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## Креативный человеческий капитал и оценка его проявления в организационном поведении в контексте цифровизации высшего образования

**Проблема и цель исследования.** В условиях цифровизации управления организацией творчество человека, его свойства и оценка стали ведущей темой современных исследований в области организационного поведения и организационного развития. Эта проблема многовекторна, рассматривается в разных отраслях знания. Человеческий капитал (ЧК) является наиболее ценным ресурсом цифрового общества, а креативность ЧК – движущей силой научного прогресса. Это особенно актуально для системы высшего образования, поскольку именно здесь закладываются основы профессиональных компетенций и личностных характеристик будущих акторов рынка труда. *Цель исследования* – выявить особенности креативного ЧК и рассмотреть возможности оценки его проявления в организационном поведении в контексте цифровизации высшего образования.

**Методы исследования.** Использованы методы монографического и статистического анализа, а также авторская методика на основе модифицированной системы показателей (потенциал R&D; инновационный потенциал; креативный потенциал). В методике использованы динамические и долевые коэффициенты в целях универсализации метода и возможности оценки креативного ЧК для разных объектов и разных условий. Авторская методология использует модифицированную систему показателей, которые представлены в национальных статистических системах и которые группируют динамические коэффициенты и разделяют их в соответствии с их функциональным назначением.

**Результаты.** Исследование является как теоретическим, так и прикладным, поскольку оно в равной степени вносит вклад в теорию и практику организационного поведения. В теоретической части авторы рассмотрели четыре ключевых вопроса: 1) человеческий капитал и креативность; 2) концепция креативного ЧК в цифровой экономике; 3) ключевые тренды развития высшего образования в глобальной экономике 4) возрастающая роль креативного ЧК в организационном поведении в контексте цифровизации высшего образования и методы его оценки. В практической части авторы поставили и реализовали цель разработки универсальной методологии оценки креативного ЧК. Расчеты креативного ЧК проведены на примере сектора высшего образования в России и Беларуси.

**Заключение.** Авторы разработали методологию, которая может быть использована для разных субъектов (стран, наднациональных образований, регионов, организаций) и в разных условиях (например, цифровизация высшего образования). На основе анализа научных работ, посвященных современным формам воспроизводства ЧК, авторы предлагают основные направления для интеллектуальных сценариев развития ЧК, особенно актуальных для системы высшего образования.

**Ключевые слова:** человеческий капитал, креативный человеческий капитал, индивидуальные черты личности, организационное поведение, производительность труда, цифровая трансформация управления организацией, высшее образование, цифровизация высшего образования

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## Creative human capital and assessment of its manifestation in organizational behavior in the context of digitalization higher education

**Problem and aim.** In the context of the digitalization organization management human creativity and its properties and evaluation have become the leading topic of modern research in the field of organizational behaviour and organizational development. This problem is multi-vector, it is considered in different branches of knowledge. Human capital (HC) is the most valuable resource of the digital society, and the creativity of HC is the driving force of scientific progress. This is especially relevant for the higher education system, since it is here that the foundations of professional competencies and personal characteristics of future labour market actors are laid. *The purpose of the study* is to identify the features of creative human capital and to consider the possibilities of assessing its manifestation in organizational behaviour in the context of digitalization of higher education.

**Research methods.** It was used the methods of monographic and statistical analysis, as well as the author's methodology based on a modified system of indicators (R&D potential; innovation potential; creative potential). The methodology uses dynamic and equity coefficients in order to universalize the method and the possibility of evaluating creative HC for different objects and different conditions. The authors' methodology uses a modified system of indicators, which are presented in national statistical systems and which group dynamic and share coefficients according to their functional purpose.

**Results.** The study is both theoretical and applied, as it contributes equally to the theory and practice of organizational behavior. In the theoretical part, the authors considered four key issues: 1) human capital and creativity; 2) the concept of creative HC in the digital economy; 3) key trends in the development of higher education in the global economy; 4) increasing role of creative HC in organizational behavior in the context of digitalization higher education and methods for its assessment. In the practical part, the authors set and realized the goal of developing a universal methodology for assessing creative HC. The calculations of creative HC use the example of the higher education sector in Russia and Belarus.

**Conclusion.** The authors have developed a methodology that can be used for different subjects (countries, supranational entities, regions, organizations) and in different conditions (for example, digitalization higher education). Based on the analysis of scientific works on modern forms of HC reproduction, the authors propose main directions for smart scenarios of the HC development, especially relevant for the higher education system.

**Keywords:** human capital, creative human capital, individual personality traits, organizational behavior, labor productivity, digital transformation of organization management, higher education, digitalization higher education

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## INTRODUCTION

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The theory of human capital still arouses the interest of researchers around the world. Many authors consider the concept of "human capital" (hereinafter – HC) as a central [10] and leading element of social reproduction [62; 66], as well as a key factor in economic growth [42; 71; etc.]. Moreover, HC is studied both at the macro level (government) [17; 51] and at the micro level (organizational development) [28; 77; etc.]. This is because an individual is, firstly, an object of effective investment in his or her competencies and qualifications as an employee of an organization, and, secondly, a subject that transforms these investments into a set of knowledge, skills, and abilities that are subsequently implemented. A human – an employee, a teacher, a scientist – is especially important in the higher education system, since the personal and professional development of a future specialist largely depends on the teaching staff.

In the context of digital transformation of organizational management, human creativity, its properties and assessment have become the leading topic of modern research in the field of organizational behavior and organizational development [24; 35; etc.]. This is a multi-vector issue: it is addressed not only by economic science, but also other branches of knowledge – sociology, psychology, philosophy, political science, management, marketing, law – where an individual is brought to the fore as a carrier of new knowledge, abilities, and opportunities [2; 13; etc.]. An increasing number of researchers claim that human potential, which is the basis for human capital, is the most valuable resource of the digital society, and the creativity of human capital is the driving force of scientific progress [19; 53; etc.].

It should be noted that creativity is not a completely new phenomenon, because creativity has always been inherent in humanity. Moreover, the history of great ancient civilizations clearly illustrates that creative classes had a dominant status. For example, the functions and social status of a poet in the mythopoetic era raised him to the level of the “creator of existence”, or the demiurge [72, p. 34-37]. Accordingly, some believe that, in essence, the mythopoetic era is the “first creative era”, and the modern period is the “second creative era” [79]. However, now there is not so much an increase in creativity in society as an increase in the demand for creativity both from society and from the economy. Thus, the West is interested in the creative economy because of the influence of creative norms and values on society, its structure, and individual social groups [79]. Russia and Belarus are interested in the creative economy primarily because of the manifestation of creativity in organizational behavior: for example, studying the relationship between creativity and conflict behavior of an individual in an organizational context [27]; or studying creativity as an intellectual resource of “advanced education” in the face of uncertainty in management and business [5]; or assessing creativity of managers and specialists of state and local government bodies of the Republic of Belarus [80], etc.

At the same time, the theory of creative human capital (hereinafter – CHC) is at the very beginning of its development, and the methodology for assessing the CHC manifestation in organizational behavior in a digital society is still being formed. This is especially true for the higher education system, where the scientific school is at the origins of its creation.

Thus, a number of specialists do not separate organizational behavior in universities from the management of organizational culture [2; 14]. In the O.V. Chudnova’s research [20] the personal factor is taken into account in the organizational behavior formation and

organizational culture through the creation of comfortable workplaces, the use of motivation tools, collective labor, professional development, and so on.

There is especially a lot of work in the field of universities teaching staff motivation management. Thus, a significant contribution was made by A.P. Bagirova and her Ural's colleagues [68], in whose works the basic concepts of incentive management are analyzed in detail, specific systems of labor motivation diagnostics are considered [68]. Economic aspects of stimulating universities teaching staff (hereinafter – UTS) are considered in a number of well-known works, such as: H.K. Lee [43]; J.H. Moore [50] and L.C. Thurow [71], as well as in our earlier studies [7; 64]. For example, a detailed study of the labor market problems in connection with the human capital development in the higher education system is presented in our monographic studies 2021-2022 [24; 35]. Finally, the main forms of organizational behavior in higher education, such as: leadership, ethics, job satisfaction, organizational commitment and organizational civic behavior, are considered in the monographic study Muhammet Sait Dinc [61].

At the same time, despite the wide range of research in the field of universities organizational behavior management, there is no unified view in the scientific community on how to build an organizational behavior management system in higher education in general, and in the conditions of digitalization of education in particular. The same tasks, as it is well known, are mentioned in the OECD Project “Future of Education and Skills: Education 2030”.

Moreover, in the conditions of digitalization, the drivers of creativity are the automation of “non-creative”, routine work [24; 31], as well as the growing demand for goods and services of creative industries [32; 35]. In this regard, the state, society and the labor market have a question about the relevance of the creativity skills development among students' youth. This issue is especially relevant in the categories of “human capital” and “creative human capital” as the most important components for creating personal and social well-being.

In connection with the above, the purpose of this study was to identify the features of creative human capital and to consider the possibilities of assessing its manifestation in organizational behavior in the context of digitalization of higher education.

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## MATERIALS AND METHODS

Our research is based on the application of general theoretical methods of information analysis and synthesis, including generalization of the results of empirical research by domestic and foreign authors in the field of personnel management, the study of creative human capital, as well as evaluation of its manifestation in organizational behavior in the conditions of digitalization of higher education

It was uses also the methods of monographic and statistical analysis, as well as the author's methodology based on a modified system of indicators (R&D potential; innovation potential; creative potential).

The methodology uses dynamic and equity coefficients in order to universalize the method and the possibility of evaluating creative HC for different objects and different conditions. The authors' methodology uses a modified system of indicators, which are presented in national statistical systems and which group dynamic and share coefficients according to their functional purpose.

### **1. Human capital (HC) and creativity**

The development of economic science in the era of intensifying digital mode of production causes new patterns of people's labor activity, changes in social and labor relations, and essential transformations in the development of the human capital theory. A study of the scientific literature allows us to assert that modern science is increasingly focused on studying the problem of creative human capital both in abroad [36; 62] and Russia [77; 79; et al.].

Human capital is an element of the economic system of society. The capital of an individual is an elementary unit of the HC of a community, a country. By interacting with each other and uniting in various social groups, people create human capital of a higher level –HC of the national economy. This is how different levels of an aggregate human capital are created, and this is how they interact or weaken each other. Subjects (carriers) of HC include any social actors (individuals, groups, social communities, population as a whole). Individuals, organizations, institutions, management structures, the media, social institutions and their representatives act as agents of the formation, development, preservation and use of HC.

Aggregate HC is the subject of economic relations that have a complex structure: it is primarily the unity of socio-economic, technical-economic, and organizational-economic relations. “In order to produce, (people) enter into definite connections and relations to one another, and only within these social connections and relations does their influence upon nature operate – i.e., does production take place” [48, p. 441].

The system of economic relations develops in all areas of social reproduction, i.e. in direct production, distribution, exchange, and consumption. Each of these areas is a relatively independent subsystem of an integral set of economic relations with its inherent structure, subsystem qualities and properties. Relationships between people in direct production dominate over other properties; they determine the nature of the subsequent distribution, exchange, and consumption of the created goods. However, global practice proves that limiting the area of production relations only to the socio-economic aspect, albeit the defining one does not fully reflect the structure of the economy and leads to excessive ideologization of economic relations.

In the political-economic system, economic relations are a social form of development of productive forces [which includes people] in the process of production, distribution, exchange, and consumption of goods and services. By denying the interconnection of economic relations with the development of productive forces, we thereby discard the need to study individuals (their needs, interests, goals) and the awareness of their role as subjects of economic relations in modern conditions.

Human capital is traditionally defined as the skills and knowledge of the workforce or, similarly, “the investment of resources in people”. G. Becker identified specific ways of investing in HC, such as formal education in institutions, on-the-job training, or, more broadly, increasing the amount of information available to people, which contributes to quality decision making [10, p. 9]. At the same time, J. Coleman described the effect of the formation and development of human capital as the acquisition of “skills and capabilities that make them able to act in new ways” [21, p.100]. The origins of the essential characteristics of human capital can be traced to the works of several well-known foreign scientists and

specialists' capital, such as: N. Bonits [16]; Rosa M. Mariz Pérez [46]; J. H. Moore [50]; and Russian ones, i.e. E. A. Yarushkina and A.A. Kobeleva [77] and N. Yu. Zamyatina [79]. In the process of researching the changing role of HC in the digital economy, we noted the importance of mentioned and other works.

Thus, A. Freeman defines creative activity as “non-mechanized labor” [30]. According to A.V. Buzgalin, “Marxist political and economic methodology allows us to look at the definition of a creative person based on the definition of his activity and see what activity he is the subject of, what kind of work he performs, what relations he enters into and what goals he realizes” [18]. According to Marxist ideology, labor is a necessity, and under the dominance of the market and capital, labor is alienated from the worker and the result of labor does not belong to the worker [47]. As a result, the main motivation for labor is the activity itself [38].

E. Benea-Popușoi interprets creativity as the highest form of manifestation of human abilities [13]. This author examines the key patterns of creativity and creative human capital, noting that the areas of management and business are leading in research on creativity and innovation. According to E. Benea-Popușoi “the conversion of human resource into creative human capital implies its personalization and sustained dynamic of human capital substantiation, ensured by the regular experiencing of creativity phenomenon” [13].

Despite certain differences in existing theoretical approaches, we can say that human capital is a system of relations between people in the process of forming, strengthening, improving and realizing their abilities, accumulated fund and reserves of potential under certain institutional conditions of the socio-economic environment to achieve certain goals. This economic category reflects the dialectical interaction of socio-economic ties and relationships between people, technical and economic ties and relationships, and the relationship between people and nature.

Several researchers see the problem of human capital development through the lens of an increasing innovative literacy of employees [12; 78]. Thus, A. Yüksel, M. Gök, G. Özer, E. Cığirim use the synthesis of academic research results to substantiate a new conceptual view on the integration of theories ensuring an increase in innovative literacy of employees [78]. The role of the innovative component in the formation of human capital is also studied by F. Peng, B. Altieri, T. Hutchinson et al [55]. They focus on the importance of continuous development of creative education for university students in promoting social innovation towards sustainable development.

In the context of implementing state measures for sustainable development of the regions of the Russian Federation and the Republic of Belarus, the following components are the system-forming elements of the CHC development: health preservation of citizens; formal education; spiritual and moral education. In our opinion, all three components form the basis for national security and socio-spatial development of the human capital of countries and regions. We also note the direct relationship between formal education and spiritual and moral education in the sustainable development of creative human capital. In our opinion, this is due to the fact that education lays the foundations of competencies with which a specialist enters a new field of professional activity. Moreover, an educational institution creates a special spiritual and moral climate, which forms and develops the foundations of an individual's civic identity and worldview.

In the era of digitalization, there is an increased demand for specialists who have a lot of knowledge and information, who have cultural and moral values, and who can effectively apply their intellectual abilities [7; 64] in an expanding service sector [24; 35]. It is at this time that investments in CHC become relevant, and talented highly qualified employees, as well

as creative industrial and technical intellectuals, receive not only income from intellectual property, but also social professional status.

The continuing trend towards developing, concentrating, and increasing the weight of the creative component of human capital is an important part of the changing modern economy. The mechanism for the CHC formation includes improvement of the structure of needs and the possibility of their transformation into real consumption on the basis of a certain freedom of choice. This mechanism is primarily manifested in the socio-economic nature and qualitative and quantitative characteristics of consumption. Consumption is an important area of human capital formation, as is labor activity. Formation, identification, and satisfaction of the needs of an individual are the key reference points of the reproductive process.

As an element of the human capital development [8; 9], needs are closely interconnected with an individual's ability to satisfy them. This ability largely depends on the freedom of choice [63]. In this context, the goal of social development is the expansion of possible choices and opportunities to lead a productive and creative life in harmony with one's needs and interests.

Human economic activity is associated with the qualitative realization of human capital, which, in turn, deepens the social division of labor and develops economic relations in general. Thus, an individual, as the main factor of production, is the carrier of economic relations. Productive forces and economic relations are constantly changing and developing, which means that the place and role of an individual in the development of the economic system is increasing.

A. Buzgalin in his work "Creative Person in the Economy of the Future" identifies the main features of creative activity [18, p. 49]:

1. Labor as a need, i.e., a situation where the main motivation for labor is the content of labor, and not some external social, legal, or other mechanism.
2. Creative activity as a need has no boundary between free time and working time.
3. Creative activity and a creative person create wealth which is unlimited, non-competitive, in finite.
4. Creativity is a labor that fully becomes a space for the development of the subject's personal qualities.
5. In any creative activity, the share of reproductive functions is very high.

Analyzing the creative activity of an individual through the lens of these characteristics, A. Buzgalin concludes that "a creative person is a person who performs labor that is free in its content, i.e. this labor is not directly determined by anything in its content" [18, p. 50].

In the context of digitalization of economic relations, the transition of society to a qualitatively new social order, which Marx and Engels called the "kingdom of freedom" [25], does not lose its relevance. On the contrary, digital technologies allow an individual to engage in creative activities in the cultural sphere, "which includes the entire space of social creativity, recreation of nature, science, art, education, healthcare, and other spaces for the formation of human qualities and social harmony" [18, p. 54].

## **2. The concept of creative human capital in the digital economy**

In the context of the developing digital economy [2; 24], the concept and realization of human capital are undergoing significant changes [35; 64].

The basic features of human capital, previously recognized as defining competitive advantages, have given way to modern characteristics of creative human capital. These

characteristics exist in the creative plane, and they are gradually changing from additional and desirable attributes to mandatory ones. Human capital is characterized by the level of knowledge, creativity, experience, moral values, work culture, and health condition. It should be noted that human capital is the driving force behind the development of the digital economy, because it uses an inexhaustible resource – CHC. Accordingly, CHC is an extremely promising direction for the development of economic relations [11].

A significant question arises – how to define the creative, innovative, and artistic activity of an individual? Despite the relevance of this issue and the large number of publications on the creative economy, we still note the absence of a single clearly defined paradigm. In this regard, we considered it appropriate to determine the difference between the artistic activity of an individual and the creative one through the unique features of creativity.

There is an opinion that creativity is “the ability of human capital to create and implement modern innovations based on artificial intelligence and modern digital technologies, as well as the ability to solve non-standard managerial and organizational tasks” [6, p. 120-126]. At the same time, L. M. Andriukhina believes that “creativity is a concept of modern discourse and the result of purposeful human activity. This concept reflects pragmatic meanings to a greater extent. It is operational and technical ones. Artistry is a concept of traditional discourse. It is non-operational (not divided into a sequence of operations). It can be defined as a transcendent, fundamental phenomenon. At the same time, it can be argued that any creative activity is artistry, but not all artistry is creative” [5].

In this discourse, it is important to note that international scientific works widely use the category of “creative economy”, which was translated into Russian as “креативная экономика” [“kreativanaya ekonomika”]. We believe that this approach is highly debatable. In this regard, we agree with the statement of V.V. Gromyko that “the economy can be based on the use of human creative potential, but it cannot be creative itself, and the concept of “creative economy” has neither economic nor common sense” [34, p. 28-36]. We believe that it is more reasonable to use the concept of “creativity-based economy”, or “knowledge economy”, or “economy of creative activity”.

In economic science, creative capital was identified as a separate component at the beginning of the 21st century. CHC is based on high-quality physical capital; CHC uses unique capabilities of an individual, his or her ability to think creatively, differently from other individuals.

The theory of creative capital by R. Florida [29] is the most widespread and is still being actively discussed. This theory recognizes that a special type of human capital of creative people is a key factor in economic growth. The creative capital embodied in the so-called “creative class”<sup>\*</sup> is more than the skills obtained as a result of education and training. This is a multidimensional concept. Human artistry is also a key part of creative capital. Artistry occupies a central place in the functions of labor activity performed by the creative class. This may consist of combining “standard approaches in a unique way to fit different situations”, independently trying new ideas and innovations, but also sometimes being widely manufactured and sold: “composing music that can be performed again and again” [29, p. 8].

The theory of creative capital by R. Florida [29] defines the main components of creative capital – the 3Ts: technology, talent, and tolerance<sup>\*\*</sup>. Communities that acquire more of the

<sup>\*</sup> According to the theory of R. Florida [29], the creative class is a social group of the post-industrial economy, the largest and most influential part of the middle class in developed countries.

<sup>\*\*</sup> R. Florida suggested using statistical indices to assess the creativity of a territory (creativity index), including:



3Ts have a higher level of economic and social development [29]. The creative class helps to attract new principles both in work and in everyday life. Members of this class defend new values of a younger generation. Representatives of the creative class are distinguished by mobility, flexibility, self-education, a “new” digital workplace, social participation, and active recreation. R. Florida also argues that the attraction of the creative class will be followed by new ventures aimed at using its human capital. In addition, the scientist says that in a knowledge-based economy, regions gain an advantage by mobilizing the best talent and available resources. The talent will turn innovations into concrete business ideas and commercial products [29].

It should be noted that Russian and international studies also spread the theory of creative capital migration. This theory encourages the mobility of the creative class to cities, regions, and countries where they find more favorable conditions for the creation and implementation of their creative ideas [59; 79]. In addition, there are stratification [5; 22] and spatial-geographical approaches in the theory of HC [26; 28; et al.]. However, these approaches are quite justifiably subjected to scientific criticism [5; 18; et al.] due to the presence of some ideas, among which the most significant, in our opinion, are the following provisions:

1) They ignore the significant impact of digitalization, information and communication technologies, and the Internet on the possibility of realization of creative capital in organizational activities;

2) They ignore the nature of human creativity [artistry] which does not act as the basis for the stratification of social groups and the concentration of the creative class in a particular location.

This allows us to conclude that in the context of the digital economy development, the realization of creative capital does not depend on the place of residence or the social status of the individual. Similar positions are presented in the works of a number of scientists, such as: L.M. Andriukhina and A.G. Kislov [5]; A.V. Buzgalin [18]; N.Yu. Zamyatina [79]; et al.

The paradigm of generating creative capital seems more rational to us. The belief that creative capital can be developed is even more revolutionary. Thus, some authors identify “three necessary elements of the formation and development of creative capital: competencies; creative thinking; motivation” [1]. Russian scientists note that “in developing countries, as well as in Russia, scientific and political discourse focuses on the exact opposite mechanisms for increasing creative capital. Domestic scientists note that “to a greater extent, society focuses on the issue of early detection of gifted children and talented youth, their support and development” [5, p. 93]. However, creative capital is generated as a result of creative experience, creation and accumulation of innovative and professional practices, which creative individuals use to increase their human capital.

In view of the above, it can be argued that creative human capital is a combination of basic personal characteristics of human capital, as well as intellectual and creative abilities, original knowledge, creative skills, and innate talents. These features are expressed through the ability to generate ideas and make decisions in conditions of uncertainty and increased risk, and together they provide competitive advantages and contribute to rapid economic

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1) innovation index and high technology index;

2) cumulative index of diversity, including: a) gay index (comparative concentration of homosexual couples as an indicator of tolerance); b) bohemian index (comparative concentration of artists); c) melting pot index (percentage of those born abroad);

3) talent index, which considers the share of the population with an academic degree and estimates the size of the creative class [29].

growth. Thus, we believe that human creativity is manifested in the production of unique ideas, non-standard thinking; the desire for continuous education, improvement, and self-realization; the pursuit of new knowledge and knowledge sharing.

An analysis of the available literature shows that the main characteristics of creative human capital include the following 15 attributes:

1. intellectual and creative abilities;
2. ability to synthesize creativity and knowledge;
3. internal discipline;
4. openness to new knowledge;
5. motivation for constant self-development, improvement, and self-realization;
6. ability to find the necessary information quickly, analyze it, and implement it in practice;
7. potential, desire, and motivation to produce new, often non-standard ideas and solutions;
8. ability to propose and apply original approaches to solving extremely complex problems;
9. high level of ingenuity;
10. command of networking skills to exchange knowledge, ideas, and solutions with other carriers of creative capital, which increases the effectiveness of its use;
11. ability to synthesize data and information from different fields of knowledge and to prove oneself as a multidisciplinary specialist;
12. command of techniques for implementing new ideas in the most effective and least costly way using relevant and modern tools;
13. ability to make effective decisions in conditions of uncertainty and increased risk;
14. readiness to quickly adapt to changes in the labor market in a competitive environment;
15. negation of any formalization in the process of professional activity; etc.

At the same time, the costs of acquiring and developing these characteristics are paid off by the commercialization of innovative ideas, which should bring income in the future. Importantly, creative capital is both a personal and social asset that can enhance the efficiency of individuals, businesses, regions, or nations. In this regard, creative capital should be considered at several levels: national, regional, level of enterprises and organizations, individual.

Thus, creative capital includes abilities and skills of a person or family, enterprise or organization, community or country – and these abilities and skills contribute to the realization of new opportunities through creativity. The modern carrier of creative human capital in the knowledge economy has a basic set of characteristics which make intellectual activity possible. In addition, the CHC carrier has features that characterize one's creative potential and the possibilities of its use, providing the carrier with a competitive advantage in the labor market. At the same time, the results of the activities of the CHC carrier are based on creativity and have a high degree of competitiveness.

Beyond the fundamental role of creativity in creative capital, CHC can also be defined more specifically as capital encompassing informal knowledge and skills. For example, CHC characteristics that are passed down from generation to generation between creative people [56], or handicraft techniques that modern professionals learn in their field, or the transfer of knowledge from more experienced creators to novice talents. Knowledge sharing between people is important in creating a broader understanding of human capital [67].

Currently, there is a debate in the scientific community regarding the development of creative human capital through digital technologies: primarily cloud technologies, artificial intelligence (AI), and analytics. For example, H.-K. Lee raises the issue of the ambiguous impact of AI on creative activity [43]. The researcher points to the dehumanization of creative activity and an increase in its instrumentality due to the use of AI technologies. At the same time, N. Anantrasirichai and D. Bull indicate that the benefits of using AI will be observed in those creative industries where this technology is aimed at helping people reveal their creative abilities and talents, not at replacing them as individuals [3].

It should be emphasized that the digital transformation of the economy and business causes a shift in priorities in the human capital development in such key areas as: 1) investments in analytical tools and use of BigData [2; 59]; 2) cloud solutions [12; 58]; 3) gamification as a source of motivation and talent retention [19; 46]; 4) social networks as a channel of communication and cooperation across a business, region, country [24; 35]; 5) virtualization of workgroups and employee communities [53; 69]; 6) access to work through mobile devices [75; 76; et al.].

It is obvious that these features of CHC should be taken into account in further research on organizational behavior.

### **3. Key trends in the development of higher education in the global economy**

The active development of the digital technology industry is impossible without the evolution of the industries that form the knowledge economy: R&D services and the higher education services (hereinafter – HES) sector [24; 35].

The higher education system or the HES sector is an area where the final stage of formal education is implemented, including post-secondary education and research activities in specialized educational institutions (universities, academies, institutes, colleges, technological and research institutes, clinics, experimental stations, business schools, etc.) with different legal status and funding sources [32; 73].

As it is well known, for a long time education was considered an industry that is characterized by reasonable conservatism and a slow rate of variability [24; 35]. At the same time, the impact of scientific technological progress and the change of socio-cultural paradigms could not but affect the evolution of education in general, and higher education in particular [75; 76].

Accordingly, there are four main trends in the development of the HES sector:

*Firstly, in the 21st century, higher education (together with the R&D sector) has become the largest branch of the global services market.*

To date, there is a trend of growth in the services market in general, and intellectual services (including R&D, HES, as well as telecommunications, computer and audiovisual services, etc.), in particular. At the same time, the driving forces of the growth of world trade in services were those that are provided in digital form: financial, business and educational. At the same time, one of the fastest growing sectors of the global services market is the HES sector, where the main exporters of education services are leading in terms of volume in monetary terms: the USA, Great Britain, Canada, Australia, and Germany\* [32; 35]. At the same time, the countries of the Asia-Pacific region showed the highest rate of the HES sector development by 2020, due to a combination of demographic and economic growth, the use

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\* Accordingly, the key players in the global market of higher education services are: Xerox Corporation; Smart Technologies, Inc.; Panasonic Corporation; EduComp Solutions; Oracle Corporation; Dell Inc.; Three River Systems; Cisco Systems Inc.; IBM; Adobe Corporation; Blackboard Inc.

of “bilateral business models”, changes in the structure of outflow-arrival of students and teachers, etc. It is not surprising that in this region China is the largest producer, exporter and investor in the HES market [73; 75].

In general, the volume of the global market of HES sector in 2020 amounted to \$ 77.41 billion and, as experts predict, by 2026 it will grow to \$ 114.69 billion [32], and by 2030 – up to \$ 600-800 billion [73; 76].

*Secondly, globalization and cross-cultural integration have led to a significant expansion of HES sector opportunities.* Indeed, there was not only a well-known competition of universities for positions in the ratings\* of THE, QS, etc., and, accordingly, “pulling up” all positions to the world level. As a result, there was an intensification of the English studying by teachers and university students as a means of international communication. Moreover, the concept of “borderless education” has appeared, when students and teachers can freely move between countries and regions under mobility programs and undergo training or internship at any foreign university. These phenomena, respectively, have also affected the global labor market [7; 76], increasing competition in its intellectual-intensive sector in general and in the education services market in particular [24; 35].

*Thirdly, digitalization has dramatically affected the entire higher education system.* Indeed, digitalization or the introduction of digital technologies into all spheres of human activity has led to the emergence of digital educational technologies (EdTech), which was facilitated by classes at universities at the turn of the XX-XXI centuries in a distance format [32; 35].

It should be emphasized that EdTech occupies a special place in the HES system, which demonstrates the highest growth rate (about + 25% annually), although its share in the general HES sector before the COVID-19 pandemic was less than 3% [73; 75], and by 2025 it is expected to grow to \$ 400 billion [31].

Among the main factors contributing to the growth of EdTech markets, experts call the following:

- Privacy of various cloud resources;
- Expansion of Internet connectivity and digital equipment;
- The emergence of various types of individual and collaborative online learning;
- EdTech personalization, etc. [32; 76].

Also, a special place in distance learning is occupied by massive open online courses (MOOC or MOOCs). MOOC today is a successful pedagogical technology that is used by students all over the world, thereby facilitating and improving the process of intercultural communication [7; 24]. Many MOOCs are offered in English, and in recent years – in Russian, which undoubtedly improves not only the general awareness of the content of training courses, but also gives an idea of the language from the perspective of its native speakers [35; 76].

As we noted earlier [24; 35], it is also important, that, thanks to the digitalization of higher education, there have also been such phenomena as:

- The growth of cross-border mobility of digital educational programs;
- An increase in the number of providers and types of education;
- The diversification of programs and teachers, which inevitably led to an increase in the quality of university educational programs.

That is why the main indicators in the global competition quality are now such indicators as [31; 73]:

\* In Russia, this is, first of all, the TOP 5–100.

- Forms and types of training;
- The number of the best professors;
- Multi-channel funding;
- International cooperation;
- R&D volumes;
- Citation indexes, etc.

It is obvious that the struggle for the quality and survival of universities in the global HES market in the digital economy has also led to a struggle for cost optimization [7; 35], which ultimately led to increased competition in the labor market [70; 75], a change in its structure\* and forms of employment (offline, online and mixed formats) [69; 76].

*Fourth, it is necessary to note the impact of the global COVID-19 pandemic on the development of HES sector.* Indeed, as we noted earlier [25], the effects of the pandemic in the HES system were most strongly affected by the following vectors: 1) organization of training; 2) internationalization of education; 3) scientific research; 4) legislation; 5) financing. Researchers around the world continue to study these five vectors to this day.

Although the pandemic has already ended, it is already obvious that thanks to the experience gained, humanity will continue to improve digital technology in general and EdTech, in particular [24; 35].

We also consider it necessary to note that thanks to the introduction of digital technologies in the educational process [31; 32], a number of fundamentally new trends have emerged in the system of global HES [73; 76], among which, as the most important, we highlight the following:

- Modern universities are better informed about the latest developments in the international HES market;
- Universities are developing long-term strategies for their development and partnership with key stakeholders of the HES market;
- Educational institutions establish a higher level of cooperation in the global student youth market than before, building cross-cultural communications, providing individual services for international students, developing personal learning trajectories, etc.;
- Universities develop promotion programs on the global market, attracting the best programmers and best professors from around the world for this goal implementation.

It is also important that the analysis of available us literary sources on the management of intellectual human resources allows us to draw a number of conclusions illustrating trends affecting the manifestation of human capital in the organizational behavior of institutions of higher education:

1) At the moment, an extensive database has been accumulated in the global aspect, illustrating the dominant role of the intellectual component of human labor, especially in the process of innovative development of regions and countries;

2) In the last 10-15 years, data have appeared that allow us to quantify and qualitatively assess the labor effectiveness (or efficiency) in such areas of intellectual work as information technology, consulting, medicine, R&D, services, education, etc.;

3) Intellectual work in general, creative intellectual work in particular, and in the system of HES especially, is a process of exceptional intellectual resources formation, which requires an adequate management system;

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\* The number of players in the HES markets is constantly increasing, since they include not only public and private educational institutions, but also ministries of education and science; government agencies; consulting and rating companies; large holdings and industrial companies, etc.

4) Managing the intellectual labor effectiveness of university employees is the implementation of a strategy to create and maintain improved staff productivity, which leads to a change in organizational behavior and an increase in the efficiency of organizations as a whole. At the same time, this issue is very controversial.

In relation to Russia, it should be noted that three factors have had a significant impact on the development of HES system in recent history: 1) the COVID-19 pandemic; 2) digitalization and the use of EdTech; 3) new economic sanctions\*.

Thus, it can be concluded that the modern HES system is a very dynamic object of research, which, evolving, plays a significant role in the development of the global economy, influencing both the increase in the intellectual component of labor (as evidenced by digitalization) and the structure (the modern HES market is represented by a wide palette of state and private companies in the non-profit and commercial sectors) and forms of employment (offline, online and mixed formats).

#### **4. Strengthening of the role of creative human capital in organizational behavior in the context of digitalization higher education and methods of its assessment**

Changing nature of economic activity in the context of scientific and technological progress [54; 64] leads to a change in the behavior of people within the organization, which, in turn, requires a change in the behavioral strategy of the organization and its managers [35; 77; et al.].

Moreover, the rapid pace of digital transformation of the economy [2; 9] and society [8; 17] requires a closer study of an individual, his or her intellectual work and creativity in the relevant context [15; 18; etc.]. The issues of the increasing rate of labor productivity and the increasing business profitability are becoming more relevant, so they require non-standard problem-solving approaches in the modern context [41; 70].

Indeed, current digital technologies are not only new objects of labor and ways of organizing work, but also the driving force behind corporate change, including in the HES market. As these changes become more prominent\*\*, the difference in priorities and values between business leaders and digital leaders becomes clearer. This leads to problems of coordinating the leaders' interests in achieving the goals of maximizing values and obtaining the expected results. Accordingly, a disparate strategy at the level of top management and IT management can lead to a decrease in the efficiency of the entire business. However, the return is significantly higher in companies where the goals and values of CIOs and their partners are synchronized. Such companies are called Digital IQ leaders [41].

Thus, the PwC Digital IQ 2021 study [41] found that in the interests of business, the gap between the adoption of digital and cloud technologies and the values of personnel can be bridged if the following key activities are implemented:

1) *Focusing on organizational culture* and aligning business interests, digital developments and customer needs;

2) *Developing and implementing new mental ideas*, including those related to talents and creative labor;

3) *Implementing strategic integration*, which allows the organization to simultaneously attract specialists from various industries and areas of activity to solve strategic goals and

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\* This question is considered in more detail in our earlier study [24].

\*\* Today, almost every top manager [CEO] has a share of ownership in the business, as well as joint or several liability with leaders [directors, top managers] of information technologies [CIO], data [CDO], technology [CTO], as well as heads of finance, strategy, innovation, production, logistics, sales, and other functions or lines of business.

objectives; to encourage their talent and creative labor, as well as the desire to improve their level of education and qualifications.

Similar approaches are also presented in the works of other researchers who study the impact of digital transformation on organizational culture, such as: I. Anand [2]; V.S. Avtonomov [8]; J. Schwartz [70] et al.

Thus, studies of the patterns of scientific and technological development allow us to conclude that human capital is one of the most important factors in economic growth, both at the level of an organization and at the level of a country and a region. To increase the country's GDP, it is necessary to ensure investment in human development, improvement of the quality of life, education, health, and cultural development [7; 74]. This ultimately affects the formation of new trends in the labor market [24; 35; et al.].

Moreover, building up creative human capital contributes to the development of an innovative economy, the transition from a socially oriented model of territorial management to a creatively oriented model. This model is based on the development of creative abilities of individuals [organization employees] to ensure economic growth and to form socially prosperous internal and external environments.

Despite the obviously high importance of creative human capital in organizational behavior in the context of digitalization, the methodology for assessing the magnitude and effectiveness of CHC remains an important and understudied issue. Such an assessment is important because it allows us to develop a system of measures for the rational management of human capital for the further development of an organization, region, and country. At the moment, there are several methodological approaches and methods for calculating intellectual human capital, which we summarized and systematized in Table 1.

**Table 1**

Comparative characteristics of main methodological approaches and calculation methods which are used or can be used to assess intellectual human capital, compiled by the authors based on various sources

| No | Method                                       | Author                           | Content   | Disadvantages of the method  |
|----|--|----------------------------------|---|--|
| 1  | 2  | 3                                | 4   | 5  |
| 1. | The 3T's method                              | Florida 2003                     | One of the most well-known methods that calculate statistical indices for assessing the creativity of a territory [creativity index] based on three indices: talent, technology, tolerance.   | Firstly, this method is aimed at macroeconomic indicators, and, secondly, it does not consider the role of digitalization in the assessment of CHC and its effectiveness.  |
| 2. | Methodological approaches of the Bondarskys  | Bondarskaya and Bondarskaya 2019 | Ontology of the development of CHC assessment in temporal, spatial, and regional continuum.   | The authors note the need to identify an indicator of a person's evaluative abilities in the course of assessing the level of his creativity. At the same time, this conclusion is not supported by any tools for calculating these abilities. |
| 3. | Methodological approaches of I.A. Kondaurova | Kondaurova 2021                  | Methods for assessing human capital are categorized: costly method based on the determination of initial and recovery costs; method of assessing the individual cost of an employee; expert [qualitative] method. Ways of improving the methodology for assessing human capital are identified. | The author does not consider the features of assessing intellectual human capital or creative human capital.   |

|    |  |                            |  |   |
|----|--|----------------------------|--|---|
| 4. | Method of O.V. Loseva                      | Loseva 2009                | Assessment of intellectual capital based on factor analysis and expert assessments.  | Despite the undoubted scientific and practical significance of the economic analysis tools used for assessing intellectual human capital, this method does not present tools for studying the creative component of human capital, which does not allow us to use this method in the interests of our study.  |
| 5. | Methodological approaches of A.D. Matraeva | Matraeva 2017              | General methodological approaches to the assessment of CHC based on the ever-increasing role of higher education in the process of CHC management.   | The study rightly notes that the institution of education has its socially determined goal of achieving a certain level and quality of a person's education, allowing a person to become a competitive specialist during the transition to an economy of knowledge, information, and digitalization. It also notes that it is the institution of education that forms a person's competencies required at this stage of societal development. However, no methods for calculating these criteria are given. |
| 6. | Methodological approaches of A.A. Popikov  | Popikov 2016               | Analysis of the impact of human capital on the economy of a country and a region.  | The author considers the need for the formation of creative human capital as the most important condition for the formation of an innovative economy. However, the author does not provide methods for calculating innovative factors.  |
| 7. | Method of Rudakov and Akhmetova            | Rudakov and Akhmetova 2017 | Method of assessing intellectual and creative HC at the regional level. It is based on dividing the assessment indicators into 3 groups: research, innovation and entrepreneurship, culture and education. | The method is not universal. Composite indices are calculated based on the example of the Omsk Oblast.  |

Table 1 show that the known methodological tools are not universal and therefore cannot be used to assess CHC, for example, in the Union State of Russia and Belarus, or in the context of digitalization of the economy. In this regard, the authors formulated the following hypothesis: it is possible to develop a universal methodology for assessing creative human capital, which can be used for different objects (countries, supranational entities, regions, organizations) and in different conditions (for example, digitalization in HES sector).

## RESEARCH RESULTS

### **1. Development of a universal methodology for assessing creative human capital**

The authors propose a methodology based on a modified system of indicators and dynamic and share coefficients [39; 40] to universalize the method and the assessment of CHC for different objects and different conditions.

The authors' universalization of the methodology became possible as a result of many years of research aimed at developing a system of indicators which groups indicators according to their functional purpose and which can be applied to different objects of research [countries, supranational formations, regions, organizations]. Moreover, the methodology takes into account the uniformity of indicators used in the national statistical systems of Belarus and Russia.

The authors optimally systematized the set of indicators for assessing CHC into the following functional groups [indicators]:



1. R&D potential.
2. Innovation potential.
3. Creative potential (Table 2).

**Table 2**

The indicators for assessing the creative human capital of a country (region, organization), proposed by the authors, in value terms

| Components              | Indicators   |  |
|-------------------------|--|--|
|                         | Investment [cost]  | Result [profit]  |
| 1                       | 2  | 3  |
| 1. R&D potential        | Internal spending on R&D.  | Share of exports of science-intensive and high-tech products in the total volume of exports of goods [services]. |
|                         | Investments in fixed assets.   | Volume of performed scientific and technical work.   |
|                         | R&D spending.  | Revenue from the implementation of scientific developments.  |
| 1                       | 2  | 3  |
| 2. Innovation potential | Investments in fixed assets.   | Share of innovative shipped products in the total volume of shipped products.                                    |
|                         | Amount of innovation financing.  | Coefficient of inventive activity.   |
|                         | Salary fund.   | Startup revenue.   |
| 3. Creative potential   | Costs for the development of professional and personal [creatively oriented] competencies. | Revenue from the sale of goods [services].   |
|                         | Costs for the development of the information and communication technology system.          | Revenue from the sale of science-intensive goods [services]  |

These indicators were selected because these components, in value terms, contribute to the formation of a favorable environment for the economic and social development of an economic object [39; 40] based on the effective use of creative human capital [7; 64].

We present the quantitative assessment of changes in each of the three indicators as a coefficient of change [chain rates of change]. We determine the integral change index for each indicator based on the geometric mean. Within the objectives of the ongoing research, we need to assess the weighting factors for each indicator and, if necessary, for the group components as well. In this study, we consider all indicators and components to be equivalent (significance coefficients are equivalent).

The proposed methodology also takes into account the investment component ("cost") and the resulting component ("profit") in the system of selected indicators in order to compare investment and the resulting socio-economic effect.

It is advisable to assess creative human capital separately for each organization, analyzing the dynamics of CHC, highlighting its strengths and weaknesses, justifying the necessary resources for the further development of the organization.

It is also possible to assess creative human capital in a particular industry (sphere of activity), which provides an opportunity to analyze trends in the HC dynamics aimed at the development of creative potential of people employed in a given industry (sphere).

Thus, the proposed methodology:

- 1) Has elements of scientific novelty. Firstly, it is based on the use of integral indicators

for dynamic and share coefficients; secondly, it differentiates assessment indicators into investment and profit components;

2) Is universal, since it can be applied to different objects of research (countries, supranational formations, regions, industries, organizations) by using a basic set of indicators of national statistical systems, which take into account, among other things, the vectors of modern trends in the economy and the social sphere (for example, digitalization generally and in the HES particularly, start-up movement, etc.).

This allows us to claim that this methodology for assessing CHC is universal, and it can be used for different objects and under different conditions.

## 2. Description of the results obtained

Based on publicly available statistical data, we assessed creative human capital in value terms in the Republic of Belarus and the Russian Federation using the education sector as an example. Indicators for Belarus are presented in Table 3.

**Table 3**

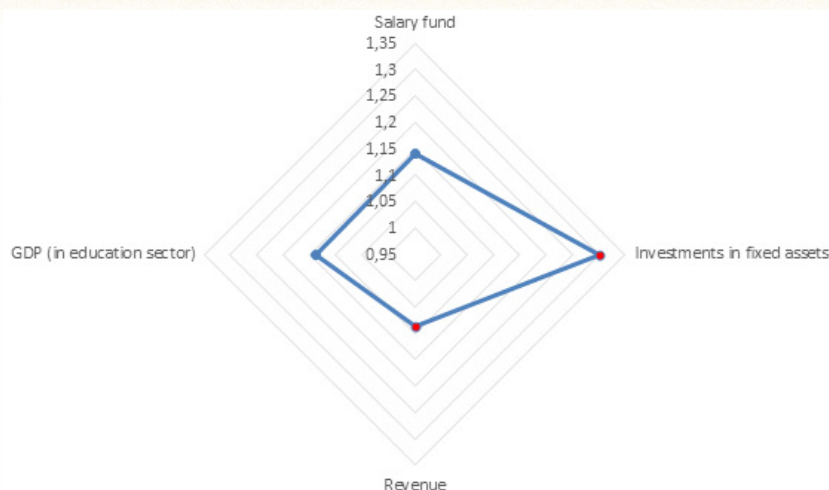
Indicators for assessing the level of creative human capital in the educational sector of the Republic of Belarus, in value terms

| Indicator                                   | 2017      | 2018    | 2019     | 2020     | 2021     |
|---|-----------|---------|----------|----------|----------|
| Salary fund, million rubles                 | 256,22625 | 300,979 | 350,5256 | 390,8703 | 431,0317 |
| Investments in fixed assets, million rubles | 187,2     | 249,5   | 360,9    | 474,1    | 537,8    |
| Revenue, million rubles                     | 132       | 148     | 166      | 166      | 185      |
| GDP [education], million rubles             | 4190,6    | 4891,3  | 5753     | 6165,7   | 7004,3   |

An analysis of the main indicators for the Republic of Belarus indicates the annual growth of both the “cost” part of human capital [the investment component] and the “profit” part (the resulting component). Thus, the salary fund showed an average annual increase of 13.9%, which indicates a comprehensive, effective system of state support measures aimed at financial incentives of workers’ labor in this area.

Basic indicators of the value of human capital are converted into an economic and social effect. In this case, these are GDP indicators (in the education sector) and revenue from the sale of educational services. GDP (in the education sector) provided an annual increase of 13.7%. Revenue also provided an annual increase (+8.8%), which confirms the effectiveness of investments in the education development.

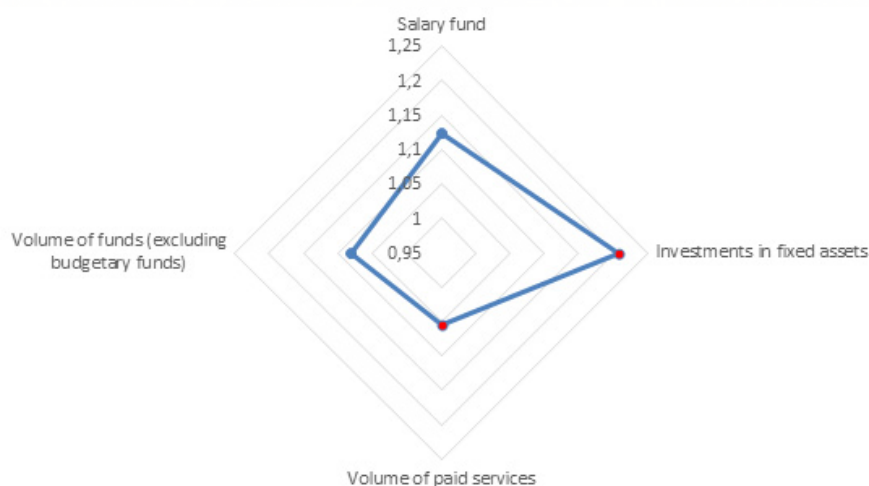
To create a favorable environment, it is important to direct investment in the development of creative human capital through the modernization of the material and technical base (represented by the indicator of investment in fixed assets). The annual growth of this indicator is 30.2%, which indicates a very effective policy of the Republic of Belarus aimed at the improvement of the material and technical infrastructure. This is especially important in the education sector, since education is one of the main elements of ensuring the competitiveness of the national education system in terms of learning, comprehensive development of youth, and training of highly qualified specialists who are in demand in the economic and social sphere of their country. Thus, the “cost” part of creative human capital [according to 2021 data] amounted to 968.83 million rubles, and the “profit” part amounted to 185 million rubles. The effectiveness of creative human capital was 19.1% (Fig. 1).



**Figure 1** The average annual increase in indicators of creative human capital in the field of education in the Republic of Belarus, in value terms

*Source: authors' calculations based on official data\**

An analysis of similar indicators for the Russian Federation shows a 12.3% average annual growth of the salary fund in the education sector (for 2017-2021), which indicates the implementation of state support measures for educational organizations employees to provide them with financial incentives. The volume of paid services, which are provided by educational organizations to ensure their financial and economic security and strategic development, is growing at an average annual rate of 5.4%. The volume of funds providing financing in the education sector (in this study – in higher education), excluding budgetary funds, is growing at an annual rate of 8.2%. This reflects the increase in non-budgetary sources of funding in the educational environment. The volume of investments in fixed assets in the education sector is growing at an average annual rate of 20.8%, which determines the effective implementation of the state policy of modernizing material and technical infrastructure (Fig. 2).



**Figure 2** The average annual increase in indicators of creative human capital in the field of education in the Russian Federation, in value terms

*Source: authors' calculations based on data [23]\*\**

\* Statistical bulletin "Socio-economic situation of the Republic of Belarus", January-May 2022. Available at: [https://www.belstat.gov.by/ofitsialnaya-statistika/publications/izdania/public\\_bulletin/index\\_52786/](https://www.belstat.gov.by/ofitsialnaya-statistika/publications/izdania/public_bulletin/index_52786/) (accessed 29 June 2022). (In Russ.).

\*\* Report "Socio-economic situation in Russia". January-August 2022. Available at: <https://rosstat.gov.ru/compendium/document/50801.?print=1> (accessed 29 September 2022). (In Russ.).

We considered it appropriate to present the assessment of creative human capital of an organization using the example of a conditional educational organization (hereinafter, CEO), which wished to provide data on its economic activities for 2018-2022 on condition of anonymity.

We used the following indicators for the assessment:

1) *The "cost" part of human capital (investment component):*

1.1. Labor costs.

1.2. R&D costs.

1.3. Employee education costs

1.4. Cultural and enlightenment costs.

1.5. Investments in fixed assets (in the active part of fixed assets).

2) *The «profit» part of human capital (resulting component):*

2.1. Revenue from the sale of goods (services).

2.2. Volume of performed scientific and technical work.

Based on the reporting data of the conditional educational organization for a 5-year period (2018-2022), an annual growth trend was revealed in each of the structural CHC components, namely:

1) *In the "cost" part of human capital (investment component) of CEO:* the annual increase of labor costs amounted to 7.9%, R&D costs – 8,8%, employee education (additional education) costs – 10%, investments in fixed assets (in the active part of fixed assets) – 6,9%, cultural and enlightenment costs – 17,1%;

2) *In the "profit" part of human capital (resulting component) of CEO:* the annual increase of revenue from the sale of goods (services) amounted to 4.4%, the annual increase of volume of performed scientific and technical work (services) amounted to 9.5% (Fig. 3).



**Figure 3** Annual increase in indicators – the constituent elements of the creative human capital of an organization (conditional educational organization), in value terms

*Source: authors' calculations based on corporate data of CEO*

Based on the reporting data of the anonymous university for 2022, the “cost” part of creative human capital amounted to 1667.2 thousand rubles, and the “profit” part amounted to 525.9 thousand rubles. Accordingly, its efficiency was 31.5% (the ratio of “profit” to “cost” parts of creative human capital).

The data on the CHC assessment of an anonymous university demonstrate the effectiveness of its activities, as well as the fact that the methodology developed by the authors uses universal indicators of national statistical systems and can be applied to other objects (country, supranational formations, regions, organizations) and in different conditions (for example, digitalization in HES sector).

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## DISCUSSION

The results obtained by us are consistent with the opinion of other domestic and foreign scientists on the issue under study, such as: T.M. Amastyle [1]; A. Faggian et al. [26]; O.M. Zigar [80], etc.

We consider it necessary to emphasize that we have not found any contradictions with other authors in the results of our research concerning the research methodology, since the object and subject of the research are quite new and there is clearly not enough work in this area.

At the same time, based on the analysis of scientific works on modern forms of human capital reproduction G. Becker [10]; G. Boyne et al. [17]; E.G. Flamholtz [28], the authors proposed the following directions for smart scenarios of human capital development:

1. Developing institutional factors of the human capital reproduction to ensure advancing growth rates of labor productivity, which is determined by the development of technologies in Gartner maturity cycles (hype cycles).

2. Studying network forms of human capital reproduction based on the implementation of platform solutions in the field of educational services.

3. Developing the concept of network EdTech forms of human capital reproduction.

4. Organizing and testing Edutainment-coaching as a technology of network training of employees on the basis of corporate universities of large corporations and educational institutions of higher education.

5. Designing the target architecture of the functional model of the region's digital educational environment.

6. Creating a strategy for the development of the region's intellectual potential based on network forms of human capital reproduction and private investment in educational services.

7. Developing a platform mechanism for managing the region's education system based on the intellectual analysis of educational data.

In our opinion, these areas require further analysis and development in a world science.

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## CONCLUSION

The authors reviewed some key issues of human capital and such aspects as: 1) human capital and creative activity; 2) the concept of creative human capital in the digital economy; 3) key trends in the development of higher education in the global economy; 4) strengthening of the role of creative human capital in organizational behavior in the context of digitalization and methods for its assessment.

As the research results show, human capital is the main factor stimulating the development of a creative economy and the growth of human capital depends on the level of education and scientific progress in the country. Empirical data show that investing in human capital contributes to the formation of a creative economy, increases the competitiveness of a country and, at the same time, and ensures the appropriate pace of its socio-economic development.

The theoretical part of the study revealed that the known methodological approaches and techniques are not universal, therefore, the practical part of the study aimed at developing a universal CHC assessment methodology, which can be used for different objects and under different conditions. This allowed us to formulate a hypothesis about the possibility of developing a universal methodology for assessing creative human capital, a methodology which can be used for different objects (countries, allied states, regions, organizations) and in different conditions (for example, digitalization in HES sector). This hypothesis was tested and confirmed in the course of an empirical study.

The authors assessed creative human capital based on the example of the education sector in Russia and Belarus. The authors also calculated the “cost” part of human capital (investment component) and the “profit” part of human capital (resulting component) using the example of a university that provided data on its economic activity for 2018-2022 on condition of anonymity.

Similarly, calculations can be made for other educational institutions, as well as other objects (countries, supranational formations, regions, organizations), since the indicators used by the authors in the calculation are universal, are presented in national statistical systems, and can be applied in different conditions (for example, digitalization in HES sector). The indicators used by the authors are the following: 1) Labor costs; 2) R&D costs; 3) Employee education costs; 4) Cultural and enlightenment costs; 5) Investments in fixed assets (in the active part of fixed assets); 6) Revenue from the sale of goods (services); 7) Volume of performed scientific and technical work.

In other words, the authors’ methodology for assessing CHC based on a modified system of indicators and the use of dynamic and share coefficients is universal, and it allows us to assess CHC for different objects and different conditions, which confirms the hypothesis of the study.

The author's methodological approaches to the assessment of creative human capital are based on indicators that reflect the cost of accumulation of human capital and investments in its development, as well as indicators that characterize the result (the “profit” component). Comparison of the investment component (resources) and the “profit” component allows us to determine the return on human capital and evaluate the effectiveness of its use. Creative human capital can be assessed at the level of the country (supranational entity and region), industry (area of activity, for example, HES sector), and individual organization (university, for instance). This will allow us to develop a set of measures to strengthen competitiveness, increase socio-economic efficiency, and improve the activities of economic entities.

Our research should help shed light on the management of organizational behavior in the system of higher education, and be especially useful for scientists, teaching staff and administrative staff at universities.

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