

**WELLSO 2017**  
**IV International Scientific Symposium Lifelong Wellbeing in  
the World**

**SOCIAL CHALLENGES OF NEW INDUSTRIALIZATION**

E.I. Klemasheva (a)\*, M.A. Gasanov (b), E.A. Gasanov (c), Yu.A. Zeremskaya (d)

\*Corresponding author

(a) Tomsk Polytechnic University, 30 Lenin Avenue, Tomsk, 634050, Russia, eik15@tpu.ru

(b) Tomsk Polytechnic University, 30 Lenin Avenue, Tomsk, 634050, Russia

(c) Khabarovsk State Academy of Economics and Law, 134 Tihookeanskaja Str., Khabarovsk, 680042, Russia

(d) Tomsk Polytechnic University, 30 Lenin Avenue, Tomsk, Russia

*Abstract*

In modern conditions the process of human potential transformation is becoming the key factor that sets the vector of economic development. The problem of transformation of human potential is relevant, because of the needs to attract additional resources into the economy to ensure dynamic growth, which is a precursor to economic development. The key issue of the study is to explain the priority of social development in the XXI century, such as stimulating the development of creative human potential in the economy, and to study the main vector of processes of social transformation. The purpose of the study is to present a theoretical model of the social foundations of the new industrialization, designed to be a basis to overcome the negative structural shift of the Russian economy. In the study the individual will be considered not so much as a productive factor or set of functional characteristics, and reproducible but as a key social dominant, which creates prerequisites for economic growth and sets certain limits to it. The method of comparative analysis and the method of explication are used to study this issue. Due to the study results, the basic features of the social basis transformation of new industrialization are formulated. Moreover, the proliferation of the social basis for new economy industrialization takes place in the conditions when there are two parallel processes: stimulation of technological renewal and personnel renewal in modern economy.

© 2018 Published by Future Academy [www.FutureAcademy.org.UK](http://www.FutureAcademy.org.UK)

**Keywords:** New industrialization, social basis, productive force, human capital asset, human potential.



This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

## 1. Introduction

Studying of necessary and sufficient conditions for economic development of the country, it should be noted that economic growth leads to the development. To date, economists assessed the current model of Russian economic growth, which does not multiply sufficient development, thus, raises the question of the formation of a new pattern of growth and socio-economic development.

According to the authors, the industry should become the Foundation of a new growth model and the conditions promoting formation of the human basis of development. Consequently, the new growth policy must be implemented at the achievements of science and technology in the framework of the technological implementations and extensions supported by the state, however, these technologies need to be with the 5th and 6th wave of technological innovation. The policy should be constructive within the framework of the needs of the society (Ivanter, 2013). After all, it is a global trend of modernization of economic processes using the key resource of the modern stage of development of the economy, and the key resource is People, namely its capacity for intellectual work. In developed countries, the methodological principle of person-centred or person has the status "quo" in research directions of avant-garde (Jernow, 2016; Savchenko & Grinberg, 2016).

Due to structural modernization based on social basis formation, it is necessary to outline the "functional image" of a human as a key factor of industrial development in economy.

## 2. Problem Statement

The study of the human model as a basis for economic growth and development is carried out using the concept of human capital. Definition of human capital varies depending on your chosen theory. An outstanding representative of the classical economic school, Smith, in his work "An inquiry into Nature and Causes of the Wealth of Nations" (Smith, 2007) believed that person's abilities are an element of national wealth.

The role of a man in the development of social production is examined in W. Petty's, Jean-Baptiste Say's, W. Pareto's and S. Fischer's works, they thought that human capital was the unity of a man and his abilities (Nekhoda, 2015). This point is especially important in the context of virtualization and cognitive technology development, when an employee moves from the state of external regulator to the state of the organic part of convergent technologies.

The definition of human capital, given by Thurow (1970), is a significant one for this study. He said that human capital is a human ability to produce goods and services. Thus, a new tool that influences on economic growth has appeared in economic theory. This tool can be described as natural and economic human abilities that are used ineffectively in modern Russian economy.

The second half of the XX century gives a new interpretation of "human capital". The study of the issue of human capital and its development is focused on increasing non-material assets and transforming them into a leading factor of economic growth. The formed vector helps to identify sectors that become leading within human capital assets, such as education, health, culture and human activities during these assets. Moreover, Nikitina (1998) and Kapelyushnikov (1977) add motivation to Thurow's interpretation of "human capital" in their works.

Studying the interpretations of “human capital” according to the evolution of economic relations, we take Simkina’s interpretation as a basis; it says that human capital is a form of economic activity where intellectual component is dominant. (Simkina, 2000). And due to Thurow, abilities and needs should be supplemented with economic abilities that influence on the ability to satisfy needs and develop abilities.

### **3. Research Questions**

Human capital has a dual nature, as a human is a key powerhouse of production development and functioning and a goal-setter. Thus, it should be mentioned that because of labour division, IT appearance and spread, manufacturing softwear we should study not only the individual characteristics of human’s abilities and skills but person’s aggregated characteristics suggested by Simkina that are broadened with economic abilities.

The main task is to determine the key factors and conditions for motivating the social basis for creative work. It should be mentioned that there is no studies based on the analysis of the motivational component of the modern employee, methods and indicators of effective labour in the conditions of a new industrialized policy.

Due to formulated contradictions, the study of new industrialization must be carried out together with a deep functional characteristic of the social basis of the modernization process, because the socialization of technological development has a great importance.

The social basis of new economy industrialization is a new social class that has biological, professional and social abilities and needs that are motivating resources for creative activities in economy and economic opportunities to satisfy needs and to develop abilities.

The criteria for distinguishing a new social class are functions performed in the production process (Shamray, 2014).

### **4. Purpose of the Study**

The designated social unit is the foundation for economy functioning and human goals and opportunities are main incentives to form the social basis of economic development. The development of scientific and technological achievements changes the understanding of the production process from the manual production to intellectual production, thus, the content of labour and the structure of functions are also changed.

### **5. Research Methods**

The method of comparative analysis and the method of explication are used to study this issue.

### **6. Findings**

The shift towards the intellectual work causes the cognitive process and the process of intellectualization (Simkina, 2000). The individual character and sayentization of the production process

of a production causes to add a creative function (Marsh, 2015). The creative function suggests the ability of an employee to modify the production process or final product characteristics according to a particular consumer's requests.

Moreover, changes of modern employee functions lead to the changes of their replacement nature. Initially, mechanical work had a set of functions that was stable over a large period of time, but the results of scientific and technological achievements and the renovation speed of production technological basis have influenced on the changes in the employee role and consequently in the functions of employee. Modern economy is characterized by multitasking of the employee at the enterprise; the combination of functions of an organizer and a performer that lead to training and development of employees. There is a formation of network cooperation as an integration of information, educational, social, industrial technologies and new technologies of distance learning and distance scientific research and industrial technologies of distance process management.

The characteristic feature of network convergence technologies is their involvement in the formation of stable social groups that are able to maintain well-being not with the help of social benefits but with the help of knowledge and skills. To spread this social group among the population, the government should support centers that create and distribute convergent technologies.

The change in a function and in the transformation character of the individual's labour functions in the high-tech economy should be studied as well as professional and personal characteristics of the individual as a social basis for the new industrial economy should be determined and carrying out policy of new industrialization.

Studying the knowledge and skills of the social basis of new industrialization we should remember Claude-Frederic Bastiat's words that a social creature is perfectible (Bastiat, 2007). The dynamic economy development expects the continuous improvement and self-improvement skills and knowledge from individuals. Claude-Frederic Bastiat considers that the motive for self-improvement is human's self-interest. Thus, the key task of the government is to create an institutional environment for realizing human's interests to satisfy his/her needs with the help of goods and services with high utility ratio.

## **7. Conclusion**

Summing up the results, it can be concluded that two basis conditions are needed for the formation of a new social platform to overcome the macroeconomic instability. These conditions are: systemic correction of the structural policy aimed at a new industrialization policy based on the formation of social groups that are capable to direct creative and cognitive human potential towards creative work; implementation of economic incentive to attract people to the industrial sphere of economy.

Thus, the proliferation of the social basis for the new industrialization of economy should occur within the framework of two parallel processes: the stimulation of technological renewal and personnel renewal in modern economy.

## Acknowledgments

This work was performed by the authors in collaboration with Tomsk Polytechnic University within the project in Evaluation and enhancement of social, economic and emotional wellbeing of older adults under the Agreement No.14.Z50.31.0029.

## References

- Bastiat, F. (2007). *Economic Harmonies*. (in Russian). Moscow: Eksmo.
- Djernov, E.E., Nechoda, E.V. (2016). The socialization concept of knowledge economy in the resource-producing region. *Bulletin of Tomsk State University. Economics*, 2(34), 163-174.
- Ivanter, V.V. (2013). How Russian economy is developing. *Innovations*, 1, 3-12.
- Kapelyushnikov, R.I. (1977). *The concept of human capital. Criticism of modern bourgeois political economy*. Moscow: Nauka.
- Marsh, P. (2015). *New industrial revolution. Consumers, globalization and the end of mass production*. Moscow: Izdatelstvo Instituta Gaydara.
- Nekhoda, E.V. (2015). Theory limitations of human capital. *Human resources management – basis for innovation economy development*, 6, 183-190.
- Nikitina, I.A. (1998). *Efficiency of personnel management systems*. St. Petersburg: SPGIEA.
- Savchenko, P.V., Grinberg, R.S. (2016). *Russian social and economic system: realities and development vectors*. Moscow: NITS INFRA.
- Simkina, L.G. (2000). Human capital in innovation economy. PhD diss. St. Petersburg.
- Smith, A. (2007). *A study on the and causes of nations wealth*. (in Russian). Moscow: Eksmo.
- Shamray, Yu. (2014). Social basis of national economy competitiveness. *World*, 3, 77-91.
- Thurow, L. (1970). *Investment in Human Capital*. Belmont.