые обобщают известные расчетные формулы Шухова и Адамова [11,12].

Задача и решение

Полагается, что температура грунта T_C по глубине скважины ниже чем нейтрального слоя меняется линейным образом [11]:

$$T_C(x) = T_H + x\Gamma, \quad (1)$$

где Γ – температурный градиент грунта ($K\ m^{-1}$); x – глубина (m); $T_H = T_{CH} - l_H\Gamma$; T_{CH} – значения температуры грунта на поверхности земли и на нейтральном слое; l_H – глубина залегания нейтрального слоя.

В качестве силовых факторов рассматриваются силы давления, гравитации и трения

$$\frac{dp}{dx} - g\rho + \rho \frac{\lambda w^2}{2D} = 0; \quad (2)$$

в качестве энергетических факторов – изменение внутренней энергии газа, теплообмен с окружающей средой в интегрированной форме и потенциальная энергия газа, которая связана силой гравитации

$$\frac{dT}{dx} + a'(T - T_C) = \frac{g}{c_p}. \quad (3)$$

Здесь $p(x)$, $T(x)$ – гидростатическое давление и температура газа в сечении x ; λ – коэффициент сопротивления трения, w – среднерасходная скорость газа в сечении x , $a' = k\pi D / (M c_p)$ – параметр теплопередачи газа в окружающую среду; k – коэффициент теплоотдачи; D – диаметр трубы; g – ускорение силы тяжести; c_p – барическая теплоемкость газа.

Система из уравнений (2) и (3) замыкается уравнениями сохранения массы в виде постоянства массового расхода:

$$M = \rho w F = const \quad (4)$$

и состояния реального газа с учетом сжимаемости газа Z и его приведенная газовая постоянная R :

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$$P = Z\rho RT. \quad (5)$$

Принимается, что показатели λ , D , Z , R , c_p , $F = \pi D^2/4$ и a' имеют постоянные значения.

Задача ставится на определение распределения значений давления p и температуры T газа по глубине скважины имея виду измеренные значения давления p_y и температуры T_y газа на устье ($x = 0$) закачивающей скважины.

Сначала решается уравнение (3) с учетом переменности температуры грунта по глубине x согласно (1):

$$\frac{dT}{dx} + a'(T - x\Gamma - T_H) - \frac{g}{c_p} = 0.$$

С учетом условия $T(x_0) = T_0$ уравнение имеет решение

$$T(x) = T_0 + (x - x_0)\Gamma + (T_0 - T_y - \frac{g}{a'c_p} - x_0\Gamma + \frac{T_y}{a'}) (e^{-a'(x-x_0)} - 1). \quad (6)$$

Из решения (6) можно получить при $x_0 = 0$ и $T(0) = T_y$ другие решения задачи: при игнорировании силы гравитации ($g \rightarrow 0$); при постоянной температуре грунта ($T_c = const$) и при одновременном выполнении этих условий. В последнем случае получается классическая формула В.Л. Шухова [11]. В связи с этим формула (6) является обобщением формулы Шухова для закачивающей скважины.

Чтобы изучить характер изменения температуры газа по глубине скважины, проводили вычислительный эксперимент при постоянных $k_c = 1,75 \text{ Вт м}^{-1} \text{ К}^{-1}$, $c_p = 2890 \text{ Дж кг}^{-1} \text{ К}^{-1}$, $D = 203 \text{ мм}$, $k = 1,5 \text{ мм}$, $\Gamma = 1/33 \text{ К м}^{-1}$, $T_H = 288,15 \text{ К}$, $R = 285 \text{ Дж м}^{-1} \text{ К}^{-1}$. Проводили две серии расчетов по четырем перечисленным вариантам решения задачи.

Серия расчетов, которые проводили при $T_y = 323,15 \text{ К}$ и $M = 0,5, 0,75, \dots, 2,5 \text{ кг/с}$, показали, что при учете всех энергетических факторов (а также при игнорировании силы гравитации) изменение температуры газа по глубине скважины немонотонное: сначала температура газа убывает и далее возрастает. Наименьшие значения температуры газа достигались при значениях M в первом варианте на глубинах 750...400 м, а во втором – 850...1050 м. На глубине 5000 м температура газа составляла 406,3, 394,1, 385,2, ..., 362,1 К, т.е. при больших расходах газа температура его более инертна, чем при малых расходах. Этот факт отражается и в минимальных значениях температуры газа при соответствующих значениях M : 315,2, 317,9, 319,7, ..., 322,5, 322,7 К.

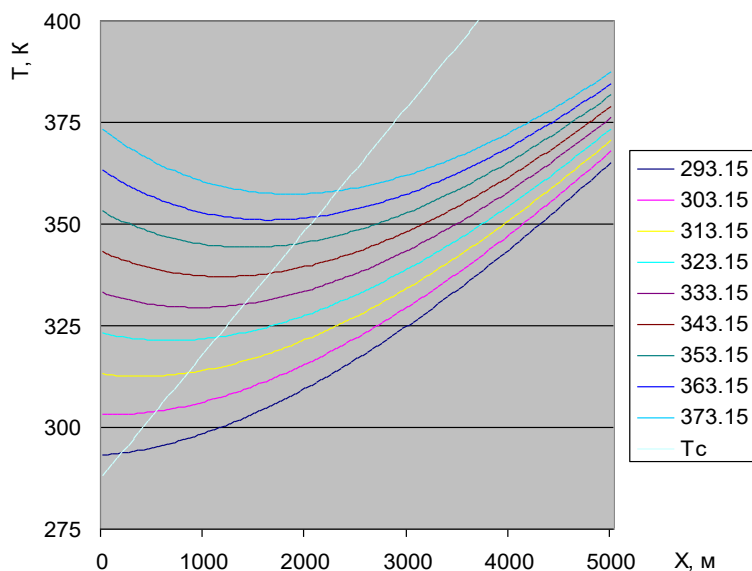


Рис. 1. Изменение температуры газа по глубине скважины при различных значениях температуры закачиваемого газа по формуле (6) при $M = 1,5 \text{ кг/с}$

На рис. 1 представлены результаты расчета по формуле (6).

Вторая серия расчетов проводили при фиксированном значении массового расхода газа ($M = 1,5 \text{ кг/с}$) и варьировании температуры

закачиваемого газа $T_y = 293,15, 303,15, \dots, 373,15 \text{ К}$.

При $T_y = 293,15 \text{ К}$ имело место монотонное возрастание температуры газа, а в остальных значениях входной температуры имело место

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сначала убывание температуры, а потом ее возрастание. Минимумы температуры при учете всех энергетических факторов достигались на глубине 0, 75, 400, 650, ... 1850 м. С увеличением T_y разность $T_y - T_{min}$ увеличивается.

Во втором варианте также наблюдали аналогичную закономерность, но точки минимальной температуры газа находились более глубоко: 175, 475, 1000, ... 2100 м.

Переходим к решению уравнения (2).

Так как использование формулы (6) приводит к решению (2), в виде бесконечных рядов по степеням x , то целесообразно формулу (6) заменить линейной функцией. В простом варианте подобной функцией может служить уравнение прямой, которая проходит через точки $(0; T_0)$ и $(L; T_y)$:

$$T(x) = T_0 + \frac{T_y - T_0}{L} x = \alpha x + \beta. \quad (7)$$

Здесь L – глубина скважины, $T_y = T(L)$ – значение температуры газа на забое, рассчитанное по формуле (6).

Используя (7), а также исключив из уравнения движения (2) переменных ρ и w , согласно уравнениям сохранения массы (4) и состояния реального газа (5), получим:

$$\frac{dp}{dx} - \frac{g}{ZR} \frac{p}{\alpha x + \beta} + \frac{\lambda ZRM^2}{2DF^2} \frac{(\alpha x + \beta)}{p} = 0.$$

Решение данного уравнения с учетом значения давления на устье скважины, p_y имеет вид

$$p(x) = \sqrt{\left(p_y^2 + \frac{\Lambda}{2-G} \bar{\beta}^2\right) \left(\frac{x+\bar{\beta}}{\bar{\beta}}\right)^G - \frac{\Lambda}{2-G} (x+\bar{\beta})^2} \quad (8)$$

где $G = \frac{2g}{ZR\alpha}$, $\Lambda = \frac{\lambda ZRM^2 \alpha}{DF^2}$, $\bar{\beta} = \beta/\alpha$ – постоянные.

Для сравнения представим решение задачи для изотермического случая

$$\frac{p^2(x) - A_u/G_u}{p_y^2 - A_u/G_u} = e^{G_u x}, \quad (9)$$

где $A_u = \frac{\lambda ZRTM^2}{DF^2}$, $G_u = \frac{2g}{ZRT}$.

Формула (8) является уточнением формулы Адамова [11] для закачивающей скважины, так как дополнительно учитывает силу тяжести. Она уместна для начальной стадии закачки, пока температура грунта не подстраивалась под температуру закачиваемого газа. С истечением времени температура близлежащего к скважине грунта терпит изменение и в этом случае решение задачи необходимо построить в нестационарной осесимметричной постановке.

С использованием формул (8) и (9) проводили расчеты по изменению давления газа при $Z = 0.94$, $\rho/\rho_{возд} = 0.63$, $\lambda = 0.11(k/D)^{0.25}$. Первые две серии расчетов проводились при $p_y = 4$ МПа и с теми показателями исходных, которые использовались при расчетах температуры газа. Третья серия расчетов проводилась при значениях давления на устье скважины $p_y = 1, 1.5, 2, 2.5, 3, 3.5, 4, 5, 6$ МПа, температура газа на входе $T_y = 323.15K$, массовый расход $M = 1.5$ кг/с.

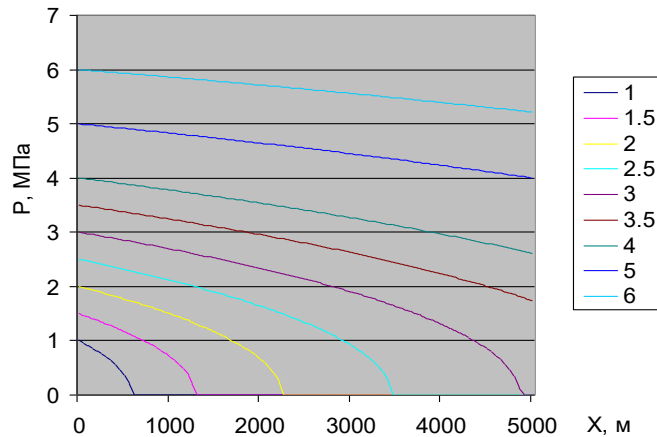


Рис. 2. Изменение давления газа по глубине скважины при различных значениях давления закачиваемого газа на устье скважины. $M=1.5$ кг/с, $T_h=323.15K$.

На рис. 2 представлены распределения давления по глубине скважины при различных значениях давления на устье скважины, $T_y = 323.15K$ и $M = 1.5$ кг/с по формуле (8).

Характер кривых давления повторяет то, что имело место в горизонтальных газопроводах: при

большем значении входного давления падение его будет медленным. В изотермическом режиме также потеря давления оказалась меньше, чем при переменной температуре.

Получены подобные же, но с возрастающим значением давления по глубине скважины,

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результаты в изотермических и неизотермических режимах. Чтобы объяснить причины разного характера изменения давления, обращаемся к уравнению движения газа и представим его в виде

$$p \frac{dp}{dx} = \frac{g}{ZRT} p^2 - \frac{\lambda ZRT M^2}{2DF^2}. \quad (10)$$

При $p = p_{кр}$, где $p_{кр} = \frac{ZRTM}{F} \sqrt{\frac{\lambda}{2gD}}$, не зависимо от переменности или постоянства температуры, в данной точке имеет место условие $dp/dx = 0$. Соответственно, при $p > p_{кр}$ наблюдается возрастание давления газа вниз по потоку ($dp/dx > 0$), при $p < p_{кр}$ - убывание давления. Заменяв в (10) g на $g \sin \alpha$, где α угол уклона трассы газопровода от горизонта, можно получить аналогичные условия возрастания, постоянства и убывания давления по наклонному газопроводу.

Подобный факт для движения несжимаемой среды (на примере нефти) ранее рассмотрен в [12] в связи с обсуждением режима течения после «перевальной точки». Значит, для сжимаемой среды также имеет место «перевальная точка», после которой наступает зона возрастания давления и надобность на нагнетатель в данном участке отпадает.

Численные расчеты, проведенные при $p < p_{кр}$ с учетом всех силовых и энергетических факторов, показали, что резкое падение температуры газа имеет место при приближении значения давления к нулю. При этом весь

энергетический ресурс газа тратится на увеличение скорости потока вниз по потоку. Данный факт противоположен для случая закачки газа в газохранилище.

Заключение

Подведем итоги по предоставленному материалу.

При игнорировании эффекта Джоуля-Томсона и изменения кинетической энергии газа получено обобщение формулы Шухова, учитывающее линейное возрастание температуры окружающей среды и действие силы тяжести по направлению движения закачиваемого в пласт газа.

На основе полученной формулы изучены закономерности изменения температуры газа в закачивающей скважине.

Исходя из плавного изменения давления и температуры при больших значениях давления закачиваемого газа и игнорировании силы инерции газа предложено обобщение формулы Адамова для закачивающей скважины.

При вычислительном эксперименте по изучению поведения температуры и давления получены новые закономерности изменения давления по закачивающей скважине.

По аналогии с «перевальной точкой» выделено условие, при выполнении которого можно осуществить закачку газа в газохранилище с воздействием вниз по скважине значения давления.

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INVESTIGATION OF THE GAS-DYNAMIC STATE OF AN ELEMENTARY SECTION OF THE PIPELINE BASED ON N.E. ZHUKOVSKY EQUATION

Abstract: The process of propagating abrupt changes in mass flow formed by partial or complete overlap of one or two ends of a linear section of a pipeline has been studied in the framework of N.E. Zhukovsky. The pressure drop across the pipe is determined by the resistance force, and the propagation velocity of small pressure perturbations is compiled taking into account the compression coefficient of the liquid, the physical and geometric parameters of the pipe.

From the initial equations, a parabolic equation for mass flow is constructed, which is solved by the Fourier method. The obtained solution was used to solve the system of equations for hydrostatic pressure.

Numerical results are presented that can be interpreted both from the point of view of wave propagation in a compressible and incompressible fluid in a pipeline, and from the point of view of propagation of longitudinal elastic waves in a rod.

Key words: pressure gradient, resistance force, compaction and vacuum waves, separation of variables, wave damping.

Language: Russian

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ИССЛЕДОВАНИЕ ГАЗОДИНАМИЧЕСКОГО СОСТОЯНИЯ ЭЛЕМЕНТАРНОГО УЧАСТКА ТРУБОПРОВОДА НА ОСНОВЕ УРАВНЕНИЙ Н.Е. ЖУКОВСКОГО

Аннотация: Процесс распространения скачкообразных изменений массового расхода, образованных частичным или полным перекрытием одного или двух концов линейного участка трубопровода, изучено в рамках упрощенной модели Н.Е. Жуковского. Перепад давления по трубе обусловлен силой сопротивления, а

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скорость распространения малых возмущений давления составлено с учетом коэффициента сжатия жидкости, физических и геометрических параметров трубы.

Из исходных уравнений построено параболическое уравнение относительно массового расхода, которое решено методом Фурье. Полученное решение использовано при решении систему уравнений по гидростатическому давлению.

Представлены численные результаты, которые можно трактовать как с точки зрения распространения волн в сжимаемой и несжимаемой жидкости в трубопроводе, так и с точки зрения распространения продольных упругих волн в стержне.

Ключевые слова: градиент давления, сила сопротивления, волны уплотнения и разряжения, метод разделения переменных, гашение волн.

Введение

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Квазиодномерные уравнения трубопроводного транспорта реальных жидкостей построены на основе осреднения показателей транспортируемой среды по площади поперечного сечения трубопровода цилиндрической формы. В работе В.Е. Селезнева и учеников описаны тенденция развития и современное состояние науки о трубопроводном транспорте [1]. На основе анализа многочисленных работ в этой области сохранены импульсы и энергии с их силовыми и энергетическими составляющими, а также уравнений сохранения массы с учетом химического состава транспортируемого газа.

Согласно их результатам по транспортировке газа по трубе, уравнение сохранения массы содержит членов со второй степенью неизвестных; уравнение сохранения импульса – членов с третьей степени неизвестных при учете силы трения и конвекции; а уравнение сохранения энергии содержат члены с четвертой степени неизвестных. Замыкающие соотношения в виде уравнений состояния газа и уравнение Редлиха-Квонга (для определения коэффициента сверхсжимаемости газа) также содержат членов с третьей степенью.

В квазиодномерных уравнениях трубопроводного транспорта степени неизвестных уменьшается, в частности кубическое уравнение относительно коэффициента сверхсжимаемости выпадает.

Внутренняя структура уравнений терпит значительные изменения при учете топологии газопровода [2,3], двухфазности потока с изменением агрегатного состава [4-6], привлечения уравнений турбулентности потока в различных модификациях [7], существенного изменения температуры транспортируемой среда [3], переходных процессов [8], утечки [9-11] и других уточняющих факторов [12].

Привлечение квазиодномерных уравнений трубопроводного транспорта с учетом реальных внешних факторов, также как учет характеристик функция компрессорных станций [13], теплообмена с окружающей средой [14],

закольцованность сети [15] и другие также приводят к усложненному решаемых задач.

Результаты перечисленных выше и многочисленных других работ получены численными методами и с привлечением современных информационно-коммуникационных систем. Тем не менее, практический интерес представляют также работы, которые относятся к переходным процессам в сети трубопроводов.

Переходные процессы в трубопроводах образуются при пуске и остановке нагнетателя или нагнетателей, при подключении или отключении потребителя, при изменении объема подкачиваемого или отбираемого газа или жидкости. Именно в переходных процессах проявляются сильные и слабые стороны проектируемой и действующей сети трубопроводов, особенно с точки зрения их надежности.

Для решения задач о переходных процессах разработаны различные численные и аналитические способы решения [1]. Аналитические способы решения нестационарных задач строятся с применением функциональных рядов, где в качестве амплитуд колебаний вступают периодические и аперриодические функции, выражающиеся в виде синусоидальных и экспоненциальных зависимостей. В рассматриваемой ниже задаче они выражены в виде экспоненциальных зависимостей в составе функциональных рядов, что соответствует гасящимся возмущениям показателей по времени и расстоянию за счет диссипации энергии.

Задача относится к элементарному участку горизонтального газопровода и решена методов разделения переменных. Представлены отдельные численные результаты расчетов, проведенных по полученному аналитическому решению.

Постановка задачи. Динамические изменения гидростатического давления p и массового расхода $M = \rho wf$ в элементарном участке горизонтального газопровода с длиной l

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описывали урезанными квазиодномерными уравнениями Н.Е. Жуковского [1,16]:

$$\frac{\partial p}{\partial x} + \frac{2a}{f} M = 0, \quad \frac{\partial M}{\partial x} + \frac{f}{c^2} \frac{\partial p}{\partial t} = 0, \quad (1)$$

Здесь $2a = \lambda w_*/(2D)$ – параметр силы сопротивления в формуле Дарси-Вейсбаха; λ – коэффициент сопротивления; ρ – плотность жидкости; w – средняя скорость в сечении x ; w_* – характерная скорость потока (параметр линеаризации); $Df = \pi D^2/4$ – диаметр и площадь поперечного сечения трубопровода; c – скорость малых возмущений давления в системе среда-труба принимали в виде $c = \left(\frac{\rho_0}{k_{ж}} + \frac{2R_0\rho_0}{E\delta}\right)^{-1/2}$ [17],

где ρ_0 – плотность невозмущенной жидкости; E – модуль упругости материала трубы; $k_{ж}$ – коэффициент сжимаемости среды; R_0 – внутренний радиус трубы в невозмущенном состоянии; δ – толщина стенки круглой трубы.

Рассматривается действующий с постоянным массовым расходом в начале процесса трубопровод:

$$M(x, 0) = M_0 = -\frac{f}{2a} \frac{p_K - p_H}{l} = const, \quad (2)$$

где l – длина участка; p_H, p_K – значения гидростатического давления на входе и выходе участка до начала изменений.

Начальное распределение давления – линейное:

$$p(x, 0) = p_H + \frac{x}{l}(p_K - p_H). \quad (3)$$

С момента времени $t = 0$ на входе и на выходе установился массовый расход

$$\begin{aligned} M(0, t) &= M_H = const, \\ M(l, t) &= M_K = const, \end{aligned} \quad (4)$$

где M_H и M_K могут принимать нулевые значения, их значения могут быть равными M_0 или же различаться от него. В целом, ожидаются скачкообразные изменения массового расхода на входе и выходе участка.

Решение задачи. Непосредственное решение задачи по методу разделения переменных относительно гидростатического давления, как показала практика, приводит к собственным функциям $X_n(x) = \cos \lambda_n x$ [17]. В результате этого при реализации начальных условий теряется постоянная, а возможно даже переменная составляющая в выражении давления и не исключается возможность получения отрицательного решения. В связи с этим задачу решаем сначала по массовому расходу, и этим решением пользуемся для решения задачи относительно давления.

Из системы (1) исключим давление и составим уравнение:

$$\frac{\partial M}{\partial t} = \frac{c^2}{2a} \frac{\partial^2 M}{\partial x^2}. \quad (5)$$

Пришли к параболическому уравнению, крайевые условия которого заданы выше. Граничные условия (4) приведем к однородному

виду, для чего вводим новую искомую функцию $u(x, t)$ по зависимости:

$$M(x, t) = M_H + (M_K - M_H) \frac{x}{l} + u(x, t). \quad (6)$$

Не трудно убедиться, что при этом граничные условия (4) приобретают однородный вид:

$$\frac{\partial u(0, t)}{\partial x} = \frac{\partial u(l, t)}{\partial x} = 0. \quad (7)$$

Вид уравнения остается прежним:

$$\frac{\partial u}{\partial t} = \frac{c^2}{2a} \frac{\partial^2 u}{\partial x^2}. \quad (8)$$

Согласно замене начальное условие (3) приобретает вид:

$$u(x, 0) = M_0 - M_H - (M_K - M_H) \frac{x}{l}. \quad (9)$$

Для решения задачи (7)-(9) применяем метод Фурье [17].

Решение ищется в виде

$$u(x, t) = \sum_{n=1}^{\infty} Y_n(t) \sin \lambda_n x,$$

где $\lambda_n = \frac{\pi n}{l}$.

Подстановка данного решения к уравнению (8) приводит к обыкновенному дифференциальному уравнению

$$Y_n'(t) = -\frac{\pi^2 n^2 c^2}{2al^2} Y_n(t).$$

Общее решение данного уравнения составляет

$$Y_n(t) = a_n \exp\left(-\frac{\pi^2 n^2 c^2}{2al^2} t\right).$$

В связи с этим решение для $u(x, t)$ составляет

$$u(x, t) = \sum_{n=1}^{\infty} a_n \exp\left(-\frac{\pi^2 n^2 c^2}{2al^2} t\right) \sin \frac{\pi n x}{l}.$$

Начальное условие (3) для новой искомой функции будет иметь вид:

$$\sum_{n=1}^{\infty} a_n \sin \frac{\pi n x}{l} = M_0 - M_H - \frac{x}{l}(M_K - M_H).$$

Чтобы найти значения a_n пользуемся ортогональностью собственных функций $X_n(x) = \sin \frac{\pi n x}{l}$ с квадратом нормы $l/2$. При этом получим уравнение

$$\begin{aligned} a_n \frac{l}{2} &= (M_0 - M_H) \int_0^l \sin \frac{\pi n \xi}{l} d\xi - \\ &- \frac{M_K - M_H}{l} \int_0^l \xi \sin \frac{\pi n \xi}{l} d\xi. \end{aligned}$$

С учетом значений интегралов

$$\begin{aligned} \int_0^l \sin \frac{\pi n \xi}{l} d\xi &= -\frac{1}{\pi n} [(-1)^n - 1], \\ \int_0^l \xi \sin \frac{\pi n \xi}{l} d\xi &= -(-1)^n \frac{l^2}{\pi n} \end{aligned}$$

находим

$$a_n = \frac{2}{\pi n} \{ [(-1)^n - 1](M_0 - M_H) - (-1)^n (M_K - M_H) \}.$$

Подстановка полученного выражения $u(x, t)$ в (6) дает

$$\begin{aligned} M(x, t) &= M_H + (M_K - M_H) \frac{x}{l} + \\ &+ \sum_{n=1}^{\infty} a_n \exp\left(-\frac{\pi^2 n^2 c^2}{2al^2} t\right) \sin \frac{\pi n x}{l}. \end{aligned} \quad (10)$$

Можно убедиться, что данное решение удовлетворяет граничным условиям и уравнению,

а при $t = 0$ в правой части равенства образуется сумма, значение которой равно M_0 . Соответственно, решение – верное.

Если исключим из системы (1) массовый расход, то получим аналогичное (5) уравнение относительно давления. Граничные условия для него, вытекающие из первого уравнения системы (1) и условий (4), будут второго рода: $\frac{\partial p(0,t)}{\partial x} = -\frac{2a}{f}M_H$, $\frac{\partial p(l,t)}{\partial x} = -\frac{2a}{f}M_K$. Как отметили выше, применение метода разделения переменных приводит к потере постоянных составляющих решения. Поэтому при решении задачи относительно давления пользуемся решением (10), начальным распределением (3) и вторым уравнением системы (1).

При известном решении $M(x,t)$ из второго уравнения системы (1) находим $\frac{\partial p}{\partial t}$ и интегрируем обеих сторон полученного равенства по времени:

$$\begin{aligned} p(x,t) - p(x,0) &= -\frac{c^2}{f} \int_0^t \frac{\partial M(x,\eta)}{\partial x} d\eta = \\ &= -\frac{c^2}{f} \int_0^t \left[\frac{M_K - M_H}{l} + \right. \\ &+ \left. \sum_{n=1}^{\infty} a_n \frac{\pi n}{l} \cos \frac{\pi n x}{l} \exp\left(-\frac{\pi^2 n^2 c^2}{2al^2} \eta\right) \right] d\eta = \\ &= \frac{c^2}{f} \frac{M_K - M_H}{l} t + \\ &+ \frac{2a}{f} \sum_{n=1}^{\infty} \frac{a_n l}{\pi n} \left[\exp\left(-\frac{\pi^2 n^2 c^2}{2al^2} t\right) - 1 \right] \cos \frac{\pi n x}{l}. \end{aligned}$$

Тогда, с учетом выражения (3) для начального распределения давления, получим

$$\begin{aligned} p(x,t) &= p_H + \frac{x}{l}(p_K - p_H) - \frac{c^2}{f} \frac{M_K - M_H}{l} t + \\ &+ \frac{2a}{f} \sum_{n=1}^{\infty} \frac{a_n l}{\pi n} \left[\exp\left(-\frac{\pi^2 n^2 c^2}{2al^2} t\right) - 1 \right] \cos \frac{\pi n x}{l} \\ \text{или} \\ p(x,t) &= p_H + \frac{x}{l}(p_K - p_H) - \frac{c^2}{f} \frac{M_K - M_H}{l} t - \\ &- \frac{2a}{f} \left(M_H x + \frac{M_K - M_H}{2l} x^2 \right) + \\ &+ \frac{2a}{f} \sum_{n=1}^{\infty} \frac{a_n l}{\pi n} \exp\left(-\frac{\pi^2 n^2 c^2}{2al^2} t\right) \cos \frac{\pi n x}{l}. \quad (11) \end{aligned}$$

Последний вид удобен для проверки достоверности решения.

Уравнение (5) удовлетворено однозначно.

Начальное условие (3) приводит к равенству

$$\begin{aligned} M_H x + \frac{M_K - M_H}{2l} x^2 \\ = \sum_{n=1}^{\infty} \frac{a_n l}{\pi n} \exp\left(-\frac{\pi^2 n^2 c^2}{2al^2} t\right) \cos \frac{\pi n x}{l}. \end{aligned}$$

Разложив левую часть равенства по собственным функциям $\cos \frac{\pi n x}{l}$ [17] и учитывая значения интегралов $\int_0^l x \cos \frac{\pi n x}{l} dx = [(-1)^n -$

$$1] \frac{l^2}{\pi^2 n^2}, \int_0^l x^2 \cos \frac{\pi n x}{l} dx = (-1)^n \frac{2l^3}{\pi^2 n^2}, \text{ убедимся, что равенство верное.}$$

Граничные условия (4) удовлетворены в силу равенства $\sin \frac{\pi n x}{l} = 0$ при $x = 0$ и $x = l$.

Обсуждение полученного решения (10) и (11). Значение параметра $2a$ в квазиодномерном уравнении сохранения импульса принимали постоянное. Это соответствует развитому режиму обтекания шероховатости трубы (квадратичный закон сопротивления), если приняли $w_* = const$. Это – осреднение И.А. Чарного [16]. Т.е. при квадратичном законе сопротивления получено аналитическое решение задачи с линеаризацией уравнения сохранения импульса.

Решение (10), (11) верно также для ламинарного режима течения в трубопроводе, когда $\lambda \sim 1/Re$. В этом случае оно будет точное.

В ходе постановки и решения задачи не остановились на плотности среды, а пользовались массовым расходом среды $M = \rho w f$.

Для малосжимаемой среды, когда сжимаемость проявляется только под воздействием волны импульса, можно принять $\rho \approx const$. Тогда средняя по поперечному сечению трубопровода скорость потока определяется в виде

$$w(x,t) = \frac{1}{\rho f} M(x,t).$$

Если же среда сверхсжимаемая и отклонение от закона идеального газа составляет Z раз, то состояние газа описывается уравнением [1]

$$p = Z \rho R T,$$

где Z – коэффициент сверхсжимаемости газа; R, T – приведенная газовая постоянная и температура газа. При этом выражение массового расхода становится нелинейное, т.к. в нем плотность газа будет переменной. В связи с этим для определения скорости газа используются формулой:

$$w(x,t) = \frac{ZRT}{f} \frac{M(x,t)}{p(x,t)},$$

где использованы осредненные или точные значения Z, R, T и f .

Таким образом, полученное решение (10), (11) задачи отражает точное решение задачи в ламинарном режиме течения и решение линеаризованных уравнений – в развитом турбулентном режиме течения малосжимаемых и сверхсжимаемых сред.

Результаты вычислительного эксперимента. На основе представленного аналитического решения составлена программа в среде Паскаль ABC и проведен вычислительный эксперимент. При расчетах использованы данные из [18-19].

При расчетах учитывали первые 200 членов функциональных рядов. Скорость распространения малых возмущений давления составила 400 м/с, приведенная газовая

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постоянная транспортируемого газа – 528 Дж K^{-1} $кг^{-1}$, диаметр – 992 мм. Расчеты проводили для различных значений входного давления, начального, граничных массового расхода и длины участка.

Представим результаты, полученные при мгновенном перекрытии выходного сечения участка при $2a=0.46373 c^{-1}$. Расчеты проводили для $l=0.5, 2.0, 5.0$ и 10 км.

На рис. 1 приведены путевые изменения массового расхода при значениях времени $t=0, 0.5, 1.0, 1.5, 2.0, 2.5$ и 15 секунды. При $l=2.0$ км, $Z=0.92$ и $M_{00}=250$ $кг/с$. Кривые расположены сверху вниз. При $t=15$ сек поток практически установился: массовый расход от M_{00} до $M_k=0$ $кг/сек$ падает линейно.

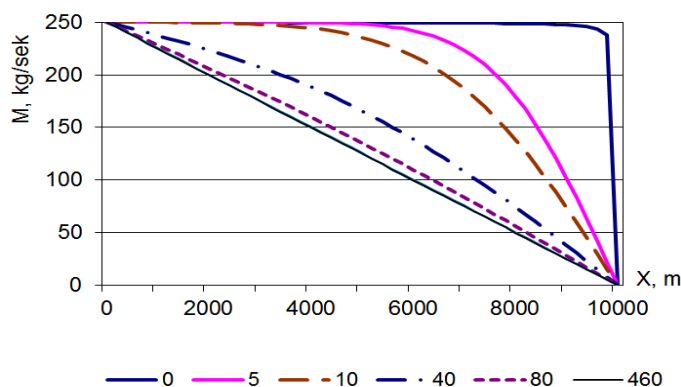


Рис. 1. Изменение массового расхода по длине участка $l=2.0$ км при $M_{00}=250$ $кг/с$

Для остальных вариантов расчета наблюдается аналогичная картина кривых массового расхода.

С истечением времени, за счет продолжительного поступления газа, давление в расчетной отрасли растет (рис. 2). В данном случае входное давление $p_n=5.0$ МПа увеличивается до 8.20 МПа.

На рис. 3 представлены кривые скорости, которые получены для различных моментов

времени. Верхняя кривая соответствует к началу переходного процесса, когда входное сечение перекрыли мгновенно. Эта кривая скорости растет сначала, а в конце участка убывает до $w=0$ м/с. Начальный участок возрастания скорости обусловлено путевым убыванием давления, а конечный участок – мгновенным торможением газа.

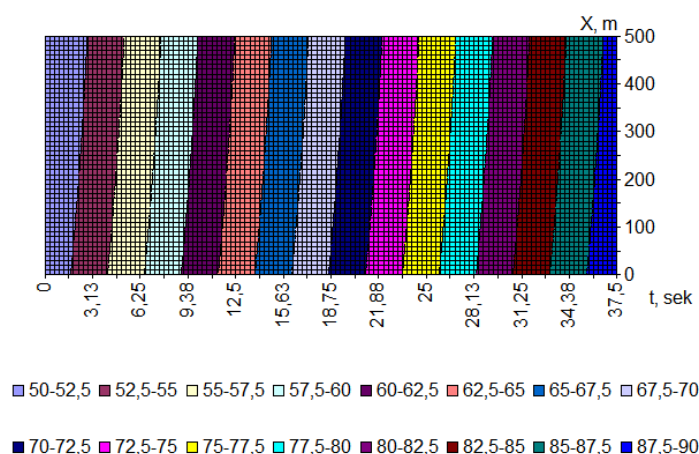


Рис. 2. Распределения гидростатического давления (в 0.1 МПа) по длине участка $l=2.0$ км при $M_{00}=250$ $кг/с$, $p_n=5.0$ МПа

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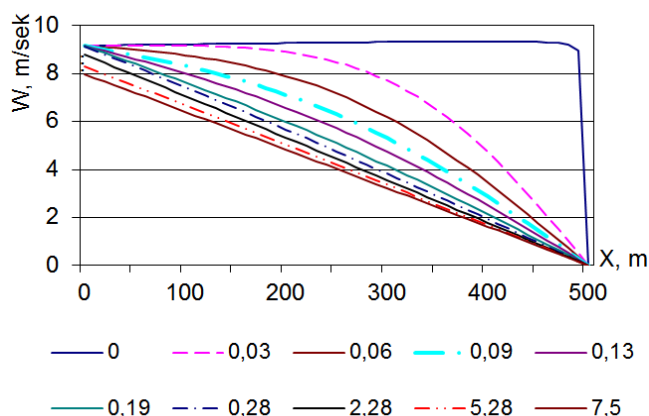


Рис. 3. Изменение средней скорости потока по длине участка $l=2.0$ км при $M_{00}=250$ кг/с, $p_n=5.0$ МПа

В дальнейшем графики скорости постепенно переходят к форме прямой линии и, начиная $t=200$ сек левый конец графика начинает спускаться. При $t=120$ сек входная скорость уменьшалась до 5.8 м/с.

С увеличением длины участка скорость увеличения и интервал изменения давления в участке падает (рис. 4). Это обусловлено увеличением физического объема газа.

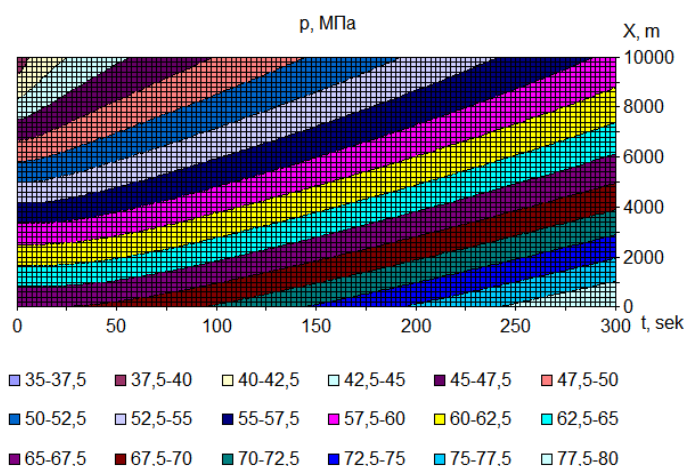


Рис. 4. Распределения гидростатического давления (в 0.1 МПа) по длине участка $l=10.0$ км при $M_{00}=250$ кг/с, $p_n=5.0$ МПа

В связи с этим убывание входной скорости начинается позже, чем при $l=2$ км (рис. 5). При увеличении длины участка в начальном распространении скорости (верхняя кривая рис. 5) становится заметным влияние большого перепада давления в участке.

На рис. 6 представлены результаты по гидростатическому давлению при $l=40$ км, $p_n=11.0$ МПа, $p_k=5$ МПа. Данный рисунок демонстрирует, что при более высоких входных давлениях изменение давления проходит плавно.

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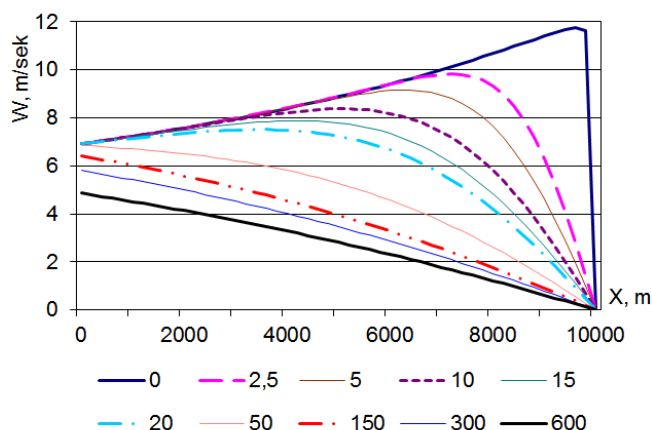


Рис. 5. Изменение средней скорости потока по длине участка $l=10.0$ км при $M_{00}=250$ кг/с, $p_n=5.0$ МПа

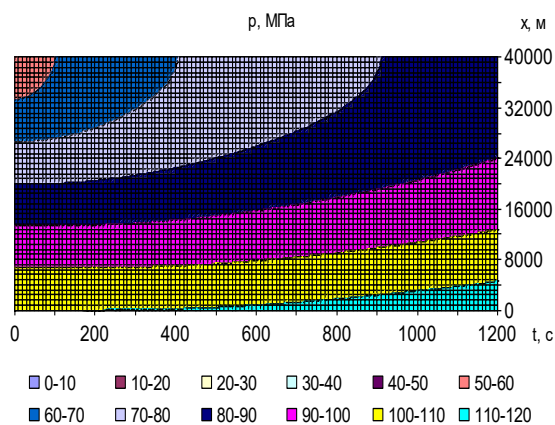


Рис. 6. Изменение гидростатического давления (в 0.1 МПа) по длине участка $l=40.0$ км при $M_{00}=250$ кг/с, $p_n=11.0$ МПа

Изменения скорости потока по времени и длине участка для этого случая представлены на рис. 7.

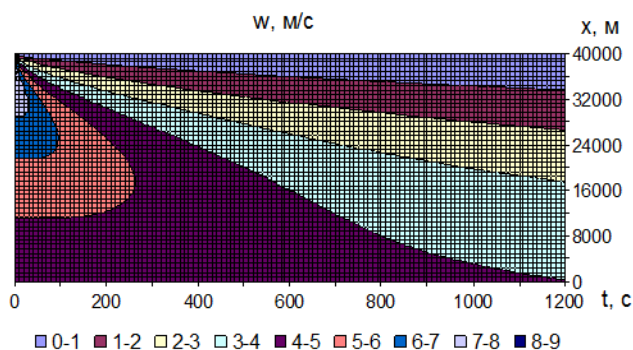


Рис. 7. Изменение средней скорости потока по длине участка $l=40.0$ км при $M_{00}=250$ кг/с, $p_n=11.0$ МПа

По представленному материалу сделаны следующие **выводы**.

В рамках приближения «длинных» трубопроводов сформулирована и аналитически решена задача о мгновенном изменении массового расхода газа в концах действующего участка

магистрального газопровода. В этом приближении градиент давления формируется согласно квадратичному закону сопротивления.

Из уравнений сохранения импульса и массы составлено параболическое уравнение относительно массового расхода газа, которое

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решено методом разделения переменных. Интегрированием исходных уравнений с привлечением известного решения по массовому расходу получено решение задачи относительно гидростатического давления.

Проведена оценка точности решения для ламинарных и турбулентных режимов течения малосжимаемой жидкости и сверхсжимаемого газа.

Представлены материалы численных расчетов для мгновенного перекрытия выходного сечения работающего элементарного участка газопровода с разной длиной.

Выявлено, что в предельном режиме массовый расход в участке падает линейным законом. Увеличение значения давления в участке прямо пропорционально входному массовому

расходу и обратно пропорционально физическому объему элементарного участка.

Начальное распределение скорости потока увеличивается обратно пропорционально значению давления. В начальной стадии процесса максимум кривой скорости убывает, а кривая скорости стремится к форме отрезка прямой линии. Далее происходит уменьшение значения скорости во входном сечении.

Сравнения полученных результатов с результатами подхода «коротких» трубопроводов, когда перепад давления обусловлен только изменением локальной составляющей силы инерции, показали, что игнорирование силы инерции газа приводит к быстрому гашению скачков импульса в газопроводе.

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FORMULAS FOR CALCULATING TEMPERATURE AND PRESSURE IN A RELIEF MAIN GAS PIPELINE

Abstract: Taking into account the linear change of the levelling height of the gas pipeline route, the exact formula for temperature and the approximate formula for pressure in stationary mode of operation are obtained. The concept of a "crossing point" for a non-thermal case is generalized.

Key words: pipeline, laws of mass and momentum preservation, friction force, hydrodynamic velocity, nonlinearity.

Language: Russian

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ФОРМУЛЫ ДЛЯ РАСЧЕТА ТЕМПЕРАТУРЫ И ДАВЛЕНИЯ В РЕЛЬЕФНОМ МАГИСТРАЛЬНОМ ГАЗОПРОВОДЕ

Аннотация: С учетом линейного изменения нивелирной высоты трассы газопровода получена точная формула для температуры и приближенная формула для давления в стационарном режиме работы. Обобщено понятие «перевальной точки» для неизотермического случая.

Ключевые слова: трубопровод, законы сохранения массы и импульса, сила трения, гидродинамическая скорость, нелинейность.

Введение

В процессе трубопроводного транспорта показатели газа терпят существенные изменения [1]. В горизонтальном газопроводе в изотермическом режиме давление падает. Если окружающая трубопровода среда имеет температуру, которая отличается от температуры транспортируемого газа, то температура газа меняется в силу теплообмена с окружающей

УДК 622.69+536(075)

средой и эффекта Джоуля-Томсона [2]. В трассе с рельефом ожидаются различные энергетические режимы, в частности, «постперевальный» режим, когда вниз по потоку потенциальная энергия гравитации компенсирует силы трения, а лишняя ее часть накапливается в виде энергии сжатия [3]. Возможны варианты, когда в окружающей среде происходит изменение агрегатного состава среды

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[4,5] при прохождении через водоемы. При подземной прокладке газопровода в зависимости от разности температур происходит отдача или отъем тепла газа [6,7], чем можно пользоваться при отоплении и охлаждении помещений.

В целом, совместные изменения плотности, температуры и скорости потока газа в трубопроводах приводит к довольно сложной картине.

На выходе из скважины, головной и дожимных компрессорных станций природный газ имеет определенную температуру. По ходу транспортирования по горизонтальному газопроводу (ГП) газ теряет свое тепло или приобретает его. Переменность температуры газа вносит определенные коррективы на распределение давления по ГП, пропускной и аккумулирующей способности рассматриваемого участка. Совместное изменение давления и температуры газа при низких температурах окружающей среды приводит к образованию точки росы отдельных компонентов природного газа, что может привести к отрицательному фактору – образованию конденсатов и гидратов в ГП. Эти другие факторы требуют системного изучения совместного изменения давления и температуры газа в магистральных ГП (МГ), что позволяет успешно управлять гидравлическими системами транспорта газа.

Сети трубопроводов развиваются непрерывно. Год за годом совершенствуются модели способы расчета трубопроводов. Учитываются новые внутренние [8-10] и внешние [11-14] факторы, что приводит к усложнению используемых уравнений и условий. Для их решения разрабатываются новые численные методы, алгоритмы и программные средства [15-18].

Привлечение новых математических и численных моделей для различных задач качественного анализа объекта достаточно трудоемкое дело. Поэтому в рамках данной работы обращаемся к методам аналитического решения задач.

Задача и решение

Рассматриваемая задача ставится следующим образом.

С учетом линейного изменения нивелирной высоты у трассы ($\sin \alpha = dy/dx = const$), но без учета силы изменения силы инерции транспортируемого газа, стационарное состояние ГП описывается упрощенными уравнениями сохранения импульса [1,19]:

$$\frac{dp}{dx} + \rho g \sin \alpha + \rho \frac{\lambda w^2}{2D} = 0, \quad (1)$$

сохранения массы

$$M = \rho w F = const, \quad (2)$$

сохранения энергии (без учета эффекта Джоуля-Томсона и изменения кинетической энергии)

$$\frac{dT}{dx} + a'(T - T_c) = -\frac{g}{c_p} \sin \alpha, \quad (3)$$

и состояния реального газа

$$p = Z \rho R T. \quad (4)$$

Здесь и далее использованы обозначения: p, ρ, w, T – средние значения гидростатического давления, плотности, скорости потока и температуры газа в сечении x ; $g (= 9.80665 \text{ м}^2/\text{с}^2)$ – ускорение силы гравитации; M – массовый расход газа; D – диаметр трубопровода; Z – коэффициент сжимаемости газа; R – приведенная газовая постоянная транспортируемого газа.

Рассмотрим случай, когда во входе в исследуемый участок значения давления $p(0) = p_H$ и температуры $T(0) = T_H$ газа, а также температура окружающей среды T_c известны и являются постоянными величинами. Пользуемся допущениями, что локальный синус уклона трассы $\sin \alpha$, коэффициент сопротивления трения λ , площадь поперечного сечения трубопровода F , комплекс с коэффициентом теплоотдачи k в окружающую среду $a' = k \pi D / (M c_p)$, удельная теплоемкость транспортируемого газа $T(x) \approx T_c - S/a'$ также принимают постоянные (осредненные по длине ГП) значения.

Чтобы уменьшить количество неизвестных, из системы, состоящей из уравнений (1)-(4), исключим ρ и w , и получим систему

$$\begin{cases} p T \frac{dp}{dx} + V p^2 = -W T^2, \\ \frac{dT}{dx} + a'(T - T_c) = -S; \end{cases} \quad (5)$$

где

$$\begin{aligned} W &= \frac{\lambda Z R M^2}{2 D F^2}, \quad V = \frac{g \sin \alpha}{Z R}, \quad a' = \frac{k_c \pi D}{M c_p}, \\ S &= \frac{g \sin \alpha}{c_p} \end{aligned} \quad (6)$$

являются постоянными комплексами.

Так как в системе (5) коэффициенты уравнения относительно температуры не зависят от остальных переменных, то решение системы можно начинать с него. Общее решение для температуры имеет вид

$$T - T_c + S/a' = c \exp(-a'x),$$

а частное решение, удовлетворяющее условию на входе в участок, составляет

$$T(x) = (T - T_c + S/a') \exp(-a'x) + T_c - S/a'. \quad (7)$$

Отличие и преимущество данного решения от формулы Шухова [20] заключается в том, что в данном случае учитывается локальный синус уклона трассы и возможно выделять случаи возрастания, постоянства и убывания температуры по длине ГП. В частности, при значительном отрицательном уклоне трассы, т.е. при выполнении условия $T_H - T_c + S/a' < 0$,

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имеет место возрастание температуры. Данный факт повторяет и дополняет мнения авторов [3] о том, что потенциальная энергия газа, вызванная силой гравитации, при спускающихся трассах превращается на потенциальную энергию сжатия, которая выражается в увеличении давления, и на внутреннюю энергию транспортируемого газа, выражающаяся повышением температуры газа. В этом и заключается роль члена S/a' в (7), который представляет отношение энергий, которые газ приобретает за счет изменения нивелирной высоты трассы и теплообмена с окружающей средой.

Процесс теплообмена с окружающей среды по характеру совпадает с процессом сушки, где кривая сушки в начальный период и в конечной стадии аппроксимируется отрезком и лучом прямой линии. Поступая аналогично, можно принять, что на начальном участке ГП

$$T(x) \approx T_H - (a'(T_H - T_C) + S)x = \alpha + \beta x \quad (8)$$

а в конце участка –

$$T(x) \approx T_C - S/a'. \quad (9)$$

Характерно, что асимптотическое значение температуры газа будет больше чем температуры окружающей среды для трассы со спуском и меньше – для трассы с подъемом.

Переходим решению первого уравнения системы (5). Решение его с использованием (7) для температуры приводит к специальным функциям, анализ которых оказался обременительным. Чтобы облегчить анализ решения, в уравнении по давлению значение температуры принимаем согласно аппроксимационной формуле (8):

$$\frac{dp^2}{dx} + \frac{2V}{\alpha + \beta x} p^2 = -2W(\alpha + \beta x). \quad (10)$$

Однородная часть данного уравнения имеет решение:

$$p_1^2(x) = c_1 (x + \alpha/\beta)^{-2V/\beta}.$$

Метод вариации приводит к общему решению неоднородного уравнения

$$p_1^2(x) = -\frac{\beta^2 W}{V + \beta} (x + \alpha/\beta)^2 + c_2 (x + \alpha/\beta)^{-2V/\beta},$$

а частное решение, интересующее нас, имеет вид

$$p_1^2(x) = p_H^2 - \frac{W\beta^2}{V + \beta} x (x + 2\alpha/\beta). \quad (11)$$

Полученное решение приближенное, привлечение его при расчете длинного участка может привести к значительному расхождению результатов расчета от действительности. Но, данное решение мы используем для проведения качественного анализа поведения давления.

Знак производной давления dp/dx , согласно (11), совпадает со знаком выражения $-\frac{W\beta^2}{V + \beta} (x + \alpha/\beta)$. Чтобы оценить возрастания или убывания

давления, представим подвижное начало расчетного участка ГП и каждый раз рассматриваем начальную точку $x = 0$. Это равносильно тому, что в формуле (11) значение начальной температуры T_H заменяется текущим значением температуры T . При этом убывание давления в точке $x = 0$ обуславливается условием $\beta(V + \beta) > 0$. Так как условие $\beta = -a'(T - T_C) - S < 0$ (что и тоже $\sin \alpha < k_c \pi D (T_C - T) / (Mg)$) соответствует уменьшению температуры по длине ГП, то для убывания давления необходимо выполнение условия $V + \beta < 0$, т.е. $\sin \alpha < \frac{k_c \pi D}{Mg} (T_C - T) \frac{ZR}{ZR - c_p}$.

Чтобы объединить два эти условия для уклона трассы введем обозначение $\phi = \min(T_C - T(T_C - T)ZR / (ZR - c_p))$, тогда условие принимает вид $\sin \alpha < \phi \frac{k_c \pi D}{Mg}$, выполнение которого обеспечивает падения давления при возрастающем значении температуры.

Аналогичным образом можно выводить условия остальных вариантов убывания/возрастания давления при убывании/возрастании температуры в больших расстояниях по формуле (9). Следует напомнить, что при условии $\beta = 0$ такая оценка и решение (11) неприменимы, но можно обратиться к результатам работы [3,21], где поведение давления по длине ГП изучено при изотермическом режиме.

Выводы.

Основные выводы представленного материала изысканий можно сформулировать следующим образом.

- С учетом линейного изменения геодезической отметки ГП и теплообмена между транспортируемым газом и окружающей средой получено приближенное решение изменение давления по длине ГП и точное решение – для температуры.

- Определены условия возрастания, постоянства и убывания температуры по длине ГП в зависимости от комплекса показателей $T_H, T_C, \sin \alpha, M, c_p, R, Z$.

- Выведены условия «перевальной точки» для сжимаемой среды при условиях возрастания и убывания температуры.

- При значительных отрицательных уклонах трассы потенциальная энергия газа накапливается как в виде повышенного давления, так и в виде повышенной температуры транспортируемого газа.

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STYLISTIC FEATURES OF VERBS OF SPEECH IN PERSIAN NEWSPAPERS

Abstract: Language - one of the most complex phenomena of human society. Certain language means and styles, which we constantly use in communication, form a system. Due to the continuous development of the language, change the objectives and tasks of the various functional styles, stylistic unimaginable separation of speech as an inalterable dogma. Therefore, in theory there are no universally accepted criteria for style stylistic differentiation. However, the division into functional speech styles represented not only legitimate but necessary if it is made in view of the dynamics of the processes occurring in the natural language and society. The subject of the research is the newspaper-publicistic style of speech.

Newspaper-journalistic style has specific features and the main task of the materials of this style is to report certain information to certain positions; thereby achieving the desired effect on the reader or listener. The content of the newspaper and informational messages is different in that here we are talking about events that are available for a broad understanding of the layers of non-specialists, directly or indirectly related to their lives and interests.

Persian newspaper texts use all semantic groups of verb. However, this article analyzes the peculiarities of speech verbs in newspaper texts. Therefore, verbs of speech that exist in all languages, and in the Persian language are one of the active means that perform the function of transmitting information.

The verb can be a base of the newspaper texts. In Persian, the verb is expressed in terms of behavior, time, virtue, and personality, or by actions. The grammar categories are typically reflected in the newspaper texts.

Key words: newspaper style, verbs, text, thematic group, verbs of speech, informative, functional features of verbs.

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Introduction

The changing social and political situation in the world, in turn, increases the demand for news in society. Nowadays, with the increasing importance of the media in our lives, there is a growing need for deep study. The language of the newspaper is composed of text units. These units, in turn, are the objects of study of stylistics.

It is not accidental that a number of linguists have been attracted by the verb as a subject of study. Most scientists emphasize the complex semantic structure of a verb that contains all the necessary components to describe a particular event.

A.A. Ufimtseva comments on the complexity of the semantic composition of verbs: "Verbal lexemes, in their nomination are word marks with different semantic signs, the reaction of the various actions, processes, states of relations with the subjects and

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persons performing these actions and states". (4, p. 117)

E. Kubryakova says that "the verb gives information not only about the action, process or condition, but also the circumstances related to human activity" (3). This means that the verb has the potential not only to name the type of action but also to describe the whole process.

The relevance and novelty of the topic. Although there has been some scientific research on linguistics in the newspaper lexicon so far, this theme has not been explored using a new approach to newspaper texts, but it also provides new approaches to linguistics, but also suggests the need for new methods of newspaper textual research. **The purpose** of the topic is to determine the composition of the verbs in the Persian language texts, their functional and methodological features. Research methods. Methods of descriptive, comparative, quantitative, generalization, semantic-methodical analysis, as well as contextual and component analysis were used in the analysis of newspaper elements, interpretation of newspaper sample examples, interpretation, analysis of lexeme diversity.

The main part

Speech is one of the types of human activity. An activity is a process, not a substance, a state or a feature. In this sense, one of the key components of the meaning of speech verbs is process understanding. The word "گفتن" in Persian is the meaning of the word "to speak" to "acquire the ability to use the language". The structure of the sememe consists of the components of "speaking skills" and "speaker (subject)". Other meanings of speech verbs have more complex structure than this sememe: they contain the elements such as the speaker (subject), the listener, the process, the content. But the position of these semantic elements is not the same in all sememes. The structure of the meaning of the verbs of speech causes semantic differentiation of these verbs. It is well known that the publicistic style differs from other methods with its versatility. Among these genres the informative genre has a special place. The text of information requires the active use of verbs as it informs on important events and aims at prompt delivery of information. The semantics of the verb in informational texts is distinctive. The main verbs are the verbs of speech that have informative, emphatic, and affirming meaning.

During the analysis of the collected materials, which is actively used in Iranian newspaper texts, verbs were specified, such as "تاکید" "totell", "خاطر نشان" "toadd", "افزودن" "toemphasize", "کردنتاکید داشتن" / "توضیح دادن" "elucidate", "یادآور شدن" "tomention", "اظهار کردن" "tocontinue", "ادامه دادن" "specify", "تصریح کردن" "manifestation", "بیان داشتن" "tostate".

The verbs of this group refer to the source of information and its reliability. The main semantic character of speech verbs in information texts is the reliability and validity of the information provided.

In determining the specificity of a particular method, it is important to study lexical groups that are actively used in implementing the dominant function of the method. It is well known that, given the informative and affective nature of the publicistic style, the verbs of speech serve as a lexicon that shapes this style. Speech verbs combine under the "information" semema, acting as informants in newspaper texts. The basis of the lexical semantic field is the verb "گفتن" "to speak".

The peculiarity of the use of speech verbs in newspaper texts is that different verbs can be used in the same sense. For example, the verbs "جواب دادن" "to answer" and "گفتن" "to speak" can be used as the meaning of "to say".

It is observed that the verbs used in newspaper texts are widely used not only in extracts but also in the content of ordinary sentences. As a result of lexical-semantic analysis of speech verbs, they are used to mean "to give information", to "report something," to "speak something," to "testify something," to "point out something." The main feature is that verbs are used in the sense of "report".

In the newspaper texts, the verbs "اظهار کردن" and "represent" not only the "information about something" but also the power and direction of the "speech process" in the words of a particular official:

لاورف اظهار کرد: این اولین بار نیست که مقامات اسرائیلی از احتمال حمله به ایران اشاره کرده اند. موضع ما در این معلوم است - این امر میتواند یک اشتباه جدی مملو از عواقب غیر قابل پیش بینی (5) شود

Lavrov reported that it was not for the first time Israeli officials had reported the possibility of attacking Iran. Our position on this issue is well known. This is a serious mistake that can have unintended consequences.

رهبران گرجستان قبلا اعلام کرده اند که آمادگی روسیه برای معرفی یک رژیم بدون ویزا استقبال کردند. پیشنهاد بازسازی روابط (7) دیپلماتیک در حال حاضر با دقت مورد توجه قرار گرفته است

The Georgian leadership has reported that it has approved Russia's readiness to introduce a visa-free regime. Proposals for the establishment of diplomatic relations are currently being carefully considered.

the lexical meaning of these verbs is inextricably linked with the dominant verb semantics of "informing" in newspaper texts.

مسئول عملیات نجات نقل کرد: امروز ما عملیات نجات را ادامه خواهیم داد. در آستانه جمع آوری 4000 بشکه نفت موفق شدیم همه چیز را برای جلوگیری از یک فاجعه زیست محیطی انجام دهیم (6)

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Today we continue the rescue operation. Initially we managed to collect 400,000 barrels of oil, and we will do our best to prevent the environmental disaster", said a rescue official.

In the newspaper texts, the verb پیشنهاد کردن also means "report something," "request a job," "recommend a candidate."

در این راستا به اعتقاد من این شخص میتواند شما باشید و (6) پیشنهاد میکنم که موقعیت وزیر دفاع را به دست آورید

From this point of view, you might be such a person and I recommend you to hold a post of Minister of Defense.

The main meanings of the speech verbs are in the text of newspapers, the social status of the communicants, the formal informality of the speech, and the system of speech conditions that reflect the subject of the speech. The function of the verbs is determined by their lexical meaning. Speech verbs in newspaper texts are one of the main functions of the newspaper-publicist method, and are a major factor in the implementation of information and influence functions (1, p. 268).

In the study of key verbs, which are used in the main (head, own) sense within the context of Iranian newspaper texts, it is clear that their meaning and methodological color are determined by the state of speech. Thus, in the context of the speech, it is possible to identify the component of the speech, such as the addressee and addressee of the speech, the interactions of the participants in the speech, the subject matter, and the state of the speech. Depending on the situation, formal and informal communication is separated from each speech situation. This situation of communication influences the choice of verb lexemes. Therefore, the use of verbs in different lexical semantic groups for different speech situations is different. Iranian newspaper texts use lexical semantic groups of speech, such as message, communication, influence, appeal, and speech activity. It has been established that the verbs of this lexical semantic group are used in different speech situations, some in formal and some in informal. For example, in the case of formal speech, verb-semantic group verbs are active, whereas speech activities are inactive in the lexical semantic group. This can be explained by the fact that the delivery of information to the addressee is the main task of the formal dialogue.

According to V. Kostomarov, it is a constructive principle of expression and standard method (1, P.65). Standardization, as one of the constructive principles of style, ensures rapid transmission of information, saves time, provides a quick response to events, and creates a style-neutral backdrop. It can also lead to the formation of certain patterns.

One of the peculiarities of the Iranian newspaper language is that each article begins with a particular

form of verb in a person's speech or opinion. In this case, there are verbs that are used: گفت "said", افزود "added", تاکید داشت "emphasized", یادآور شد "reminded", توضیح داد "stated", اظهار کرد "declared", ادامه داد "continued", تصریح کرد "elucidated", بیان داشت "announced".

در همین حال عضو شورای مرکزی جمعیت ایثارگران، گفت: این که ضرغامی سه ماه از سرکار آمدن دولت نگذشته، برای ریاست (5) جمهوری خود برنامه ریزی کند، صحت ندارد

Meanwhile, a member of the Charity Council's Central Council said that it would be wrong for him to run for president three months before the election.

وی افزود: تلفات انرژی برق در شبکه های توزیع در آغاز به کار دولت یازدهم ۱۵ درصد بود که امروز به کمتر از ۱۱ درصد (7) کاهش یافته است

He said that at the beginning of the eleventh government's loss of electricity distribution networks was 15%, but now it is down to 11%.

وی خاطر نشان کرد: دیدگاه داخلی نسبت به اصلاحات سیاسی، امنیتی و اقتصادی در عراق با دیدگاه کسی که از خارج عراق به این (6) اصلاحات مینگرد، تفاوت دارد

He stated that the internal approach to political, security and economic reforms in Iraq differs from that of those who view these reforms outside Iraq.

وی همچنین تأکید کرد: تعداد مسافرانی که از امکانات این (5) مراکز استفاده کرده اند، نسبت به سال گذشته بیشتر شده است

He also emphasized that the number of tourists who have taken advantage of these centers has increased over the past year.

Among these verbs, verbs such as گفتن "to speak", افزودن "to add", تاکید کردن "to emphasize", یادآور شدن "to remind", خاطر نشان کردن "to mention" are productive and verbs such as تصریح کردن "to elucidate", اظهار کردن "to specify", بیان داشتن "to state" are unproductive.

وی یادآور شد: آب، هوا، تامین انرژی و منابع خاک از جمله (7) مسایل امروز مردم جهان محسوب میشود

He reminded that water, air, energy and soil resources are one of the world's major problems today.

او توضیح داد: من خیلی تلاش کردم چیزهایی را در سینمای (7) ایران، وارد کنم که تا آن زمان وجود نداشت

He elucidated his words as follows: I tried to add to Iranian cinema something that had not existed before.

It is common for newspaper texts to use the speech verbs that were mentioned above in the form of a combination of forms. Here is the form "said in the commentary of an issue",

سرپرست مرکز اطلاعات و کنترل ترافیک راهور ناجا به تشریح آخرین وضعیت ترافیکی جاده های شمالی کشور پرداخت و (6) گفت

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The head of the Traffic Control Center, Rohvar Nojo, said in the commentary on the traffic situation in the north of the country.

The form has mentioned an issue“بر چیزی تاکید و بیان کرد”

وی بر افزایش بصیرت عمومی جامعه و خانواده ها و جوانان در مقابل آسیبهای مختلف تجاهم فرهنگی و تفرقه افکنانه تاکید و بیان کرد: (5)....

The form He emphasized...“با بیان اینکه...گفت”

وی در خاطمه با بیان اینکه کاهش آلودگی هوای تهران و دیگر کلانشهرها صرفا با برنامه های مقطعی امکان پذیر نیست، تصریح کرد: (5)....

At the end of his speech, he emphasized that reducing air pollution in Tehran and other metropolitan areas is not the only solution ...

The form He emphasized ...“با ابراز اینکه...گفت”

وی با ابراز اینکه اگر نیروهای اطلاعاتی وجود نداشته باشند حرکت به سمت جلو امکان پذیر نخواهد بود، گفت (7)....

He emphasized that it is impossible to move forward without the intelligence ...

The form Pointed to ...“با اشاره به چیزی گفت”

وزیر نیرو با اشاره به تبدیل نیروگاه های گازی به سیکل ترکیبی گفت: (6)....

The Minister of Energy, pointing to the transfer of gas stations to a complex cycle, said ...

The form Added a point of ...“با اشاره به چیزی افزود”

رئیس جمهور غانا با اشاره به مذاکرات خود در تهران و امضای چند یادداشت تفاهم، افزود: (5)....

Pointing to the signing of a number of memorandums and talks in Tehran, the Ghanaian president said ...

The form Pointing out ...“با اشاره به چیزی اظهار داشت”

حضرت آیت الله خامنه ای رهبر معظم انقلاب اسلامی روز گذشته در دیدار رئیس جمهوری غانا با اشاره به نگاه مثبت و جانبدارانه ایران به افزایش همکاری با کشورهای افریقائی از ابتدای انقلاب اسلامی خاطر نشان کردند: (7)....

Yesterday, Ayatollah Khamanei, the leader of the Islamic Revolution, pointed that during a meeting with the President Ghana that Iran's positive approach to developing cooperation with African countries since the Islamic Revolution was highlighted.

The forms considered as ...“چیز را خواند و گفت، چیز را بر شمرد و گفت”

ایشان سیاست ثابت جمهوری اسلامی در قضیه سوریه را “طرقداری از صلح” بر شمردند و گفتند (5)....

They considered the commitment by the Islamic Republic of Iran to the issue of Syria as a “commitment to peace”.

رهبر انقلاب، راه حل مسئله سوریه و مقابله با مشکلاتی نظیر تروریسم و رنجهای مردم فلسطین را در گروهی همکاری و نزدیک شدن بیشتر کشورهای مستقل خواندند و گفتند (6)....

The leader of the revolution considered that the solution of the Syrian issue, the fight against terrorism and the suffering of the Palestinian people depends on the proximity and unity of the independent states ...

ایشان ادعای امریکاییها مبنی بر تشکیل “ائتلاف مبارزه با تروریسم” را یک فریبکاری خواندند و تاکید کردند (5)....

They regarded the Americans' proposal to “create a coalition against terrorism” was false ...

The form Highlighted... added“با تاکید بر اینکه افزود”

ایشان با تاکید بر اینکه موضوع “چین واحد” از سیاستهای اصولی و قطعی جمهوری اسلامی ایران است، به سخنان رئیس جمهور چین در خصوص گسترش همکاریهای امنیتی میان دو کشور اشاره کردند و افزودند (7)....

They highlighted that the theme of “China Union” is one of the fundamental and strict policies of the Islamic Republic of Iran, adding to the statement of the President of China on the expansion of security cooperation between the two countries.

The form Expected to“اظهار امیدواری کرد”

رهبر انقلاب اسلامی در پایان اظهار امیدواری کردند (7)....

At the end of his speech, the leader of the Islamic Revolution expected to ...

The form He continued“در ادامه گفت”

وی در ادامه گفت: تولید علم دنیا در سال ۲۰۱۴ نسبت به سال ۲۰۱۳ (6) میلادی به میزان هشت دهم در صد رشد داشته است

He continued: global scientific production in 2014 increased by 0.8% compared to 2013. In general, the study of the use of verbs in newspaper texts reveals its semantic and methodological potential in newspaper-publicist style. Feature ratio, time, inclination, and personality categories are all important in the manifestation of these possibilities.

Conclusion

In conclusion, it is worth noting that the semantic groups of verbs manifest themselves in the textual content of speech verbs in newspaper texts, as they are interpreted as informative means. In Iranian newspaper texts the verbs such as “to speak”, تاکید افزودن, “to emphasize”, تاکید داشتن, “to add”, توضیح, “to mention”, نیاوردن شد, خاطر نشان کردن, “to elucidate”, داد, “to continue”, بیان داشتن, “to declare”, اظهار کردن, “to state” observed to be productive.

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TO THE QUESTION OF FOLKLORE PRECURSORS OF PROSE CH. AITMATOV: MYTHOPOIETIC VIEW (ON THE MATERIAL OF THE STORY «MOTHER'S FIELD»)

Abstract: In the article on the material of the story «Samanchin Zholu» («The road of the strawman») or «The Mother's field» - translated into Russian, the folklorisms and mythopoetic view in the structure of the fiction of Ch. Aitmatov are analyzed. These vectors of the study are developed on the basis of such principles of analysis as «from form to content», «from image-symbol to myth/archetype», which allows to clearly trace the functioning of folklorism and mythological foundations of the writer's prose.

Key words: Folklorism, mythopoetics, image-symbol, archetype, "symbolic Universe", cosmonim "Milky Way", title, strong positions of text.

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К вопросу о фольклорных предтечах прозы Ч.Т.Айтматова: мифопоэтический ракурс (на материале повести «Материнское поле»)

Аннотация: В статье на материале повести «Саманчинын жолу» («Дорога соломищика») или «Материнское поле» - в переводе на русский язык, анализируются фольклоризмы и мифопоэтический ракурс в структуре художественного текста Ч.Т.Айтматова. Данные векторы исследования разрабатываются на основе таких принципов анализа, как «от формы к содержанию», «от образа-символа к мифу/архетипу», что позволяет наглядно проследить функционирование фольклоризмов и мифологических основ прозы писателя.

Ключевые слова: Фольклоризмы, мифопоэтика, образ-символ, архетип, «Символическая Вселенная», космоним «Млечный путь», заглавие, сильные позиции текста.

Введение

Устное народное творчество, фольклор, являющийся одной из незаменимых основ в формировании художественности, обладает целый рядом специфических свойств трансформации и интерпретации в культурно-историческом, национально-ментальном, литературно-художественном пространстве.

В работах многих исследователей, таких как Р.Барт, А. Лосев, К.Леви-Строс, Э. Кассирер и других, приводятся различные концепции и

истолкования возникновения и развития понятия «миф» и «символ», которые, безусловно, являются базисом многих как литературных, так и фольклорных текстов. «Символическая Вселенная» художественного пространства, в том числе и мифологического, – это идеальная сфера для воплощения авторского замысла, это лоно для реализации авторской интенции, передачи ментальных особенностей текста. При этом, в зависимости от принадлежности автора к той или иной национальной литературе, «Символическая

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Вселенная» мифа может сужаться/расширяться – это может происходить за счет пополнения мифологического «арсенала»: использование мифологем, символов-архетипов и т.д.

Основная часть

Соглашаясь с мнением исследователей-фольклористов, выраженным в книге «Фольклор: структура, типология, семиотика» [4; с.5], мы также выделяем основные четыре зоны функционирования исследуемого предмета:

1. Собственно-фольклорные тексты «устной культуры»;

2. Традиция;

3. Картина мира и ее компоненты (мифологические представления);

4. Тексты, относящиеся к бытовой обрядности, к устойчивым обыденным жестам [4; с.7]

Одной из современных задач фольклористики на сегодняшний день – является вопрос о трансформации и модифицировании фольклорных текстов или их элементов в составе художественной картины мира того или иного автора-писателя. Для разработки и пояснения данной сферы и ее направленности (антропоцентрической) теории привлекают также и понятие «картина мира» или «концептосфера», что является наиболее продуктивным в нынешнем этапе развития научно-гуманитарной мысли.

В данной работе на примере повести Ч.Т.Айтматова «Материнское поле» мы проведем комплексный филологический анализ на основе таких принципов как «от заглавия – к содержанию», «от образа - к мифу\архетипу», а также выявим использование и функционирование фольклоризмов в структуре повествования Ч.Т.Айтматова. Обращаясь непосредственно к заглавию произведения, мы отмечаем то, что повесть «Материнское поле» на киргизском языке звучит совершенно иначе: «Саманчинын жолу» («Дорога соломицы»). Абсолютное несоответствие заглавий таит в себе иной, культурно-ментальный код, при помощи которого автор передает внутренние, невидимые невооруженным глазом мировоззренческие и бытийные основы нации, народа.

«Дух народа», заложенный в языке, хранящим культурные абсолюты, выраженный на уровне заглавий несет в себе фольклорное начало. «Саманчинын жолу» («Дорога соломицы») – образ космонавта «Млечный путь», который своими корнями восходит к обрядности, понятию временного цикла (цикличности) во многих произведениях, относящихся к устному народному творчеству. Земледелие у народов Средней Азии – это больше чем каждодневная работа (посев, уход и сбор урожая), это акт единения Мира Человека с Миром Природы, это

мифо-сакральное действие, в основе которого лежит принцип круговорота жизни (рождение – посев/ смерть-сбор урожая). В этом отношении слова-образы «дорога»\ «путь» олицетворяют не только определенный отрезок пространственного передвижения героев, а передают онтологически важную единицу – жизненный путь, судьбы героев.

Архаичное представление людей, связанное непосредственно с космонимом «Млечный путь»[11; с.34] - есть своеобразное отражение в звездном небе того, что происходит с ними на земле: «...В полночь, в самую полную пору ночи, я глянула на небо и увидела Дорогу Соломицы - Млечный Путь простирался через весь небосклон широкой серебристой полосой среди звезд. Я вспомнила слова Суванкула и подумала, что, может быть, и в самом деле этой ночью прошел по небу какой-то могучий, добрый хлебоборок с огромной охаткой соломы, оставляя за собой след осыпавшейся мякоти, зерен. И я вдруг представила себе, что когда-нибудь, если исполнятся наши мечты, и мой Суванкул вот так же понесет с гумна солому первого обмолота. Это будет первая охатка соломы своего хлеба. И когда он будет идти с этой пахучей соломой на руках, то за ним останется такая же дорожка растрясенной соломы. Вот так я мечтала сама с собой, и звезды мечтали вместе со мной, и мне вдруг так захотелось, чтобы все это сбылось, и тогда я первый раз обратилась к матери земле с человеческой речью...» [1; с.35].

Ставя себе цель продемонстрировать наглядно место и роль фольклоризмов в текстовом пространстве, мы выводим следующую лексико-семантическую линию: «Мир человека – Мир Природы (ПриРодины) – Путь (дорога) – Земля – Поле – Хлеб». Все вышеперечисленные категории являются доминантными, как в художественном целом повести «Материнское поле», так и во всех фольклорных текстах.

Мифопоэтическая бинарность Солнце\Луна, Человек\Природа, Небо/Земля – это отправные точки в рассмотрении фольклорных начал прозы Ч.Айтматова. Даже иной перевод повести на русский язык указывает именно на фольклорные, мифологические предтечи, которые автор хотел донести до читателя. В центре всего повествования архетипический образ Женщины-Матери, который сам по себе, можно рассмотреть на разных уровнях анализа текста, но главное в этом образе то, что он абсолютно идентичен с образом Земли, также, как и мать, плодоносной, мудрой, терпящей, рождающей и хоронящей в себе детей, людей, время... Это вечный литературно-фольклорный образ, вмещающий в себя, как и бесконечное пространство поля, одну из самых основных бытийных категорий – категорию Памяти.

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Образ «Материнского поля», восходит к древнейшему славяно-русскому архетипу матери сырой земли, который был общим у различных славяно-русских племен [2; с.24]. Культ матери сырой земли в славянской национальной картине мира соотносим с муками рождения и потери ребенка, что само по себе восходит к древнейшему сакральному мировидению человечества. Ценностные представления человечества сокрытые в заглавиях столь разных в переводах проецированы с целью усиления эффекта присутствия на подтекстовом уровне фольклорных мотивов творчества автора. Даже если мы обратим внимание на некоторые примеры из паремиологического фонда фольклора – на пословицы и поговорки, то мы можем проследить следующую связь: например, пословица «Жизнь прожить – не поле перейти», уже несет в себе «бремя» жизненного пути-дороги («Саманчины жолу»/«Дорога соломы»), но в тоже время сохраняет и пространственную локацию – поле («Материнское поле»).

Появление у народов Средней Азии ассоциации Млечного пути с рассыпанной на небе соломой было вполне предсказуемо, так как соломе в хозяйственной деятельности отводилось особое место. В частности, из нее изготавливали необожженные саманные кирпичи из глины с добавлением соломы, которые служили основным строительным материалом [2; с. 33].

Название «Материнское поле» есть не что иное как скрытая семантическая тавтология: мать – это поле, поле – это мать, но этот повтор, отражающийся один в другом, снова усиливает мифопоэтизацию на художественном уровне. Использование тем или иным автором текстов фольклора изучалось таким исследователем, как А. Лазарев. Он попытался выделить типологические «группы переработки фольклорного материала» писателями:

1.Использование фольклорных элементов в литературном произведении в «бессознательном» обращении к фольклору;

2.Использование фольклорных элементов в сознательном обращении к фольклору и модернизации его материала [10; с.68].

Какой бы художественный принцип бы не преследовал автор – использования тех или иных фольклорных начал указывает на определенный вид стилизации на разных уровнях его проявления, сложности. Фольклоризм, как одно из свойств художественности неравномерно проявляется у разных писателей. Это говорит об идейно-тематической и культурно-исторической направленности их творчества. Так, Ч.Айтматов, не просто транслировал элементы фольклора в своих текстах – он синтезировал, и трансформировал их. В зависимости от авторской интенции. Обращаясь непосредственно к тексту

произведения, мы отмечаем следующие моменты, в основе которых, на разных уровнях сложности, заложен фольклорный материал.

Эпиграф – посвящение.

*«Отец, я не знаю, где ты похоронен.
Посвящаю тебе, Торекулу Айтматову.
Мама, ты вырастила всех нас, четверых.
Посвящаю тебе, Нагиме Айтматовой»* [1; с. 30]

Обращение в эпиграфе-посвящении несет в себе семантику места: «...не знаю, где ты похоронен», но общее место – Земля (поле-кладбище) остается неизменным, упоминание матери «...вырастила всех нас четверых...» соотносимо с самой землей, вырастившей и выкормившей столько людей, также как и Женщина-Мать. Таким образом, в заглавии и эпиграфе уже прочитывается мифопоэтическое начало повествования.

Абсолютно сильная позиция текста – начало повествования: *«В белом свежесстиранном платье, в темном стеганом бешмете, повязанная белым платком, она медленно идет по тропе среди жнивья. Вокруг никого нет. Отшумело лето. Не слышно в поле голосов людей...»* [1; с.31]. Цветовой символизм, играющий одну из ключевых ролей в фольклорных текстах, встречается и здесь: белый платок и платье «свежесстиранное», указывает на то, что в дальнейшем последует важное действие – диалог-раскаяние, разговор по душам Матери Земли и Женщины-Матери;

Диалоговая форма построения повествования, как основа авторской идеи: *«...Земля отдыхает после жатвы. Скоро начнется ненастье, польют дожди, запорошит землю первым снегом и грянут бураны. А пока здесь тишина и покой. Не надо мешать ей. Вот она останавливается и долго смотрит вокруг потускневшими, старыми глазами.*

- Здравствуй, поле, - тихо говорит она.

- Здравствуй, Толгонай. Ты пришла? И еще постарела. Совсем седая. С посошкой.

- Да, старею. Прошел еще один год, а у тебя, поле, еще одна жатва. Сегодня день поминовения.

- Знаю. Жду тебя, Толгонай...»[1; с. 35].

Именно благодаря диалогу раскрывается мифопоэтический материал: разговор-беседа Женщины с Землей, которая олицетворена, одухотворена.

Поле как основное место происшествия, как действенный герой-фон повествования, на котором происходят основные витальные коллизии, разрешаются вопросы мировидения героев:

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«... - Если земля и вода будут поделены всем поровну, если и у нас будет свое поле, если и мы будем пахать, сеять, свой хлеб молотить - это и будет нашим счастьем. А большего счастья человеку и не надо, Толгон. Счастье хлебороба в том, что он посеет да пожнет. Мне почему-то очень понравились его слова, стало так хорошо от этих слов...» [1; с.39] (Ср., пословицы: Хлеб всему голова; Крошка хлеба-тоже хлеб).

Мифопоэтическое единение Мира человека с миром природы: «...И земля в ту синюю светлую ночь была счастлива вместе с нами. Земля тоже наслаждалась прохладой и тишиной. Над всей степью стоял чуткий покой. В арыке лепетала вода...; «...Он носил меня на руках, что-то еще говорил, называл меня жаворонком и другими забавными именами, а я, обхватив его за шею, хохотала, болтала ногами, смеялась - ведь жаворонком называют только маленьких детей, и все же как хорошо было слышать такие слова! А солнце только-только всходило, поднималось краем глаза из-за горы. Суванкул отпустил меня, обнял за плечи и вдруг крикнул солнцу: - Эй, солнце, смотри, вот моя жена! Смотри, какая она у меня! Плати мне за смотрины лучами, светом плати! Не знаю, всерьез или в шутку он так сказал, только я вдруг расплакалась...» [1; с.44].

Принцип цикличности природы, как проявление повторяемости и возвращения к истокам:

«...- Ну, не шуми, Толгон. Подожди, вот настанет весна - и тогда убедишься. Потерпи малость...» [1; с.48].

Сравнение и соотнесение жизни человека с жизнью природы:

«...Время шло, сыновья как-то незаметно, дружно поднялись, словно тополя-одногодки...» (люди-деревья) [1; с.49].

Сила Памяти и обрядовость, связанная с полем (хлебом): «...К вечеру на полевым стане для нас был уже готов хлеб из пшеницы нового урожая. Эту муку приготовили заранее, обмолив снопы с обкоса, который мы начали неделю назад. Много раз за свою жизнь приводилось мне есть первый хлеб нового урожая, и всякий раз, когда я подношу ко рту первый кусок, мне кажется, совершаю святой обряд. Хлеб этот хотя и темного цвета и немного клейкий, словно бы испеченный из жидко замешанного теста, но ни с чем на свете несравним его сладковатый привкус и необыкновенный дух: пахнет он солнцем, молодой соломой и дымом. Когда проголодавшиеся жнецы пришли на полевой стан и расположились на траве у арыка, солнце уже садилось. Оно пылало в пшенице на дальнем краю...» [1; с.64].

Сакральность, архаичность и ритуальность, выраженная в последовательности действий: «...Касым вымыл в арыке руки и, сядя у скатерти, неторопливо разломил лепешки на куски. - Горячие еще, - сказал он, - бери, мама, ты первой отведай нового хлеба.

Я благословила хлеб и, когда откусила от ломтя, ощутила во рту вроде бы какой-то незнакомый вкус и запах. Это был запах комбайнерских рук - свежего зерна, нагретого железа и керосина. Я брала новые ломти, и все они припахивали керосином, но никогда не ела я такого вкусного хлеба. Потому что это был сыновний хлеб, его держал в своих комбайнерских руках мой сын. Это был народный хлеб - тех, кто вырастил его, тех, кто сидел в тот час рядом с сыном моим на полевом стане. Святой хлеб! Сердце мое переполнилось гордостью за сына, но об этом никто не знал. И я подумала в ту минуту о том, что материнское счастье идет от народного счастья, как стебель от корней. Нет материнской судьбы без народной судьбы. Я и сейчас не отреклась от этой своей веры, что бы ни пережила, как бы круто жизнь не обоилась со мной. Народ жив, потому и я жива...»; «...На другое утро солнце еще не всходило, мы приступили к работе. В тот день мы начали жать новую полосу, хлеба на самом обрыве у реки...» [1; с.74].

Как это видно из вышеприведенных примеров акт и процесс жатвы - есть священный процесс сбора урожая, «плодов» плодоносной Матери-Земли и каждый жест, сопровождающий этот акт - есть указание на архаичное мировоззрение и фольклорные основы повествования. Особое внимание заслуживает прием контраста-антитезы в структуре повествования: противопоставление мирной жизни/мирной, спокойной жатвы - ужасу войне. Каждая страница истории жизни главной героини, как отпечаток, как слепок остается и в памяти Земли: «... - Помню... Я ничего не забываю, Толгонай. С тех пор как стоит мир, следы всех веков во мне, Толгонай. Не вся история в книгах, не вся история в людской памяти - она вся во мне. И жизнь твоя, Толгонай, тоже во мне, моем сердце. Я слышу тебя, Толгонай. Сегодня твой день...» [1; с.56].

Вышеописанный принцип цикличности вновь проявляется в текстовой оппозиции Мир\Война: «...Я натянула поводья, а она побежала, схватилась за гриву коня, ткнулась к моей ноге и зарыдала. Я молчала. А что мне было ей говорить? Потом она подняла голову, а лицо все в глине, в слезах, и сказала всхлипывая:

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- Посмотри, мама, как светит солнце. Посмотри, какое небо, а степь какая, в цветах! А Касым не вернется, да? Никогда не вернется?

*- Нет, не вернется, - ответила я...» [1; с.61]. Данное противопоставление направлено и на другой смысл: мирное время характеризуется счастьем и радостью жатвы, сбора урожая, в то время как война – есть потеря хлеба, борьба за хлеб, борьба за пространство. В центре всего повествования образ Матери, который автор резко не разграничивает между Землей-Матерью и Женщиной-Матерью: «... - *Мать земля, почему не падают горы, почему не разливаются озера, когда погибают такие люди, как Суванкул и Касым? Оба они - отец и сын - были великими хлеборобами.**

Мир извечно держится на таких людях, они его кормят, поят, а в войну они его защищают, они первые становятся воинами. Если бы не война, сколько бы еще дел сделали Суванкул и асым, сколько людей одарили они плодами своего труда, сколько еще полей засеяли бы, сколько еще зерна намолотили бы. И сами, сторицею вознагражденные трудами других, сколько бы еще радостей жизни увидели бы! Скажи мне, мать земля, скажи правду: могут ли люди жить без войны?..» [1; с.57]. Этот риторический вопрос, в основе которого заложен гуманистический принцип, на самом деле автор задает читателям. Умелый подбор Ч.Айтматовым национально-культурных, ментально значимых и аксиологически выведенных на первый план повествования основ – указывает на мастерство и

знание автором истоков устного народного творчества.

Заключение

Говоря о фольклорных предтечах творчества Ч.Т.Айтматова следует особо выделить направленность авторского «Я» писателя на глубинные духовные истоки повествуемого, автор будучи сторонником и представителем реалистической школы немаловажную роль удалял понятию «народного духа», который, соответственно, скрывается в фольклорных текстах в виде и форме слов-архетипов, мифологем, скрытой символики. Ранний интерес к фольклору и ориентированность автора на него проявляется с самого раннего его творчества, попытки использования «иног» текста в его модификации или трансформации в собственном тексте – одни из излюбленных манер творческого почерка писателя.

Фольклорный текст у Ч.Айтматова, в основном, прочитывается на уровне аллюзий и реминисценций-отсылок, выведенных на разные текстовые уровни: будь то заглавие или эпиграф, или будь то идейно-тематическая линия повествования. Это все направлено на возбуждение соответствующей ассоциации в сознании у читателя, ибо фольклор, будучи кладезем неисчерпаемых знаний, может аккумулировать у мастеров пера все новые и новые коннотации и образные вереницы, в дальнейшем отражающихся в индивидуально-авторских текстах.

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MEDIA SPACE OF DOMAIN UZ (ON THE EXAMPLE “ISLOM.UZ”)

Abstract: The article analyzes the media space of Uzbekistan. Stages of the transformation of traditional media to online. It was chosen for analysis, one of the first Islamic Internet sites “islom.uz”. To achieve the goal, it was used the method of statistical processing of information on the most relevant topics taking into account the requirements of an Uzbek-speaking audience. At the same time, there were provided such criteria as compliance with user ergonomics and website optimization according to technical requirements.

Key words: religion, internet, domain “uz”, mass media, media space, «islom.uz».

Language: Russian

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МЕДИЙНОЕ ПРОСТРАНСТВО В ИНТЕРНЕТ-ЗОНЕ UZ (НА ПРИМЕРЕ “ISLOM.UZ”)

Аннотация: В статье анализируется медийное пространство Узбекистана. Этапы перехода традиционных СМИ на онлайн. Для анализа выбран один из самых первых исламских интернет сайтов «islom.uz». Для достижения цели был использован метод статистической обработки информации самых актуальных тем с учетом требований узбекоязычной аудитории. При этом были предусмотрены такие критерии, как соблюдение требований пользовательской эргономики, также оптимизация сайтов по техническим требованиям.

Ключевые слова: религия, интернет, домен «uz», СМИ, медиа пространство, «islom.uz».

Введение

Рассматривая хронологию продвижения СМИ Узбекистана в Интернет-пространство и развитие информационно-профессиональной деятельности в веб сфере, можно увидеть, что средства массовой информации выходили в глобальную сеть расширяя сферу своего влияния. Это привело не только к количественному росту обмена информации, но и к повышению его качества.

Переход традиционного СМИ Узбекистана на киберпространство можно разделить на следующие этапы [3, с. 27]:

Первый этап – 1996-1999 гг. – освоения веб технологий заключался в использовании Интернета в качестве информационного источника для обогащения контента

традиционного издания, что качественно улучшило содержание отечественных СМИ. Следует отметить, для создания национального домена «uz» был одобрен запрос, сделанный в 1995 году Университету информатики Южной Калифорнии [6].

Второй этап, который стартовал в начале 2002 года [4], стал активно заявлять о себе посредством глобальной сети, начали создаваться Интернет-странички [7, с. 17], которые в основном давали информацию об издании, где перепечатывались материалы газет и журналов. Первыми исламскими СМИ, вышедшими в Интернет пространство, были «muslim.uz» (дата регистрации 2003 год) [8, с. 68] сайт Управление мусульман Узбекистана и «islom.uz» – персональный сайт шейха Мухаммад Садыка

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Мухаммад Юсуфа. Необходимо отметить, что в тот момент данные веб ресурсы во многом напоминали визитную карточку издания либо учреждения.

Третий этап характеризуется изменением стиля работы, реорганизации веб сайта из корпоративной визитной карточки в онлайн издание, где освещение новостей ведется параллельно изложению своей тематики. На данный момент традиционные СМИ в домени «UZ» находятся на этом уровне.

В качестве дополнительных сервисов е-аналоги активизируют интерактивные возможности, размещают онлайн трансляцию радио, проводят онлайн консультации и опросы.

После 2005 года СМИ в Интернете резко активизировались, многие печатные издания открыли свои веб странички, радио и ТВ начало трансляцию по Интернету, увеличилось количество Интернет медиа.

В последние годы потребность в потреблении информации и необходимость удовлетворения интеллектуальных потребностей

у населения Узбекистана привели к резкому увеличению числа пользователей Интернета. В соотношении к этому за прошедший период выросло число зарегистрированных доменов «uz» [5, с. 53].

На сегодняшний день число активных доменов достигло 70 663 [1] но количество исламских доменов не достигает ста. Несмотря на это, их число регулярно увеличивается. Например, зарегистрированные одними из самых первых и до сегодняшнего дня действующий сайт – это «islom.uz», дата регистрации 2004 год [2]. Исходя из этого, на данной статье анализируется деятельность этого сайта.

Результаты исследования

Анализ сайта показал, что структура сайта соответствует эргономическим требованиям, сверху горизонтально размещены наименования разделов, имеется поисковые системы, объединенные с социальными сетями, есть обратная связь с сайтом. (1 рисунок).

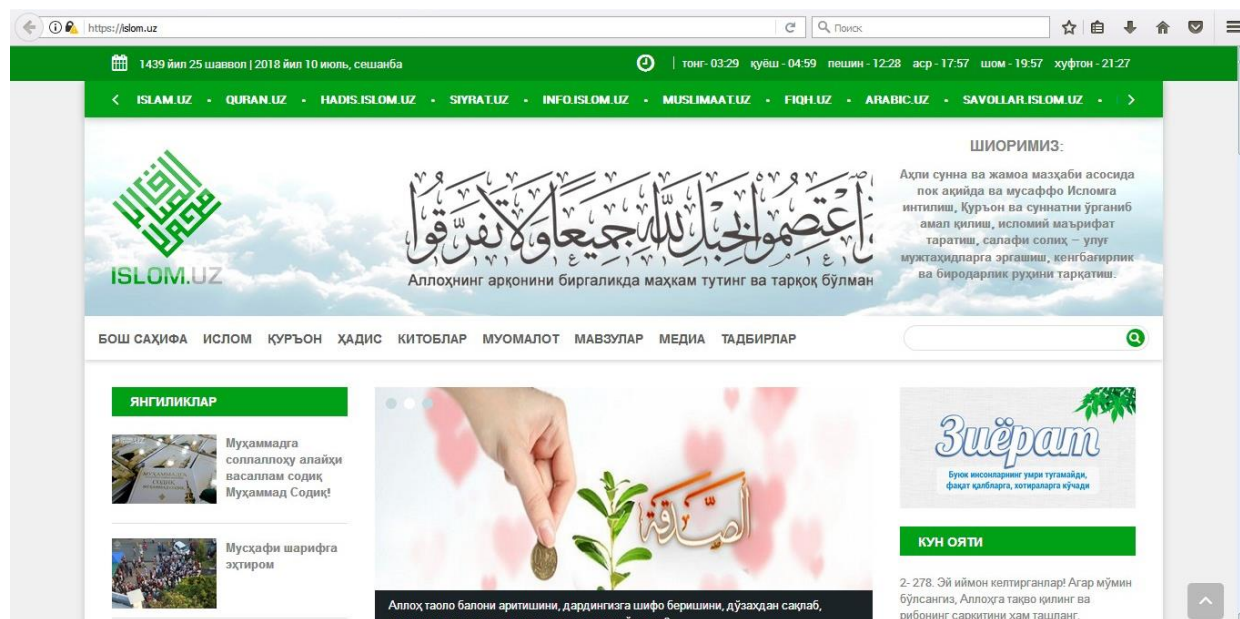


Рисунок 1 – Главная страница портала «islom.uz»

На портале «islom.uz» кроме обычных страниц «Главная страница», «Темы», «Медиа», «Мероприятия» и «Статьи» существуют такие уникальные страницы как: «Муамалат», «Ислам», «Коран» и «Хадис». Особенность портала в том, что имеется возможность слушать онлайн-радио «islom.uz радиоси».

По охвату тем портал «islom.uz» уделяет большое внимание освещению истории ислама, теологии (акиде) и информации, относящейся к ним. Ниже на 2 рисунке приведено их процентное соотношение.

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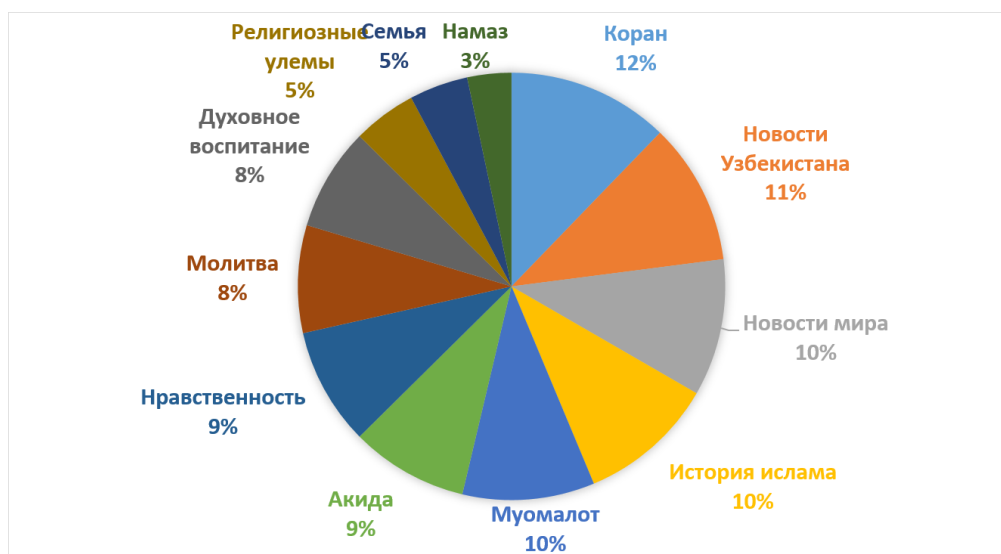


Рисунок 2 – Классификация статьи сайта по темам.

В национальном рейтинге «uz» в категории «Религия» сайт «islom.uz» занимал первенство [9], благодаря удобству интерфейса и пользования. Например, данный сайт легко открывается, по сравнению с другими сайтами также привлекает своим дизайном. В связи с этим было проанализировано количество посетителей за 6 месяцев 2018 года. По итогам анализа с информацией сайта ознакомились в среднем 292 тысяч посетителей [10]. Хотя информация сайта размещается на узбекском языке, аудитория посетителей сайтов не ограничивается только Узбекистаном, значительно выше число посетителей из России, Киргизии, Таджикистана и Казахстана [10]. Это показывает, что среди узбекоязычных пользователей этих стран данный сайт удовлетворяет потребность по исламским вопросам.

Заключение

Бурное развитие информационных технологий привело к существенным социальным преобразованиям, в частности в религиозных

процессах. Один из явных признаков такого влияния на многонациональную Интернет-аудиторию узбекистанцев проявляется в удовлетворении потребностей населения по решению религиозных вопросов в онлайн-режиме. Это можно полагать естественным процессом. В этой среде ресурсы, наподобие «islom.uz», влияют на религиозную жизнь, в том числе религиозное сознание. Логическое заключение перечисленного в том, что один из самых активных факторов, влияющий на формирование и развитие религиозного процесса в киберпространстве, – это информационные ресурсы, и исследование их направления деятельности, а также преследуемых ими целей приобретает большое значение.

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FINANCIAL INSTRUMENTS AS A MECHANISM FOR ATTRACTING FOREIGN INVESTMENT

Abstract: This article discusses financial instruments to attract foreign investment in the Republic of Uzbekistan. The theoretical essence of financial instruments is studied, and the process of the emergence of the financial market of the Republic of Uzbekistan is also investigated.

Key words: Investments, financial instrument, financial market, bonds, stocks, securities, stock market.

Language: English

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Introduction

In investment activities, especially in the securities market, the concept of a financial instrument is among the key ones. The role of financial instruments in the financial market is very significant. They serve as a mechanism for the redistribution of financial resources with the help of financial intermediaries and, thanks to their wide capital management capabilities, attract a large circle of investors. Financial instruments allow to earn income by diversifying the sources of its receipt, provide liquidity, insure the company against risks. Financial instruments are in constant development, which is associated with the appearance of their various types with new qualities, characteristics and goals. These processes arise interest in a detailed study of the nature, classification and systematization of existing theoretical views on financial instruments.

The term “financial instrument” is considered a rather new term for the CIS countries and in particular for Uzbekistan. He found his use in the economic science of the CIS countries with the beginning of the transition to a market economy. Until now, there is no unambiguous interpretation of this term, and the existing definitions are mainly owned by Western economists.

F. Fabozzi defines financial instruments as “financial intangible assets whose value lies in future cash flows”. [12]

Carol Alexander gives the following definition: “A financial instrument is a tradable, legally sound claim for the income or assets of a company.”[13]

D.A. Shevchuk under financial instruments refers to various forms of short-term and long-term investment, which are traded on financial markets. Financial instruments include cash, securities, options, forward contracts, futures and swaps.

The main source that most accurately disclosed the essence of a financial instrument is international financial reporting standards (IFRS). According to IFRS 32: “a financial instrument is any contract under which a financial asset arises simultaneously from one organization and a financial liability or an equity instrument from another”. [14]

Analyzing the above definitions, we can say that there are different approaches to the term financial instrument. A financial instrument is explained as, securities, financial asset and financial liability, contract and agreement, and also as a form of attracting short-term and long-term investments.

In many cases, financial instruments are classified mainly as equity and debt, or as primary and

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derivative. Primary financial instruments include: stocks, loans and borrowings, bonds, other debt securities, payables and receivables.

Derivative financial instruments are options, futures, forward contracts, interest rate swaps, currency swaps. The emergence of derivative financial instruments is explained by many reasons: hedging, speculativeness, protection of the interests of owners.

Securities are the most striking instrument of attracting foreign investment. It should focus on the role and development of the securities market in the Republic of Uzbekistan.

In March 1991, the "Toshkent" Republican Universal Commodity and Stock Exchange was opened as an open joint stock company. In January 1992, the Stock Department of the Toshkent Exchange for the first time in the republic began to conduct regular trading in securities. In June 1992, the Republic of Uzbekistan adopted the Law of the Republic of Uzbekistan "On exchanges and the activities of exchanges." [15] This law introduced significant adjustments and established mandatory requirements for the activities of exchanges. According to this law, the authorized capital of the exchange was to be at least 50 million rubles. Exchanges could not create any commercial structures. The founders of the exchange could not be ministries, departments, state committees, etc. [16]

The Law of the Republic of Uzbekistan "On Securities and Stock Exchange" dated September 2, 1993 No. 918 was a major event in the development and regulation of the stock market of sovereign Uzbekistan. This law regulated the activities of the stock exchange and other professional participants in this market, and also determined the legal basis for the circulation of securities (stocks, bonds, treasury bonds, derivatives, certificates of deposit, bills of exchange).

On April 8, 1994, the Republican Stock Exchange "Toshkent" was established in accordance with the Decree of the President of the Republic of Uzbekistan "On measures to further deepen economic reforms, ensuring the protection of private property and the development of entrepreneurship" dated January 21, 1994 No. 745. [7] In 1995, subsidiaries of the RSE "Toshkent" were established in Andijan, Samarkand, Bukhara and then in other regions. They began to represent the interests of the exchange in the regions of the republic.

In accordance with the Decree of the President of the Republic of Uzbekistan dated March 26, 1996 No 1414, the Center for Coordination and Development of the Securities Market under the State committee of the Republic of Uzbekistan for assistance to privatized enterprises and development of competition is being established. The center is

determined by the authorized state body for regulating the securities market. [11]

On April 25, 1996, the Law of the Republic of Uzbekistan "On the mechanism for the functioning of the securities market" was adopted. This law determined the participants in the securities market, as well as measures of responsibility for participants in the securities market for non-compliance with the law. [6]

On April 26, 1996, the Law on Joint Stock Companies and the Protection of Shareholders Rights was adopted. This law defined the organizational foundations of a joint stock company, its creation, management, operation, liquidation, protection of the rights and interests of investor shareholders".[1]

On August 29, 1998, the Law of the Republic of Uzbekistan "On the activities of depositories in the securities market" was adopted. Based on this law, a two-tier system of depositories was created in the Republic of Uzbekistan: the state depository and the second-level depository. [4]

In 1997-2000 market for government short-term bonds has formed. In 2001-2006 new securities appeared: certificates of deposit, corporate bonds, bonds of the Central bank.

On July 22, 2008, the Law of the Republic of Uzbekistan "On the Securities Market" was adopted. This law combined the previously adopted 4 laws: "On Securities and the Stock Exchange", "On the mechanism of functioning of the securities market", "On the activities of depositories in the securities market" and "On the protection of investors in the securities market". In 2015, the law was adopted in a new edition. Simplification of the procedure for issuing securities, conclusion of transactions with securities through the introduction of information and communication technologies are the main distinguishing characteristics of the new adopted law. And also the requirements for professional participants in this market were revised. This law provides for the implementation of professional activities in the securities market of the following entities:

- investment intermediary (broker, dealer),
- investment adviser,
- investment
- depository,
- Settlement and Clearing house,
- trustee of investment assets,
- transfer agent,
- Organizer of OTC Securities Trading. [3]

Securities under this law are defined as "documents certifying property rights or a loan relationship between the legal entity issuing these documents and their owner, providing for the payment of income in the form of dividends or interest and the possibility of transferring the rights arising from these documents to other persons". [3]

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On August 29, 2016, a new Unified software and hardware complex was launched on the securities market, thanks to the efforts of the State Competition Committee and the Korean Stock Exchange. In other words, the domestic stock market has joined international capital markets.

Based on the decree of the President of the Republic of Uzbekistan dated January 14, 2019 No. 5630 "On measures to radically improve the system of managing state assets, antitrust regulation and the capital market", the Agency for development of the capital market of the Republic of Uzbekistan was established. The Agency is the successor to the Center for coordination and development of the securities market at the State Competition Committee of the Republic of Uzbekistan. The highest organization of the Agency is the Cabinet of Ministers of the Republic of Uzbekistan. The Agency is an authorized state body for regulating the securities market. [8]

If analyze the history of the development of the stock market of the Republic of Uzbekistan, a legislative regulatory framework and the necessary infrastructure of the stock market have now been created. There is a technologically advanced stock exchange with a network of developed branches and offices in the regions. There are coordination and development bodies that contribute to the comprehensive development of the securities market. However, the mechanism of the securities market does not function as effectively as in other countries. The evidence of these statements is the fact that, according to the results of 2017, the trading turnover of the largest exchange - RSE "Toshkent" - is only 37.8 million dollars, or 0.12% of GDP. [18]

In developed countries, one of the strongest segments of the investment market is the stock market (or securities market), which helps to accumulate large investment resources and achieve maximum investment mobility. At the present stage of economic development, the stock market of our country is not ready to solve the problems associated with the provision of investment resources for the economy.

Despite the positive trends in the stock market, it remains one of the weakest elements of the country's financial system. In the early stages of the establishment of the stock market in Uzbekistan, it performed a narrow function, one of which was technical support for the privatization of state-owned enterprises. In this regard, a primary market appeared in Uzbekistan, but with its own characteristics: it was used exclusively in the privatization process, and in most cases there was practically no public offer. Thus, most of the issue of shares by enterprises was not related to investments. In modern conditions, the function of redistributing property rights is gradually losing its significance - privatization has provided a sharp mass of private owners. With further liberalization of economic policy and deepening

global integration, the need for a developed stock market will grow.

The main objective of the functioning and development of the stock market in Uzbekistan should be to attract strong sources of investment to revive modern production and ensure further growth. That is, in our opinion, such sources of investment should be directed, first of all, to the implementation of projects on innovative and technological modernization of the production sector. Improving the regulatory system of the securities market requires identifying priority areas of state policy in the stock market and developing measures for its further development, the formation of a unified approach to the regulation of banking and non-banking financial institutions in the stock market.

According to the Law of the Republic of Uzbekistan "On Foreign Investments", a foreign investor has the right to make investments - through equity participation in the authorized funds and other property of business companies and partnerships, banks, insurance organizations and other enterprises created jointly with legal and (or) individuals of the Republic Uzbekistan creation and development of business companies and partnerships, banks, insurance organizations and other enterprises wholly owned by foreign investors; acquisition of property, shares and other securities, etc. [2]

Shares are the most common type of securities and one of the main financial instruments for attracting foreign investment in the Republic of Uzbekistan. Joint-stock companies began to appear in the republic after independence, by transforming large state enterprises into joint-stock companies. Until the end of 1994, 26.1 thousand enterprises were transformed into joint-stock companies. Their shares formed the basis of the securities market in the republic. As of January 1, 2004, there were already more than 1 million shareholders in the republic - individuals who repurchased shares on the Republican Stock Exchange. [17]

According to the decree of the President of the Republic of Uzbekistan from 08.01.2018. "On measures to radically improve the investment climate in the Republic of Uzbekistan": the minimum size of the authorized capital of joint-stock companies now amounts to 400 million soums; the minimum authorized capital of enterprises with foreign investment is 400 million soums, which previously amounted to 600 million soums; the minimum share of a foreign investor in the authorized capital of an enterprise with foreign investment is 15% (before 30%); a foreign founder can be either a legal entity or an individual. [9]

Certificates of deposit. In 1992, the State Bank of the Republic of Uzbekistan on July 6, 1992 approved the "Rules for the issue and circulation of certificates of deposit" for legal entities and

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individuals. Small batches of certificates of deposit of individual banks, for example, Turon Bank, were already put up for auction at the stock department of the “Toshkent” exchange. At the moment, commercial banks are actively involved in the market of certificates of deposit. The procedure for issuing deposit and savings certificates is regulated only by the Central Bank of the Republic of Uzbekistan.

Bonds are another important instrument of the stock market of the Republic of Uzbekistan. Corporate bonds are leading in the bond market. The main issuers of corporate bonds are commercial banks. Until 2003, private enterprises, limited liability companies, and open joint-stock companies could be issuers of corporate bonds. Then this practice was suspended. Currently, bonds worth about 338 billion soums are in circulation. [18]

Government securities were issued in 1992 for a period of 20 years and were redeemed after 22 years. In 1996, government short-term bonds (T-bills) were first issued. These securities were issued by the Ministry of Finance to cover the state budget deficit. In accordance with the terms of the issue, the main investors were legal entities-residents of the country.

Government bonds have not been issued in Uzbekistan since 2011. It was decided to issue government securities in the presence of a deficit of the state budget. Since 2005, the state budget has been working with a surplus. However, the state budget for 2019 is planned with a deficit of 4.5 trillion soums, that is, in the amount of 1.1% of GDP. The budget deficit is planned to be covered by state treasury bonds in the amount of 3 trillion soums.

Eurobonds. In 2019, Uzbekistan issued debut Eurobonds in the amount of \$ 1 billion for a period of 5 and 10 years. The resolution of the Cabinet of Ministers of the Republic of Uzbekistan “On measures for the issue and placement of international bonds of the Republic of Uzbekistan” dated January 16, 2019 was adopted.

Municipal bonds. Over the entire history, the issue of municipal bonds was not observed in Uzbekistan. However, by decree of the President of the Republic of Uzbekistan No.5515 dated August 17, 2018, the issue of a Tashkent city bond was allowed to attract free funds of the population. Paragraph 17 of this decree sets forth the following: “To allow the khokim (mayor) of the city of Tashkent to raise free funds of the population for profitable investment projects by issuing securities in the form of bonds of the city of Tashkent or shares of newly created business companies”. [10]

If we conclude from the above, we can say that the main legal document regulating the stock market is the Law of the Republic of Uzbekistan “On the Securities Market”. This law defines 6 types of securities, of which only 3 types (stocks, corporate bonds, certificates of deposit) are traded on the market. Bond issuers are joint stock companies, mainly commercial banks. Since measures have been taken to radically improve the state of the stock market and the investment climate of the republic, positive changes are expected. (issue of Eurobonds, municipal bonds). In this regard, financial instruments to attract foreign capital, at the moment, may be stocks, Eurobonds, corporate bonds.

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RHYME, RHYTHM IN FUN GENRE

Abstract: The article is distinguished by the light weight, alliterations and anaphores of the article by Elbek O. Safarov "Boychechak" collection by Sultonov of 161 lines from the Ferghana Valley and Sobir Ehson from the Khorezm region. 4 funs with 135 lines were selected. Historical-comparative, comparative-typological, ethnofolchloristic and linguistic methods were used in the coverage of the topic.

Key words: fun, mystical, image, rhyme, intro, episode, plot, myth, fairy tale, myth, poem.

Language: English

Citation: Adizova, N. B. (2019). Rhyme, rhythm in fun genre. *ISJ Theoretical & Applied Science*, 10 (78), 65-67.

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Introduction

We focus on collecting, publishing and exploring sources reflecting the historical and poetic evolution of genres associated with folklore, designed to raise children, their artistic thinking and aesthetic taste in world folklore.

Material and methods:

The main part is that the fun is to give the kids pleasure and excitement, which often gives them a rich rhyme system, light finger weight, alliteration and anaphora. The number of motifs in the hobby ranges from row to row. They also contain corals that migrate from one to another. For example, the following passages that appear in an interest that starts with

Yes, leg, leg,
She wanted to get married.

His wife has no power,
No finger tips.

No embroidery girl
He does not have a son

Similar lines can also be found in the curious text, beginning with "Olatoy, Bulatoy":

Bangi was ketone,
The wife was a carpenter.
His wife has no power,
There are no ends
No embroidery girl
He has no boyfriend.

Analysis.

Generally speaking, most of the funs are "Olatoy-Bulatoy", "The donkey is slaughtered", "The sun has risen, the bakery is cooked", "The camel, where is the salt?" "goose", "What did you see at the top of the mountain?", "Drop the fleas", "John fleece, soul flea", "What is the sun and the sun?" "intoxicated, quail, "stars in the sky", "fox", "Dilon, dilon", "Riding stone", "Good wedding, drum, toy", "Right bracelet", "white stone of Astana" and so on. It begins with traditional Egyptian lines.

The sun is out and the pot is cooked.

Mama grew hot.

My grandmother's soup Crows flew away.

I slammed into a crow,

The crow gave me a feather.

I gave the feather to the attor,

The horse gave me silk.

I gave the silk to the girl,

She gave me a cap.

I gave the hood back,

Beck gave me a whip.

I hit the whip on the ground,

The earth gave me wormwood.

I gave the worm to the sheep,

The sheep gave me a lamb.

The Lamb's Frog Bread gave it a share.

I did not agree with this provision, I never quit.

In this quirk, which begins with the phrase, "The sun has risen, the bake is cooked", the day is a cake, a

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grandmother, a crow, a crow, a carpenter, a brass, a silk girl, a girl, a hood. whip, earth-worm, sheep-lamb, sheep-lamb, lamb-sustenance, sustenance - pair of images of life. It has a special meaning in its day, which begins with the word sun, and ends with the word "life". It emphasizes the need for a person to live his life in a sun-light and profitable way.

The funs are divided into two groups: a) one-episode, small-scale curiosities; b) long episodes with multiple episodes. Most of the funs are long poems that consist of several episodes. Nevertheless, they remain in the memory of children. It is difficult to determine the length of the bandwidth. This can only be determined by their rhyme. Such funs are usually rhymed in a mysterious and binary nature and are intertwined. For example:

Shall I pass by my father? - a
May I go and catch it? - a
My father said he would sell
He said, "Let me go. - a
The poor have no money, - a
There is no way to go, - a
Her heart desires flowers, - a
Wants to tell. - a
Let the land still be built, - a
Let the old man rot. - a
It doesn't kill the bad, - a
Not good. - a
Spread the cotton ball, - a
His white beard fluttered - - a
A scarf on the back does not rot, - a
She doesn't look at me. - a

Apparently, rhymes have a special place in funs. They are often used with double rhymes, and there is an internal rhyme. They are often used in rhymed rhyme, but it has not been persistent and has given rise to other forms of rhyme:

In our opinion, the fact that in the funs the connection between one reality and the other, and often based on the dialogue, has led to the fact that binary rhymes play a greater role in it. Every word that provides rhyme harmony in the funs can lead to the next line and create a formative composition. As a result, where the copper ends, a new one is formed and a special chain link is formed. For example:

Joyful lace

If I chase after them,
I found a whip on the road.
I gave the whip to my brother,
My brother gave me a scarf,
I gave the scarf to the girl.
She gave me grain.
I gave the grain to the chicken,
Chicken gave me eggs.
I have laid eggs in the oven,
He stuck up,
I have two eyes.

Most funs, such as "Joyful Lime", "Apishdiu", "Sunrise, Roast", "Cooked and Cooked", "Pumpkin in the oven," a fracture or a fracture. Dialogue plays a special role in the busy construction of funs. From this point of view it is possible to remember the funs built on the basis of dialogue, such as "Child with the Sun", "Child with the Wind". It is observed that the funs are created in finger and free weights.

The curious example above is made of 7 hijacked fingers. The initial lines are 4 + 3, the middle ones are 8 + 3 + 5, and the last ones are 3 + 4. Results. Results: 1. The funs have a unique but compact structure and rhyming system. 2. The funs are illustrated by examples of light finger weight, alliterations and anaphores. 3. It has been shown that the funs have a unique artistic and aesthetic function.

Summary.

1. There are many examples of fun in Egyptian marriages. It begins with traditional lines. Most of them are long poems that consist of several episodes. Nevertheless, they remain in the memory of children. It is difficult to determine the length of the strings. This can only be determined by their rhyme. They are usually rhymed in a mysterious, binary nature and are intertwined. In some funs it is observed that one word is rhymed at the beginning of two lines, or one word leads to the next, creating a composition.

2. Dialogue plays a special role in the busy construction of funs. It is usually observed that they are made in finger and free weights. Its distinctive but compact structure, rhyme system, light finger weight, alliteration and anaphora are of interest to artistic and compositional features.

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STANDARDIZATION AS A TOOL OF PRODUCTION MANAGEMENT IN THE CONTEXT OF THE MAIN FUNCTION OF ECONOMIC POLICY-PRODUCT QUALITY ASSURANCE

Abstract: In the article the authors analyze the role of standardization as a major factor in improving digital production. They believe that this is provoked by the conscious concept of the "standard", which combines the ideal, the standard on the one hand, and the sample - on the other. This understanding of the standard is due to its impact on the quality of manufactured products and on the efficiency of digital production itself, provoking the manufacture of import-substituting products.

In this regard, the authors justifiably believe that the concept! The standard " should be considered in a broad social and humanitarian format as a specification of ideological categories quality, quantity and measure. Any attempt to simplify the understanding of the standard, neglect of their execution in digital production will lead not only to the deformation of the concept of the standard, but also to the destruction of scientific and technological progress. It is important to give standardization a new more effective height of its implementation and then scientific and technological progress will create the basis for a stable financial condition of the enterprise, preventing it from bankruptcy and guaranteeing it stable technical and economic indicators.

Key words: digital production, quality, quantity, measure, efficiency, stability, financial stability, import substitution, scientific and technological progress, standard, standardization, profit, demand, sales, social stability, bankruptcy, technical and economic indicator.

Language: English

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Introduction

UDK 677.16:677.54

Abstract: in this paper the authors analyze the importance of the "standard" not only for its technical use but on the need to pay attention to the epistemological danger of simplifying scientific concepts in the system of scientific philosophical thinking to shape the development of "digital manufacturing" for the manufacture of import-substituting products by consumers regions of the SFD and skfo, since the concept of "standard" has two fundamental interpretations :to be a standard of quality for something and to be a model for mass production .On standardization and its advantages in the context of digital production it is necessary to

to monitor in order to guarantee the production of high quality products demanded by consumers in full, creating the basis for the enterprise in obtaining stable technical and economic indicators. The authors

Introduction

Life is movement. Already Heraclitus wrote about the universality of movement, coming close to realizing not only the universality of movement in nature, but also its importance as a way of existence of natural phenomena, which opened a new perception of knowledge. If the movement is the essence of existence of everything, then it was easy to make the most important conclusion: what moves better, has an advantage, it is more adapted and competitive in the struggle for the best place in the movement, that is, it has the right to count on the leadership and stability of its position.

In the conditions of human reality of being the movement was formed in activity. The main parameters of the activity were its productivity and product quality .Understanding of quality has found concretization in the concepts of "ideal", "sample". It happened, of course, not immediately, it was necessary that the activity was improved and allowed to create a certain number of necessary products, exceeding the needs of survival. This surplus has received scientific consolidation in the concept from added product". Quantitative changes in productive activity revealed a new side - its social and legal, the continuation of which was the formation of political reality as a way of managing activities and relations that provide activities. Before the emergence of the surplus product, when the community struggled for survival, stratification within it, depending on the possibility of alienation from the total product of a special part, is meaningless. But movement is not only different in that it is a mode of existence, the essence of the very reality of movement is formed by change. It is first a change, and it is because of its quality, which is significant in change, that the movement has found itself in the sources of development. All the concepts that followed "movement", "change", "development", were already derived from them and

believe that economic activity, freed from political demagoguery and socio-cultural property, should not continue on the course laid by the liberals of the 1990s .It is time to return to the economic classics of political economy, to think not according to the situation, but systematically for the foreseeable future of development. The market should be free, but freedom outside the state is nonsense. There can be no dual power in society.

Keywords: digital production, standardization, profitability, profit, economic policy, political economy, financial condition, profit, quality, quantity, range, assortment policy, demand, competitiveness, import substitution, multifunctional and universal equipment, certification, market, sales

from what reflected their ability to act. For example, the history of our refined concept of " standard»,

it began as a specification of the concepts of "quality", "measure", "ideal"and " standard".

The way of cognition to the concept of "standard" is due to the inconsistency of the concept. The concept of "standard" combines what seemed not to be together – "ideal", "standard" on the one hand, and "sample" - on the other. The first side of the standard testifies to the uniqueness of the quality, the second-as a tuning fork for the violin .Tuning his instrument, the musician sets the sound of the whole ensemble. The second side of the standard supersensitive in the development process of mass production.

Standardization as typification is considered as the most important factor in improving production, which is quite legitimate. The process of realizing the socio-economic effect, which is associated with the formation of the concept of "standard", passed two sharp turns of thinking. First of all, it was necessary to remove the "taboo" imposed on uniqueness ,that is, uniqueness, from the ideal and allow copying as a normal mass action. After the ideal was " liberated "and turned from perfection into a" model "- the" model "did not become a denial of the uniqueness of perfection, the sample" removed " the uniqueness of the ideal, perhaps even elevating it by formalizing the attitude to it in society, it was necessary to discover in the ideal something ordinary, earthly – its production effect as a model of the economy of production activity. The fate of the standard was difficult and instructive. It is still a lot of mysteries, but discoveries have become more. About them our study in the broadest context.

Main part

Liberal and not democratic reforms - 1990s - the first decade of the century HH1 caused havoc not only

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in the domestic economy, social relations and political management. They provoked the crisis of philosophical understanding of what is happening and the devaluation of scientific thinking. The reformers were well aware that the main obstacle to this transformation is critical thinking, why did everything to simplify the perception of what is happening in the minds of both amateur and professional. "Capitalism" replaced by "freedom of market relations", "socialism" was introduced as the failure of the idea of "planning factor" in the economy. "Education" deified with "training", "national mentality" dissolved in the abstractness of liberal values, isolated the economy from social values and political goals. To this should be added, and an arbitrary scale secretiruema system status of many other important scientific and philosophical concepts.

The ultimate meaning of the restructuring of understanding social change was obvious, it was necessary to reduce the level of activity with a critical conceptual thinking to a more "pliant" in the form of representations. Submission poorly structured, easily amenable to correction in the right perspective. Where the concept has not yet been formed in the system terms used technotizie scheme of their localization. the concept of "standard" It is to this group and has been attributed. An exception was allowed in respect of the concept of "quality of life standard." We believe that the reason is simple, this concept is not difficult to model depending on a set of evaluation criteria.

The loss of a material nature are always very painful, but they are in plain sight. Manipulation of awareness are carried out not so obvious, and they are more resistant. If someone really wants to make human life in this country better, he or they should heed the advice of Professor Transfiguration. Bulgakov's character counseled: Revolution starts in the head. Without this revision newly made interpretation of the concept is hardly realistic to overcome blockages, arranged on the path of national history liberals turn of the century.

The concept of "standard" refers to a class of universal scientific categories, has its roots in the philosophical world view. Based on the system concept, we do not have the right to restrict purely technical use. Once again, pay attention to the epistemological danger simplify scientific concepts to its peculiar projection in presentation "concept" and "representation" belong to different levels of reflection of reality in thinking, existing between the qualitative difference is not uncommon in order to achieve practical limitations result cropped, forming a "technical concepts. " They are within the practice is quite viable. However, not accidental "technical science" shared with related basic sciences. the language of science - scientific concepts. Language technology - the drawing. Engineering synthesize linguistic specificity. Natural thinking systematically aligned concepts.

So, we are not encroaching on the established practice of the use of the concept of "standard". Our task - to show the actual location of this concept in the scientific system of philosophical thought. Wide-angle view on the concept will help to better understand the framework of his utilitarian position in professional practice. Consumer practice is necessary to rely on an understanding of the production of what is consumed.

The development of science came in the second half of the twentieth century in the next stage. It has long been a thing of the past with its classical science clearly regulating the canons that define the specifics of the scientific knowledge of the world; no longer meet the current requirements and the concept of non-classical cognitive science, scientific progress is constrained in the context of the scientific - technological revolution. It's time to post non-classical science.

As for the private party of these stages, there is still more or less clear. Classical science is based on the specifics of the quality of the fundamental forms of motion. Queries knowledge, mainly initiated by social practice, each science had the opportunity to meet as part of their course limited basis. Nearby forms of movement are no longer relevant. Space, time, Absolutized in their separate from the state of motion. Aristotelian logic, built on the principle of "identity", "excluded middle", denies the unity of opposites, good enough for science leader. They can without any problems to expect a positive outcome of their research by following the rules prescribed in the opening of the great thinker.

Which replaced the classical science had a total non-classical nature of its predecessor, its subjects had the same nature, but in a deeper expression of scientific knowledge sunk to a new level of essence and it turned out that, proven by past experience approaches on it, are not effective. I had to find a different way of thinking - to develop a dialectical logic.

Preconceived notions about the relations of space, time and motion are identical phenomena themselves, it is impossible to combine opposites, rather formal - logical requirements of determining the truth of knowledge has been drastically revised. But these very significant changes in the understanding of the world and the processes of its knowledge, it was not enough for science. Towards the third millennium science went into the next round of the spiral of its improvement. Perhaps not as clearly diagnosed, but nevertheless qualitatively different.

Classical science has divided scholars on the board, has launched a non-classical mechanism centripetal movement. "Throw stones" Time passed. It is time they "collect". Dialectics, with its main ideas of the "unity of the world qualitative diversity" and "unity of opposites" as sources of the movement itself in the world of all things given to the development of

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science global motion vector. Post non-classical science was without its logic, but at this stage no doubt manifest the core quality of scientific progress - the dependence of scientific trajectory of the methodological equipment. The history of science with the new era began with the methodological project of Francis Bacon and Descartes. They ingeniously deciphered the code of the scientific knowledge of the world, moving towards each other. One - with induction theory, the second - with the deduction.

Post non-classical science, making their initial purchase, had the fate of lead in the system view "rational grains" logical foundations of classical and non-classical concepts of knowledge. All the necessary clues in this area are formulated, and therefore appropriate to recall the valuable remark of Goethe: "All intelligent already suggested, it is only necessary once again to reconsider."

If the development of the natural sciences should be confident objectively given course, the science of economics, perhaps the closest located to the natural basis of social movement - explores the patterns and conditions of production of material base of human life, is clearly experiencing difficulties. And complexity historical trajectory directly linked, firstly, to the loss of objectivity, secondly, with demobilization methodology. The drift of economic science in the direction of separation on the macro - and microeconomics, and ultimately - to ekonomistiki, does not reflect the logic of scientific knowledge in post non-classical stage, and the replacement of the scientific approach pseudoscientific. In the interest of policy.

Fulfilling policy recommendations, the vast majority of Russian universities were quick to rename the subject of "political economy" to "economics". Neo-liberals renounce the political vector of economic activities, back, like, the purity of its origins, Adam Smith could not really based on the logic of economic movement, to understand why the compensation of employees does not increase in proportion to the results of their labor. He believed the reason for this immoral behavior of the owner. But Ricardo opened economic ties with political interests and economic conditionality of contradictions political action, and Karl Marx, using the idea of Hegel, showed objective alienation of labor in the organization of production under capitalism. To separate economic activities from political as absurd as to speak of "digital economy." All that is closed to the dynamics of the state of the people - a policy. And the essence of all political activity is economic policy. On the quality of economic policy depends on the good condition of the people and the security of the state.

The current stage of development of science requires a systematic analysis of the concepts that form the framework of scientific knowledge. At the same time, we must bear in mind that the basic

concepts of this science can be of a more general system class, which is easily seen in the analysis of the specific economic knowledge. The conceptual apparatus of economic science laid the works David Hume, Adam Smith, Jean Sismondi, Ricardo, Marx, John. Mill, Herbert Spencer. All of them were primarily philosophers. Of course, their membership can not be a reason if the birth of economic science is obliged to philosophy. Communication Economic and Philosophical Studies convinces another: the development of economic theory - no private knowledge, namely, their theoretical generalization of the system, is possible only on the basis of the most advanced methodological basis.

Economic dependence must establish economists' everyone - his own ", but the explanation of such discoveries and giving them a system image of the scientific concept is only possible through the use of the methodology of a more general nature. Today's "advanced" ekonomistiki actively displacing science from political economists, not by accident looking for mathematical scientists shelter their acquisitions.

Mathematics has its object, giving it the image of objective knowledge, proprietary methods of describing things, it has the ability to predict the dynamic. Math help solve the access code to the cave of Aladdin. However, the main specific problems: what to do with wealth and how to make it so that it multiply, in whose interest it consume? It will not solve. These objectives for mathematics is too abstract. The contents of the tasks you need to download the specifics, to give relevance vector composition, include systemic relations of social progress.

Classical political economy and the founders of economics, Adam Smith, David Ricardo, Marx recognized for its unique ability to look at the root of economic movement. Their economic studies were not as current, equipped with mathematically and technically, but the possession of cognitive technologies and ideological scale approach allowed them to see the essence of the economy. No less significant is the fact that the labor theory of value has placed the principal milestones in the transformation of scientific knowledge. It would not have excelled ekonomistika and her companions, however was not generous Nobel Committee, giving economists Prize for mathematical success, donkey ears behind it advocates a liberal interpretation of freedom of economic activity is not to hide. Absolutization of finance capital - the way capitalism degradation, just as conjugate to them the idea of technological society and the digital economy is a dead end of humanity.

Those who are really interested in the development of economic science on the basis of succession, should be ready to accept the requirement of dialectical logic of the ascent of knowledge by immersing thoughts into a concrete manifestation of

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the essence of the process. To make it clearer explain the transition from the essence of n - order of magnitude to the essence of order $n + 1$ should be viewed not as a rejection of what has been, and as the "removal" of the essence of the essence of order n $n + 1$ order.

The main movement of knowledge in the form of "removal" of nature is complemented by an accompanying, and deploy knowledge in space and time relations nascent movement. The basic relationship in movement expressed in the concepts that form the system. Systemically important factors are concepts equivalent to those that reflect the essential movement of a more general level.

Categories that describe the dialectic of self-motion, belong to the philosophical knowledge. They are equivalent in scientific knowledge. A repetition of names, but need different level of specificity understanding necessarily require the deployment of concepts in terms of specific knowledge of this.

Economic science uses the term "quality" and "quantity", which by definition belong to philosophy. The authority of Hegel's philosophy was recognized by all, including those who did not go on his way, and criticized it, and "left" and "right." Hegel was able to reveal the limitations of dualistic solutions being a problem in Aristotle and Descartes, finding the original course in idealism. Identifying the existence of subjective ideas in the context of the dialectical development of the latter, he introduced the idea of otherness nature. The idea is forced to reveal in Nature by its exclusion. Contrasting nature itself, the idea provided a sufficient condition for its development. Experience the benefits of clothing, footwear, headgear, you can not in the advertisement, but only to test them. In the East there is a saying: ... how many do not say halva, halva, sweet in the mouth will not.

His idea of the real benefits only through discussion, could not appreciate, moreover, she had no alternative options for the development. Monism of Hegel's anthology was idealistic, but are already beginning idealistic decisive did not matter that allowed Marx argued: "Hegel's philosophy - it is materialism, put on his head."

Unlike Aristotle, begins characteristic of being with the categories of "matter" and "form", and Descartes, convinced of the initial "length" and "spirit," Hegel built system anthological concepts with the categories of "quality", "quantity" and "measure" . Being, Hegel wrote, "consists of three stages: the quality, quantity, measure." Further Gegel gives definitions of these concepts. They are so important significant, not only for philosophical anthology, but also for professional reflection, we decided to bring the fragment completely: "Quality has primarily identical with bytiom certainty, so that something ceases to be what it is, when it loses its quality . The number is, on the contrary, external existence, indifferent to his certainty. For example, the house

remains what it is, whether it is more or less red and remains red, whether it is lighter or darker. "(Several hurt that Hegel expressed interest in the shoe business, if it is another original German philosopher Dietzgen, began as a shoemaker, the examples have not got the construction and work footwear, and professionals would receive an important" information to the reflection ", and reflection itself acquired more natural appearance, reducing to a minimum acceptable costs imagination on a given topic). The third stage of existence, the measure is the unity of the first two, the number of high quality. All things are the measure, ie quantitative certainty, and for them no matter whether they are more or less great; but at the same time, this indifference is also a limit.

The focus of economic policy in the advanced development of "digital production" - a measure of justified and timely. Important only stay within the measures governing the movement of technological progress. The transition to digital production organization is designed to allow excessively overgrown contradictions between the technical equipment of the production and management capabilities of modern technology - still, that is due to the capacity of the subjective factor. "Subjective factor" can be arbitrarily encrypt, called "human factor", "human capital", and did not substantially change. The essence of the concept of invariants and reduced it to the reserves of thinking and psychological support. Here it is useless to hope for over the possibility of a large scale manifestation of the subject competence. The limits determine the nature of man; education, education - supporting factors that make personal sustainability actions, help to follow your course of movement. Unfortunately, the trend of modernization of education and the subordination of the commercial interests of education steadily reduce their participation in the development of productive activities. The situation in the production of scientific and technological revolution after the second half of the twentieth century, simplified - people displaced from the direct production of more and more actively, its routine functions need to lose. Milestones speakers are: "subject of labor" as a factor in the production of informing connectivity, host and organize the implementation of decisions is transformed into an ordinary unit of production whose function in the course of technical progress steadily simplified. "The subject of labor" is "technical person", "one-dimensional man", "a specialist with unilateral development of such flux" (Prutkov). Vector of development of production determined. "Technical people" do not need a society nor produce, nor himself. Humanists are sounding the alarm - homo sapiens - is in crisis.

The crisis is not homo sapiens, he -same most perfect work of dialectic development. There are objective tendencies of development of material

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reality, a part of which is the man has created, together with the nature of the production of vital goods. And, as it has always been there knowing the costs used in the ideology of the interests of the subjects of the social movement. Valid Humanism originates calculates from Socrates and his Eastern contemporaries - Confucius, Buddha. A factor which is classically interpreted by humanism was the idea of "creative person". To match its status, homo sapiens must itself be creative subject.

History clearly shows that the "second nature" or "transformed nature", which is a part of society, human creativity are required. The creative essence of man - the core of its qualitative definiteness, realized in three forms: in - first, the person - the beginning of a qualitatively new history of the progressive nature of the movement, and secondly, a man - a creative force, ensure development of nature that it was itself not able to do; - third, the man brought the aim of history, giving the meaning of the historical process, which was not before in the development of nature.

Man is not an ordinary phenomenon in nature, it is his creative work entered their reality in the natural movement of the system. There are events in history, a great multitude, and they are different, they are filled with history. There are historical events, those of which are sewn the logic of history around them. Accordingly, this difference in philosophy have developed the concept of "historical" and "logical."

The task of history to restore a chronicle of events in the past. Most sciences their tasks has knowledge of the logic of the development of what is defined as the study of the subject. Hence, the special importance of patterns of movement science. The only way to explain what is happening and to prove the validity of their judgments. And only thanks to the establishment of law-order changes, you can rely on the efficiency of traffic control.

The path of knowledge of movement patterns of the standard look. It corresponds to the dialectic of ascent from the abstract to the concrete. The movement begins with "working off" the base - universal - concepts. The law of conservation of mass discovered much later than find scientific understanding of the masses, and the scientific understanding of weight based on the concept of matter, which dates back to more a more philosophical notion of "matter". At the same time, revealing that the masses of the transformation does not change its constant value, MV Lomonosov scientifically proved the truth of the materialist doctrine of the primacy of matter. When at the turn of the XIX and XX centuries, physicists have lost weight, philosophers returned to their point of support, recalling that the mass indestructible. Over time, physicists understood the situation and realized that the mass has two forms: rest and motion. So, in conjunction of the abstract and the concrete, scientific knowledge stormed regular ups in the way of their progress.

The main conclusion from the above: each science should learn to think and act on the basis of actual produced concepts, not borrow philosophical concepts as a finished product, and specify within the concreteness of his subject. Philosophical concepts undoubtedly specific, but their specific functions corresponds to philosophical knowledge, so philosophical concrete meaning for any other knowledge as a reference of abstraction - the premise that guides and protects the knowledge of the dead-end routes.

Economic science studies the laws of motion of industrial relations. Production relations are a form of development of the productive forces and, at the same time, the basis for the fulfillment of public life in general. A factor which is recognized property relations. They concentrated the quality of social progress, is determined by the nature of the interaction between the three forms of reality - the existence of nature, human being and the society being. Otsyuda and political essence of economics.

On the basis of economics or political economy of developing a cluster of its applications, since the macro - and microeconomics, the theory of finance, marketing, management, etc. Total gains concreteness, special, abstract loaded objective certainty... Thoughts of abstract reasoning made substantively significant. Knowledge of theoretical activity is transformed into a practical design. The human mind, revealing the natural order of the world of objects is included in the process of being through practical activities.

The effectiveness of the practical integration of conditionality by many factors, but they are placed in the way of abstract knowledge in a specific subject, and the last in the sensual - a substantive transformation of material reality for human development and human relationships - to ourselves, to others, to nature.

In those areas of scientific knowledge, which is followed by an objective knowledge of the established order of the world, significant achievements are obvious. On the contrary, where there are "their own way", lose the continuity, not less visible and stagnation crisis. For a quarter century, Nobel laureates was comparable in number to the number of physicists and economists. At the same time, physics has retained the traditional leadership in scientific advancement, it has successfully developed a standard model for describing the behavior of elementary particles. Economic science clearly does not meet the interests of social progress.

The global crisis of 2008 was not only the result of market forces. Market forces is not as chaotic as some. Economics are controlled internally and externally. Before you do something, entrepreneurs think, read, learn, consult, discuss with the scientists next moves. Three of the five Nobel laureates directed

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towards economic development of the crisis. Of course, thinking to get the opposite result.

Physicists have convincingly confirmed the optimistic idea in the theory of knowledge. In nature there are no limits to human knowledge. Nature has led to the practical man's dependence on natural order of relationships, but in response to man showed the power of mind of knowing. At the same time the story of physical achievements once again reminded about the importance of the knowledge of the methodological equipment. Without improving the methodology for obtaining knowledge and understanding naive to expect to develop a scientific understanding of the subject. Should be in the approach to the object of research priorities objectivity, consistency, continuity, independence and consistency. Contemporary economic methodology largely lost the ability of objective, independent analysis. Formally distancing themselves from politics, the researchers practically perform political orders within the vector of political credo. The quality of economic analysis is directly proportional to the quality of the methodological tools used in the study and is inversely proportional to the level of political dependence.

When Marx called economic science of political economy, it is meant that an objective analysis of the contradictions of economic development will inevitably lead researchers to the questions: why and what is required to resolve the contradictions mounted?.

Questions obliged to put science, it also must specify the direction in which they can be resolved, and at the same time overcome dysfunctional as development factors identified contradictions. The political nature of economic research reports is not science, and its social function - to serve social progress. A surge of interest in Europe for economic research of Marx explained simply. Those who really runs the economy and solve the political problems in the economic dynamics, realized that the favorite pastime of doing politics using the managed house does not give the desired product, and controlled chaos grew in 2008 in an uncontrolled, dissatisfied with the efforts of Nobel Prize winners, they are more interested in Marx's analysis capital. Marx was not a doctor of capitalism, he was a capitalist disease diagnostician. His main force had advantages dialectical methodology. "Capital" of Marx - a sample of dialectical thinking in relation to the movement of a real object. Anyone who has studied "Capital", knows the author to the political conclusions came at the end after a thorough and systematic analysis of capitalist production. In the work of Karl Marx a lot of statistics and mathematical calculations, but they did not replace him specifics of methodological research of economic processes. Mathematics only helped Marx weave lace dialectical understanding of the phenomenon under study. Being a mathematician

is difficult, but even more difficult to understand the tips of mathematical analysis. There are two options: the first, which is very common among today's economists - exploit the potential of mathematics to design a prearranged concept; Second, think about the results of mathematical analysis, use them as information to "meditation."

In the context of the transformation of science into a direct productive force increasingly important not only and not so much digitalization production as the ability to understand how to optimize based on the development of modern technological possibilities scientific potential. "Hindsight" allowed to think officials, scientists their professional status required to look ahead, to direct. Initial condition "vperodsmotryaschih" has always been to achieve a deep and thorough knowledge of the source material. In our example - it is the correct understanding of the "standards" and "standards".

Historical and information sheet: the famous explanatory dictionary VI Dahl terms available, that can be qualified as a fact of their irrelevance in the public consciousness. Half a century later, they appear in the "Encyclopedic Dictionary" FA Brockhaus and IA Efron, but peculiar. dictionary authors, citing British sources, explains: "standard" - institutionalized measure, then the sample. There is a separate specification - «Standard of life» - the standard of living or needs ... "There is every reason to interpret the beginning of the term is not in the manufacturing sense, on the contrary, as a reflection in the minds of the consumer reality. The Modern Dictionary of Modern Russian language is given An exploded clarification - 1) a representative sample, which must be satisfied things, objects and phenomena in size, shape, quality ..., 2) a single standard form of organization of that or ... 3) what does not enter into in itself nothing original - a template, stencil. The term "standard" complemented derivative thereof "standardize" - create standards in the first two values. History of the term allows to analyze the concept of hiding behind the name. Monitoring the content of the concept of "standard" shows that over time, the concept of being updated by the scientific knowledge of the dynamics and practical thinking. It unfolds approach to the phenomenon reflected in concept. The notion of a particular subject is loaded, expands the scope of its use, is growing social significance. As a consequence, there is a question about the organization of signs of relationships that make up the content of the concept of "standard". The literature outlines differences determining the "center of gravity" in the sign system. The general formula of the standard to be reproduction in the minds of "action", "sample" specification of the content of reducing it to the characteristics of "the standard of living of human needs of equating standard with the routine -" template "," stencil ",

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meets resistance from those who are trying to give a standard industrial purpose.

In the latest reissue Britannic [4] The term standard offline. It is replaced with the article "standardization" and the "standard model". Author of the first explanation clearly directs the reader to a limited "standard" applications to the process of production. With some stretch of the imagination the notion of "standard", following the logic of the Encyclopedia, it is possible to limit even the economic sphere, but exclusively technical. To make a kind of indicator of progress and technical basis of technology and technical aspects of the production process. The system of industrial relations - ownership, distribution and exchange, "standard" set aside a modest place in the organization to improve the exchange. "Standard" - clearly not an economic concept under brand.

To avoid criticism of avoidable costs in the analysis, we give the full text of the article: "standardization (standardization), in the industry, the development and implementation of standards that make it possible to produce large amounts of interchanges details. Standardization can concentrate on the design - engineering standards, such as the properties of the materials and their matching tolerances requirements to fulfill drawings; or product standards that detail the properties of paint produced items and are embodied in the forms, descriptions, images or models. The use of standards makes it easier to connect businesses with their suppliers. Standards are also used in certain industries to avoid conflicts and duplication of effort. "Completed clarification, as befits the British experts, the recommendations of the action-oriented "government departments, trade associations and industrial associations to help the implementation of standards in various industries." By the way, the authors of the Big Illustrated Encyclopedia in 32 volumes without reference reprinted powered text, so it's easier to apply if necessary, to the home-grown "sources" of scientific knowledge.

In Russia, were convinced that the "free -volya, blissful - a paradise." Nobody has the right to condemn anyone, but no one questioned the right to judge on the basis of publicly declared opinions. This logic we use. Nalitsko play in the interpretation of the "standard" of the concept, the size of which clearly violate the border measures. The reason for thinking fluctuations, in our opinion, in disregard of the requirements of the methodology of scientific knowledge. Used the methodological possibilities of the organization of knowledge and understanding of knowledge in all of these cases indicate an underestimation of the most important factor of scientific thinking. Confirmed our findings. Article

The main flaw of the two and both are contrary to the requirements of the post to non-classical stage of development of science.

In - the first, broken proven knowledge and practical requirements of the dialectic of the need for a comprehensive analysis of the subject on the basis of the continuity in the improvement of knowledge. Classics of political economy did not open the absolute truth, their contribution is historically specific, that is, locally were relevant, but they, along with concrete - historical achievements were the backbone of the forces of opening, having a stable value in increments of scientific understanding. Adam Smith, David Ricardo, K Marx, explaining the movement of his time economy, managed to uncover the essential foundation of this process. History flows and changes, that is absolutely true, so each generation of scientists aims to consistently demonstrate their abilities, but like any dialectical process, economic history acts as a unity variability and repeatability.

The economic movement has logic that organizes the process. Historical concreteness represents the logical way of implementing certain development. Hence, the requirement for scientific analysis - to look for a logical explanation for the description, "sees the root" as taught K.Prutkov. Trend of modern scientists, economists began to concentration of thought on the description of the phenomenon. Hence absolutization mathematics. In essence describable phenomenon, analysts are in no hurry (or fear of falling foul of customers) to sink, it is possible that have forgotten how to think analytically and systematically.

Second, modern times require a systematic approach to the subject of study. Simple enumeration of the definition included in the contents, and specifying their functional load is not enough. Furthermore, such simplification could obscure. Why authors Britannic lowered term "standard". It seemed that they were just starting with it and then explain that formed on the basis of the concept of "standard"? We are not sure of the absolute correctness of his explanations, but the most suitable suggests the following: they, or he could not come to the one-dimensional definition of the link in the chain of the standard features, which would help them to link all the other symptoms - select a system-sign concept. Eventually? in the text were a lot of prescriptions phenomenon reflected in the concept.

Some positive result was obtained. Concept given a new level of specificity by applying it to the subject matter of certainty, have closed on the specifications of the technical equipment to ensure the production process. Arbitrarily sequestered while its real function in the knowledge of reality and the construction of the sought its continuation. Involuntarily recalls Hegel warned that being initially determined by the quality, quantity and measure. Measure, according to Hegel, associate's quality with quantity, its purpose - to be a "qualitative quantity". Qualitatively, there are limits to the amount and quality of the optimum position within the

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quantitative bounds when the unity of quality and quantity in the characteristics of the phenomenon (and related concepts) is of the highest quality at the lowest required amount.

Nature does not move according to plan, but to save resources. Human activity also has to be economical. The mind is the instrument of our development thrift. At the same time, driven by the activities aimed at the development and presupposes the existence of quality samples in the promotion of progress. The quality of scientific knowledge only in the final analysis determined the practical effectiveness of the knowledge produced, with an initial bottom line forma. Here, to be sure of success, to get a total stability. Naturally, from the science required to minimize the costs of achieving the practical usefulness of knowledge. And all the reserves have a similar ability Refractive correct path to the goal of knowledge is a sign of its systemic organization.

The desire to build a learning process based on the system presupposes the existence of a stock of knowledge, reflecting the substantial organization of the phenomenon under investigation. In addition, the systematic approach he advocates a continuation and concretization of more general methodological concept. These concepts in philosophy, there are many, but their roots they leave or dialectic, or its antithesis, defined generally as metaphysics.

The "pure" form dialectic takes place. There is a dialectic of Hegel's concept, the core of which is recognized as synthesis of opposites, it is opposed to relatively Marxist dialectic, asserting that the opposition can not be synthesized and resolved on the basis of continuity. Neither Marx nor Engels, nor VI Lenin did not hide the importance of Hegel's ideas in the development of materialist dialectics. In contrast to the quantitative aspect of Marxist dialectics is its versatility, it is characterized as thinking, and the nature of society. Hegel recognized only dialectical thinking. In qualitative "sense" Hegelian dialectic an absolute of the unity of opposites in the relationship, based on the Marxist struggle as a way of resolving contradictions. In Hegel, the "real" fade in "real" as the loss of relevance - dry tree branches fall off, according to Marx, the "reality" itself does not lose, it is necessary to break down after it will cease to participate as a factor of development - to be "reasonable".

In the management of differences of these concepts within the dialectic she is hardly significant. It is mostly significant in the overall development of the theory and relationship phenomena of reality, is important for the definition of a political strategy. However, to keep in mind both approaches useful in the direct control of the production.

Metaphysical methodology exists as an independent phenomenon. This is a collective image. In it concentrated all the shortcomings undialectical

approaches to the understanding and development of the relationship in the world, as well as in thought. The main flaw undialectical concepts is that they are one-sided attempt to achieve a result simplify the requirements for thinking lowered something, considering the fact, which can be neglected in favor of the final result. Admission is well known in mathematics and natural sciences. Economists dealing with a multifactorial process very convenient simplification, moreover, that economic planning has long been working with "wheels", or "facts". The amount of metaphysics make indeterminism, eclectic, convention, dogmatism and reductionism, evolutionism. The list could go on, but it makes no sense. Not always the specialists have an understanding of the methodological limitations, and are not miscalculations in the title. She policy and management practices

Earlier, we already noted the special significance of the dialectical methodological conclusion about the movement of knowledge as a process of ascent from the abstract to the concrete. The complexity here is that a climb in fact is an immersion into the essence of things. To make a new step to the essence, you need to expand the circle of knowledge. Quality traffic requires quantitative increments. On the one hand with the help of new knowledge within a horizon made nature we reach more specific, on the other hand, we have a new problem to solve that does not allow the horizon of the essence of their production. It should be immersed deep into the intrinsic horizons, to move to the level $n + 1$ order entity. This is what happens ascent of the knowledge of truth relative to absolute as relative synthesis of knowledge. A basic tool in a movement of knowledge - to provide a systematic structured knowledge. Any logically justified built system of scientific knowledge, combines the achievement of certain goals and demonstrate limited results. The system is both a sign of perfection, and his testimony is subject limitations. Knowledge of the system - a kind of step ladder climbing scientific and philosophical knowledge to true knowledge.

F. de P. Hanika- college professor them. Churchill (Cambridge - England) and the University of Khartoum, a specialist in the management of complex systems, gained fame as the leader of a major British company. His book "New Ideas in Management" was at one time a great success, was translated and published in the USSR, with a preface by the prominent figure genreform later, the mayor of Moscow, Doctor of Economics. Professor GH Popova. Herewith affirmed: "Management, which to some extent is to use synthesis of technical, mathematical and social sciences, is now trying to replace the current scientific thinking the empiricism that it is widely used in the past."

Summarizing the experience of the scientific achievements of N. Wiener, K. Boulding, Bertalanffy

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L.fon, tantly concludes: "Their attempts to classify the physical, biological and social systems, depending on the complexity provided the impetus for the emergence of a new field of study - general systems theory ... of particular importance. It is attached to the dynamic nature of the management. Organization, actions to be co-ordination and regulation, as well as the people involved in them are considered as a system within a single entity - the company, which in turn is one of the elements of the economic, technical and social system of the nation. "

In 1969, Popov was a faithful statesman, and, like other reformers, actively expressed the party setting, excessively hard and criticizing the author of the book for "formal analysis of the management aspects of the" reliance on mathematics and computers "is unfair, Gavriil !!! Tantly was not bourgeois scholar, he sought to develop the advantages of a new step in the methodological support of management, and, unlike BAC GH, Gaidar and like-minded campaign came to a clear understanding of the need to address management with the involvement of social and human context

Systematic approach became the brand phenomenon, as the best elaborated dialectical methodology that can be seen in the concept of "standard" and its derivatives, the status of the analysis. We try to present it looks like the process of birth and the real history of the methodological concept of "standard", simultaneously explain why economists prefer to arbitrary administrative direction to introduce concepts in economic analysis.

1. In the history of the concept of "standard" is the hidden part, it can be called a "prehistory" or "history of the establishment" notions. The fact that the term "standard" is relatively young, it gives reason to link the appearance of the concept of "quality" is not directly but caused. The concept of "standard" is based on a certain level of quality. There was a time when the concept of "quality" to coincide with the concept of "product," or "thing." It was necessary to learn to produce a number of products, with different masters, to make it relevant to compare the final products based on their practical application. Certainly not compared the products themselves and their individual properties. Consequently, there is reason to talk about the initial understanding of the quality of both the generalized characteristics of a number of comparable products.

Philosophical interest in the quality was formed through the combination of the terms "substance" and "activities". Substance and activity reveal the value of the phenomenon in the world and for man in particular. Hegel rightly characterized the quality of both the lack of which is the absence and the phenomenon itself.

The transition from the concept of "quality" to understand the degree of display quality was a matter of activity - the cognitive and practical .Po -

apparently, this is the time and the emerging interest in the concept, specifying the particular situation of the quality that is better than others as an expression of

The concept of "standard" has two basic interpretations: be something standard of quality and be a model for mass production .About standardization and its benefits realized in the conditions of mass production .These derived from "standard" were the products of industrialization.

Thus, the conclusion first, retaining its methodological and theoretical relevance in production management practice, exchange and distribution of goods, for the specification of the quality of the concept of "standard", or rather, the "standard of quality" was not enough to have developed the concept of quality. It remained the privilege outlook as long as the public is not progressive left on a high enough level - to develop the production of the material bases of life, socio - economic and political relations. The concept of "standard" owes its existence to the practical demand. Epistemological and methodological research projections "quality" of a real human being is a prerequisite for becoming a factor and the concept of "standard". From which it follows the basic methodological conclusion of scientific knowledge - the development of the concept of "standard" should be part of a systematic approach and be integrated scientific - philosophical. If the "standardization" more justified to simplify the conditions for improving the technical component of advanced industrial production, the content of the "standard" concept includes features of the various aspects of social development.

There is present in the captured video - modified -all history: the experience of the world process, relationship to nature, the specifics of national mentality, spiritual and material traditions, political and cultural activity of the people. Recall the term "standard" is used in two ways: determining the standard of something - and as a universal pattern in the organization, the use of which increases its efficiency and makes it easier to obtain a result. The first value has a significant socio-cultural scale, you can qualify it as objectification of cultural maturity of the consciousness of the people, of humanity. The standards to convert the Christian commandments, the case of those whom religion is recognized as a saint, public etiquette, norms of secular ethics, by-laws, etc. Liberal concerns if standards attitudes and behavior will limit the free development of personality possibilities unfounded. The vast majority of standards summarize the experience is individual fate, become socially significant value.

The second more utilitarian value, restricts the interpretation of standard mainly applied to the side of narrow professional human life. It emphasizes the importance of universality, allocates social aspect or

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technological rationality, which is also important, but the scale here is clearly inferior to the first.

2. Development quality ideas in the concept of "standard" is performed according to the features of the dialectic logic. Narrow concept is based on the selective continuity. The new concept is not repeated, that is, the signs are specified prior. It must continue nature of the relationship attributes of the base concepts. Without going into a long and not always relevant discussion on the definition of quality, note the point. The dispute over the interpretation of quality is carried out mainly outside that forms the core of the notion. Written, it said and published many interesting things. Only for particulars is most often hidden desired. Quality - this is not a set of essential features of the phenomenon under investigation. Quality - a system of signs. Therefore it is important above all to detect system-forming factor. One factor may be an indication as opening DI Mendeleev's periodic law, or the Marx inconsistency of the goods, but is capable of being a factor and a certain combination of features. On - apparently the concept of "standard" was formed as a system of signs. Tantly wisely stressed the need for the accounting system of a combination of factors. Liberals - reformers - 1990s hastened to clear the economy from all non-economic, modeled on the US economic model. They were not alarmed by it, as well as the conditions under which it was formed. In the end of 1990 - s was a shock and difficult process analysis of blockages of the developed standards

contrary to the rules. Schematically, the process of epistemological ascent "standard" concepts can be represented as follows (Figure).

Unlike some of the philosophical and scientific concepts, standards are directly determined by a variety of factors objectively existing tangible and intangible nature. Hence, the time limits of all standards with the exception of a number of generic prescriptions, of particular importance to human life and characterize the essence of man's relationship to themselves, their fellows and circumstances so it is important to classify the standards to distinguish between them depending on the determining circumstances. Available literature systematically presented attempts at classification standards, we have not found. In this connection, we can not consider the proposed system of standards in the context of a comparative analysis. The basis of classification standards it is advisable to take a systemic contradiction concept of "standard". Standard as dialectically formed the concept, in its manifestation is the opposite interpretation: to be something - something quite in a sense, the standard to which should endeavor that can not be done without knowledge of the business and creative attitude towards it, and at the same time the standard - it is something It has universal significance, a kind of "screw" design, that is, the routine education, excluding any - any creative attitude.

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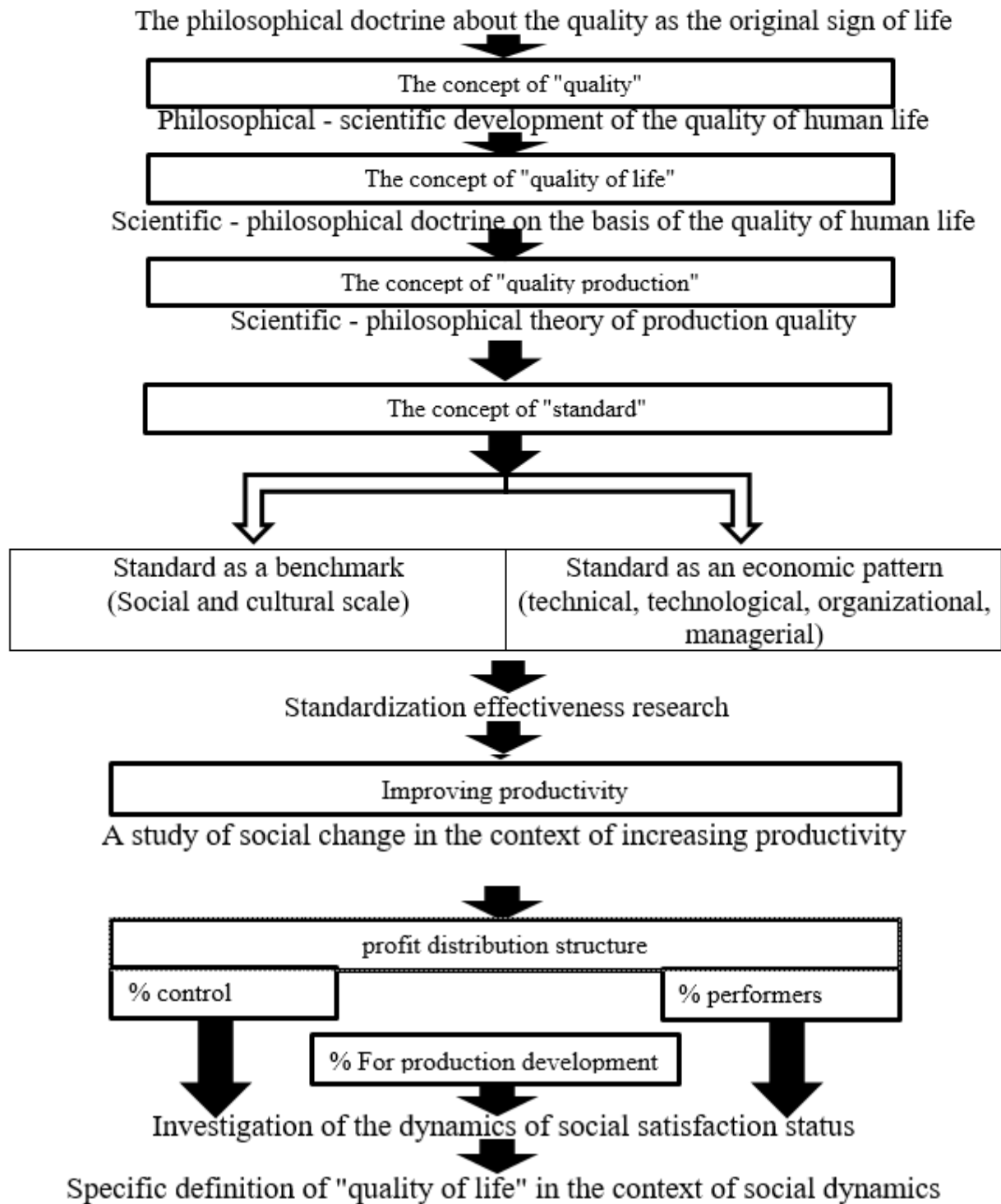


Figure Scheme gnosiological climbing process concept of "standard"

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Standard within the meaning of art is absolute masterpiece. In it lies the timeless perfection. Standards - masterpieces emerged over time only become more significant. They crystallized perfection, they do not age. The only thing that can be in their relative - a national flavor. It is hardly possible so perfect abstraction of real development, which would be a national sterility. To prove this idea logically impossible, but indirectly for the benefit of our judgment the experience of monotonsticheskoy religion. The parallel existence of Judaism, Christianity, Islam, Buddhism, konsoutsianstva, Taoism due to national development, but the differences do not prevent the believers to such ideals. The main standards for all general and the specifics of the differences -in a historically specific conditions being reproduced in private accents thinking.

As for the standards of science, in which the level of abstraction above all, above the national identity, but they are due to the level of scientific knowledge and the scope of practice, which determine the direction of scientific progress. Physical and technical standards change to reflect the demand for scientific knowledge production Progreso material and spiritual wealth. Scientific knowledge is constantly changing standards of science - the phenomenon of concrete - historical historically they specified. An example is the evolutionary theory of Charles Darwin, the atomic theory, the theory of Isaac Newton, considered almost two centuries until the absolute knowledge of physics with astrophysics did not understand three-layer structure of the world.

The current standards, which describe the nature of the material world, share it on the micro, macro and mega levels, and the genesis of an expanding universe is associated with a big bang initially existed superdense matter.

the term "standard" is used in theoretical natural science, but a "model" often in combination with the term. Naturalists are in an ever-changing knowledge, while all the time on the horizon of knowledge, so they choose to rely on those aspects of knowledge. In modern science recognizes only the standard three-knowledge: the law of conservation of nature, the law of conservation of energy and momentum conservation. Encroach on these standards are strictly prohibited. With these reference standards support sustainable development of scientific knowledge, achieved continuity in the development, and science itself is as an integral system, in spite of the various kinds of revolutionary discoveries of scale. Availability of public knowledge are resistant to change design parameters in standards of thought and its practical implementation, it can be regarded as a selection of standards - "canons standards." In them lies the fundamental function, they are the backbone of the reality of being human.

If all standards would be canon, instead of development, we have got stagnation. Canons needed it in their quality and in their numbers. We look up to them in theory and practice as well as the movement loses its effectiveness is well-defined vector and the reference position. The very same motion value lies in change and Engels defined the essence of movement and all in all, as a change. Based on the fact that the movement is a way of life, and the development of the highest form of movement, in its mass manifestation standards are non-canonical form.

Less status standards of social consciousness is divided into policy and indicative, objective and subjective. Policymakers standards require that we comply firmly algorithm of actions and that they receive a certain job results. In a number of quality management concepts of the twentieth century, special cards have been developed schemes of action artists of all levels and stages.

This practice is justified in the specific conditions of production, for example, where busy workers with disabilities. The Japanese experience has shown convincingly that impart a similar experience with a private practice in the production as a whole can not be, as it leads to the opposite result. Meanwhile, ignoring international observation, local bureaucrats, who failed in the field of industrial production, extrapolated on general education, designed to inform and retain knowledge.

Actions of officials are clear, not capable of producing a real product, they report circulars. There is no rational explanation for the politicians responsible for the actual outcome of economic activity and with the right to give an adequate assessment of the officials attempt to become a professional business and standard manufacturer judges, - to teach the teachers. This, of course, absurd.

In the past, the party set standards of professional - educational activities, however, did indicate accurately locating interference range of disciplines, in addition to the Central Committee highly qualified science department with a staff of specialists, freelance consultants of the leading scientists of the USSR. Even Stalin, according to documents, did not sign the resolution without a visa academic assistant.

In recent times, very distant from the real educational experience, officials subjugate a method of combining, put under total control of the academic freedom of educational institutions, was a dictate what, how, when and to whom to do. Standards defined in unprofessional space illustrative example of transformation values phenomena (concepts) in opposite control effect.

Conversion technology is simple: non-professional development initially distorts the content of the concept of the concept of the standard ----- displayed at random from naturally developed system = standard gets its own isolated "pseudo system view"

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is absurd, failing and control, and the ability to upgrade what was the subject of the beginning actions. The most curious thing is that by including the factor of self-preservation technology, bureaucrats sent to Calvary and of itself, the feasibility of their caste. The dialectic of progress outlive bureaucratic skill to juggle content concepts and their names, but our living space is measured by time. And the most important indicator of social progress in all - it's efficiency during use. And the calf has a chance to win if oak rots. The calf can grow into a bull, and rotten oak tree is doomed.

Widespread throughout the world - in both developed and developing countries and stagnating received indicative standards. They differ Optionally, the absence of strict control and loyalty content.

In Western countries such as Germany, France, Italy, the Government of Austria with the help of indicative standards is carried out quite effectively control the direction of the development of various industries. Development of the standards themselves, and the mechanism of their implementation are carried out within the framework of market economic features. The state does not encroach on the orders of market relations, but it clearly shows who the true "master of the house." Tolstoy could afford to start a famous novel lines: "Everything was in confusion in the Oblonskys". Self-respecting and respected citizens of the state obligation to provide a flow of public life. Somewhere to do their job strictly on the basis of the laws and the need to comply with them, in other areas - for a preference or tradition of national identity. "Standard" - the concept is just as significant in the reproduction of social life, as a "point" - in mathematics, "particle" in physics, "core" in the mechanics. The originality of "standard" lies in the combination of opposites in it. "Standard" can be extremely resilient and binding, and may indicate a certain limit are just some of the dominant choice among many. An example of the standard of the second kind is the high fashion, however, and the overall fashion belongs to the same class standard ..

General Fashion - a product of the historical process, select, like any evolution, something most effective, viable. It perfectly combines regional, national and transnational; naturalness, due to the geographical environment, with socio-cultural acquisitions, tradition and innovation. This mode is extremely democratic, responsible massive sense of beauty, utilitarian and available to consumer demand. High fashion, as if it did not mask the phenomenon professionally conscious action. It has many advantages, but no less negative. Glossy nature of high fashion was initially opposed to the mass consciousness, provoking tensions in the contradictions of life. The point is not even in the limited availability of opportunities. Main thing - to demonstrate the social inequalities. The standards are

designed to improve the "climate" of social relations, our time to "gather stones", and not to scatter. "Standards" only seem to be out of politics. Politics, in a certain sense - is to identify and support the relevance of standards.

In this century, gaining momentum in the public mind the concept of "soft power". Without the use of force has lost to the historical significance and became tormozm social progress reality persists. Mankind is tired of the destructive forms of violent conflict resolution, seeking to replace them. The process of reorientation to "soft power" complex, contradictory, but there is no alternative to wars and you have to take "soft power," such as it is, until, with the hope and belief that with time the situation will change in the desired direction.

By forms of "soft power" include cultural contacts. Cultural interests, public diplomacy, veterans contacts, building professional of international relations. Efficiency of "soft power" Low, but in its favor indicates the motion vector. In it COMPLEX Home dignity of the human reality of life - humanity and democracy. We believe that standards are consistent with the action of "soft power". Indicative standards. It agrees well with the character of the movement under the sign of soft power. They do not categorical, everyone can find its application, it would be only a wish. At the same time, they give the movement a certain goal. Standards - goals were always very promising, another thing is that they do not always find mass support, without which it is impossible to be a social force.

Standards in the modern world are multiplying, diverted, rapidly increasing their relevance. Private material with limited effect standards are transformed into a scale factor of social progress. Despite the national and transnational specificity - the EU standards, the United States, the Russian Federation - standards play an important role in the global integration, are a means of reaching an agreement on the basis of the objective nature of human history

In order to make the scientific and philosophical reflection on the concept of "standard" practical significance draw attention to the initiative of the "Komsomolskaya Pravda" - public debate on the statement Rosstandart the impending cancellation of 10,000 state standards of the Soviet era ("KP", №12 from 06.19.19). Traditionally, stuffing information in the media accompanied by formal comments that little convincingly clarified, leaving more questions than certainties. A special aspect of bureaucratic work, we will not analyze - not our thing, but the essence of the political will try to uncover.

From a philosophical and scientific and technological products upgrading standards - quite justified measure: you need to think and act adequately specific time, especially this demand true when the movement history of the character of radical

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transformations. In the 1990s, there was a counter-revolution. Who came to power politics, even the symbols of the Fatherland changed. Another flag, the flag of another sign, another constitution, for a while there was another hymn. Such socio-economic, political and ideological rift could not be drawn into the vortex of standard events. All the same standards, despite some convention equivalents are intended to serve as a reality in all its manifestations.

The current initiative on Rosstandart initiative bears little resemblance, it is made as a support action, in pursuit of the realities of life. As they say in Russia: "Better late than never." Production in the 1990s has replaced not only the owners, it has changed in nature. The call of the first President of the Russian Federation, addressed to national leaders, "Take freedom as much as are able to swallow !!!", the new owners have adapted to the production, believing that in the conditions of free trade, the market, rather than production, will determine everything and everyone will judge. The market likes the strong, quick-witted, especially when purchasing, providing finance, the need for the product is rapidly approaching zero, and a safety reserve in the form of goods for direct exchange was initially low. At the time of the counter-revolutionary standards even think it was indecent. When the fluctuation of the liberal began to decline, it tried to withdraw from the chaotic state. Arrhythmia movement continued, but there were also signs of sustainability trends.

Typically, the liberal wing of the Democrats connect continuation of the crisis in the "zero" with the policy, this is partly true. Politicians act on the situation. However, without prejudice to the merits of politicians, not to mention the fact that in the history of tyranny, "time of troubles" can not be dimensionless. As in nature, and calming element in the social life, the movement back on track. It happened here in the XXI century. The market has stabilized, production began to strengthen its position. Live as before - "the God will" have ceased. Range, on the one hand, and the increased possibility of reasonable spending, on the other, met at in a different market. Quality goods made by relevant indicator of their market demand. The consumer, as opposed to the manufacturer, turned his attention to the state - the guarantor of their civil rights and freedoms with the requirements of the protection of market tyranny. Legal and economic functions of the state laid on a visit.

We've been through all the analysis tried to hold the main idea: "standard" only in its final part is the concept of technical regulation of the production, distribution and consumption. The essence of the "standard" - the political and in its political as it is nationally colored. standard mark shall be in the background of the flag, to each always been seen:

protected by the state, disrupting - you will have to deal not only with the market, but also with the state.

Concluding the general part of the analysis, I would like once again to recall Hegel's warning about the importance of measures in the knowledge and management of the organization activity. "Standard" - the equivalent quality. Quality has different levels - "quality status", so the status of "standard" should also be different depending on its own site. Presidents have banners, but they do not wave them around. The authority of the standards - the attribute of the state, its "state", that is, the national attitude towards the state. Standards need to be quantified, then they will be esteemed quality. "God - gods, Caesar - Caesar", along with the state sample standard (GOST) requires designed according to system characteristics OST TU. We can not allow at the same time spreading criterion of quality characteristics identified in guests.

In the media there are data about 170 thousand visitors in the Soviet Union, which, of course, devalued as a guest. Even the label "Feelin - kill!" Was regulated by GOST. Not surprisingly, that the USSR had to additionally introduce the concept of "Quality Mark" with the appropriate symbol. From a logical point of view, this measure was not perfect. Standard - this is a sign of quality. The standards-political and socio-cultural components of competing on equal terms with the scientific and technical characteristics. There is every reason to consider the standards in the context of the highest achievements of social practice, scientific knowledge, technical and technological creativity.

The standards specialists are able to see the real situation of the country in the world, it can be achieved and problems. With regard to the development of standards and their enforcement legitimately determine the quality of the internal policy of the state, the maturity of the economic strategy. What were the state and its economic activity around the turn of XX and XXI centuries, this was the state's attitude toward the standards.

In the 1990s, about the forgotten standards to ensure that the conditions of "most successful" reformers when they did work their liberal - defaulted in the country. Formally, the standards are not canceled - after all they are the control mechanism. GOST 2003 deprived mandatory status, that is (according to Hegel) was deprived of, without which they can not be what it should be.

Philosophy and political logic that time is no longer interested, it was necessary to somehow make ends meet in a collapsed economy. Places guests took the "technical regulations" containing the minimum rather meager requirements. Policy recognized and enshrined the economy crisis. "GOST R" has replaced the "guests". The exception has become the standard for military production, nuclear energy, road safety and the fact that due to the special-purpose

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information. Since 1991, new standards developed more than 12 thousand, updated, consider minimized about 15 thousand. one hundred and fifty thousand remaining guests removed the brackets from the production of their conventions. Involuntarily the question arises: how legitimate is to plan the modernization of production in the absence of the normal standards? Where there are no lighthouses, sailors traditionally guided by the stars. What about those who on earth is intended to solve national problems, when the old standards are out of date, and on the new little that can be done qualitatively? Responses to "eternal" question: "Who is guilty?" And "What to do" match. Politics, as we should, withdrew on the controller.

Economic activity, freed from political and sociocultural sailing ownership continues to move the course, paved the liberals of the 1990s. It is time to return to the classic economic - political economy, not to think about the situation and the system for the foreseeable mind of the prospect. The market should be free, but freedom is the state - this is nonsense. can not be a dual power in the society.

Conclusion

The concept of "standard" should be considered in a broad social and humanitarian format as a specification of ideological categories of "quality", "quantity" and "measure". Any attempt to simplify the understanding of the standard in different kinds of private interests inevitably leads to deformation of the concept content.

As any concept "standard" has not only the historical past, it reflects the current time by its content and a reserve of perspective changes is formed in it. In this connection, it is always important in the development of the specific content of the concept of "standard" to take under special control the potential for improving the quality of the product. Traditionally, scientific and technological progress is concentrated on the military-industrial direction and not by chance. Here, the product on the entire spectrum of production, starting with equipment-clothing for hands, feet, head, torso, face and ending with painting the unit must meet extreme operating conditions. Compliance with specially developed standards is an absolutely necessary condition for quality. Exemplary adherence to the standards is provided by a special acceptance, carried out in the order of control at all technological stages of manufacturing the product. It is hardly advisable to replicate such a strict quality control practice, but it contains significant "information for reflection". The standard is intended to resolve the basic technological contradiction between the readiness of production for mass production and the quality of the product at the output. It is necessary to overcome the "scissors" formed

between the ratio of quantity and quality. The dependence of quantitative and qualitative changes is objectively inherent in the movement of nature in the form of a universal law. But it is necessary to interpret correctly the mechanism of action of this law of dialectics of development. Quantity directly, that is itself in quality does not pass. The new quality arises from the old and cannot be otherwise. Quantitative changes create the conditions for such a transition, the conditions are transformed into factors that participate in qualitative changes. The decrease in the quality of products within the limits allowed by the standard is due to a number of reasons, both technical and technological, and human order. Chief among them is the level of organization of quality control, which is again due to the degree of responsibility. In other words, all non-human and human actions that limit the standardization of production ultimately rest on the standard of the human factor, or who likes it better, "human capital", which corresponds to the historical mechanism of social progress in it, the subject of activity is the main acting factor

Specification of the concept of "standard" should be carried out in accordance with the objective status of quality. Quality has a certain dynamism, which is expressed in the degree of its severity. Developing standards and in the form of samples, and universal, typical products, product elements, should be guided by the optimal balance of quality requirements of production and implementation of essential features of product quality. The standard allows you to maneuver within the limits defined by the quality.

The presence of concepts that compete with the "standard" in its full and verified volume, "industry standards", "technical conditions", "technical regulations" - in principle, a normal market phenomenon. They ontologically present qualitative characteristics of the goods, but unlike the "standard", they are not presented in optimal condition, or their combination is not optimized. To some extent, these concepts reveal the evils of market freedom. The market does not strictly limit producers on the whole line of conformity of goods to quality. Only the safety parameter of the product is regulated. The rest is regulated by the deadly disease No. 1, according to E. Deming's classification, - demand. The manufacturer directly or through intermediaries presents the goods produced on the basis of its capabilities in the calculation of profit according to the formula "the more, the better". As such goods are often the minimum limit of what must necessarily be that the product corresponds to its subject status and, logically, the name. In products regulated by Ostami, TU, etc., the standard is available in truncated form due to the hypertrophied interest of the manufacturer and the limited production conditions. Hence the right TU and OST stand on a par with GOST or EU. In the EU, goods unmarked by a single standard are in

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demand due to a significant difference in price, and violations of the safety requirements are draconian fairly suppressed. In the Russian market, which remained a Bazaar of large sizes, the orders are similar to the fence of a bad owner. Here you can run into everything, even if there is a piece of paper with a seal, which however is not the basis for skepticism about the above concepts. They reflect the objectively established order in the development of production on a global scale. Many people remember how in the 1990s and in the "zero years" in the EU produced goods labeled "only for Russia", and the US filled up our market with substandard chicken meat – "Bush legs".

Bought small wholesale, without asking the certificate of conformity, but some documents certainly were.

It follows from the fact that the objective conditionality of the standard makes the standard dependent on the improvement of scientific knowledge, technological progress and development of economic activity: the organization of production, the state of market relations, changes in the solvency of the mass consumer. "Standard" is a tool of technical

policy in the last place. In it in the "removed" form the state of public life is concentrated imprinted. Along with the normalization of the economy, felt changes in culture in education, in education, in health care, relations with the natural environment will change the attitude to the standards of consumers – not only those who go to the shops. The political perception of standards will also have to be restructured. It leads to the understanding of the socio-cultural value of the standard as a kind of link linking scientific and technological progress, the balance of production development, natural and logical derived requirements of the people, with the interests of politicians. Politicians and their economic advisers have two options: either to reconstruct the economic and socio-cultural, especially in the field of education, policy, that is, to take the initiative in solving the accumulated problems; or the initiative will be taken by production workers with consumers and in this case there will be another policy. In both cases, the end is the same—the history of the standard will take another height, and people will become wiser. Wisdom is the support of life at all times.

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REFLECTIONS ON HORSE IN UZBEK PROSE

Abstract: *The animal kingdom has always been the closest human protector and, if necessary, the closest protector. There are even some Gods that have long been known as the deities of animals. As an example, it should be noted that Hindus worshiped cows and Egyptians for cats. They even have different illustrations for them. But our subject is about a different creature that is valued not only by our ethnicity but also by nations and peoples of the world. We can say that this is our closest supporter, and if so, our friend. Especially in the world of literature we often encounter horse image. The main point of the article is the analysis of Uzbek essays with the description of horse.*

Key words: *Horse image, distant animal, folklore, epic, artistic, saddle-horse, pocket-horse, horse-breed.*

Language: English

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Introduction.

In fact, our ancestors used horses in their lifetime. The horse served them both as food and as a distant animal, and as a supportive animal in grazing livestock. Even the horse's path has been used to treat various ailments. The old man, who had so much benefit from the horse, made him so divine that he converted to the level of faith. Of course, this does not affect the horse's attractiveness. As a result of horse-drawn views, the folklore created an epic artistic image of the horse. In particular, epic horse images such as Herat, Girkuk, Boychibor, Gironkush, Majnunkuk, in the Uzbek folklore, can serve as a vivid proof of this.

Method.

In the thematic group of Hypological (Hippology - Greek, Hippos - Horse Science) terminology, there is an original Uzbek (Turkic) layer, which confirms the ancient existence of snake terms. Numerous animal names, as well as horse names, are found in the folklore. In particular, Ergash's poem "Huskeldi" and

"Kunduz and Yulduz" contain more than 30 names of horses.

For example, in the scientific research of Karimov S. horse breeders are fast and agile horses according to their physical abilities: slingshot, aspace, arabic horse, riding horse, herd bed, horseback, rider. and horses of low breed: partial horse, saddle-horse, pocket-horse, and horse-breed. The basis for the separation of these types of horses, distinguished by their physical abilities, is as follows: Tozi - According to the sources, the word "tazi" refers to the Arab people was used.

Analysis.

It is also used in ancient Turkic sources for the skins of striped horses. For example, in the book "Devonu lugatit Turk" by Mahmud Koshgari, "taz horse" is described as: "There is no horse-trader - his skin will not be a horse to carry." Because his nails are bad. In the "Explanatory Dictionary of the Uzbek Language" it is mentioned an Arabic horse with a running horse; a riding Arabic horse; The riding horse is interpreted as a tiger. It seems to me that the name

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of this horse was the basis of the horse's skin mark, as M. Koshgari said. Arab, Bedouin - In the history of our ancestors special attention is paid to Arab horses.

Bedouin, which is found in the poems, is associated with the Arabic, wilderness Bedouin word. "In the Explanatory Dictionary of the Uzbek language" Bedav (Persian) is interpreted as horse, jogging, or horseback in the Arabic desert. Duldul is an Arabic word, according to religious legend Muhammad (PBUH). The Prophet (pbuh) rode and later donated to Hazrat Ali (ra). The metaphorical use of the word is the basis for the use of the word for fast, fast-running horses.

For horses of low breed and unfit to run, negative expressions are used as adjectives (epithet) according to their emotional color. For example, the word "yobi" is also used in ancient Turkic sources and in the Turkic languages to mean lean, cunning, angry, ugly, hungry animals and individuals. Such content is also reflected in the passages in the poem. The nouns appearing in friends, in their lexical and semantic nature, also serve to express their sexual differences. For example, breeding horses such as bare, baytal, baltic; horses with similar qualities such as rope, swing, rampage, as mentioned above, are not only chubby and jogging, but also sexy horses.

In addition, the nouns in the poems can be grouped into certain lines or groups based on their similarities and differences in specific lexical paradigms. For example, the range of degrees that can be represented by their age is as follows: slave, toy, grouse, hell.

Ghana is a two year old toy; a three-year-old bull (duck // du) or any male animal in Mongolian. Gonan is a two-year-old stallion or ram.

Dohan is a four-year-old horse, as well as any domestic animal that is four years old.

Slavery is a springtime bouquet. Also a year old horse.

In addition, words such as knife-blades, brushes, and fibers are also used to refer to the age of the horses. For example, if the toy was used as a horse under the age of two, this horse, which in ancient Turkic means, was also pronounced Thai, and in some cases the colors of the horses also helped to differentiate them.

The following names, for example, appear in poems:

The horseman is a horse with a skin with a skin.

Horse horse and calf - Ancient Turkic sources used the color of white and red in any animal. The word gray also means gray.

Taurus is a brown-brown horse. In the common language, the word Saman is used for a horse with a yellow horse, an octopus, a hump and a full white head, and a chibor. In the middle of the nouns, words that express their form are also quite common. Specifically, the names of the horse, such as a horse and a butterfly are among them.

Puppet - round in the old Uzbek language, literally

The same applies to a fat, young horse.

Souq - According to Hadi Zarif, this is the name of a tall, tall horse. The facts testifying to the centuries-old traditions of the ancient Turkic peoples are evident in the poems by the use of nicknames. This is a clear indication of the fact that the names of the horses are semantically shared with the poems in the Orkhon-Enasoy inscriptions, which are the first written sources of Turkic nations. For example, Kul Tigin rode and attacked a gray horse named Bashgu Buz, Azman aq, Oguz White, Kul Tigin Bashgu, as well as the nickname used in folk legends.

Discussion.

Among them are the common nicknames such as Girkuk, Temirkuk, Majnunkuk, Shabgirkuk. Because the Bald Wolf is a white-colored horse; White horse is an orphaned, white-collar horse; If the horse is white, based on the meaning of a white-white horse, the poem also represents a black horse and a straw horse; Shabgirkuk - night (night) and night and hill - dark-colored straw horse; Temirkuk - means a blue horse with an iron color. It is clear that the color of the horses plays a major role in the creation of horse nicknames in bitches and poems. Here is a word about the Boychibor cave in the Alpomish epic. In the course of fulfilling all the requirements, the Kalmykian alpine are interested in Hakimbi's horse, and one of the alpine commanders tells him to go and see the Uzbek horse. The maid saw Boychibor, crumpled it, and found that it was sixty-three inches. Its wings also measure at least four and a half meters. When the Kalmyk Alpine guy asks what the proper Uzbek horse is, the maid describes the horse.

He is the one who came from the herd.

Horned hoofs, deer bells,

It is a strange day,

Priceless is the Uzbek horse.

The true purpose of those who

With four and a half wings of gas on his arm,

The original horse is Uzbek

It can be seen from these passages that it is insufficient for Boychibor and insists that there is no horse like him. In fact, it is not accidental that the horse is said to be an intelligent, intelligent creature. A horse is a creature that can understand what a person wants. Therefore, since ancient times it has been easy to train and manage it. Perhaps this is why folklore is often mentioned in the poems - mainly horse creation. Alpomish's address to Karadjan:

I'll endure you after you leave,

If you were rich, you would love me,

My strength will not stay after the horse is gone

How long will it take you to ...

It is clear from these poems that Alpomish's best friend, his companion, had the energy needed.

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Therefore, horses are not only a means of approaching a human path, but also a life-sustaining animal. Even with the help of Boychibor, Alpomish survives seven years of suffering, especially when the Alpomish witch Surxail is thrown into the ditch.

Seven years have passed since he was imprisoned,

Now the headache is in trouble,
Beck's horse rides,
Blessed are the hands that lift up their hands,
The horse's tail was 40 feet wide.
He put his horse's tail in prison,
Hakimbek tied his waist.
The beast hit hard,
The pirates gave fortune to the rich,
Hakimbek was released from prison.

The poems also mention the horse's wing. As we all know, horses today have no ability to fly. This means that in ancient times these attractive and charming creatures were able to fly in the sky. If you look at the facts, in ancient times the "straw horses" of Central Asia were considered as unprecedented in countries from Rome to China. These horses were the ancestors of modern-day Akhal-Teke, brunette, and dagger. Parthia, Bactria, Ferghana, and Chach horses were famous for their cultivation of Central Asian horses called "supernatural creatures", "divine horses" and "celestial horses". Horses have even caused wars. Particularly, horses were also the cause of the Chinese invasion of the Han Empire between 104 and 101 BC in ancient Fergana (Dayuan). (www.mingtepa.uz)

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FROM THE HISTORY OF JADID SCHOOLS IN TURKESTAN

Abstract: In this article has been analyzed history and activity of Jadid schools in Turkestan by the helping of primary sources and scientific literatures.

Key words: Jadid schools, Turkestan, Muslims, Tatar literature, methodology schools, Shaykhantakhur madrasah, students.

Language: English

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Introduction.

The colonial administration in Turkestan made every effort to prevent the spread of Jadid ideas. However, this idea emerged as a result of historical progress and was driven by the needs of the Muslim world, despite popular opposition from local Russian officials. Historical progress, Western influences, at first required schools to teach religious knowledge as well as secular knowledge to young people and to bring society's development to a new and higher level. I. This explains why Gasprinsky's ideas gained popularity among Muslims of the Russian Empire, including the Turkestan clans [1, p.230].

On December 31, 1900, the Police Department of the Interior wrote a special letter to the governor-general of Turkestan, explaining the essence of Ismail Gasprinsky's idea and ordering that it not be spread in Turkestan. The decree states that Gasprinsky's ideas first emerged as a new way of teaching, that Gasprinsky had a European-based reading textbook that facilitated the study of Tatar and Arabic-speaking Tatar children and reduced their reading time. However, it was soon explained that the basis of this new method was the emergence of new progressive ideas and a whole social movement.

It is shown that there are two movements among Muslims: the ancient, the progressive, the aristocrats are trying to preserve and keep the old traditions in the field of education, and the progressives are trying to

integrate the advanced ideas and culture into the Muslim life. “New supporters urge the Tatar population to receive up-to-date information, mastering practical skills in the crafts and industries, and learning foreign languages,” the police department said in a statement. At the same time, these creators are urging Muslims not to study in Russian schools, gymnasiums and universities, but to study in European Tatar-language schools and madrasas. They have a profound understanding of the meaning of their religion, and they say that it is necessary to remove it from the ignorant, superstitious and superstitious interpretations of the Mullahs.

He is concerned about strengthening his nation through the use of his mother tongue in literature, science, and religion, and making progress on the basis of Islam and the Turkish people. Police deportation warns that both movements, especially those who are progressives, cannot be trusted because they, like the Muslim clergy, want to leave Russia. The Ministry of Internal Affairs entrusted the Governor-General of Turkestan the following tasks: “1. Identify the authors of the works presented in the Tatar literature from the Muslim population of your district, reflecting the ideas of Tatar literature. 2. Gather complete information about their personality, social and property status, their Muslim work and where they received information. 3. Is there a connection between supporters of the new movement

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and the young Turks, and whether Turkish or other foreign Muslim centers inspire them? Identify this issue. 4. Determine where, when and by whom a Muslim school will teach a new method in your district, who controls and controls it”[2, p.289-290].

It was asked to send this information to the police deportation office. The governor-general of Turkestan sent this absolutely confidential document of the police deportation to the Inspector General of Schools and the police. At that time, new method schools were just beginning to appear in Turkestan, and it appears that educational institutions and police agencies were trying to strangle and destroy Jadid schools as a child. Shortly after the police deportation order was issued, on September 17, 1901 [3, p.270], Abdulmanop-kori Abdulvagapov wrote a letter to the head of the Tashkent police department on behalf of the residents of Tashkent, requesting permission to open a new method school. He will then submit a petition to the governor-general of Turkestan on the same issue. The Inspector General of Turkestan Schools, which deals with this issue, wrote in his conclusion: “I do not think that Abdulmanaf-kori Abdulvagapov, who lives in Tashkent, has enough grounds to open a school on the terms he has indicated. The documents do not specify how many schools there are on the street and the need for a new school to educate the children on their own. The knitting teacher has no information about the political credibility of a teacher who took two months to teach in a new method school. He is also not completely familiar with the educational inspection. According to some, it came from Boxchasaroy, a country that is actively engaged in Muslim propaganda with the active participation of Ismail Gasprinsky from the Crimea.

Abdulvagapov’s statement that the school I am opening is much better and better than the mosque schools in the existing neighborhoods is not groundless, and it doesn’t matter. Therefore, the request of Mulla Abdulvagapov [4, p.170] based on the secret order of the police deportation No. 13444 of December 31, 1900, should be returned. The governor-general of Turkestan, based on the opinion of the inspector general of educational institutions, did not allow opening the school requested.

In Turkestan Jadid schools were established in the 1900s. They teach worldly subjects such as arithmetic, geography, the basics of nature [5]. Turkestan views the Jadid schools as hostile to the activities of schools and madrassahs, and to the national education system in general, and has resisted their opening in various ways, since both national and Jadid schools are nationally. They believed that they brought up their own identity and called for a fight to end Russian rule.

The governor-general of Turkestan wrote to the military minister on March 14, 1909: “The progressive majority of indigenous Muslims, along

with the Volga Tartars, open at school of the new method”. They are taught in a humorous manner (mainly Tatar teachers). There are also subjects that the madrasahs and schools do not understand, such as geography, history, arithmetic. And, most importantly, teaching these subjects is spreading ideas of a clear separatist and narrow nationalism. If these schools are allowed to act on their own accord, they will not only be a panislamic in the future (for now the privilege of this is in Muslim schools and schools) but also a place of pan-Turkism”. This document clearly shows the negative reaction of the governor-general of Turkestan and its officials to the new methods schools. From this point of view, they had a negative attitude towards Jadid schools. But Jadid schools were being opened and supported by the will of the local people. For this reason, the Chorus authorities could not dare to openly ban or destroy these schools, even though they did not like them.

Russian authorities in Turkestan resisted the opening of a new method school until the Ministry of Education received a clear order from the police deportation office. Realizing this, the local intelligentsia began to organize Jadid schools secretly without permission from school inspectors and local police. Therefore, the educational organizations were not fully educated in the early years even though they knew there were new method schools. According to archival documents, the first Jadid schools were opened in the Turkestan region in the Ferghana region. Evidence from the list of new method schools in the Ferghana region that is in the archives of the Inspector General of Schools suggests that the first new method schools in the city of Kokand were established in the 1900s. Four of the 10 new schools in Kokand were built between 1893 and 1900. The first Jadid school in Kokand was founded in 1893 in Mirayubboy mahalla. It was one of the largest schools in the city. Ahmadjon Qori and his three assistants taught 100 students [6, p.19]. In 1899, a new method school was opened at a mosque in Holi Grandpa’s neighborhood.

It taught 25 students and worked as a Tatar teacher until 1908, and later as an Uzbek teacher, Khoja Ahmad Ahmadkhoja. The new method school, opened in 1899 in the village of Banaul, was taught by 115 students and teacher Makhmudjonhon Muhammadov. The new method school, which opened in 1900 at the mosque of Beshkok, was taught by 115 Tatar Salakhitdin Mazitov. In addition, new methods schools were established in 1901 in Kokma Dakhan mahalla of Kokand, in 1902 in Ghalcha Sai neighborhood and in 1904.

Due to the fact that the new method schools teach advanced methods of teaching, children can quickly learn to read and write, and have a variety of modern tools and tools, including map, globe, brush, desk, and whiteboard would prefer to give. This made the old-school clerics opposed to the Jadid school. The

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Jadid schools claim that the books are not being memorized, and that the religious knowledge of the children becomes shallow and they forget what they have learned so quickly. Jadid schools are competing not only with old schools, but also with Russian-based schools established by the Russian government in Turkestan. Official of Turkestan educational institutions[7]. The Sufi said in the aforementioned April 26, 1909 report: "For the local population it is important that their children learn to read and write fast, not only by the Russian-language schools, but with old schools, where they spend about 2 hours a day learning their mother tongue. is also competing. For example, the Tatar Salohitdin school in the Beshkok neighborhood of Kokand has about 200 students. There are only two hundred Russian-made schools in Kokand that can barely accommodate 150 students. The locals and mullahs are being treated with hostility because of the enthusiasm of the local population and the competition for the old school. Jadid schools teach little, because children learn to read and do not memorize books, but only superficially know the content of the book and say that it will quickly disappear and disappear".

There was a heated debate between the Jadids and the ancient clergy concerning the new schools of methodology, the secular subjects taught there. Ancientists opposed Jadid schools and considered teaching history and geography to be heresy and sin. M.Behbudi, in his article "History and Geography"[8] opposes the views of the ancients, arguing that these disciplines were not an invention of the Jadid schools, but that they existed in the life of society since ancient times.

There was a reason why the chorus administrators in Turkestan prevented the opening of Jadid schools. They were well aware that the new method schools would not allow localization of the Russification policy. In the Fergana region, after Kokand, new methodology schools were relatively numerous and one of the earlier opened was Andizhan district. According to archive documents, in 1910 there were 5 Jadids in Andizhan. The first school in Andizhan was founded by 1901 Abdugafforkaljon Kurbashiev in the Zoid butcher neighborhood. The school has 35 students. Mulla Asadulla Azimboyhojiev was a teacher. Jadid School in Bakakurulok mahalla was established by the Zunus chief Mulla Kutlughojiev in 1904 on the basis of the old school. The school has 50 students, taught by Alijon Khainov-Uzbekov. The third Jadid school in the city was established in 1908 by Karabaykhoji Bakimatbaev on the basis of reconstruction of the old school at the Davakhan mosque. It was the largest school in Andizhan. It was attended by 100 students from Mulla Shamsiddin Musakhodzhiev. The first Jadid schools were opened in the villages of Hortum and Darhan, in the Khakan valley of Andizhan district. Before the October uprising there were Jadid schools

located near the Beda market in Andizhan in the pool of the pool, and in the mosque of Abdujabborboy, on the road to the soil. Mullah Mohammed Rasul was a teacher at the secondary school.

M.G. Vakhobov's book "The Uzbek Socialist Nation" states that the first new school in Uzbekistan was opened in 1899 in Andizhan, then in many other cities, and their number increased year by year. In May 1900 a commission led by Otobek Qazi at the Jadid School opened in Andizhan by Azim Kadyrov took exams from students with parents [9, p.117]. The students were pleased with their knowledge. It was an important event not only in Andizhan, but also in the cultural life of Turkestan.

The Turkestan regional newspaper Tajidinbek Otobekov commented on this exam: "School in Andizhan. Methods of Jadid and Examination"[10]. The story was described in the article as follows: "The distinction between the old schools and the Jadid school was clear and obvious. For example, Jadid is an example of a pedestrian with a fire trolley to visit old schools." This fact indicates that the first Jadid school in Andijan was established before 1900, and in 1910 there were no more than 5 new method schools. School administrators have not been able to fully register these schools. There were not even 12 in Kokand, but 15 new schools of method, according to the August 18, 1909 edition of the Vat.

Munavvar Kori, Eshankhoja Khanhojaev and Sobirjon Rakhimov (Rakhimjonov) new method schools are popular and exemplary in Tashkent. 120 students were taught at Eshonhoja Khonkhojaev School. At school, his father is Khan Hojashorakhim Hodjaev was a teacher. He was an assistant teacher to them. Eshonkhoja was educated at the Shaykhantakhur madrasah in Tashkent. This school was opened in 1909 at the Lower Devonbegi Mosque in the lower Devonbegi neighborhood of the old town of Shaykhantakhur. Jadids themselves have written remarks about the activities of the Jadid schools.

A Turkish scientist from Uzbekistan Ibrahim Yorkin has published an article in the newspaper Khur for Turkiston about his Jadid school, its founder and teacher Eshon Khoja Khan. This article, entitled "Eshon Khoja" contains the following important information: "I heard that Eshon Khoja Khan was born in 1885 or 1886. She was from the Lower Devonbegi neighborhood of Sheikh Khovand Tohur, Tashkent. His family was of noble ancestry, and his father, Khan Khoja, was a religious man who was a religious man and an honorable man.

He started his first education at the school opened by his father, and then learned from his close brother, the spiritual father of Jadid, Munavvar Qari Abdurashidhon. Eshon Khoja opened a school in the Lower Devonbegi neighborhood in 1908 after learning a new method from Munavvar Snow and working as an assistant at the school for some time.

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In conclusion.

It is worth noting that the schools of the new method were opened as a result of the patriotism, loyalty and devotion of the Uzbek intelligentsia. Many

of them are middle-class people, despite their limited financial resources, have opened up schools for their homeland and their people, and have been trying to educate and educate young people on the Earth.

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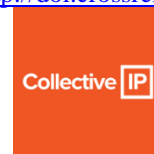
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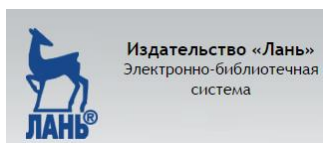
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| | GIF (Australia) = 0.564 | ESJI (KZ) = 8.716 | IBI (India) = 4.260 |
| | JIF = 1.500 | SJIF (Morocco) = 5.667 | OAJI (USA) = 0.350 |

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