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В сборник включены материалы, посвященные различным аспектам жизни современного общества: проблемам социально-экономического развития, вопросам окружающей среды, тенденциям в развитии современной науки и др.

Издание адресовано студентам, магистрантам и аспирантам высших учебных заведений. Может быть полезным для всех, кто интересуется проблемами современного мира и изучением иностранных языков.

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**FONDEMENTS SCIENTIFIQUES DE L'AMÉLIORATION DE LA COMPÉTITIVITÉ DE L'ENTREPRISE: FACTEURS INTERNES ET EXTERNES**

Dans le contexte de la mondialisation et de l'évolution dynamique de l'environnement de marché, l'amélioration de la compétitivité de l'entreprise devient un facteur clé de son développement durable et de sa réussite à long terme.

Les facteurs internes comprennent les décisions de gestion, la structure organisationnelle, l'activité d'innovation, la qualité des ressources humaines et la viabilité financière. Les facteurs externes couvrent l'environnement macroéconomique, les conditions du marché, la réglementation gouvernementale, l'environnement concurrentiel et les tendances technologiques.

Le but du travail est d'étudier les bases scientifiques de l'amélioration de la compétitivité de l'entreprise, ainsi que l'interprétation du concept de « compétitivité » et de son importance dans le monde moderne

Dans le monde moderne, la compétitivité est devenue l'un des concepts clés qui déterminent le succès d'une entité économique sur le marché extérieur, mais la science économique mondiale moderne n'a pas encore donné une interprétation unique et généralement acceptée du contenu de la catégorie « compétitivité », ni une approche unique et généralement acceptée des méthodes de son évaluation et de sa formation [2, p. 72].

Atteindre la compétitivité est un objectif stratégique de chaque entreprise industrielle. Pour résoudre ce problème, les entreprises doivent développer leur propre concept de gestion de la compétitivité, qui servira de garantie à la réussite de l'activité entrepreneuriale. La compétitivité est une propriété complexe et multiforme qui permet de transformer le produit du travail en biens et services consommés par la population et de générer des bénéfices pour les producteurs et les vendeurs. La demande de biens et de services joue un rôle énorme dans une économie de marché. Il assure le développement économique durable des entreprises et leur permet d'exister et de se développer [1, P. 12].

À l'heure actuelle, le terme « compétitivité » ne fait toujours pas l'objet d'un consensus. Dans la littérature scientifique, vous pouvez trouver différentes définitions. Analysons la définition de « compétitivité de l'entreprise » donnée par plusieurs auteurs dans le tableau 1.

Tableau 1-Interprétation de la notion de «compétitivité de l'entreprise»

|  |  |
| --- | --- |
| Auteurs | Définitions |
| E. S. Rusak, E. I. Sapelkina | La compétitivité d'une entreprise est la capacité de créer et d'utiliser des facteurs stratégiques du succès qui distinguent favorablement une entreprise de ses concurrents et donnent certains avantages du marché aux produits fabriqués. |
| N. L. Zaitsev | La compétitivité de l'entreprise est la capacité de l'entreprise à maintenir une position stable sur le marché des biens et des services. |
| O. Kaldybaev, A. Temirbaev | La compétitivité de l'entreprise est la capacité économique, technique, organisationnelle de l'entreprise et son avantage par rapport à ses concurrents. La capacité de l'entreprise à résister à la concurrence: par exemple, réduire les coûts de production, améliorer la qualité des produits, occuper durablement une certaine part de la rente et obtenir des revenus élevés. |

Note – tableau établi par l'auteur sur la base de la source [3]

Ainsi, tous les auteurs considèrent la compétitivité d'une entreprise comme une catégorie relative, c'est-à-dire que chaque entreprise est comparée à ses concurrents pour certaines caractéristiques.

Avec toute la variété des interprétations de la compétitivité, il est possible de distinguer plusieurs caractéristiques qui aident à évaluer la compétitivité de l'entreprise. Voici les principaux d'entre eux: la haute qualité des produits ou des services (conformité des produits ou des services aux normes de qualité, satisfaction et fidélité des clients); l'innovation (la capacité de l'entreprise à développer et à introduire de nouveaux produits, services ou processus, l'investissement dans la recherche et le développement (R&D)); gestion efficace des ressources (utilisation optimale des ressources humaines, financières et technologiques); flexibilité et adaptabilité; avantage concurrentiel fort (compétences uniques ou ressources difficiles à reproduire pour les concurrents); solidité financière (situation financière stable et accès au capital, rentabilité élevée et croissance régulière des revenus); stratégie marketing efficace (compréhension claire du public cible et de ses besoins, promotion réussie des produits ou services sur le marché); culture; stratégie à long terme (avoir une stratégie de développement claire et réaliste, la capacité de planifier et d'atteindre des objectifs à long terme).

Ces indicateurs aident à évaluer la compétitivité de l'entreprise et à identifier les domaines à améliorer. Il est important de comprendre que la compétitivité n'est pas un état statique, mais un processus dynamique qui nécessite une surveillance constante et une adaptation aux changements de l'environnement interne et externe. I. U. Zulkarnaev et L.R.Ilyasov proposent de diviser l'ensemble des facteurs affectant la compétitivité de l'entreprise en trois groupes: les objectifs que l'entreprise se fixe; les ressources que l'entreprise possède; les facteurs de l'environnement extérieur. A. T. Zub a développé une classification des facteurs environnementaux, composée de quatre groupes: politique, juridique, économique, socio-culturel. I. A. Blank a mis en évidence les facteurs économiques, étatiques, de marché et autres facteurs externes de compétitivité. Selon les recherches de M. Porter tous les facteurs de compétitivité peuvent être divisés en plusieurs groupes: basique et développé; général et spécialisé; naturel et créé artificiellement; externe et interne.

V. Sinko, R. Yu. Emadakov ont proposé les facteurs de compétitivité les plus complets, en les divisant en interne et externe. Les facteurs internes comprennent: la qualification du personnel, la réputation et l'image de l'entreprise, les canaux d'approvisionnement en matières premières; à l'extérieur: le niveau d'investissement, l'efficacité du système financier, l'infrastructure du marché, la situation politique et socio-économique interne, le système de marketing, ainsi que la certification et la normalisation de la production. Cependant, les auteurs ne tiennent pas compte d'un certain nombre de facteurs importants: l'offre et la demande; les revenus de la population; les prix, la politique fiscale et de crédit; la structure de la production; qualité et gamme de produits; coûts de production.

E. P Golubkov propose d'évaluer la compétitivité de l'entreprise en utilisant seize facteurs de ses performances (image, concept de produit, qualité des produits niveau de diversification des types d'entreprises, la part de marché totale des principaux types d'entreprises, la capacité de la base de recherche et de conception, la capacité de la base de production, etc.), qu'il détaille et complète en raison des facteurs de compétitivité des produits et de l'efficacité des activités de marketing. Dans son travail, il a proposé de diviser l'ensemble des facteurs influençant la compétitivité de l'entreprise en trois groupes: objectifs de l'entreprise, ressources dont dispose l'entreprise, facteurs environnementaux.

À son tour, le travail constate que la compétitivité de l'entreprise est déterminée par la qualité des produits, son prix relatif, la promotion des produits sur les marchés, la capacité du réseau de distribution [3].

Il est également proposé que les critères suivants soient pris en compte pour déterminer la compétitivité d'une entreprise: degré de satisfaction du consommateur; critère temporaire d'efficacité de la production; indicateurs de qualité intégrés; le critère final d'évaluation de la compétitivité des produits et des entreprises peut être considéré comme la part de marché occupée par ce produit (cette entreprise) et les indicateurs associés [1].

La gravité de la menace de l'apparition éventuelle de nouveaux concurrents sur le marché dépend de deux groupes de facteurs: barrières à l'entrée, la réaction attendue de l'entreprise aux nouveaux entrants dans l'industrie [2, p. 74].

L'amélioration de la compétitivité d'une entreprise nécessite une approche globale qui prend en compte à la fois les facteurs internes et externes. Les facteurs internes, tels que le potentiel scientifique et technique, financier et économique et les ressources humaines, sont sous le contrôle de l'entreprise et peuvent être améliorés par une gestion stratégique et des investissements. Les facteurs externes, notamment la situation économique et politique, les conditions du marché et les changements technologiques, exigent adaptation et flexibilité. Une combinaison réussie de ces facteurs permet aux entreprises non seulement de survivre dans un environnement concurrentiel, mais aussi d'occuper une position de leader sur le marché.

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В статье обосновывается актуальность проблематики обеспечения конкурентоспособности предприятия. Проведена систематизация факторов, влияющих на конкурентоспособность организации, позволившая разделить их на внешние (рыночные условия, государственную политику, технологические тренды и конкурентную среду) и внутренние (управленческие решения, инновационная активность, качество продукции и уровень квалификации персонала) факторы. Взаимодействие этих факторов требует системного подхода и использования современных методов управления для достижения устойчивой конкурентоспособности. Исследование направлено на выявление наиболее эффективных стратегий и инструментов, способствующих укреплению позиций предприятия на рынке и обеспечению его долгосрочного успеха.

[**к содержанию**](#содержание)

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**CORPORATE FRAUD IN THE REPUBLIC OF BELARUS: CHALLENGES AND COUNTERMEASURES**

Corporate fraud is a phenomenon that affects not only individual companies and organizations but also the economy of a country as a whole. It involves illegal actions undertaken in the interest of a business with the aim of obtaining unlawful benefits. In the Republic of Belarus, where the business environment continues to evolve and adapt to the conditions of globalization and increasing competition, issues related to corporate fraud are becoming particularly relevant.

The purpose of this work is to analyze the nature of corporate fraud in the Republic of Belarus and to develop effective mechanisms to counteract it, aimed at reducing risks and improving corporate governance.

Corporate fraud refers to illegal actions committed by employees or management of a company with the aim of obtaining personal gain. This phenomenon poses serious risks to companies and individuals involved in business relationships and obligations.

The appropriation of property or the acquisition of property rights carried out by an official using their official powers (theft through the abuse of official powers) is addressed in Article 210 of the Criminal Code of the Republic of Belarus [2].

The main types of corporate fraud are outlined in the Criminal Code of the Republic of Belarus:

1. Acceptance of a bribe;

2. Giving a bribe;

3. Bribe mediation;

4. Abuse of power, exceeding authority, or neglect of authority, committed out of selfish or other personal interest [2].

The causes of corporate fraud may be linked to an economic crisis, deficiencies in internal controls, corruption, cyber threats, a lack of ethical standards, and pressure on employees.

Several mechanisms for combating corporate fraud can be identified, which address both internal and external factors:

1. Internal control. This includes internal audit, activity monitoring, data protection, data analysis, and personnel rotation.

2. Legal and regulatory mechanisms. These include the development of internal documents regulating employee behaviour; entering into confidentiality and liability agreements with employees regarding the disclosure of information.

3. Technological solutions. The use of modern technologies helps minimize the risks of fraud. For example, conducting auctions in a digital format where participants cannot identify each other helps reduce the likelihood of collusion. The implementation of software for automating financial operations also helps minimize human error.

4. Corporate culture. It is essential as it fosters values focused on honesty, transparency, and employee accountability.

5. Prevention and risk assessment. Analyzing weak points in business processes and developing measures to address them will help prevent fraud before it occurs.

6. External mechanisms. Cooperation with law enforcement agencies will enable the effective investigation of cases of already committed fraud [1].

Thus, corporate fraud represents a serious threat to business. Effective counteraction to this phenomenon requires a comprehensive approach, including both legislative measures and internal initiatives by companies and organizations. Existing mechanisms for combating it help reduce the risks of fraud and increase the level of trust in business from both consumers and investors.

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Статья посвящена анализу природы проблемы корпоративного мошенничества в Республике Беларусь и выявлению эффективных механизмов противодействия ему, направленных на снижение рисков и улучшение корпоративного управления. В работе подчеркивается важность внедрения механизмов противодействия мошенничеству для снижения рисков мошенничества и повышения доверия к бизнесу со стороны потребителей и инвесторов.

[**к содержанию**](#содержание)

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**PREVENTIVE MEASURES TO REDUCE THE RISK OF KNEE INJURIES IN BASKETBALL PLAYERS**

Basketball is a fast-paced, high-intensity sport that places significant demands on players’ lower bodies, particularly their knees. Knee injuries are one of the most common injuries, with potentially severe consequences for their performance and long-term health. Given the repetitive jumping, sudden directional changes, and physical contact involved in the game, the knees are subjected to significant stress. Knee injuries can be acute, occurring suddenly due to trauma, or chronic, developing gradually due to overuse. The impact of knee injuries on basketball players can be substantial, ranging from short-term impairment and missed games to long-term disabilities that can end careers. Consequently, understanding the causes and mechanisms behind these injuries, alongside appropriate prevention and treatment strategies, is crucial for ensuring the safety and longevity of athletes.

This article aims to review various preventive measures that will help reduce the risk of knee injuries in basketball players.

Prevention of knee injuries in basketball players involves a multi-faceted approach that includes strength and conditioning, proper biomechanics, injury education, and appropriate equipment. Implementing these strategies can significantly reduce the risk of both acute and chronic knee injuries [1].

Strength Training: developing strong muscles around the knee joint, particularly the quadriceps, hamstrings, and glutes, is crucial for stabilizing the knee and reducing stress on the ligaments and tendons. Strengthening the core muscles is also important for maintaining balance and control during rapid movements. Regular strength training exercises such as squats, lunges, and leg presses can help reduce the likelihood of injury.

Plyometric and Jump Training: plyometric exercises, which involve explosive movements like jumping, help athletes improve their landing mechanics and overall neuromuscular control. Teaching players how to land properly (keeping the knees aligned over the toes and avoiding excessive inward collapse) can help prevent injuries related to improper landing.

Agility and Balance Training: incorporating agility drills and balance training into a player’s routine can enhance coordination, body awareness, and control during dynamic movements. This can reduce the risk of non-contact injuries like ACL (anterior cruciate ligament) tears, which often occur due to poor body positioning and balance during sudden stops or pivots.

Flexibility and Stretching: maintaining flexibility in the muscles surrounding the knee can prevent tightness and imbalances that contribute to injury. Regular stretching of the quadriceps, hamstrings, and calves is essential, particularly after intense physical activity.

Proper Warm-Up and Cool-Down: engaging in a thorough warm-up before games or practices helps increase blood flow to the muscles, improves flexibility, and prepares the body for the physical demands of the sport. Similarly, cooling down with stretching and light activity can help reduce muscle stiffness and aid recovery.

Load Management and Rest: overtraining and insufficient rest are major contributors to overuse injuries like patellar tendonitis. Monitoring players’ workloads and ensuring adequate recovery time between games and practices is essential for preventing chronic knee problems. Load management strategies, such as reducing playing time or modifying training intensity, can help protect athletes from injury.

Appropriate Footwear and Equipment: wearing basketball shoes with adequate ankle support, cushioning, and grip can help prevent knee injuries by improving stability and absorbing shock during jumping and running. Additionally, knee braces or sleeves may provide extra support for players recovering from previous injuries.

Thus, knee injuries are a significant challenge for basketball players, given the physical demands and explosive movements associated with the sport. Preventive measures such as strength training, proper biomechanics, flexibility, and appropriate footwear can substantially reduce the risk of knee injuries. However, when injuries do occur, early intervention through non-surgical or surgical treatment is essential for a successful recovery. By implementing comprehensive injury prevention strategies and providing appropriate treatment, basketball players can reduce the likelihood of knee injuries and prolong their athletic careers.

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В статье показаны различные профилактические меры для снижения риска травм колена у баскетболистов. Внедряя комплексные стратегии профилактики травматизма, баскетболисты могут снизить вероятность травм колена и продлить свою спортивную карьеру.

[**к содержанию**](#содержание)

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**THE HISTORY AND EVOLUTION OF PIANO ACCOMPANIMENT TRAINING METHODS IN CHINA**

As an important form of musical performance, piano accompaniment plays an indispensable role in music education in China. With the continuous development of music education in China, piano accompaniment training methods have undergone significant changes. This study aims to outline the historical context of piano accompaniment training methods in China, explore their evolution, and analyze the characteristics and influencing factors of each stage. By reviewing the development of piano accompaniment training methods in China, this paper will provide valuable insights and inspiration for the innovation and development of piano accompaniment education in the future.

The germination of piano accompaniment training in China can be traced back to the early 20th century. With the introduction of Western music, the piano gradually became part of China’s music education system. Early piano accompaniment training was primarily attached to vocal music education and lacked systematic training methods. The training content during this period mainly focused on mastering basic skills, such as scales, arpeggios, and simple harmonic exercises [8].

In terms of teaching methods, the early stage primarily relied on imitation and repetitive practice. Due to the lack of professional piano accompaniment teaching materials, teachers often used simple accompaniment scores imported from abroad. Despite limited resources, the explorations during this period laid the foundation for the development of piano accompaniment training in China and cultivated a group of early piano accompanists [1, 10].

After the founding of the People’s Republic of China, piano accompaniment training entered an exploration stage. A notable feature of this period was the emphasis on systematization and specialization. Music conservatories began offering courses related to piano accompaniment and attempted to establish independent piano accompaniment programmes. The training content expanded from purely technical exercises to include the understanding and interpretation of musical works, emphasizing the collaboration between accompanists and soloists [2, 3, 4].

Later on, when it comes to teaching methods, advanced training concepts from abroad, such as Soviet piano pedagogy, were introduced. Meanwhile, Chinese music educators began exploring training methods suitable for Chinese students. In terms of teaching materials, the first batch of piano accompaniment textbooks written by Chinese musicians emerged, laying the groundwork for future development. The explorations during this stage pointed the way for the professional development of piano accompaniment training in China [6, 8].

After the reform and opening-up, piano accompaniment training in China entered a period of rapid development. A significant feature of this stage was the diversification and systematization of training methods. With increased international exchanges, various advanced piano accompaniment training methods were introduced to China, such as German art song accompaniment training and American jazz piano accompaniment techniques. The training content became more diverse, covering classical, popular, and ethnic music [9, 10].

The continued development of piano accompaniment teaching methods began to focus on cultivating students’ musical expressiveness and creativity. New teaching formats, such as group classes and master-classes, became increasingly popular, providing students with more opportunities for practice and exchange. In terms of teaching materials, a large number of piano accompaniment textbooks catering to different levels and needs emerged, forming a relatively complete textbook system. The development during this stage significantly improved the level of piano accompaniment training in China and cultivated a large number of outstanding piano accompanists [3, 5].

In the 21st century, piano accompaniment training in China entered a stage of innovation and development. A notable feature of this period is the application of digital technology and interdisciplinary integration. With the development of computer technology and artificial intelligence, new technologies such as virtual accompaniment software and intelligent practice systems have been introduced into piano accompaniment training, greatly enriching training methods. At the same time, piano accompaniment training has begun to integrate with other disciplines, such as psychology and education, forming a more scientific and humanistic training system [7].

The contemporary stage of teaching piano accompaniment places greater emphasis on personalization and tailored instruction. New teaching models, such as online teaching and blended learning, have become increasingly popular, offering students more flexible and diverse learning options. In terms of teaching materials, in addition to traditional printed textbooks, a large number of digital textbooks and online resources have emerged, significantly expanding learning channels. The innovative development during this stage has modernized and internationalized piano accompaniment training in China, laying the foundation for cultivating piano accompanists with a global perspective.

By reviewing the history and evolution of piano accompaniment training methods in China, we can observe a development process that has progressed from simple imitation to independent innovation, and from uniformity to diversity. This evolutionary process reflects the advancement of music education in China and the flourishing of piano accompaniment art. In the future, piano accompaniment training in China will continue to develop in a more scientific, personalized, and internationalized direction. We look forward to the emergence of more innovative training methods that integrate modern technology and reflect Chinese characteristics, contributing to the cultivation of world-class piano accompanists.

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В статье рассматривается историческое развитие и эволюция методов обучения фортепианному аккомпанементу в Китае. Прослеживается путь обучения с момента его появления в начале 20 века до его инновационного развития в 21 веке. Исследование показывает, что китайские методы обучения фортепианному аккомпанементу прошли четыре этапа: зарождение, исследование, развитие и инновации, постепенно формируя систему обучения с китайской спецификой. В исследовании также анализируются характеристики и факторы влияния каждого этапа, а также будущие тенденции развития.

[**к содержанию**](#содержание)

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**SYNESTHESIA EXPERIENCE IN THE WORKS OF ART**

Around 4% of people can see colour of music or feel the taste of words. “There are a lot of creative people among them, for example, Nabokov, Rimsky-Korsakov and Kandinsky” [1]. Synesthesia is rare psychological phenomenon in which a person connects a signal from one sensory organ with a signal from another, although there is no apparent reason for the connection between them. People who experience synesthesia are called synesthetes. They experience lines, shapes and colors when listening to music or they can perceive tastes when they hear words. The purpose of this article is to explore the phenomenon of synesthesia, its influence on perception and creativity, as well as to understand the unique experiences of individuals who possess this ability.

Word “synesthesia” is derived from two Ancient Greek words: “together” and “sensation”. Cognate Ancient Greek word “anesthesia” means “without sensation” meanwhile synesthesia – “mix of sensations”. According to the research, synesthesia affects approximately 1–4% of people, about a 50/50 male to female ratio. Scientists note that synesthesia is not a medical condition or psychological disorder. If you experience colors while listening to music, it doesn’t mean that something is wrong with your hearing. Those with chromesthesia don’t have any psychological disorder. For synesthete’s brain colors are triggered when musical notes or keys are being played. Also, temporary synesthesia can be triggered by use of medical drugs, alcohol or coffee. Synesthesia is also not a supernatural power. If synesthete experiences colors while listening to music, this fact doesn’t mean that music has some physical colors seen only by chosen ones. This is just an individual neurological reaction of synesthete.

An example of synesthesia in art issynesthete Lauren Alyssa Bierly. Her world is full of bright and diverse sensations that materialize as she reads, thinks and meditates. Lauren is not only a synesthete, but also an interdisciplinary artist who uses her special perception in her art. She makes artworks that allow others experience her own perception of world. In her first college year Lauren Bierly realized that her synesthesia experience wasn’t something that everyone had. She was working on a project with her studio mate in architecture school when she noticed that he was coloring alphabet letters and asked didn’t he want to use color orange for “B”. This question amused him and he asked: “Why?”. Then Lauren explained that all letters have their own colors. This moment was crucial because she realized that her perception differs from others. After that she wrote alphabet in color for the first time. That gave her new understanding of her condition. But this experience was far from easy: “It felt like nails on a chalkboard because, although the colors aligned, his marker set didn’t have the right tones” [2]. Lauren decided to investigate synesthesia in her own work. She asked herself a question: “What would be the physical experience of what I’m experiencing internally?” [2]. In 2013 she made a sample of work, which become the base of her series “Color Translation”. In this series she translated essay of Ralph Waldo Emerson’s “Nature” into color. When she stood back from it, she thought: “This is it. This is as close as I can get to the feeling” [2]. This process became the way to express her inner feelings and share her experience with other people. She’s using different materials to visualize her sensations creating unique artworks that are translating her world sensation. Her works are not only visualizing her sensations, but also creates dialog between the creator and the audience. With the help of colors and shapes she invites the audience to observe her inner world, giving it opportunity to interpret her works from its point. This approach allows her to create unique artworks that provide her sensation. Lauren Bierly believes that explanation of her condition and demonstration of her sensation helps people to better understand synesthesia. “Being able to explain the condition to someone and then show them what it feels like helps provide an avenue for their curiosity, so they can ask questions and get a better sense of the experience” [2]. Her work becomes an invitation to research of neurodiversity and different ways of sensation. She finds it important to share her experience to create an environment for discussion and understanding of synesthesia. This breaks new ground for those who wants to learn more about sensation diversity and the influence of these diversity in artworks and self-expression. People who experience several synesthesias are multiple synesthetes. These synesthetes have 7 or more forms of synesthesia.

While researching synesthesia, scientists try to define genetical characteristics that form the basis of creativity, imagination, abstract and metaphorical cognition. Through synesthesia scientists learn how to treat phantom limb syndrome. Technologies based on studying synesthesia are used in prosthetic design, GPC and DAS engineering. Synesthesia researching helps in machine learning. Neuropsychologists use special tests and brain activity measurements to identify synesthetes. Special equipment registers unusual brain activity in some brain areas when they observe stimuli, for example letters and numbers of those colors that not correlate with their sensation. There is no such activity in non-synesthetes brains. Furthermore, to separate synesthesia from imagination and associations widespread among all people, scientists test synesthetes’ time and accuracy reaction. Actual synesthete has permanent and constant connections between color and letter, taste and shape, and these connections remain unchanged for years.

The conclusion can be drawn that synesthesia is not a medical condition but rather an individual neurological perception that can enrich the creative process and aid in the study of neurodiversity. Research in the field of synesthesia opens new horizons in understanding creativity, learning and treatment possibilities, demonstrating how different forms of perception can impact art and self-expression.

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В статье исследуется феномен синестезии, который связывает различные чувственные восприятия. Примеры творческих работ Лорен Алиссы Бирли иллюстрируют, как синестезия обогащает художественное самовыражение. Подчеркивается тот факт, что синестезия – это не медицинское состояние, а уникальное неврологическое восприятие. Показаны новые возможности для диалога о разнообразии восприятия и его влиянии на искусство.

[**к содержанию**](#содержание)

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**ISSUES OF ROAD TRAFFIC ACCIDENTS (RTA) INVOLVING AGRICULTURAL VEHICLES**

Road traffic accidents are one of the most serious problems facing modern society, affecting not only personal safety but also the economy, ecology, and social aspects. In recent years, there have been “a rising number of accidents involving agricultural machinery, raising concerns among both agricultural specialists and authorities” [1].

Agricultural machinery, including tractors, combines, seeders, and other machines, plays a key role in modern agriculture; however, it is also a significant source of risks on the roads. According to statistics, accidents involving agricultural machinery account for a substantial proportion of all accidents, particularly during active agricultural periods such as planting and harvesting.

Main causes of accidents [3]:

1. Insufficient visibility. The large size of agricultural machinery and its movement on public roads can create visibility problems for drivers of passenger vehicles, especially in poor weather conditions or at night.
2. Unjustified Speed. Drivers of agricultural machinery sometimes exceed the allowable speed, as they may be in a rush to complete their work, increasing the risk of emergency situations.
3. Non-compliance with traffic rules. Sometimes, drivers of agricultural machinery do not strictly follow traffic rules, failing to use turn signals or violating rules while maneuvering.
4. Poor road conditions. Numerous roads do not often meet safety standards. This condition is augmented by inadequate road markings and insufficient lighting.
5. Lack of specialized training. Drivers of agricultural machinery do not always receive adequate training, which can lead to undue risks on the road.

Accidents involving agricultural machinery not only harm the health and lives of individuals but also result in significant economic losses. Repairs of “damaged machinery, medical assistance for victims, and potential lawsuits all create additional financial burdens for farmers and society as a whole” [2].

Addressing the issues of RTAs involving agricultural machinery requires a “comprehensive approach” [1]:

1. Driver training and skill enhancement:
   1. Safe driving courses. Special training programmes have been developed for drivers of agricultural machinery, covering essential traffic rules, safe maneuvering, and proper road behaviour;
   2. Seminars and workshops. Conducting workshops to raise awareness of risks and ways to minimize them.
2. Improving visibility of agricultural vehicles:
   1. Reflective elements. Installing reflective stickers and signs on machinery to enhance visibility during nighttime and in poor weather conditions;
   2. Use of flashing lights. Equipping tractors and combines with warning lights to make them more recognizable to other drivers.
3. Enhancing road infrastructure:
   1. Repair and modernization of roads. Conducting repair works on rural roads to improve their safety, including better surfaces and the installation of curbs.
   2. Designating special lanes. Creating designated lanes or zones for the movement of agricultural machinery on main roads.
4. Introducing rules and regulations:
   1. Legislation. Enacting laws that regulate the movement of agricultural machinery on public roads, including speed limits and transportation rules for agricultural products;
   2. Monitoring compliance. Increasing the number of monitoring services that oversee compliance with traffic rules by drivers of agricultural machinery.
5. Conducting awareness campaigns:
   1. Public initiatives. Launching awareness campaigns to educate the public about road safety, including recommendations on how to behave when encountering agricultural machinery;
   2. Media campaigns. Utilizing mass media to spread information about safe driving rules and the necessity of adhering to road order.
6. Utilizing technology:
   1. Modern monitoring systems. Implementing GPS technologies to track the location of agricultural machinery, helping to plan routes in advance and avoid congested roads;
   2. Automation and driver assistance systems. Using technologies that assist drivers in managing machinery safely (e.g., movement control systems and automated collision warning systems).
7. Collaboration with local authorities and communities:
   1. Partnerships with local governments. Collaborating to address road safety issues and jointly improve infrastructure;
   2. Creating initiative groups. Forming groups of local farmers and drivers to discuss problems and necessary measures.

The issue of road traffic accidents involving agricultural machinery is relevant and multifaceted. Its resolution requires the cooperation of various organizations, government, and the farmers themselves. Only comprehensive measures can significantly improve safety on roads where agricultural machinery operates and protect people's lives.

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Статья посвящена проблемам дорожно-транспортных происшествий (ДТП) с участием агропромышленной техники. В ней подчеркивается рост числа таких аварий, особенно в периоды активной сельскохозяйственной деятельности. Рассматриваются основные причины ДТП, включая недостаточную видимость, скорость, несоблюдение правил и плохое состояние дорог. Кроме того, статья анализирует экономические и социальные последствия аварий. В качестве решения проблемы предлагаются меры, такие как улучшение видимости техники, повышение квалификации водителей, модернизация дорог и проведение информационных кампаний для повышения осведомленности среди водителей. В заключение подчеркивается важность комплексного подхода к повышению безопасности на дорогах.

[**к содержанию**](#содержание)

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**ENVIROMENT PROTECTION AND PATHWAYS TO IMPROVE THE GLOBAL ECOLOGICAL SITUATION**

The contemporary world confronts unprecedented environmental exigencies. Climatic perturbations, pervasive environmental pollution, and the depletion of natural resources imperil not only the well-being of the current generation, but also jeopardize the future trajectory of the entire planet [1, с. 5]. The global ecological predicament necessitates immediate and resolute action at all echelons, spanning from comprehensive global policymaking to the discrete habits of each individual. Sustainable development, predicated upon the harmonious co-existence of humankind and the natural world, is transitioning from a merely desirable scenario to an existential imperative.

The objective of this article is to scrutinize the preeminent challenges confronting environmental protection and to analyze pathways for ameliorating the global ecological situation. Within the purview of this objective, specific instances of localized initiatives, amenable to scalability for the achievement of global transformations, will be examined. Particular emphasis will be accorded to three salient domains: the augmentation of verdant zones, the advancement of sustainable transportation modalities, and the cultivation of a deeply embedded culture of waste reduction and conscientious consumption.

The challenges inherent in environmental protection manifest a multifaceted character, attributable to both inherent geophysical factors and anthropogenic perturbations. The cardinal ecological quandaries encompass:

Climatic Alterations: Ascending temperatures, the ablation of glacial formations, and increasingly prevalent extreme meteorological phenomena are all consequences of an augmented concentration of greenhouse gases within the Earth's atmosphere, engendered by the combustion of fossil fuels, deforestation, and various other anthropogenic activities.

Atmospheric Contamination: Effluents emanating from industrial facilities, vehicular transportation, and power generation installations engender atmospheric contamination, exerting deleterious effects upon human health and the integrity of ecosystems.

Aquatic Resource Impairment: The discharge of industrial and domestic effluents, coupled with the application of pesticides and fertilizers in agricultural practices, compromises the integrity of rivers, lakes, and marine environments, posing a significant threat to aquatic organisms and precluding human access to potable water resources.

Terrestrial Contamination: The imprudent utilization of chemical substances, inadequate waste disposal methodologies, and ancillary factors engender terrestrial contamination, diminishing soil fertility and posing a discernible threat to human well-being.

Natural Resource Depletion: Imprudent exploitation of natural resources, encompassing petroleum, natural gas, coal, potable water, and silvicultural products, culminates in resource depletion and a disruption of the established ecological equilibrium.

Biodiversity Diminution: Habitat fragmentation, escalating environmental pollution, and associated factors precipitate a decline in the abundance of diverse floral and faunal species, thereby jeopardizing the inherent stability of existing ecosystems.

In light of the aforementioned exigencies, initiatives implemented at all levels assume paramount significance. By way of illustration, we shall examine development potentials instantiated within a delimited geographical precinct wherein I maintain domicile, which concurrently evince a latent capacity for broader global transposition.

One of the pivotal vectors for optimizing the ecological equilibrium resides in the strategic expansion of verdant zones. The intentional transmutation of underutilized landmasses, such as derelict urban wastelands and languishing tracts of desuetude, into resplendent public gardens and meticulously maintained parklands not only elevates the aesthetic character of the local milieu but also yields a multiplicity of salutary ecological and social ramifications [3, с. 112]. Photosynthetic vegetation effectuates the sequestration of atmospheric carbon dioxide, mitigates the urban "heat island" effect, and augments the ambient air quality, thereby engendering a more salubrious and agreeable habitat for all inhabitants.

A second critical vector resides in the strategic advancement of sustainable transportation modalities. Astute investments in comprehensive, interconnected cycling infrastructure, as well as the enhancement and diversification of public transportation options, assume vital significance in attenuating collective reliance on privately operated automobiles and promoting a more physically active and health-conscious lifestyle among inhabitants.

Providing convenient and affordable public transportation options, such as more frequent bus services and local tram lines, could incentivize residents to rely less on personal transportation. Dedicated bike lanes would make cycling safer and more attractive, contributing to the development of a healthy and environmentally friendly mode of transport.

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В статье рассматриваются основные экологические проблемы современности и предлагаются пути улучшения экологической ситуации в мире. Особое внимание уделено локальным инициативам, таким как расширение зеленых зон, развитие устойчивого транспорта и формирование культуры сокращения отходов, которые могут быть масштабированы для достижения глобальных изменений. Подчеркивается важность осознания каждым человеком своей ответственности за будущее планеты.

[**к содержанию**](#содержание)

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**SPORT AND TOURISM: PROMOTION OF HEALTHY LIFESTYLE**

Health is an invaluable asset not only for each individual, but also for the whole society. Each of us has a desire to be strong and healthy, to keep as long as possible mobility, strength, energy and to achieve longevity. This is the main value of life. It can not be bought for any money, it must be preserved, protected and improved from an early age, from the first days of a child's life.

A healthy lifestyle is a way of life based on the principles of morality, rationally organization, active, labor, hardening and, at the same time, protecting from adverse environmental influences; it allows one to preserve moral, mental and physical health until deep old age.

Among the factors influencing the state of human health, traditionally identified by the World Health Organisation, a special place is occupied by lifestyle. The share of influence of this factor is 50‑55 % [1].

The guarantee of successful development of our society is, firstly the health of the younger generation, as they are the future of each country, and if we want to live in a healthy, developing, not standing still society, we must be more attentive to the lifestyle of our children. One child leading an unhealthy lifestyle in a school classroom can lead to dozens of students. Unfortunately, many teenagers today do not lead healthy lifestyles, leading to high rates of obesity, poor diet, lack of physical activity and a growing number of mental health issues such as depression and anxiety. Looking at this problem from a psychological perspective, there is an answer to this teenage behaviour. Through this negative way, the child wants to stand out among the society. This stems from the attention given by the parents. A teenager, deprived of attention, care and affection will not try to stand out among society, as he has an adequate self-esteem, a correct view of the world, contentment with his own life.

As Sukhomlinsky noted: “Caring for the health of children ‑ this is the most important work of the educator”. On the cheerfulness, vigour of children depends their spiritual life, outlook, mental development, strength of knowledge, faith in their own abilities.

Promotion of a healthy lifestyle is necessary in educational institutions, such as kindergartens, schools and universities, because it is there that a person is formed as a personality, adapts to the environment and adopts the habits of the society in which he or she lives. Based on the totality of all these factors, it should be noted that propaganda in educational institutions plays an important role in shaping the health of participants in the educational process, as well as in increasing the labour potential of society as a whole.

There are several methods of promoting healthy lifestyles among adolescents:

1) Oral propaganda method ‑ is one of the most effective. This method includes lectures, presentations and discussions that aim to promote healthy lifestyles.

2) MEDIA. This method can actively outline the benefits of healthy eating, physical activity, abandoning bad habits and achieving psychological well-being. It represents articles, interviews with experts, TV programmers devoted to healthy lifestyle.

3) Visual method ‑ based on the placement of commercials and posters, distribution of brochures that contain information about the benefits of physical activity, proper nutrition, the harm of smoking, drug and alcohol use.

The personal qualities of a person are of great importance in the formation of a healthy lifestyle. Nothing and no one can make a person lead a healthy lifestyle than he/she himself/herself.

It should be noted that sometimes it is necessary to observe not only the child, but also yourself. It is not news to anyone that children copy the behaviors of their parents. No matter how children are brought up in kindergarten or school, they will still repeat the habits of the family.

A healthy lifestyle is not only sports, proper nutrition, sleeping habits, but also tourism. We often hear the advice of adults about how important it is to travel. They did not use their youth for the sake of tourism, visiting other countries, acquiring new knowledge and recreation, and now they remember it with regret. Tourism not only serves as a rest and escape from the routine of everyday life, but also expands the horizons, allowing us to deepen knowledge about the culture of other countries, their mentality, sights.

Tourism is sports development, active leisure, a chance to get to know better the geography, history and even the soul of Belarus. It is a direct way to foster a sense of patriotism of the younger generation of our country. [2]

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В статье рассматривается проблема популяризации здорового образа жизни среди подростков и влияние этого фактора на их физическое здоровье и психологическое состояние. Анализируются различные методы пропаганды здорового образа жизни, такие как использование средств массовой информации, образовательные программы и туризм. Также анализируется эффективность этих методов и возможные способы их совершенствования.

[**к содержанию**](#содержание)

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**MARITAL CONTRACT IN THE REPUBLIC OF BELARUS: LEGAL ASPECTS AND MODERN TRENDS**

The institution of the marital contract, as a special tool for regulating property relations between spouses, is gaining increasing relevance in contemporary law. In the context of dynamic changes in the social structure of society and the diversity of family relationship forms, the marital contract becomes an important mechanism that allows spouses to determine their rights and obligations in advance concerning property, financial matters, and other significant aspects of joint life.

The aim of this study is to analyze the institution of the marital contract in the Republic of Belarus, including an examination of its legal nature, assessment of its advantages and disadvantages, and identification of modern trends in its development.

A marital contract is recognized as an agreement between individuals entering into marriage or spouses regarding the definition of their personal non-property and/or property rights and obligations both during the marriage and after its dissolution.

The marital contract must be concluded in writing and is subject to notarization. State registration of the marital contract takes place after the registration of the marriage, but it can also occur after the marriage is dissolved if the marital contract stipulates the rights and obligations of former spouses after the marriage termination [1].

Regarding the basis for conclusion, the marital contract is a free expression of the will of the parties. It is concluded at the discretion, will, and desire of future spouses or spouses. The parties to the marital contract are free to determine the subject of the contract, its duration, and other conditions that define their rights and obligations, except those that are imperatively established by law. Depending on how the conditions are defined, the marital contract belongs to the group of contracts with agreed terms. This classification criterion does not change even if some or all of the contract terms are proposed by one spouse, and the other spouse agrees to them [2].

In modern society, the marital contract has several advantages:

1. The marital contract allows spouses to determine in advance the property rights for the property acquired during the marriage, thereby reducing the risks of disputes during divorce.

2. The presence of a marital contract significantly simplifies the process of property division in case of divorce. This can help avoid lengthy court proceedings and conflicts.

3. Spouses can establish conditions that take into account their individual needs and circumstances, making the contract highly personalized.

Along with its advantages, the marital contract also has some disadvantages:

1. Many people are unaware of the possibility of entering into a marital contract or do not understand its significance, leading to insufficient use of this civil legal transaction.

2. Preparing a marital contract requires legal expertise and may necessitate engaging specialists, which involves additional financial costs.

3. The conclusion of the contract may be perceived as a manifestation of distrust towards each other, which can negatively affect the emotional atmosphere in the family.

It should be noted that the growing popularity of marital contracts debunks the stereotype of them as signs of mistrust. This indicates an increase in the legal culture of the younger generation, which increasingly sees the marital contract as a rational and necessary tool for regulating property relations. It can be concluded that spouses (and future spouses) are beginning to approach questions regarding marriage and family more thoughtfully and consciously.

Thus, the marital contract becomes an important tool for organizing relationships and ensuring legal security in modern family relations, making this topic relevant for discussion.

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Статья посвящена анализу брачного договора в Республике Беларусь как важного инструмента регулирования имущественных отношений между супругами. В условиях изменений социальной структуры и разнообразия форм семейных отношений, брачный договор приобретает особую значимость, позволяя заранее определить права и обязанности супругов. Рассматриваются правовая природа договора, его преимущества и недостатки, а также современные тенденции развития.

[**к содержанию**](#содержание)

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**APPLICATION OF IFRS IN THE ACCOUNTING OF REVENUE FROM CONTRACTS WITH CUSTOMERS IN AGRICULTURAL ORGANIZATIONS OF THE REPUBLIC OF BELARUS**

Standards are now globally recognised as an effective tool for providing transparent and understandable information about an organisation's activities. IFRS are based on principles rather than rigidly prescribed rules, which allows preparers to fully reflect the economic nature of the company, its current state and prospects. They are not a dogma, normative documents regulating specific methods of accounting and reporting, but are only of a recommendatory nature, i.e., they are not mandatory for adoption.

Today, the implementation of International Financial Reporting Standards in organisations of the Republic of Belarus is an urgent issue. The benefit of the introduction of IFRS for our state is primarily due to the attraction of foreign capital in order to improve relations with foreign investors.

International Financial Reporting Standards (IFRS) are generally accepted rules for the recognition, measurement, and disclosure of financial and economic transactions for the preparation of financial statements by firms.

The system of IFRS documents does not contain special provisions that would regulate the transformation of reporting into the IFRS format (i.e., prescribe a rigid sequence of actions, contain a set of transformation tables, etc.) and unify its sequence.

The most important indicator of the organisation's work is revenue, defined as cash or other property in monetary terms, received or to be received as a result of the sale of goods, finished products, works, services at prices, tariffs in accordance with the contract [1, p. 53].

However, in accordance with IFRS 15 ‘Revenue from Contracts with Customers’, revenue is understood as gross inflow of economic benefits during a certain period arising in the ordinary course of the organisation's activities if it leads to an increase in equity but is not related to contributions of capital participants [2, p. 39].

The objective of this standard is to establish the principles that an entity should apply when reporting information useful to users of financial statements about the nature, amount, timing, and uncertainty of revenue and cash flows arising from a contract with a customer.

While applying this standard, an entity shall consider the terms of the contract and all relevant facts and circumstances. An entity should apply this standard, including the use of any practical expedients, consistently to contracts with similar characteristics and in similar circumstances.

Revenue from the sale of products is recognised in the accounting records when the following conditions are met:

- The risks and rewards of ownership of the products, goods have been transferred to the buyer;

- The amount of revenue can be determinable;

- It is probable that the economic benefits of the organisation will increase as a result of the business transaction;

- The costs that have been incurred or will be incurred in the course of the business transaction can be determined [2, p. 40].

When determining the date of recognition of revenue from the sale of products, the organisation also takes into account the peculiarities of the functioning of the activity and the terms of the concluded contracts.

A contract is an agreement under which each party has rights and obligations. Revenue recognition begins with identifying the contract. In IFRS, a contract is not necessarily a document signed and sealed. One of the fundamental principles of IFRS is that the substance of the transaction prevails over the form. Therefore, when identifying a contract, it is important to recognise that it may be entered into verbally, or a contract may be understood to be a promise established in industry business practice.

A performance obligation refers to a promise to transfer a good or service to the buyer. The contract identified in step one may contain multiple performance obligations. Therefore, the next task is to identify the contractual obligations that will generate revenue.

The next step is to determine the transaction price. The transaction price is the amount of consideration received in exchange for the transferred goods/services. If a sufficiently long period of time is defined between the date of payment and shipment, the contract price will contain a significant financing component. The central concept in IFRS in the study of accounting for transactions is control. Control is the ability to direct the use of an asset, the ability to obtain the full benefits of ownership of the asset, or the ability to restrict the access of other entities to the asset and bear all the risks associated with ownership of the asset.

It is obvious that the transition of the national accounting system to IFRS will entail significant costs both at the state level (for official translation of standards, creation of infrastructure for IFRS application, transformation of the system of regulation and control of accounting and reporting, training and professional development of personnel) and in individual organisations (for replacement or modernisation of software, personnel training, audit and consulting services). A real help could be the creation in the Republic of Belarus at the state level of a specialised body – responsible coordinator of the IFRS transition process, as well as the formation on the basis of state executive authorities of specialised departments, which should be responsible for studying and analysing the IFRS implementation experience.

Thus, the adoption of IFRS 15 in the Republic of Belarus is an important step towards attracting users of accounting (financial) statements, primarily investors, to the agricultural sector. It can be concluded that domestic accounting rules are closer to international financial reporting standards. In this case, the so-called linking of revenues and expenses occurs (i.e., revenues and expenses related to the same transaction or event are recognised at the same time).

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Статья посвящена анализу применения Международных стандартов финансовой отчётности (МСФО), в частности стандарта МСФО 15 «Выручка по договорам с покупателями», в сельскохозяйственных организациях Республики Беларусь. Рассматривается актуальность внедрения МСФО для повышения прозрачности отчётности и привлечения иностранных инвестиций, что особенно значимо для аграрного сектора. В качестве решения предлагается формирование специализированных государственных органов для координации процесса внедрения и анализа международного опыта.

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**PECULIARIDADES DE LA COOPERACIÓN ECONÓMICA ENTRE FRANCIA Y LOS PAÍSES AFRICANOS**

La relación económica entre Francia y los países africanos tiene una rica historia, enraizada en el pasado colonial. Esta relación se ha desarrollado como resultado de la interacción entre Francia y sus antiguas colonias africanas, dando lugar a la formación de vínculos económicos únicos. El periodo colonial estuvo marcado por la explotación de los recursos africanos y el establecimiento de relaciones comerciales no equivalentes en las que Francia accedía a materias primas y mercados para sus productos.

El objetivo de este estudio es analizar las relaciones económicas establecidas entre Francia y los países africanos, teniendo en cuenta el contexto histórico y las tendencias actuales en el desarrollo de estas relaciones.

La cooperación económica de Francia con África se basa en un acuerdo de cooperación monetaria con las tres zonas monetarias africanas: la Unión Económica y Monetaria del África Occidental (UEMOA), la Comunidad Económica y Monetaria del África Central (CEMAC) y la Unión de las Comoras.

En este ámbito, se hizo especial hincapié en la preservación de la zona del franco. En virtud de este acuerdo, todos los Estados miembros africanos adoptaron la moneda única creada en 1945, el franco de la Comunidad Financiera Africana (franco CFA), libremente convertible en francos franceses y respaldado por el Tesoro francés.

Dentro de la zona del franco, había libre circulación de mercancías entre los países africanos y entre éstos y Francia. Sin embargo, todos los acuerdos comerciales con Estados que tenían una moneda diferente estaban sujetos a la aprobación de las instituciones de gobierno de la antigua metrópoli.

Para los Estados africanos, estar en la zona del franco, en primer lugar, ayudaba a atraer inversiones extranjeras al garantizar la convertibilidad de la moneda local exportada desde los países africanos. En segundo lugar, al superar el límite del acuerdo, los Estados africanos tenían derecho a extraer de la fuente central los fondos necesarios para pagar las importaciones.

Los principios básicos de su funcionamiento eran:

* relación firme de las monedas de los Estados africanos con el franco francés,
* libre cambio de francos CFA por francos franceses,
* control francés de la política de crédito de los bancos emisores de los países miembros,
* mantenimiento de todas sus reservas de divisas en francos franceses,
* ninguna restricción de cambio entre los países miembros de la zona, depositando una parte de sus ingresos en divisas en un fondo centralizado en el Tesoro francés,
* todas las liquidaciones a través del mercado de divisas de París [1, p. 95].

Actualmente, la zona del franco incluye 14 Estados de África Occidental y Central, las Islas Comores, la Polinesia Francesa, Nueva Caledonia, así como las Islas Wallis y Futuna. La moneda de los 14 Estados africanos unidos en dos uniones comerciales y económicas, la Unión Económica y Monetaria del África Occidental (Benín, Burkina Faso, Costa de Marfil, Guinea-Bissau, Malí, Níger, Senegal y Togo) y la Comunidad Económica y Monetaria del África Central (Camerún, Chad, República Centroafricana, Chad, Congo, Guinea Ecuatorial, Gabón y República del Congo) es el franco CFA.

Primeramente, París estaba facultada para bloquear unilateralmente a los países africanos en la toma de decisiones para regular el sistema financiero del franco CFA.

El requisito de reserva, la contabilización de reservas de divisas, se estableció en 1948 como parte del sistema monetario. Inicialmente, el requisito se fijó en el 100% de las reservas de divisas, lo que significaba que los países africanos tenían que depositar todas sus reservas de divisas en el Tesoro francés. La exigencia de reservas se redujo al 65% en 1973 y luego al 50% en 2005. [2].

Ambas versiones del franco CFA son convertibles en euros. Pero según el acuerdo actual, no son convertibles entre sí, lo que impone limitaciones adicionales al desarrollo de un sistema monetario en el África francófona. Por ejemplo, para convertir un franco CFA BEAC en un franco CFA BCEAO, primero hay que convertir los fondos en euros y sólo después en la otra versión del franco. Dado que, por regla general, el cambio de divisas está sujeto a una comisión, los ciudadanos sufren pérdidas financieras.

Inicialmente, se estableció una relación de 1,7 francos franceses por 1 franco CFA; desde 1948, es de 2 francos franceses por 1 franco CFA. A medida que la economía francesa se recuperaba, su moneda nacional se fortaleció. Desde 1994 1 franco francés equivalía a 100 francos CFA. Y tras la formación de la moneda única europea, se dieron 655 francos CFA por 1 euro [2].

Los partidarios de la obligación de reserva argumentan que proporciona estabilidad a la moneda y ayuda a mantener los lazos económicos entre Francia y sus antiguas colonias. También sostienen que los bancos centrales africanos pueden acceder a sus reservas cuando lo necesitan y que las reservas ayudan a proteger a los países de los choques externos.

La Comunidad Económica de África Occidental decidió en diciembre de 2019 sustituir el franco CFA de África Occidental que circula en la región por una moneda única. En verano de 2020, los miembros de la Comunidad Económica de los Estados de África Occidental adoptaron una hoja de ruta para poner en marcha la ECO ( la moneda única de la Comunidad Económica de Estados de África Occidental) en 2027.

La reforma prevé tres fases principales. En primer lugar, el franco CFA será sustituido por una nueva moneda, el eco. En segundo lugar, el Tesoro francés dejará de poseer las reservas de divisas de los Estados de África Occidental. En tercer lugar, Francia abandonará la representación del Ministro de Economía y Hacienda en el Banco Central de África Occidental. No obstante, este acuerdo mantiene una paridad fija entre el eco y el euro, y Francia seguirá siendo garante de la convertibilidad de la moneda africana en la unidad monetaria europea.

Otro ámbito igualmente importante ha sido la ayuda oficial al desarrollo (AOD) a los Estados africanos. En el marco de la AOD y de la anulación de la deuda, París convirtió en 1990 los préstamos de los Estados africanos en subvenciones. En 1993, a cambio de ayuda financiera, se comprometieron a firmar acuerdos con las instituciones internacionales del sistema de Bretton Woods, que definieron durante muchos años su modelo de desarrollo económico dependiente de los préstamos internacionales. Esta iniciativa, denominada Doctrina Balladur, se inscribía en una política de ayuda transparente, ya que la AOD se canalizaba hacia los países africanos sólo tras la aprobación del Fondo Monetario Internacional [3].

Esta orientación permite la ayuda humanitaria, facilita el acceso a los mercados africanos, garantiza la seguridad migratoria y promueve la lengua y la cultura francesas. Según datos estadísticos, entre 1970 y 1979 se gastaron 2.489 billones de USD en ayuda al desarrollo, y entre 2010 y 2020 - 2 850 mil millones USD, lo que suponía el 10% de la AOD de todos los países donantes. Además, la AOD se distribuyó no sólo entre los países del África francófona, sino también entre los Estados anglófonos y lusófonos del continente [4, p.23].

Así, la base de la cooperación económica entre Francia y los países africanos es el acuerdo de cooperación monetaria, que tenía como objetivo promover la atracción de inversiones extranjeras, mediante una firme relación de las monedas de los países africanos con el franco francés, manteniendo todas sus reservas de divisas en francos franceses, realizando todas las liquidaciones a través del mercado de divisas de París.

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В статье исследуются экономические отношения между Францией и странами Африки с акцентом на историческом контексте и современных тенденциях. Анализируются преимущества и недостатки зоны франка, включая ее роль в привлечении инвестиций и контроле над кредитной политикой. Рассматриваются перспективы реформирования валютной системы и влияние колониального наследия на современные экономические связи.

[**к содержанию**](#содержание)

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**INTERNATIONAL COOPERATION AND FEATURES OF ECONOMIC DEVELOPMENT IN THE MODERN WORLD**

Humanity has gone through numerous conflicts. Many of them led to wars, bloodsheds and death. This serious issue affected everyone, and people had to take action. This is how the process of globalization began. Globalization is a global movement aimed at the integration of economic, financial, communication, and trade sectors. In 1945, right after the end of World War II, some countries founded the UN, the first international organization. The main goals of this organization are maintaining interstate peace and security, developing friendly relations between nations, cooperating in solving international problems, and coordinating nations’ actions in achieving common goals.

My main goal is to study the concept of the new knowledge economy and its impact on globalization. In addition, we consider it necessary to examine the difficulties of developing international cooperation, their causes, and the state of the world today.

When it comes to globalization, the first association is TNCs, which are its main engine. In fact, transnational corporations represent the world’s largest companies, as, in addition to exporting goods and services, they also actively produce these products abroad. It is TNCs that create value chains in which different types of production are located in different countries. The participation of TNCs in economic globalization is called transnationalization.

Thanks to globalization, we have reached a new level: the level of international cooperation. In general, international cooperation is a set of political, economic, legal, diplomatic, cultural, and other ties between entities operating on the world stage. There are various systems of international relationships. The modern one is characterized by the abolition of the bipolar system and, as a result, the design of a multipolar world, with the global dominance of the United States and the widespread use of the English language. And, as we can see today, the Chinese language is spreading more and more, as China’s technologies are capturing many countries around the world.

However, in theory, globalization seems much prettier than it is in practice. Nowadays, we cannot ignore the existence of Third World countries and, more importantly, how they exist. Previously, the world was divided into the Western (First) World, the Soviet bloc (Second World), and countries that did not belong to any of these two were called Third World countries. Later, the countries that are still developing got the name. It is generally accepted that Third World countries are characterized by high rates of poverty, economic and political instability, and high mortality rates. To illustrate this, let us look at the example of Afghanistan. Despite almost total unemployment, there are issues such as extremism and terrorism. Another example concerns Libya, where residents live in poverty and fear, while civil wars destroy everything from the bright sky above to the economy. By the way, in our opinion, the most alarming situation is in countries where women are not allowed not only to receive basic education and become literate but even to speak to anyone except their husbands. We believe it is enormous and unbelievable in the 21st century, but we still read shocking news from these countries where people live in homes with all conveniences.

In the 1980s-1990s, the Washington Consensus emerged to solve the problems of countries that were holding back global development due to their indifference. Initially, the Washington Consensus existed as a set of prescriptions for solving the debt problems of these countries. Then, it became the common view on how to solve these problems by the International Monetary Fund and the World Bank, both based in Washington. The IMF and the World Bank provided loans and strongly recommended that Third World countries develop their economies, cooperate more actively with other nations, and privatize state property as a condition for obtaining external loans. Unfortunately, the plan did not go well, and the level of economic development remains low. After its failure, the consensus transformed into the post-Washington consensus, which emphasized the importance of maintaining institutions of power, combating corruption, while still focusing on the standard of living and public welfare.

Talking about the economy in the modern world, excluding Third World countries, we consider knowledge as the main and fundamental resource of the economy, and innovation as the driving force. The knowledge economy, also known as the information economy, can be characterized as a complex of industries involved in the production and maintenance of online programmes, providing both connectivity and the development of new platforms for a convenient life. Undoubtedly, the greatest achievement is the ability to access knowledge more easily, faster, and in any volume for everyone. In general, the intensity of development is linked to scientific and technological progress, flexible production, new forms of management, business focus on clients’ needs, and a caring attitude toward employees as bearers of knowledge and business competencies. Since the main productive resource of this economy is the human brain, economic growth promises favourable forecasts. More and more people with atypical thinking are being born, and thanks to the current level of development, they have the opportunity to implement their innovative ideas, making the world more progressive.

P. Drucker noted: "Knowledge knows no boundaries." Therefore, the knowledge economy is the driving force behind one of the key trends in the development of the world economy, namely, progressive globalization. The latter can be viewed as a process of forming a single military-political, financial-economic, and information space, functioning almost exclusively based on high and computer technologies. Based on this, the knowledge economy is the engine of new knowledge and technologies, and an unstoppable source of globalization development. The opening of national economies to the world can be traced in all forms of their foreign economic relations. This is indicated by the following indicators: export quota, import tariff, foreign capital, and international migration of labor.

Our Republic has its own political views and interests. They are based on the following constitutional principles: equality of states, peaceful settlement of disputes, non-use of force and threat of force, non-interference in internal affairs, inviolability of borders, multi-vector.

Belarus is one of the founding countries of the UN. We support the idea of globalization by joining various international organizations. Nowadays, we are a member of the CIS (since 1991), the Executive Committee of which is located in Minsk; OSCE (since 1992); the Union State of the Republic of Belarus and the Russian Federation (since 1999); the EAEU (since 2000); and the CSTO (since 2003).

Geographically positioned in the centre of Europe, Belarus borders on Russia, Poland, Lithuania, Latvia and Ukraine. Naturally our republic has developed traditional strong cross-culture links with some of our neighbours. Historically and culturally Belarus is an integral part of Europe, situated at the crossroads of major transportation and trade routes that link various regions of the European continent. Our country ensures safe transit of energy resources (up to 30% of natural gas, 50% of oil) delivered from Russia to a large part of European consumers.

Since our country gained independence it has established diplomatic relations with all European states. The key trade and economic partners of Belarus in the European Union are the Netherlands, Germany, Latvia, Poland and Italy. Belarus maintains friendly relations with many countries worldwide. Cooperation with Asia, Africa and Latin America has proved its effectiveness and profitability, however, China remains the key partner in the East, as that country shares Belarus' positions on many issues.

In modern realities, taking into account the rapid and widespread development of information technologies and the transformation of the media sphere, information is becoming one of the most important resources that contribute to the deepening of integration and interstate cooperation. Independent media systems have been formed and are effectively developing in many countries. This does not prevent the preservation of a common information space. Cooperation in this area is constantly being improved, taking into account national specifics, external conditions and current trends.

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В статье раскрывается проблема глобализации, развития международного сотрудничества, преграды, возникающие на пути мирового сообщества в связи с разницей в уровне развития различных наций, попытки поиска путей их решения. Характеризуется понятие новой информационной экономики, ее особенностей, рассмотрены ее связь и влияние на процесс глобализации. Упомянута наша страна и ее роль в рамках международных организаций, собственные взгляды и принципы Беларуси.

[**к содержанию**](#содержание)

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**THE POWER OF MASS MEDIA**

Information plays an increasingly important role in modern society. The well-known expression "Who owns information owns the world" is becoming more relevant every year. The mass media represent a fundamental institution of modern society, performing multifaceted functions. In the modern world, mass media play a key role in shaping public opinion, disseminating information, and influencing cultural, political, and social processes. With the development of digital technologies and globalization, the media has gone through significant changes, becoming more accessible, diverse and interactive. Today, they cover a wide range of platforms, including traditional newspapers and television, as well as online publications, social networks, and streaming services.

Elder David A. Bednar, a member of the Quorum of the Twelve Apostles, pointed out: "Technological advances are not necessarily something good or bad. But the goals we achieve with their help are crucial indicators of good or bad." Our task is not to reject technological advances, but to use them in a way that enriches our lives [3].

We can use the power of the media to improve understanding of our thoughts and behaviour:

1. Recognizing the predisposition of our mindset and actions to be affected by the media;

2. Finding positive media and giving them preference.

So, let us consider the concept of manipulative influence of mass media in various fields. Manipulative influence is understood as an implicit (hidden) purposeful impact on the rational, emotional, and behavioural components of the collective consciousness of society [2].

The specificity of media manipulation lies in the involvement of the masses in the manipulation process. The audience replicates information, perceiving it as true. The methods of manipulating the audience's consciousness are diverse. The latter makes it possible to influence a person using several methods simultaneously. The main methods of media manipulation include:

* The principle of priority: the first information received is perceived as true.
* Emotional stress: using emotionally charged information to influence the audience.
* Eyewitnesses of events: people who tell lies, passing them off as the truth.
* The principle of contrast: presenting information against a negative background to enhance the effect.
* Preemptive strike: early release of negative information.
* The plausibility effect: the introduction of false information into plausible information.
* Opinion Leaders: using influencers to influence audience behaviour.
* False analogies: replacing the true reason with a false analogy.
* Information assault: using a large amount of information to conceal the truth.
* The image of the enemy: creating a threat to plunge the masses into a state of fear.
* Approval of the imaginary majority: erasing the barrier of criticality after the approval of information by others.
* Expressive shock: the psychological shock of broadcasting the horrors of modern life.

Other spheres of media influence can also be considered:

1. The political and social role of the media

* The media cover significant events in the country and the world, playing a key role in the political process.
* They establish links between governments and societies by covering political, social and economic issues.
* The media has gone beyond simple information, becoming a powerful tool for controlling public consciousness.

2. The influence of mass media on culture and public opinion

* The media controls culture by passing it through their filters and highlighting individual elements to enhance their value and significance.
* Modern people often cannot avoid the influence of the media, which makes them a powerful tool of manipulation.

3. Manipulative influence of the media

* Stereotyping: the media uses stereotypes to reduce perception and manipulate public consciousness.
* Suggestibility: the use of complex and rarely encountered words to reinforce information from a scientific point of view.
* Numerical manipulation: the distortion of numerical data to achieve personal goals and influence the psychological state of the audience.

As a result, due to mass media manipulation power one of their main features appears the ability to instantly spread information around the world. This makes them a significant tool for highlighting important events and issues. However, at the same time, responsibility for the accuracy and quality of the information provided increases. In the era of fake news and information wars, the media face challenges related to maintaining professional standards of journalism and audience trust. In addition, the media actively influence the formation of cultural trends and values, facilitating the exchange of ideas and strengthening intercultural dialogue. They provide a platform for expressing opinions and discussing relevant topics, which contributes to the development of civil society and democratic institutions.

In conclusion, manipulation in the media is a complex and dangerous problem that requires an integrated approach, including understanding psychological mechanisms, knowledge of statistical methods, compliance with ethical standards of journalism and the development of media literacy among the audience. Only in this case it is possible to minimize the negative consequences of this phenomenon and ensure reliable and objective coverage of events in the modern world.

Thus, the importance of mass media in the modern world cannot be overestimated. Their role and influence continue to evolve, reflecting dynamic changes in society and technology. Understanding the peculiarities and trends in the media is important for analyzing their impact on various aspects of our lives and for developing strategies for their effective use in the future.

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В статье рассматривается роль средств массовой информации в современном обществе, их влияние на формирование общественного мнения и культурные процессы. Автор анализирует методы манипулятивного воздействия СМИ и их влияние на коллективное сознание. Исследуется, как цифровые технологии и глобализация изменили СМИ, сделав их более доступными и интерактивными. Понимание этих аспектов помогает критически воспринимать информацию и сохранять независимость мышления.

[**к содержанию**](#содержание)

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**GENE THERAPY AND GENOME EDITING**

Gene therapy and genome editing are revolutionary technologies with enormous therapeutic potential to cure genetic diseases and improve quality of people life. These advances come with serious challenges: safety related to off-target effects, immune response and long-term consequences of genomic intervention. The ability to target specific genes has a direct impact on human life and health but at the same time raises a number of philosophical, technological, moral, ethical and legal issues. The complex ethical dilemmas that arise when editing genomes and using these technologies to enhance human capabilities are described in the article.

Genome editing technologies allow scientists to alter DNA resulting in changes to physical characteristics such as eye color and disease susceptibility. Scientists employ various techniques to achieve this. These technologies function like molecular scissors, precisely cutting the DNA at a specific location. Subsequently, scientists can delete, insert or replace DNA at the cut site. The initial genome editing technologies emerged in the late 20th century. More recently, a novel genome editing tool CRISPR, invented in 2009, has revolutionized the ease and efficiency of DNA editing [3].

CRISPR is rapidly transforming the possibilities within genetic engineering. A significant milestone was reached on June 21, 2016, when the U.S.A. government authorized the first human trials using CRISPR technology. These trials aimed to enhance the cancer-fighting capabilities of the immune systems in melanoma and other lethal cancer patients. A particularly compelling prospect involves modifying genes during embryonic development - a process known as germline editing. The principle is straightforward: altering the genetic code at the embryo's eight- or sixteen-cell stage (for example, to remove the gene responsible for Tay-Sachs disease) results in that change being present in every cell of the resulting individual and in their descendants. Coupled with the expanding knowledge of genetic links to various diseases. CRISPR holds the potential to eradicate numerous illnesses before birth [2].

Building upon the advancements in genome editing technologies like CRISPR a significant ethical dilemma arises concerning the selective breeding of humans to enhance the genetic makeup of the population. Concerns exist that the creation of "designer babies" could lead to a form of eugenics, prioritizing certain traits over others and potentially exacerbating existing social biases and discrimination. Genetic enhancement could widen the disparity between those who can afford such interventions and those who cannot, thus deepening existing inequalities. Furthermore, the concept of pre-determining a child's genetic characteristics challenges fundamental notions of individual autonomy and personal identity. The potential for unintended consequences, such as unforeseen effects on other genes or bodily systems, remains a serious concern, as the long-term implications of such modifications are largely unknown. Finally, the pursuit of designer babies risks diminishing genetic diversity, potentially creating a more homogenous population vulnerable to novel diseases and environmental shifts [1].

Gene therapy and genome editing, particularly CRISPR technology, hold immense promise for treating genetic diseases and improving human health. However, the transformative potential of these technologies is inextricably linked to significant ethical, legal and societal challenges. Moving forward, responsible innovation requires a balanced approach. Prioritizing safety, equity, and a thorough understanding of the long-term implications before widespread implementation. Open and inclusive dialogue among scientists, ethicists, policymakers and the public is crucial to navigate the complex ethical dilemmas and ensure that these powerful tools are used responsibly and for the benefit of all humanity.

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В статье раскрываются перспективы технологии генной терапии и редактирования генома, в частности CRISPR-Cas9, а также этические дилеммы, возникающие при редактировании геномов и использовании этих технологий для улучшения человеческих возможностей. Автор подчеркивает этические и правовые проблемы, связанные с безопасностью, последствиями вмешательства в геном, а также с потенциальным использованием этих технологий для улучшения человеческих возможностей.

[**к содержанию**](#содержание)

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# THE SIGNIFICANCE OF THE CUSTOMS UNION TECHNICAL REGULATIONS (CU TR) IN ENSURING THE ECONOMIC SECURITY OF EAEU COUNTRIES

The formation of a common market for goods, works, and services in the Eurasian Economic Union (EAEU) objectively requires the harmonization and unification of regulatory legal rules that establish requirements for goods, works, and services in circulation within the EAEU market. The process of harmonizing legislation in the field of technical regulation among the EAEU member states reflects the ongoing process and stages of harmonizing national legislation to create a common market for goods, works, and services and to establish supranational rules.

Literature notes that the difficulties of harmonization at the international level stem from the fact that even at the preceding national level, achieving consistency, coherence, and at least non-contradiction in the legal system, particularly in its most formalized part, the legislation of even a single state, is quite challenging. This conclusion reflects the significant difficulties encountered during the large-scale reform of transitioning from the decades-old system of GOSTs, OSTs, and technical specifications in Russia to a new system of technical regulation. This transition was necessitated by the need to harmonize rules for establishing safety and quality requirements for goods, works, and services upon joining the WTO. Meanwhile, currently, the issues of ensuring unified safety requirements for goods (works, services) and other objects for their introduction into circulation and ensuring their free movement within the EAEU's common economic space have become particularly relevant due to the intensification of the integration process within this international organization. The elimination of technical barriers is one of the main conditions for ensuring the free movement of goods within integration associations.

The relevance of this study is driven by the rapid development of technologies, the increase in the volume of foreign trade, and the growth of integration within the EAEU. For instance, in 2022, the trade volume between member states exceeded 70 billion US dollars, increasing by 15% compared to the previous year [3]. This growth is accompanied by risks of unfair competition and issues related to product quality, highlighting the need for effective technical regulations as a tool to protect the interests of consumers and producers.

A unified system for assessing the quality and conformity of products to international standards, in turn, enhances competitiveness in third-country markets. Some experts believe that technical regulation can have a positive impact on competition. For instance, tightening technical requirements may necessitate improvements in both products and the technologies used in their production. This creates incentives for innovative development and helps achieve a new level of quality that meets international standards.

There is also an opinion that effective application of technical non-tariff regulation could increase profit share by an average of 0.26% of GDP, while profit from tariff regulation amounts to only 0.14% [1]. This underscores the importance of technical regulations as a tool for enhancing the competitiveness of a country's economy.

However, it is also important to consider another viewpoint, which suggests that the establishment of strict technical requirements may temporarily close the market to some manufacturers. Nevertheless, in the medium term, this can provide market access to companies with more advanced products and technologies, ultimately leading to improved quality and diversity in the market.

Protecting foreign economic interests is one of the priority areas of technical regulation. Technical regulations not only contribute to enhancing the competitiveness of domestic products but also serve as a foundation for industrial modernization, product safety assurance, and control of production processes. In this sense, they become an effective lever for government officials, enabling them to oversee and regulate, as well as protect the interests of both national producers and consumers.

Thus, the implementation of technical regulations in 2023 has had a positive impact on the economic interaction of EAEU countries. According to the Eurasian Economic Commission, the volume of mutual trade in goods increased by 4.7% compared to 2022 and by 21.3% compared to 2021 [2]. Trade in services rose by 22.3%, and the volume of accumulated direct investments between EAEU countries increased by 11.2% compared to the previous year. The share of interstate standards in the lists of standards adopted for the implementation of EAEU technical regulations reached 67%, which is 3% higher than the 2022 level [2]. It is forecasted that the development of the Single Economic Space will further expand economic cooperation among the Customs Union countries, removing barriers and restrictions to the movement of goods, services, capital, and labor. By 2030, the share of CIS countries in Russia's total trade turnover is expected to increase to 16%, with the CIS share in Russian exports potentially reaching 17% and in imports 15% [2].

To achieve the benefits of implementing Customs Union technical regulations, comprehensive interaction between market participants and government authorities is necessary. This should include the creation of effective mechanisms to support enterprises, the organization of educational activities and awareness campaigns, as well as the development of a unified strategy for the implementation and compliance with technical regulations at all levels.

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В статье раскрыта проблема формирования общего рынка в ЕАЭС, требующее гармонизации правовых норм. Дано определение единых требований к безопасности товаров, приведена статистика, подтверждающая значимость регламентов для торговли и инвестиций. Обсуждается их роль в конкурентоспособности и защите потребителей. Делается вывод о необходимости взаимодействия рынка и власти для успешного внедрения регламентов.

[**к содержанию**](#содержание)

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**THE EVOLUTION OF THE ENGLISH LANGUAGE, FROM OLD ENGLISH TO MODERN**

English, like any other language, has gone through many changes throughout its history. The evolution of the English language covers three main periods: Old English (450-1150), Middle English (1150-1500) and New English (1500-present day) [1, p. 35]. Each of these periods is characterized by unique phonetic, grammatical, and lexical changes that were caused by various social and cultural factors. Thus, the purpose of our work is to look at the key stages of the evolution of the English language and to analyze its structural changes and the cultural contexts that contributed to its development. Understanding this evolution not only deepens our knowledge of language, but also allows us to better understand its meaning in world culture.

The Old English language, as D. Crystal highlights, emerged after the Anglo-Saxon invasion of the British Isles in the 5th century [2, p. 3]. This language was Germanic and had many dialects. The most important features of the Old English language were phonetics, morphology and vocabulary. Old English had a complex system of declensions and conjugations, which made it possible to express grammatical relations through changes in word forms. Old English was an inflectional language, which meant that words varied in case, number, and gender. Nouns had four cases: nominative, genitive, dative and accusative. For example, the word "stone" in different cases could look like this:

* Nominative: stаn (stone),
* Genitive: stаnes (stone),
* Dative: stane (stone),
* Accusative: stаn (stone).

During this period, many words from ancient Germanic languages entered the English language. For example, the words "candel" (candle), "biscop" (bishop) came from Latin.

One of the most famous works of Old English literature is the epic "Beowulf". It reflects the culture and worldview of the Anglo-Saxons. This work demonstrates the richness of language and its expressive capabilities, for instance: "Hwæt! Wē Gār-Dena in geārdagum" (Well! We Gars from Denmark, in the old days).

The Old English language had a significant impact on the development of modern English. Many indigenous words and grammatical structures have survived to the present day. Despite the fact that Old English is no longer used in everyday speech, studying it helps to understand the roots of the English language and its evolution.

The Middle English language, in turn, began to form after the Norman conquest in 1066 [3, p. 26]. The Norman influence led to significant changes in the language, such as borrowing and simplification of grammar. A large number of French words have entered the English language, which has enriched its vocabulary. This was due to Norman rule and the influence of French culture. A demonstrative example is the word "government", which comes from the French language. In Middle English, the system of declensions and conjugations has been simplified, which has made the language more accessible to native speakers. The appearing of works by Geoffrey Chaucer was an important milestone in the development of Middle English literature. His "Canterbury Tales" is a vivid example of the use of the Middle English language which  reflects the diversity of social classes and cultures. It is noteworthy that Middle English is an important transitional stage in the development of the English language. It connects Old English with modern English, and understanding its features allows to better understand the history and structure of the English language. Without Middle English, there would be no English that we speak today. This was the period when English began to acquire its modern features, absorbing foreign influence, but at the same time maintaining its Germanic basis.

The New English language began to form at the end of the 15th century and continues to develop to this day [4, с. 194]. The main characteristics of this period include phonetic changes, standardization, and lexical enrichment. The Great Vowel Shift led to a change in the pronunciation of vowel sounds, which significantly changed the sound of the language. With the invention of the printing press in the 16th century, the standardization of the English language began. The appearing of dictionaries and grammars contributed to the unification of the language. English continued to borrow words from other languages, including Latin and Greek. This has made it one of the richest languages in the world. The works of such authors as William Shakespeare and Jane Austen had a huge impact on the development of the English language. Shakespeare introduced many new words and phrases into everyday life, which enriched the language.

As a result, New English is the language we speak today. It has gone through a long path of development, absorbing the influences of various eras and cultures. In summing up, it can be concluded that understanding the history of the English language helps us to better conceptualise its structure and features.

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В статье применяется комплексный подход, который включает историко-лингвистический анализ, сопоставительный анализ грамматических и лексических изменений, а также изучение социокультурных факторов, обусловивших трансформацию английского языка. Анализируются ключевые структурные изменения в грамматике и лексике английского языка. Глобальное распространение английского языка в современном мире свидетельствует о его высокой адаптивности и способности к дальнейшему развитию.

[**к содержанию**](#содержание)

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**LUCHA CONTRA LA DEGRADACIÓN DEL SUELO Y LA DESERTIFICACIÓN: ESTUDIO DE UN CASO EXITOSO EN UN PUEBLO DEL SUR DE ESPAÑA**

El mundo actual se enfrenta a retos medioambientales sin precedentes: cambio climático, degradación del suelo, desertización, disminución de la biodiversidad y escasez de agua. Estos problemas son especialmente graves en las regiones áridas, donde actividades humanas como la agricultura intensiva y la urbanización han provocado la destrucción de los ecosistemas naturales. El sur de España es una de estas regiones, donde las tradiciones agrícolas centenarias han chocado con las realidades económicas modernas, provocando el abandono masivo de pueblos y la degradación del medio ambiente. Sin embargo, es aquí, en el corazón de los paisajes desolados, donde ha nacido un proyecto que no sólo restaura la naturaleza, sino que ofrece la esperanza de un futuro sostenible para el mundo.

El proyecto Campamento Altiplano de la finca La Junquera se ha convertido en un símbolo de cómo la humanidad no sólo puede detener la destrucción, sino también devolver la vida a tierras aparentemente perdidas de forma irremediable. Este proyecto combina las mejores prácticas de agricultura regenerativa, restauración hídrica y agrosilvicultura, demostrando que incluso en las condiciones más difíciles es posible crear un ecosistema sostenible. Además, ha inspirado un movimiento global de restauración de ecosistemas que ya ha llegado a más de 80 campos de todo el mundo.

El objetivo de este artículo es analizar los principales retos medioambientales asociados a la degradación del suelo y la desertificación, y explorar enfoques innovadores para abordarlos tomando como ejemplo el proyecto Campamento Altiplano.

La degradación del suelo es uno de los mayores problemas medioambientales de nuestro tiempo, que afecta no sólo a regiones concretas, sino a todo el planeta en su conjunto. El problema es especialmente grave en las zonas áridas, donde el cambio climático, el uso insostenible de los recursos y la agricultura intensiva han provocado la desertificación, la erosión del suelo y la pérdida de biodiversidad. El sur de España, con su clima cálido y sus limitados recursos hídricos, se ha convertido en un ejemplo paradigmático de cómo las actividades humanas pueden convertir tierras fértiles en desiertos sin vida. Los monocultivos, como el de almendros y olivos, han hecho que los suelos pierdan su estructura y que el paisaje se parezca a un tablero de ajedrez gigante, donde los ecosistemas vivos son sustituidos por hileras interminables de árboles plantados sin tener en cuenta los contornos naturales del terreno.

Una de las principales causas de la degradación es la alteración del equilibrio hídrico. En las regiones áridas, el agua es el recurso más valioso, y su uso irracional acarrea consecuencias catastróficas. Los métodos agrícolas convencionales, como el arado profundo y el riego intensivo, destruyen la estructura natural del suelo, haciéndolo denso e impermeable al agua. Como consecuencia, el agua de lluvia no queda retenida en las capas superiores del suelo, sino que se escurre rápidamente, llevándose consigo la capa fértil. Esto conduce a la erosión, la reducción de la fertilidad y, en última instancia, a la desertización.

Sin embargo, incluso en condiciones tan difíciles, es posible restaurar los ecosistemas. Uno de los enfoques clave es la agricultura regenerativa, cuyo objetivo no es sólo producir cosechas, sino también restaurar los procesos naturales. Un ejemplo paradigmático de este enfoque es el proyecto Campamento Altiplano de la finca La Junquera, en el sur de España [1]. En los últimos siete años, este proyecto ha atraído a más de mil voluntarios de todo el mundo que están aprendiendo a restaurar los suelos, los recursos hídricos y la biodiversidad. En la finca, de 1.100 hectáreas, se han creado parcelas experimentales en las que se aplican técnicas avanzadas de regeneración del suelo.

El primer paso en esta dirección fue restaurar el suelo, que se había vuelto denso y sin vida tras años de uso intensivo. Para ello se utiliza un método de desfonde profundo que, a diferencia del arado tradicional, no remueve el suelo sino que sólo lo afloja, permitiendo que el agua, las raíces y el oxígeno penetren en mayor profundidad. Para ello, la finca La Junquera ha utilizado un equipo especial: un arado de vertedera profundo que penetra hasta 80 cm de profundidad. Esto no sólo mejora la estructura del suelo, sino que también crea las condiciones para restaurar su microflora, que desempeña un papel clave en el mantenimiento de la fertilidad.

El siguiente paso importante es la creación de sistemas de captación de agua que retengan la preciada humedad en climas áridos. En el territorio de la finca se han excavado cinco estanques y varias zanjas para recoger el agua de lluvia y dirigirla a las zonas adecuadas. Por ejemplo, uno de los estanques situado en el fondo del valle recoge el agua de una zona de más de 20 hectáreas. Estas estructuras no sólo evitan la erosión, sino que también crean microclimas donde pueden crecer plantas que normalmente no sobrevivirían. Por ejemplo, a menudo aparecen arbustos y hierbas a lo largo de las zanjas, que a su vez atraen insectos y pájaros, devolviendo elementos de biodiversidad al ecosistema.

Otro método eficaz de restauración del ecosistema es la agrosilvicultura, un sistema que combina el cultivo de árboles con el de productos agrícolas [2]. En la finca La Junquera se plantan hierbas aromáticas como romero, lavanda y tomillo entre los almendros. Esto no sólo aumenta la biodiversidad, sino que también crea un ecosistema sostenible en el que las plantas protegen el suelo de la erosión, mejoran su estructura y crean condiciones para el desarrollo de microorganismos beneficiosos. En pocos años se ha conseguido mejorar notablemente la estructura del suelo, aumentar su capacidad de retención de agua y crear las condiciones para el crecimiento de una gran variedad de plantas.

Es importante señalar que la restauración de los ecosistemas no es sólo un proceso técnico, sino también social. El éxito de estos proyectos depende de la implicación de las comunidades locales, que deben comprender la importancia del uso sostenible de la tierra y estar dispuestas a cambiar sus hábitos. En la finca La Junquera, el número de empleados fijos ha aumentado de uno a 25 en los últimos años, y atrae hasta 10 voluntarios y estudiantes cada año. Esto no sólo crea puestos de trabajo, sino que también difunde conocimientos sobre agricultura regenerativa.

Ya existen ejemplos de restauración de ecosistemas con éxito en distintas partes del mundo. Regiones áridas que antes eran desiertos son ahora oasis verdes donde crecen árboles, hierbas y flores y los animales vuelven a su hábitat natural. El proyecto Campamento Altiplano ha inspirado más de 80 campamentos similares de restauración de ecosistemas en todo el mundo, desde Australia hasta América Latina [3]. Estos proyectos demuestran que, incluso en los entornos más difíciles, es posible crear un ecosistema sostenible que no sólo restaure la naturaleza, sino que también sirva de apoyo a las comunidades locales.

Así, el proyecto Campamento Altiplano, en la finca La Junquera, fue un excelente ejemplo de cómo, incluso en las condiciones más difíciles, es posible restaurar tierras degradadas y crear un ecosistema sostenible. Siete años de trabajo no sólo han restaurado los suelos, los recursos hídricos y la biodiversidad, sino que también han devuelto la vida a un pueblo abandonado, creando puestos de trabajo e inspirando más de 80 iniciativas similares en todo el mundo. Los métodos ensayados aquí, como el desfonde profundo del suelo, la creación de sistemas de captación de agua y la introducción de la agrosilvicultura, han demostrado su eficacia: en pocos años, la estructura del suelo ha mejorado notablemente y la diversidad vegetal y animal ha vuelto a paisajes desiertos. Estos planteamientos pueden adaptarse y aplicarse en otras regiones donde los ecosistemas están amenazados, lo que demuestra que la restauración de la naturaleza no sólo es una necesidad, sino una posibilidad real.

Sin embargo, el éxito de estos proyectos no sólo depende de la tecnología, sino también de la implicación de las personas. La restauración de ecosistemas es un proceso social que requiere educación, intercambio de experiencias y cooperación entre comunidades locales, científicos y voluntarios. El proyecto Campamento Altiplano ha demostrado que el futuro puede ser no sólo verde, sino también abundante. Es un viaje que requiere esfuerzo, tiempo y cooperación global, pero los resultados - ecosistemas sostenibles, suelos sanos y comunidades prósperas - pueden cambiar el mundo a mejor. Restaurar la naturaleza no es sólo una forma de detener la destrucción, sino una oportunidad de crear un futuro en el que los seres humanos y la naturaleza coexistan en armonía.

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В статье рассматриваются проблемы деградации почв и опустынивания на примере юга Испании. Автор анализирует успешный проект Campamento Altiplano, где применяются методы регенеративного земледелия, восстановления водных ресурсов и агролесоводства. Подчёркивается важность участия местных сообществ и распространения знаний. Проект не только восстановил экосистему, но и вдохновил аналогичные инициативы по всему миру, доказав возможность устойчивого взаимодействия человека и природы.

[**к содержанию**](#содержание)

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**EXCURSIÓN JUDÍA EN LA CIUDAD DE BREST COMO PRODUCTO TEMÁTICO: RETRATO DEL PÚBLICO OBJETIVO**

Presentación. El objeto del estudio es el público objetivo de la excursión temática. La relevancia de este trabajo se debe a la necesidad de estudiar al público objetivo, lo que permitirá adaptar la oferta turística a los intereses y necesidades de los diferentes grupos objetivos. Objetivo del estudio: análisis del público objetivo de una excursión temática en la ciudad de Brest sobre temas judíos. Objetivos: determinar las características sociodemográficas del público objetivo; identificar la motivación y los intereses de los participantes potenciales.

Materiales y métodos. Se utilizaron diversos métodos para lograr los objetivos, incluida la observación, las entrevistas con guías y representantes de empresas de turismo, así como las estadísticas sobre el flujo de turistas en Brest. Las principales fuentes de datos incluyen material documental, publicaciones sobre la cultura judía y comentarios de los participantes de la excursión.

Resultados y discusión. El público objetivo de la excursión judía en Brest es un grupo diverso que se puede dividir en varias categorías demográficas:

Turistas. Edad: incluye personas de diferentes edades, desde jóvenes (18-30 años) hasta personas mayores (65+); Nacionalidad: residentes locales y extranjeros, incluidos turistas de países de la CEI, Europa, Israel y los Estados Unidos; Intereses: interesados en el Patrimonio cultural e histórico, a menudo tienen un interés previo en la cultura judía. La categoría de turistas también incluye a aquellos que ya han visitado Brest y han realizado excursiones básicas, como resultado de lo cual, buscan profundizar en la historia de la ciudad y su Patrimonio cultural.

Investigadores. Edad: generalmente estudiantes (18-25 años) y jóvenes académicos (25-40 años); educación: educación superior o estudios universitarios, a menudo estudiando historia, sociología o estudios culturales. Objetivos: buscan información para trabajos académicos, tesis o investigación personal.

Descendientes de judíos. Edades: variadas, desde jóvenes hasta ancianos, pero a menudo de 30 a 60 años; Orígenes: personas cuyos antepasados fueron judíos y emigraron, o aquellos que desean aprender información útil sobre la cultura y las tradiciones de sus raíces; Intereses: buscan establecer una conexión con la historia y la cultura de su familia, explorar sus raíces. Sus intereses se centran en explorar la historia de la comunidad judía, visitar sitios históricos y participar en eventos culturales como exposiciones y conferencias.

Características generales. Educación: en promedio, los participantes de la excursión tienen un nivel de educación bastante alto, muchos tienen educación superior; estatus socioeconómico generalmente medio y superior al promedio, lo que les permite viajar y participar en las actividades culturales; Valores: alto valor de la educación, el intercambio cultural y la memoria histórica.

Expectativas. Todos los grupos esperan que la excursión no solo sea educativa, sino también emocionalmente intensa, con un enfoque en historias personales e interacciones con el Patrimonio cultural. Los participantes esperan un programa informativo y emocionante, la oportunidad de interactuar con un guía, así como la oportunidad de hacer preguntas y obtener materiales adicionales. Para adaptar los programas de excursiones, se recomienda mejorar el contenido agregando elementos interactivos, desarrollar itinerarios especializados para diferentes grupos y promover activamente los programas a través de las redes sociales y plataformas turísticas.

Conclusión. La excursión judía en Brest es un importante producto temático que contribuye a la preservación del Patrimonio cultural y a la atracción de turistas. La comprensión de las características y necesidades del público objetivo permitirá adaptar los programas de excursiones, aumentar su atractivo y, en Última instancia, contribuir al desarrollo del turismo en la región.

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В статье представлен анализ целевой аудитории еврейской экскурсии в г. Бресте, рассматриваются социодемографические характеристики целевой аудитории, определяется мотивация и интересы ее потенциальных участников.

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**ZUKUNFT DER LANDWIRTSCHAFT: NACHHALTIGKEIT ALS NEUES KONZEPT**

Wir leben in einer zunehmend urbanisierten und industrialisierten Welt mit einer ständig steigenden Bevölkerung. Der Nahrungsmittelbedarf wächst. Die Aufgabe, gesunde Nahrungsmittel und stabile Lebensgrundlagen zu bieten, übernimmt die Landwirtschaft auf sich. Heute erzeugen etwa 255.000 landwirtschaftliche Betriebe in Deutschland neben Nahrungsmittel auch Futtermittel und nachwachsende Rohstoffe (Mais und Raps) zur stofflichen und energetischen Verwendung. Es ist zu verzeichnen, dass die Landwirtschaft in Deutschland ihre Produktion in den letzten 70 Jahren enorm gesteigert hat. Während ein Landwirt im Jahr 1900 rechnerisch noch rund vier Personen mit Nahrungsmitteln versorgte, waren es 1950 zehn und 2021 bereits 139 Menschen (BLE 2023) [3]. Obwohl Land-, Forstwirtschaft und Fischerei zusammen nur 1 Prozent der Bruttowertschöpfung in Deutschland erbringen, hat die Landwirtschaft wegen ihrer Vernetzung mit anderen Wirtschaftsbereichen eine beachtliche volkswirtschaftliche Bedeutung. Erstens: In Deutschland arbeiteten laut Bundesinformationszentrum Landwirtschaft 2023 rund 875.900 Menschen in der Landwirtschaft, die nicht nur die Menschen auf dem eigenen Hof ernähren, sondern die gesamte Wirtschaft im ländlichen Raum stärken. Von solchen Maßnahmen wie zum Beispiel Bau oder Renovierung von Produktionseinrichtungen (Ställen, Scheunen, Molkereien, Mühlen, Futtermittelunternehmen) profitieren regionale Handwerksbetriebe und Dienstleister. Und sogenannte soziale Landwirtschaft bietet Beschäftigung und Integration für Menschen mit körperlichen, geistigen oder seelischen Beeinträchtigungen sowie für Straffällige, Drogenkranke und Langzeitarbeitslose, die schwer haben, eine Stelle auf dem Arbeitsmarkt zu finden. Auf solche Weise tragen die landwirtschaftlichen Betriebe in erster Linie zum Gewerbesteueraufkommen von Kommunen bei.

Zweitens: Viele Landwirte mit ihren Betrieben engagieren sich ehrenamtlich, indem sie Jung oder Alt die Arbeit auf dem Hof zeigen und die Landwirtschaft im direkten Gespräch erklären – beim Einkauf in Hofläden oder auf dem Wochenmarkt, beim „Tag des offenen Hofes“ oder während eines Urlaubs auf dem Bauernhof. Hoffeste, Führungen und andere informative Veranstaltungen finden sich auf verschiedenen Internetseiten der Bundesländer zum Tag des offenen Hofes [2]. Daraus lässt sich feststellen, dass Bauernhöfe Lernorte sind.

Drittens:Mit Beginn von Ackerbau und Viehzucht in Mitteleuropa vor etwa 7.000 Jahren hat sich die Landschaft nachhaltig verändert. Es entstanden solche Landschaftstypen wie Wiesen und Weiden, Heiden und Äcker. Viele Tier- und Pflanzenarten profitieren von den Aktivitäten der Landwirtschaft, denn die Betriebe einen besonderen Lebensraum für unterschiedlichste Säugetiere, Vögel und Insekten schufen [2].

Viertens: Die wichtigste Aufgabe aller Landwirteist die Versorgung der Bevölkerung mit hochwertigen Lebensmitteln.Regional erzeugte Lebensmittel sind preisgünstig, qualitativ, nachhaltig und tragen dazu bei, nicht auf Importware angewiesen zu sein.

Doch wie alle Unternehmen in der Wirtschaft stehen auch landwirtschaftliche Betriebe unter dem Druck, immer effizienter und kostengünstiger zu arbeiten, um ihre Erträge zu steigern. Dafür wurden zum Beispiel Ackerflächen zusammengelegt und vergrößert, mehr Dünger und Pflanzenschutzmittel eingesetzt und Grünland trockengelegt oder in Ackerland umgewandelt. Zudem konzentrierten sich die meisten Betriebe auf wenige Kulturen wie Raps, Mais oder Weizen, weil sie den höchsten Gewinn pro Hektar versprechen. Jede dieser Maßnahmen nimmt erheblichen Einfluss auf Böden, Gewässer, Luft, Klima, die biologische Vielfalt- und auf die Gesundheit der Menschen.

1. Böden: Gesunde, fruchtbare Böden sind die Grundlage der Landwirtschaft. Doch sie werden durch Humusabbau, Bodenverdichtung und Stoffeinträge der Intensivlandwirtschaft geschädigt. Die konventionelle Landwirtschaft behandelt Böden weitgehend wie ein Substrat und nicht wie einen lebendigen Organismus.

## 2. Gewässer: Knapp 20 Prozent der deutschen Flüsse, Seen und Bäche sind in schlechtem und weitere 70 Prozent in mäßigem bis unbefriedigendem ökologischem Zustand. Ein Verursacher ist die Landwirtschaft: Stickstoff, Phosphor und Pestizide gelangen durch Erosion und Abschwemmung in Gewässer. Es ist festgestellt, dass der chemische Zustand von 26 Prozent des deutschen Grundwassers schlecht ist – vor allem aufgrund zu hoher Nitratgehalte.

3. Luft: Die hohen Emissionen der Landwirtschaft verursachen außerdem Probleme bei der Luftreinhaltung. Ammoniak- und Stickoxidemissionen entstehen vor allem durch die Tierhaltung, aber auch beim Düngen. Sie tragen sowie zur Überdüngung und Versauerung von Ökosystemen als auch zur Ozon- und Feinstaubbildung bei.

## 4. Biodiversität: Zu viel Dünger, zu viele Pestizide, der Verlust von Hecken und Feldgehölzen führen zu einer dramatischen Abnahme der Artenvielfalt. 70 Prozent der in Deutschland vorkommenden Biotoptypen und 23 Prozent der heimischen Pflanzen und Tiere sind gefährdet.

5. Klimawandel: Die Landwirtschaft emittiert mehr als sieben Prozent der deutschen Treibhausgasemissionen. Zählt man die Emissionen aus zu landwirtschaftlichen Zwecken entwässerten Mooren hinzu, sind es mehr als 10 Prozent. Klimagase wie Lachgas und Methan, die vor allem in der Tierhaltung entstehen, spielen die Hauptrolle [4].

Die von der Landwirtschaft hervorgerufenen ökologischen Probleme in Deutschland sind komplex und erfordern ein umfassendes Handeln auf verschiedenen Ebenen. Ziel einer umweltfreundlich gestalteten Landwirtschaft ist, Auswirkungen auf die Schutzgüter Boden, Wasser, Luft, Klima und Biodiversität zu minimieren, Kulturlandschaften zu erhalten und gleichzeitig die regionale Entwicklung zu fördern. Auf Bundesebene hat das Bundesministerium für Ernährung und Landwirtschaft (BMEL) für das Klimaschutzprogramm 2030 ein Paket von Klimaschutzmaßnahmen entwickelt, die sich auf den Sektoren Land- und Forstwirtschaft beziehen:

- Senkung der Stickstoffüberschüsse einschließlich Minderung der Ammoniakemissionen und gezielte Verminderung der Lachgasemissionen, Verbesserung der Stickstoffeffizienz;

- Stärkung der Vergärung von Wirtschaftsdüngern tierischer Herkunft und landwirtschaftlichen Reststoffen;

- Ausbau des Ökolandbaus (Ziel: 30 Prozent der landwirtschaftlichen Fläche bis 2030);

- Verringerung der Treibhausgasemissionen in der Tierhaltung;

- Energieeffizienz in der Landwirtschaft;

- Humuserhalt und -aufbau im Ackerland;

- Erhalt von Dauergrünland;

- Schutz von Moorböden  einschließlich Reduzierung der Torfverwendung in Kultursubstraten;

- Erhalt und nachhaltige Bewirtschaftung der Wälder und Holzverwendung;

- Nachhaltige Ernährungsweisen einschließlich Vermeidung von Lebensmittelabfällen und Programm zur Stärkung der Nachhaltigkeit in der Gemeinschaftsverpflegung der Bundesverwaltung;

- Forschungs- und Innovationsprogramm „Klimaschutz in der Landwirtschaft“ [1].

Die Landwirtschaft und der ländliche Raum in Deutschland stehen heute vor großen Herausforderungen durch demographische Veränderungen, globale Wettbewerbsbedingungen, Klimawandel und gesellschaftliche Erwartungen an eine umweltverträgliche, ressourcenschonende und tiergerechte Landwirtschaft mit gesunden Produkten. Eine Neuausrichtung der Landwirtschaftspolitik, die Lösungen zur Minimierung der Umweltauswirkungen und die aktuellen Herausforderungen bereithält, ist dringend erforderlich. Umfangreiche Empfehlungen, wie eine Transformation des Agrar- und Ernährungswesens gesamtgesellschaftlich erfolgen sollte, helfen beim Aufbau klima- und umweltschonender landwirtschaftlichen Ketten.

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В статье рассматриваются положительные и отрицательные стороны современного сельского хозяйства в Германии. Подчеркивается, что сельское хозяйство как составная часть всей экономики страны является гарантом продовольственной безопасности населения. Однако в условиях глобальных изменений климата, увеличения количества населения и, следовательно, потребностей населения в продуктах питания необходим комплекс мер по повышению производительности сельского хозяйства и защите окружающей среды.

[**к содержанию**](#содержание)

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**DIRECTIONS FOR IMPROVING FOREIGN TRADE IN BREST**

**REGION**

The region’s foreign economic activity expands the opportunities for using the advantages of the international division of labour and international production cooperation. An increase in the volume of exported products contributes to the growth of profitability scale of production and an increase in the wages of workers in the region's enterprises. This stimulates the growth of regional income, creates new jobs, increases consumer demand and attracts investment in the region's economy. Imports make possible to obtain components for local industry and expand the range of goods on the regional market.

In this regard the aim of the study was to develop directions for the foreign trade activities of the Brest region in the new geopolitical conditions.

To achieve this goal the following tasks were set:

– analyse the structure of exports and imports of the Brest region for 2015–2023 in order to determine their dynamics and current state;

– calculate export, import and foreign trade quotas to determine the importance of exports and imports for the regional economy and the degree of its openness.

Foreign trade activities of the Brest region in the sphere of international trade are focused on promoting local products in foreign markets, developing exports, saturating the domestic market with goods not produced in the region, attracting foreign exchange resources to the region.

The position and importance of the region in the system of world economic relations is determined by a number of indicators. These include the volume of foreign trade, the volume of exports and imports as well as coefficients reflecting the share of foreign trade, exports and imports in the economy of the region. The dynamics of indicators of foreign trade in goods and services of enterprises of the Brest region for 2015-2023 is characterized by relatively stable growth (Table 1).

Table 1 – Indicators of the degree of involvement of the Brest region in the system of world economic relations

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Indicators** | **Years** | | | | |
| **2015** | **2020** | **2021** | **2022** | **2023** |
| GRP, million US dollars | 4 498,8 | 5 571,6 | 7 365,8 | 8 386,5 | 7 625,9 |
| Foreign trade volume, million US dollars | 3 203,9 | 4 476,7 | 5 309,1 | 5712,4 | 5648,1 |
| Export, million US dollars | 1 796,2 | 2 633,7 | 3 230,2 | 3 776,4 | 3 554,6 |
| Import, million US dollars | 1 407,7 | 1 843,0 | 2 078,9 | 1 936,0 | 2 093,5 |
| Export quota, % | 39,9 | 47,3 | 43,9 | 45,0 | 46,6 |
| Import quota, % | 31,3 | 33,0 | 28,2 | 23,1 | 27,5 |
| Foreign trade quota, in % | 71,2 | 80,3 | 72,1 | 68,1 | 74,1 |

Source: own development based on data [2, p. 293].

During 2015–2023, foreign trade activity of the Brest region demonstrated an upward trend. If in 2015 trade turnover with foreign partners amounted to 3,209.9 million dollars then by 2023 this figure increased to 5,648.1 million dollars which reflects an increase of 76.3%. Despite the overall positive trend in 2023 there was a slight decrease in foreign trade volumes by 1.13% compared to the previous 2022. The growth rate of exports from 2015 to 2023 was 198.9%, imports - 148.7%. At the same time exports grew steadily until 2022, and imports until 2021, after which they slightly decreased: exports - by 5.9%, imports - by 8.1% compared to 2022. In the period 2015-2023, the balance of foreign trade turnover was positive and increased by 376.1%. Thus, from 2015 to 2021 there is an increase in the volume of foreign trade, imports and exports of goods, from 2022 these indicators began to decline.

The degree of openness of a country (region) to the global economy is determined by the export share in GDP. According to the World Bank classification countries with different degrees of openness are distinguished: relatively closed (less than 10% of the export quota), moderately open (export quota 10-25%) and open (export quota over 25%) [1, p. 76]. The export quota reflects the importance of foreign sales for the development of economic ties. In the Brest region this figure increased from 39.9% in 2015 to 46.6% in 2023, which indicates openness and its strengthening. An increase in the export quota indicates the growing participation of the region in the international division of labour and increased competitiveness of products.

The import quota shows the dependence of the regional economy on foreign supplies. In the Brest region, there is a decrease in the import quota from 31.3% in 2015 to 27.5% in 2023 which positively characterises the economic situation. A decrease in the share of imports indicates an increase in the region's independence from external sources.

The foreign trade quota reflects the overall openness of the regional economy. Highly open regions have a quota of more than 45% while less open regions have a quota of less than 27%. The Brest region demonstrates a very high foreign trade quota: 71.2% in 2015 and 74.1% in 2023, indicating growing openness. It is noteworthy that this growth is due to an increase in exports not imports.

During 2015–2023 in the foreign trade of the Brest region there was a positive balance (an increase from $388.5 million in 2015 to $1,840.4 million in 2022 (an increase of 4.7 times) and a slight decrease to $1,461.1 million in 2023 (by 20.6% compared to 2022). The main sources of the positive balance of foreign trade in goods are export (68.6%) and import (33.4%) transactions with consumer goods in 2023, both for food and non-food groups.

In 2023 there was a slight decrease in foreign trade indicators compared to 2022. The reasons for this are increased competition in the markets of the CIS countries, decreased demand due to high interest rates in Russia and economic sanctions imposed by the countries of the "collective West".

We can make the conclusion that foreign trade activity is of significant importance for the economy of the Brest region, which traditionally supports active interaction between various sectors in the global and regional economic systems, following the principles of the international division of labour.

To overcome negative trends in the dynamics of foreign trade indicators of the Brest region regional enterprises need to implement a set of measures to enhance their export potential. Among these measures are the following:

- development of new foreign markets and consolidation in already developed regions. Enterprises of the region should develop the markets of the countries of Central and Southeast Asia;

- commodity diversification of exports. It is necessary to enter foreign markets with a new range of products that can be provided by enterprises of the region;

- improvement of export infrastructure (creation of distribution network facilities and transport and logistics centres);

- implementation of investment projects aimed at updating and forming new export-oriented production facilities based on existing enterprises to improve quality characteristics and expand the range of products manufactured for export;

- application of the principle of export work "to order". To form the image of a flexible manufacturer both according to mastered technologies and with the admission of changes in accordance with the specific requirements of customers;

- organization of advertising and information support for export. It is necessary to publish and distribute electronic and printed catalogues, reference books about the region’s export potential, send out presentation materials about the potential of Brest region to diplomatic missions of the Republic of Belarus abroad and missions of foreign states in Belarus, continue the practice of holding collective travelling exhibitions and fairs of enterprises of the Brest region, organise “home” exhibitions with invitations to foreign business circles;

- development of electronic commerce, application of modern information technologies. Regional enterprises should enter foreign and domestic marketplaces with their products, create their own online stores, have websites with up-to-date information in Russian and English (and preferably in the language of the potential partner) about manufactured products, services rendered, prices, contacts, special conditions for regular customers.

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В статье проанализированы основные показатели внешней торговли товарами Брестской области, рассчитаны экспортная, импортная и внешнеторговая квоты за 2015–2023 гг. и сделан вывод о значительной открытости экономики региона. Определены проблемы во внешней торговле Брестской области и предложены пути их решения.

[**к содержанию**](#содержание)

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**ROLE OF BELOVEZHSKAYA PUSHCHA IN THE CONSERVATION OF EURASIAN BIODIVERSITY**

Belovezhskaya Pushcha is one of the largest forests in lowland Europe which has remained relatively undisturbed to our time. Its territory is divided by the state border into two parts – Belarusian and Polish. Currently, the State Environmental Institution “Belovezhskaya Pushcha National Park” has been established.

The purpose of the article is to assess the role of Belovezhskaya Pushcha in preserving the biodiversity of Eurasia, its contribution to maintaining populations of key species and ecosystems and determine the prospects for preserving its natural heritage.

Belovezhskaya Pushcha is located in the basin of the Western Bug River. The flat areas here alternate with separate elevations and depressions. There is a watershed between the rivers of the basins of the Baltic and Black Seas in the eastern part of the Wild swamp near the northeastern edge of the Forest. Most of the rivers have a latitudinal direction, including the largest (the Lesnaya Pravaya, the Narev, the Narevka) which belong to the Baltic Sea basin. There are no natural lakes in the national park, but there are more than 10 artificial reservoirs, the largest of which are the Lyadskoye and Khmelevskoye reservoirs created on the site of a low-lying swamp in the southern part of the national park.

Belovezhskaya Pushcha is a unique floristic region where the Eurasian coniferous forest zone closely approaches the European broadleaf, and the taiga gives way to non-moral forests. The geographical location, climatic and soil-hydrological conditions determined the richness and diversity of the flora. This relatively small area is home to about 60 % (about 1,000 species) of higher vascular plants, the same percentage of mossy (about 270 species) and lichens (more than 290 species) [1]. As in the entire temperate zone, herbaceous forms predominate over woody forms in terms of the number of species (92 %). Belovezhskaya Pushcha is a unique natural site where all the diversity of forests in Belarus is represented, both in terms of species composition, age structure and productivity, as well as types of forests and growing conditions. The average age of forests is about 110 years, the maximum, depending on the tree species, reaches 200-300 years, and individual giant trees live up to 300-600 years [2, p. 23]. As a result, the forest has a huge bank of seed material, exchanges it and thereby helps in the conservation of biodiversity.

There are 38 species of shrubs in the forest. These are common honeysuckle, blood-red turf, various willows, currants, birch bark, hazel, buckthorn, joster, viburnum, juniper, raspberry, blackberry and others, as well as squat birch, blueberry willow and others rare for the republic.

Some mushroom rarities may also be revealed to the inquisitive eye. Indeed, 8 of the 17 rare species of mushrooms listed in the Red Book are known in Belovezhskaya Pushcha.

The modern world of mammals of Belovezhskaya Pushcha is represented by 59 species, which makes up 85 % of the fauna of Belarus. The fauna of Belovezhskaya Pushcha is also highly diverse. It is home to such large mammals as bison, red deer, wild boar, wolf and lynx. Rare species such as golden eagle, white-tailed eagle, black stork and white stork are found among the birds. The insect world is also diverse, including several species of barbel beetles and butterflies. Of the representatives of the fauna, the bison, listed in the International Red Book, is of the greatest interest. It is the largest in Europe and one of the oldest animals of our planet, belonging to the genus of bison. Only Belovezhskaya Pushcha or Lowland bison live in Belovezhskaya Pushcha [3, p. 12].

The reintroduction of the European bison to other regions of Europe has led to successes in conservation and population growth. One notable example of a successful reintroduction project is the Bison Rewilding in the Southern Carpathians project in Romania. This initiative, launched in 2014, aims to create a self-sustaining European bison population in the Carpathian Mountains where the species had previously disappeared due to hunting and habitat loss.

In addition, the relocation of the European bison from Belovezhskaya Pushcha to Kazakhstan marks an important milestone in wildlife conservation and management efforts. This ambitious project aimed to reintroduce the iconic species to a new habitat and contribute to the conservation of biodiversity. The relocation of bison from Belovezhskaya Pushcha to Kazakhstan required careful planning and coordination between the wildlife protection authorities of Belarus and Kazakhstan. The decision to relocate the bison was based on the desire to ensure the long-term survival of the species.

These projects, as well as the transfer of genetic material, illustrate the importance of cross-border cooperation and innovative conservation strategies in protecting endangered species and preserving our natural heritage. As one of the last remaining primeval forests on the continent, the Forest serves as a critically important habitat for a wide range of plant and animal species, many of which are rare or endangered. In addition, Belovezhskaya Pushcha serves as a living laboratory for research and conservation activities providing valuable insights into forest dynamics, wildlife behaviour, and ecosystem functions.

In conclusion, Belovezhskaya Pushcha is a beacon of biodiversity conservation in Eurasia, demonstrating the beauty and complexity of natural ecosystems and emphasizing the importance of preserving untouched wildlife areas for future generations. By recognizing and protecting the ecological value of this region, we can effectively contribute to the broader goals of biodiversity conservation and sustainable land management across the continent.

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В статье представлен комплексный анализ роли Беловежской пущи в поддержании биоразнообразия Евразии. Автор исследует вклад этого уникального природного объекта в сохранение популяций ключевых видов и экосистем на примере реализуемых проектов, а также подробно описывает географическое положение и природные особенности Беловежской пущи, включая флору и фауну.

[**к содержанию**](#содержание)

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**HUMAN RIGHTS PROTECTION IN DIGITAL ENVIRONMENT: NEW THREATS AND CONTROL MECHANISMS**

As technology continues to evolve and digital platforms become an integral part of our daily life, issues surrounding human rights in digital environment have become increasingly important. The Internet offers vast opportunities for communication, learning and collaboration, but it also leads to new threats that can harm individuals’ dignity, privacy as well as mental health. These threats (cyberbullying, online discrimination and the personal data protection violation) are affecting millions of people worldwide. To address these concerns, there is a growing need to explore new control mechanisms that can safeguard human rights in the digital era. This research will examine the threats mentioned and view the variety of legal, technical, educational and international measures that can be implemented to protect human rights in digital environment. Let’s consider these threats in detail.

One of the most pervasive threats on the Internet is cyberbullying or cyberstalking. This term refers to digital platforms usage with the aim to harass, intimidate or harm other users. Cyberbullying can take many forms, including trolling, doxxing (the publication of personal information with malicious intent), blackmailing and compromising materials dissemination of. Such actions often occur anonymously, making it difficult to hold perpetrators accountable. The psychological impact of cyberbullying can be severe, particularly among children and adolescents. Victims of cyberstalking often suffer from anxiety, depression, and other mental health issues and in most severe cases it can even lead to a suicide. Studies have shown that the anonymity provided by the Internet exacerbates the problem, as perpetrators feel emboldened to act without facing direct consequences. Unfortunately, existing mechanisms for preventing and responding to cyberbullying are often inadequate. Law enforcement agencies and social media platforms are still struggling to develop effective ways to identify perpetrators and protect the potential victims, leaving many individuals too vulnerable to this form of digital abuse.

Another major issue in the digital space is online discrimination. Discriminatory behavior based on race, gender, religion and other individual characteristics can be found across many online platforms, including social media, workplaces and online games. Such discrimination can take the form of humiliating comments, exclusion, harassment and it often goes unchecked due to digital environment perceived anonymity. One of the challenges in addressing online discrimination is the difficulty of proving its occurrence. Discriminatory actions are often subtle, while the virtual nature of online interactions can make it hard to establish discriminatory behavior clear evidence. For instance, humiliating comments can be disguised under the guise of free expression and discrimination in workplace settings may be hidden in online communications. The rise of online discrimination poses serious risks not only to individual dignity but also to the broader social disasters. It can perpetuate harmful stereotypes, exacerbate social inequalities and prevent certain groups from comfortable participation in the digital world.

Data privacy protection is another critical issue in the digital environment. With the constant collection and use of personal data by governments, corporations and online platforms, the risks of data breaches and personal information unauthorized usage have become increasingly prevalent. Data leaks, the personal data illegal collection and sensitive information misuse are frequent concerns, as individuals’ private details are exposed to third parties without their consent daily. While many organizations claim to protect users’ data, security flaws or improper practices can still lead to identity theft. This issue is particularly concerning when it comes to sensitive information such as financial details, medical history and personal communications as well as photos. The existing laws on data protection effectiveness (the European Union’s General Data Protection Regulation (GDPR), Russia’s Federal Law on Personal Data) is still debatable. Apart from significant steps in improving data protection there are still many challenges in enforcing these laws and holding companies accountable for data breaches.

In response to the increasing threats to human rights in the digital environment, many countries have introduced or are in the process of developing legislation aimed at protecting individuals from cyberbullying, online discrimination and data privacy violations. For example, laws like the GDPR in the EU and the Children’s Online Privacy Protection Act (COPPA) in the U.S. provide basic protection for users’ data. Similarly, anti-cyberbullying laws have been enacted in many countries to criminalize online harassment.

However, legislative frameworks need constant updating to keep pace with rapidly evolving digital technologies and the new forms of online harm they enable. Lawmakers must address emerging threats such as deepfakes, online humiliation comments and other digital abuses that are not yet fully regulated. Moreover, international cooperation is essential in harmonizing laws to ensure a consistent approach to digital human rights protection worldwide.

Technological advancements can also play a critical role in safeguarding human rights in the digital space. One important solution is the development of moderation systems that can identify and block harmful content in real-time. Social media platforms, for instance, have implemented machine learning algorithms that can detect hate speech, cyberbullying, and other forms of abusive behavior. These systems, while still imperfect, are a step forward in preventing online harm. Encryption technologies are another important tool in protecting personal data. By ensuring that sensitive data is transmitted and stored securely, encryption can mitigate the risk of unauthorized access and data breaches.

Education also plays a crucial role in preventing online harms and promoting digital rights. Public awareness campaigns and educational programs aimed at teaching safe online practices can help individuals recognize the risks associated with cyberbullying, online discrimination, and data privacy violations. Such initiatives can also foster digital literacy and critical thinking skills, enabling users to navigate the digital world responsibly. Schools and universities can incorporate digital citizenship curricula that emphasize the importance of online respect, empathy, and privacy. Furthermore, initiatives targeting vulnerable groups, such as children and marginalized communities, can be particularly beneficial in reducing the incidence of online harm. Role of Social Media Platforms and Online Providers. Social media platforms and online providers bear significant responsibility for ensuring that their users’ rights are protected. Companies must implement robust content moderation systems, enforce community guidelines, and take swift action against users who engage in cyberbullying or discriminatory behavior. Additionally, these platforms should be transparent about how user data is collected, stored, and shared, providing individuals with the ability to control their privacy settings and consent to data use.

Furthermore, online platforms can collaborate with external organizations, such as human rights groups and cybersecurity experts, to improve their policies and practices. By adopting more stringent measures to prevent harmful content and data misuse, companies can help foster a safer and more equitable digital environment. International Cooperation. Human rights challenges in the digital world are inherently global, requiring international cooperation to address effectively. Multilateral organizations such as the United Nations and the Council of Europe have taken steps to develop guidelines and frameworks for protecting digital rights, but there is still much work to be done. Countries must work together to establish international standards for data protection, anti-discrimination policies, and cybersecurity. By sharing best practices and learning from each other’s experiences, nations can strengthen their response to digital human rights abuses and promote a more secure, inclusive online environment for all. As digital technologies continue to evolve, so too do the threats to human rights in the digital environment. Cyberbullying, online discrimination and data privacy violations are becoming more prevalent, posing significant risks to individuals’ dignity and safety. However, through a combination of legislative measures, technological solutions, educational programs and international cooperation, these threats can be mitigated. Governments, companies, and individuals all have a role to play in protecting human rights in the digital age. By working together, we can create a digital world that is safer, more equitable and respectful of human dignity.

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В статье рассматриваются угрозы цифровой среды, нарушающие права человека: кибербуллинг, онлайн-дискриминация и разглашение конфиденциальных данных. Автор анализирует последствия таких угроз для личной безопасности и психического здоровья пользователей, а также описывает существующие механизмы контроля и защиты, включая законодательные, технические и образовательные меры. Особое внимание уделяется важности международного сотрудничества в создании эффективных стандартов защиты прав человека в цифровом пространстве. Подчеркивается необходимость совершенствования подходов к правовому регулированию и разработке технологий для предотвращения цифровых угроз и защиты личных данных.

[**к содержанию**](#содержание)

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**BIONIC PROSTHESES: RESTORING MOBILITY TO PEOPLE**

Modern medicine is on the verge of significant achievements in the field of restoring lost functions of the human body. One of the most exciting and promising directions is the development of bionic prostheses which are capable of returning mobility and independence to people who have lost their limbs. Bionic prostheses are high-tech devices designed to restore lost bodily functions, particularly mobility, after extremity amputation. Modern myoelectric prostheses are not just mechanical analogues of limbs, they are devices that can integrate with the nervous system, be controlled by brain signals, and also provide tactile sensitivity. These high-tech devices open new horizons for people with disabilities, allowing them not only to restore physical functions but also to improve their quality of life significantly. This work is dedicated to analyzing the role of these technologies, their features and prospects.

Bionic prostheses, also known as myoelectric prostheses or prostheses with an external power source are high-tech devices used for the rehabilitation of people with limb injuries. The examples include OPRA Osseointegration, DARPA MPL, LifeHand 2, and some models developed by the Russian company "Moto-Rika".

A standard myoelectric prosthesis includes several key components. Its main structure consists of a rod with a socket, which serves to connect the electronic block to the patient through a "human-machine" interface, as well as a robotic hand. This interface includes all the necessary elements–electrodes, wires, and processors–that provide communication between living tissue and the device, converting biological activity into electrical control signals.

The bionic prosthesis works by capturing electrical impulses, generated by the contraction of muscles, that remain after the loss of a limb. These impulses are transmitted to a microprocessor, where they are analyzed and interpreted as commands for the prosthesis's movement. Based on the processed signals, the microprocessor activates motors, that control the movement of artificial joints and fingers. Modern prostheses are programmed to meet the specific needs of the user, providing for a wide range of movements, including complex gestures. In some cases neurointerfaces are used to control the prostheses by brain signals. Such technologies make bionic prostheses functional, anatomically accurate, ensuring movements to be natural.

Despite the numerous advantages of myoelectric prostheses, they have a number of limitations in use. Firstly, the quality and stability of the signal. Myoelectric prostheses depend on the registration of electromyographic signals generated by muscle contractions. However, these signals can be variable due to: unstable electrode contact with the skin (sweat, movement, or skin characteristics), which reduces the accuracy of interpretation; cross-talk interference from neighboring muscles, which causes noise and makes it difficult to isolate clear commands; individual variations in anatomy and physiology of patients, which require custom tuning of each device. Secondly, limited functionality. Despite the application of intelligent algorithms and neurointerfaces, current systems are often limited in the number and complexity of recognizable commands. This leads to the following limitations: the inability to perform fully natural movements, especially during complex or multitasking actions; a limited range of motion and poor flexibility of the prostheses in comparison with a natural limb; difficulty in programming the prostheses to adapt to dynamic changes in muscle condition and the surrounding environment. Thirdly, aesthetic and psychological aspects. Although bionic prostheses are aimed at improving the quality of life, the aesthetic incompatibility of the prostheses with the natural appearance may cause psychological discomfort for some users.

Bionic prostheses represent a revolutionary achievement in modern medicine, capable of changing the lives of people with disabilities radically. They not only restore lost functions, but also contribute to rebuilding self-confidence and social integration of each patient. The use of high-tech solutions – from neurointerfaces and intelligent algorithms to advanced sensors – allows to create devices, that are as close as possible to the natural movement of the human body. Despite existing challenges, such as high costs and the need for continuous technological improvements, the prospects of bionic prostheses are promising. They demonstrate how the fusion of engineering and medicine can restore mobility, offer a new life filled with freedom and independence. Therefore, bionic prostheses are not just a technical replacement for lost capabilities, but a symbol of hope and innovation in the struggle for improving the quality of life.

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Статья посвящена анализу достижений современной медицины в области восстановления утраченных функций человеческого тела с акцентом на бионические протезы как наиболее перспективное направление. В центре внимания находятся высокотехнологичные устройства – бионические протезы, которые не только возвращают утраченную мобильность инвалидам, но и значительно улучшают качество их жизни, взаимодействуя с нервной системой и находясь под контролем мозговых сигналов.

[**к содержанию**](#содержание)

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**RIGHTS OF CHILDREN IN FOSTER CARE**

The protection of children's rights is one of the key objectives of the social policy of the Republic of Belarus. When a child is left without parental care for various reasons, the state is obliged to ensure that they have the opportunity to live and be brought up in a favorable family environment. One mechanism for protecting orphans and children left without parental care is the foster family. This form of family placement allows the child to grow up in conditions close to natural ones, providing them with emotional, physical, and social development.

At the same time, the legal and social aspects of the functioning of foster families require continuous improvement. It is necessary to consider both the interests of children and the rights and responsibilities of foster parents to avoid possible violations and create the most comfortable conditions for the upbringing and adaptation of children in a new environment.

The purpose of this article is to examine the legal basis for the protection of children's rights in foster families in the Republic of Belarus, identify the key mechanisms for ensuring their well-being, and determine directions for improving the institution of the foster family.

A foster family is a form of substitute care in which a child is placed with foster parents based on an agreement with the guardianship and custody authorities. The state, in turn, undertakes to provide material, social, and psychological support to such families. The basic legal norms governing the activities of foster families in Belarus are set out in the Marriage and Family Code and in a number of normative acts related to the protection of children's rights.

An important element of the system for protecting the rights of children in foster families is supervision by guardianship and custody agencies. These agencies must regularly check the child's living conditions, social and psychological adaptation, and the observance of their rights. If cases of violence, neglect, or exploitation of the child are detected, the guardianship authorities can take measures, including terminating the contract with the foster parents [1].

State support for foster families includes financial payments, medical care, and psychological assistance for both children and foster parents. In accordance with Belarusian legislation, foster parents receive monthly payments for the maintenance of the child and remuneration for their activities. Additionally, children from foster families are entitled to free medical care and preferential admission to kindergartens and educational institutions.

Despite the existence of a legislative framework and social support measures, several problems persist in the foster family system. One significant issue is the insufficient psychological training of foster parents. Not all candidates are aware of the difficulties they may encounter, including the child's potential traumas, behavioral characteristics, and emotional difficulties. In this regard, it is crucial to develop a system of training and support for foster families, providing them with access to professional assistance from specialists such as psychologists, teachers, and lawyers [2].

Another important aspect is the child's adaptation to the foster family. In the initial months, the child may experience difficulties accepting new parents, trusting them, and socializing at school and in society. State support programmes should include not only financial assistance but also regular counseling for children, adaptation support, and legal protection in case of conflict situations.

A promising direction in the development of the institution of foster families is the expansion of mentoring practices. Experienced foster parents can provide support to new families, helping them cope with emerging difficulties. Such programmes are successfully implemented in a number of European countries, and their introduction in Belarus could significantly enhance the level of successful adaptation of children in foster families.

Foster families are an important tool for protecting the rights of children without parental care. The state provides legal and social support to such families, but the system requires further improvement. Important areas include strengthening control over the conditions in which children are raised, developing a system for training foster parents, and providing psychological and legal support for all participants in the process.

While Belarusian foster families play a vital role in protecting vulnerable children, this analysis reveals critical needs for system enhancement. Prioritizing enhanced oversight of children's well-being, alongside comprehensive training and accessible psychological support for foster parents, is paramount. Furthermore, adopting proven international mentoring models offers a cost-effective strategy to boost successful adaptation. Implementing these targeted improvements will empower the system to better safeguard children's rights, foster their development, and ensure successful societal integration.

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В статье рассматриваются правовые аспекты защиты прав детей в приемной семье в Республике Беларусь. Анализируется законодательная база, регулирующая деятельность приемных семей, меры государственной поддержки, а также ключевые проблемы и пути их решения. Особое внимание уделяется вопросам адаптации детей в приемных семьях, контролю со стороны органов опеки и перспективам совершенствования института приемных семей.

[**к содержанию**](#содержание)

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**LES PRÉJUGÉS SEXISTES COMME OBSTACLE À LA MISE EN ŒUVRE DE NORMES INTERDISANT LA DISCRIMINATION DANS LE MONDE DU TRAVAIL**

«On ne naît pas femme, on le devient» – telle est la conclusion à laquelle est parvenue Simone de Beauvoir dans son célèbre ouvrage «Le Deuxième Sexe». Plus tard Shulamith Firestone, l'une des premières idéologues du féminisme de la «deuxième vague», précisera cette idée dans son livre «La dialectique du sexe»: «La nature a créé la femme différente de l’homme. La société l’a rendue différente de l’être humain».

Ces deux citations illustrent la différence entre les notions de «sexe» et de «genre». Bien que cette distinction soit catégorique, elle permet de mieux comprendre la discrimination dans le domaine du travail. Le sexe est une caractéristique biologique, tandis que le genre est un concept social qui, contrairement au sexe biologique, est considéré comme une des dimensions fondamentales de la structure sociale, au même titre que l’âge, le lieu de résidence et d’autres caractéristiques du système social.

Cette étude vise à analyser l'égalité de genre dans le domaine du travail en République de Biélorussie, en la comparant aux pratiques et aux réglementations en vigueur en France et au Royaume-Uni. L'objectif principal est d'examiner l'impact des lois et des politiques publiques sur l'intégration des femmes sur le marché du travail, d'évaluer les disparités salariales persistantes et de mettre en évidence les préjugés de genre qui influencent la répartition des professions et des rôles sociaux. En adoptant une approche comparative, cette étude cherche à identifier les mesures les plus efficaces pour réduire les inégalités et favoriser une participation équitable des femmes dans le monde professionnel.

En République de Biélorussie, les femmes et les hommes ont des droits égaux consacrés par la loi. La Constitution de la République de Biélorussie prévoit que les femmes et les hommes bénéficient de l’égalité des chances en matière d’éducation, de formation professionnelle, d’emploi et de promotion de carrière, ainsi que de conditions garantissant la protection de leur travail et de leur santé. Au fil des années, le marché du travail national s’est rapidement développé et transformé. De nouvelles professions sont apparues, et les conditions de travail ont évolué. Le droit du travail a également subi des modifications : au cours des 25 dernières années, le Code du travail a été amendé 35 fois.

Malgré cela, un écart entre les sexes persiste en République de Biélorussie, comme dans le reste du monde. Cet écart se manifeste principalement dans les différences de rémunération. En Biélorussie, les femmes sont bien intégrées au marché du travail : en 2023, 84,3 % des femmes en âge de travailler étaient employées. Elles occupent en moyenne des postes plus qualifiés que les hommes. Par exemple, en 2019, 58,2 % des dirigeants ou directeurs adjoints d’organisations étaient des femmes. De plus, 40,6 % des femmes en emploi possédaient un diplôme d’enseignement supérieur contre seulement 29 % des hommes. Cependant, un écart de revenus important subsiste entre hommes et femmes. Le fait que les femmes gagnent moins que les hommes est une caractéristique universelle du marché du travail. Selon l’Organisation internationale du travail, les femmes perçoivent en moyenne 20 % de moins que les hommes à l’échelle mondiale. En Biélorussie, cet écart était encore plus marqué en novembre 2019, atteignant 26,9 %. La principale raison de cette différence est la discrimination fondée sur le sexe ainsi que les préjugés de genre.

Certains employeurs conservent des stéréotypes concernant les professions et les postes adaptés aux hommes et aux femmes. Ainsi, 80 % des femmes travaillent dans l’administration, les services aux consommateurs, la gestion de l’information et la comptabilité, tandis que 90 % des hommes occupent des postes liés à la gestion, à l’exploitation et à l’entretien des machines, ainsi qu’à l’assemblage de produits.

Les préjugés de genre jouent un rôle particulièrement important dans la répartition des rôles familiaux. Une étude réalisée par les sociologues A. Komarovski et Y. Nazarenko sur la répartition des tâches domestiques en Biélorussie révèle une inégalité dans la répartition des responsabilités familiales. Les femmes supportent une charge domestique bien plus importante : les tâches ménagères sont soit exclusivement accomplies par elles, soit partagées équitablement avec leur conjoint ou partenaire. Une tendance similaire est observée en matière de garde des enfants. Les femmes assurent entièrement ou partiellement toutes les tâches liées aux soins des enfants, tandis que les hommes y participent dans une moindre mesure et généralement aux côtés des femmes. Ainsi, les femmes assument une double, voire une triple charge de travail lorsqu’elles ont des enfants. Ce stéréotype, consolidé par des années de pratique, engendre des préjugés sexistes de la part des employeurs [1].

L’idée selon laquelle certaines professions sont réservées aux hommes ou aux femmes est également renforcée par la liste des emplois interdits aux femmes, que certains chercheurs considèrent comme un vestige de l’ère soviétique. Cette liste remonte à 1925, où elle était intitulée «Liste des travaux particulièrement dangereux interdits aux femmes». En 2022, la Biélorussie a révisé cette liste, réduisant de moitié le nombre d’emplois interdits aux femmes, qui s’élève aujourd’hui à 88. Désormais, les femmes peuvent occuper des postes de conductrices de bus longue distance, de fondeuses, ainsi que divers emplois dans l’industrie de la pâte à papier, du papier et du carton. Toutefois, certaines restrictions subsistent, notamment pour les emplois impliquant le levage de charges lourdes, les travaux miniers, la soudure en espaces confinés ou la lutte contre les incendies.

À l’échelle internationale, la situation varie. En France, il n’existe pas d’interdiction légale empêchant les femmes d’exercer certaines professions. Cependant, des restrictions s’appliquent aux femmes enceintes et allaitantes. Selon l’Ordonnance sur la protection de la maternité, ces restrictions sont fondées sur des études médicales confirmant les particularités physiologiques des femmes enceintes ou allaitantes. Cette réglementation est censée évoluer au fil des progrès en médecine du travail. Par exemple, l’article 9 de cette ordonnance interdit toute activité impliquant des postures inconfortables répétées, telles que des flexions excessives, des accroupissements ou des inclinaisons vers l’avant, ainsi que des positions statiques prolongées pendant la grossesse et jusqu’à 16 semaines après l’accouchement [2].

Au Royaume-Uni, comme en Biélorussie, il existe une liste de professions interdites aux femmes. Depuis le 1er janvier 2021, cette liste a été réduite de 456 à 100 métiers. Les femmes britanniques ne peuvent toujours pas travailler dans les industries métallurgique, minière et chimique. Certaines interdictions restent difficiles à expliquer : les femmes peuvent désormais être parachutistes-pompiers, machinistes-électriciennes, conductrices de camions et conductrices de tracteurs, mais elles ne peuvent toujours pas devenir ingénieures aéronautiques, conductrices d’excavateurs ou monteuses d’équipements miniers. Aucune explication claire n’a été fournie quant aux raisons de ces restrictions [3]. Au Royaume-Uni, la protection contre toutes les formes de discrimination est assurée par la loi sur l'égalité de 2010.

En été 2024, le rapport annuel sur l’égalité des sexes Global Gender Gap a été publié. La Biélorussie s’est classée 55e, perdant 14 places par rapport à l’année précédente. La France s’est placée 22e et le Royaume-Uni 14e.

L’existence de lois sur l’égalité des sexes, la représentation des femmes à la tête des entreprises et la parité en politique dans plusieurs pays occidentaux, dont la France et le Royaume-Uni, a probablement influencé ce classement. Ces lois contribuent à l’élimination de la discrimination au travail et à la réduction des inégalités de genre au sein de la société. En Biélorussie, la question de l’égalité des sexes est actuellement abordée uniquement dans le cadre de lois programmatiques. Pour modifier la perception sociale des préjugés de genre, il serait pertinent d’introduire une réglementation juridique plus stricte dans ce domaine. Ainsi, la société pourra progressivement remettre en question la division traditionnelle des rôles entre hommes et femmes, permettant aux femmes d’être pleinement acceptées sur le marché du travail au même titre que les hommes.

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Статья посвящена проблеме реализации норм о запрете дискриминации в сфере труда в связи с существованием гендерных предрассудков. Проанализированы статистические данные по занятости женщин и мужчин, определены гендерные стереотипы как в отношениях нанимателей, так и среди самих работников. Освещена роль гендерных предрассудков в сфере труда, в социальной сфере, а также предложены правовые меры для борьбы с дискриминацией и повышения гендерного равенства в обществе.

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**LAS TENDENCIAS MUNDIALES DE LA СOOPERACIÓN ECONOMICA EN EL MUNDO GLOBALIZADO**

En el mundo actual, la importancia de la acción internacional se intensifica cada vez más. Como bien sabemos, la economía mundial se encuentra en una dinámica constante, caracterizada por la expansión de las relaciones internacionales, así como por la subordinación a las leyes objetivas de la economía de mercado. Sobre esta base, ciertas características se rastrean en diferentes etapas de formación. En la etapa actual de la globalización y digitalización de la economía, los países se enfrentan a nuevos desafíos, como el cambio climático, la pandemia, la migración y los refugiados, las cuestiones de seguridad y el terrorismo. Para hacer frente a estos desafíos se requieren enfoques innovadores y esfuerzos cooperativos.

Un cambio importante en la economía moderna es la aparición en la arena internacional de estructuras integradas y su desarrollo. Si antes los principales centros de poder eran los estados individuales, con el desarrollo de la necesidad de unir los estados individuales en grandes estructuras, la situación ha cambiado. Ejemplos de este tipo de asociaciones, uniones y estructuras de integración son los BRIC, la ASEAN, la UE, la OCS, el TLCAN, la CEI, la UEEA y otros. Las asociaciones de integración se están convirtiendo gradualmente en nuevos centros de poder, por lo que no solo los actores individuales, sino también asociaciones enteras de países comienzan a tener un impacto en la arena internacional, pasando así de los conceptos de un mundo único y bipolar a uno multipolar.

En el contexto de la globalización, también se ha generalizado la creación de zonas internacionales de libre comercio basadas en zonas económicas francas de países individuales. Una característica de estas zonas es la creación de los llamados bloques comerciales, que brindan una oportunidad para el desarrollo de la actividad económica extranjera de los estados individuales y de la unión en su conjunto. A pesar de los diferentes niveles de desarrollo de los estados dentro de dichas zonas, así como de sus objetivos, la creación de tales bloques comerciales beneficia tanto a los líderes de dichas asociaciones, permitiéndoles fortalecer su liderazgo en el ámbito internacional a través de un papel protagónico en la asociación, como a los países más pequeños, permitiéndoles recibir el apoyo de participantes más grandes. La UE es un ejemplo explícito de esta cooperación mutuamente beneficiosa. La posición de liderazgo en esta asociación de integración está ocupada por Alemania, que al ser el principal donante de la UE, tiene la oportunidad de ampliar el mercado para sus productos: más de la mitad de las exportaciones de Alemania caen en los mercados de los estados miembros de la UE, y también tiene la oportunidad de dictar la posición de la asociación a nivel internacional. Si consideramos los beneficios de los "pequeños estados" en la UE, podemos tomar como ejemplo a Letonia, Estonia y Polonia, que reciben apoyo financiero en forma de inversión extranjera de los estados miembros de la asociación, así como aliados influyentes en el ámbito internacional en la forma de los líderes de la asociación, por ejemplo, Alemania y Francia.

La digitalización es también un rasgo característico del desarrollo económico y la cooperación modernos. La definición del proceso de digitalización en sí mismo es la introducción de tecnologías digitales en diversas esferas de la vida humana para optimizar y automatizar diversos procesos. Un ejemplo interesante de este proceso es la transformación digital del sistema financiero (DTFS). A partir de 2022, un estudio del Banco de Pagos Internacionales reveló que alrededor del 93% de los bancos centrales de todo el mundo participan activamente en el DTFS [0]. Otro buen ejemplo es la introducción de las tecnologías digitales en todas las esferas de la actividad estatal. Por ejemplo, en la República de Belarús, desde el 1 de julio de 2022, las actividades de elaboración de normas de los organismos estatales se han llevado a cabo mediante el uso de la "Reglamentación" del AIS. El uso de este sistema permitió automatizar el impacto de la información electrónica de los órganos estatales, así como crear un sistema efectivo de control sobre la implementación de la elaboración de normas, el cumplimiento de plazos en este proceso, así como almacenar información sobre documentos y actos estatales [0].

En 2015, la Asamblea General de las Naciones Unidas elaboró un plan para los Objetivos de Desarrollo Sostenible (ODS) para los próximos 15 años, también llamados Objetivos Globales. Los 17 ODS se desarrollaron y son universales e integrales, destinados a erradicar la pobreza, proteger a todo el planeta en lugar de a una región específica, así como prevenir guerras y resolver conflictos de manera pacífica. Por lo tanto, la adopción de la nueva Agenda por parte de la ONU tiene como objetivo mejorar gradualmente la calidad de vida de todas las personas en la tierra y brindar igualdad de oportunidades a todos los rincones del planeta, lo cual es imposible sin la interacción cooperativa de los países, así como la creación de un sistema internacional sostenible para proporcionar información oportuna y confiable desde todos los rincones del planeta.

También vale la pena señalar el papel especial de la República Popular China en el desarrollo de la cooperación internacional moderna en diversos campos. En 2013, el presidente chino Xi Jinping lanzó la Iniciativa de la Franja y la Ruta para mejorar y profundizar los enlaces de transporte, así como para ampliar la cooperación internacional en varios continentes. Se supone que la implementación de esta iniciativa combinará dos proyectos económicos: el Cinturón Económico de la Ruta de la Seda, que consta de varios corredores económicos terrestres, y la Ruta de la Seda Marítima del siglo XXI. Como parte de la creación de estos corredores continentales, además de la creación de una infraestructura de transporte única que reducirá 5 veces el tiempo de entrega de mercancías en todo el continente, el proyecto también implica la expansión de la cooperación aduanera, la cooperación humanitaria e innovadora, la expansión de la escala de las transacciones financieras y la creación de instituciones financieras basadas en organizaciones regionales como la OCS y los BRICS, que están ganando rápidamente posiciones en la arena internacional. A pesar de la difícil situación en el continente, más de 150 países ya han firmado un acuerdo de cooperación con China en el marco de este programa. Es importante destacar que la base del proyecto son tanto los países con economías pequeñas, a los que se les proporcionan préstamos para la construcción de infraestructuras de transporte de alta calidad en el marco de la iniciativa, como los países con un alto nivel de desarrollo económico.

En el marco de las iniciativas chinas, también cabe mencionar la Organización de Cooperación de Shanghái (OCS). La OCS es una organización transnacional intergubernamental formada sobre la base de acuerdos sobre el fomento de la confianza en el ámbito militar y sobre la reducción mutua de las fuerzas armadas en la zona fronteriza. El principal interés de la OCS no es solo la seguridad militar, sino también la ciberseguridad, un programa para preservar la vida humana y otras. En el marco de la interacción, se realizan cumbres anuales, en las que se discuten las áreas prioritarias para el desarrollo de la cooperación dentro de la organización, la solución de cuestiones económicas fundamentales, así como la aprobación del presupuesto anual de la organización. Una característica distintiva de la OCS es su estructura de miembros en varias etapas y, por lo tanto, la capacidad de participar en las actividades de la organización. Por el momento, la organización incluye 10 países y el último en recibir el estatus de miembro de pleno derecho de la OCS el 4 de julio de 2024 fue la República de Belarús.

Además de los 10 Estados miembros, la organización también incluye 2 países observadores y 14 países socios en el diálogo. El año 2025 ha sido declarado el año del desarrollo sostenible de la OCS, la presidencia durante este período será ejercida por la República Popular China (la RPC). El Embajador Extraordinario y Plenipotenciario de la República Popular China en la República de Belarús, Zhwang Wenchuan, señaló en la 8ª reunión plenaria de la Escuela Republicana de Jóvenes Sinólogos que "en 2025, está previsto celebrar la 25ª reunión del Consejo de Jefes de Estado de la OCS, se celebrarán más de 100 conferencias y eventos dedicados a la política, la economía y en la esfera humanitaria. La RPC presidirá el lema "Difundiendo el espíritu de Shanghai", la OCS en acción, se centrará en el acercamiento de la interacción entre los países participantes, así como en los intentos de alinear el desarrollo de la iniciativa "Un cinturón, una ruta" con las estrategias de desarrollo de los países miembros de la OCS: construir más plataformas de diálogo, ampliar la cooperación en las esferas comercial, económica, de inversión y financiera, en el campo de la economía digital y el desarrollo verde"[0]. Con base en lo anterior, la OCS actualmente tiene como objetivo expandir activamente los puntos de interacción entre los países dentro de esta organización, así como expandir la posición global de esta organización a través de la fusión con la Iniciativa de la Franja y la Ruta.

Así, en la actualidad, en el marco de los procesos de globalización y digitalización, se produce un acercamiento activo de los Estados y la universalización de los objetivos de su desarrollo posterior. Como parte del acercamiento, se están creando diversas estructuras para ayudar a las economías menos desarrolladas a desarrollarse y a las economías desarrolladas a ampliar su influencia. La cooperación regional se está expandiendo gradualmente a la cooperación internacional, en la que las iniciativas y proyectos de China juegan un papel importante. Hay una transición hacia un mundo multipolar, donde las alianzas internacionales comienzan a jugar un papel importante. Esta reestructuración de la estructura de interacción, si bien es una innovación, tiene un impacto positivo en la solución de los principales problemas mundiales, y en el futuro es óptima para la transición a un nuevo nivel de interacción pacífica, innovadora y segura entre los países.

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В статье рассматриваются тенденции развития экономики в эпоху глобализации и цифровизации. Автор описывает основные механизмы, посредством которых происходит сотрудничество и кооперация, а также выделяет основные цели, на основе которых происходит эта кооперация и которые составляют основу дальнейшего развития современной экономики.

[**к содержанию**](#содержание)

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# CYBERSECURITY IN THE DIGITAL WORLD

Сybersecurity has become a critical concern for individuals, businesses and governments in the increasingly interconnected world. The risk of cyberattacks grows as people move more into the digital realm from banking and shopping to communication and entertainment. Ranging from data breaches and identity theft to ransomware and cyber espionage these threats pose significant risks to privacy, financial security and national safety. Therefore, understanding and implementing effective cybersecurity measures is crucial for protecting personal and organizational data [2].

Cybersecurity refers to the practices and technologies designed to defend systems, networks and data from digital threats. It encompasses several key areas with the following functions:

Network Security expects protecting the integrity, confidentiality and availability of data as it is transmitted across or accessed through networks. This involves firewalls, intrusion detection systems and secure communication protocols.

Information Security supposes ensuring sensitive data to be protected from unauthorized access, disclosure, alteration, and destruction. Encryption, access controls and secure storage are integral components of information security.

Application Security intends securing software applications from vulnerabilities that cybercriminals may exploit. This includes regular patching secure coding practices and testing for security flaws.

Incident Response and Recovery means developing plans and protocols to quickly respond to and recover from cybersecurity incidents. This includes creating backup systems and training employees to handle breaches effectively.

Nowadays the importance of proactive cybersecurity measures grows because cyberattacks become more refined. Organizations must invest in not only technological solutions but also employee training, as human error often plays a significant role in breaches. That’s why governments and international organizations worldwide are working to establish regulations and standards to guide cybersecurity practices [3].

The realm of cybersecurity is constantly expanding to include emerging technologies such as the Internet of Things (IoT), artificial intelligence (AI) and machine learning (ML) which bring their own unique set of vulnerabilities and security challenges. Protecting interconnected devices and smart systems requires robust security protocols and innovative defense mechanisms. This also involves addressing the security of personal devices which are used for both personal and professional purposes making mobile security a critical aspect of cybersecurity. As technology continues to advance cybersecurity strategies must evolve to cover the full spectrum of digital interactions and transactions ensuring comprehensive protection against the ever-evolving cyber threat landscape [1].

At the same time cybersecurity is not just a technical issue but a critical component of modern life. As the digital landscape continues to evolve maintaining robust cybersecurity practices is essential for protecting people’s personal and professional interests from malicious actors. Being informed, vigilant and prepared can help mitigate the risks and ensure a safer online environment for everyone.

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В статье раскрывается проблема кибербезопасности в условиях увеличивающейся цифровизации общества, включая банковские операции, покупки, коммуникацию и развлечения. Рассматриваются различные угрозы: утечка данных, кража личной информации, вымогательство и кибершпионаж, которые представляют собой значительный риск для конфиденциальности, финансовой и национальной безопасности.

[**к содержанию**](#содержание)

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**COMPARISON OF THE FINANCIAL CONDITION OF ORGANIZATIONS IN THE REPUBLIC OF BELARUS AND THE RUSSIAN FEDERATION**

The financial condition of an organization is the main object of financial analysis, as the results are of interest to both the organization's managers and external users of information. Therefore, the analysis of financial condition is constantly being improved based on the use of international and practical experience, the introduction of new concepts, technologies, and tools.

The Ministry of Finance of the Republic of Belarus has developed Methodological Recommendations for conducting a comprehensive systematic assessment of an organization's financial condition, approved by Order № 351 of October 14, 2021. These methodological recommendations have significantly changed the approaches to analyzing and assessing the financial condition of economic entities [1].

The main goal of their application is to justify measures to improve the efficiency of the analyzed organization, enhance its financial condition, and reduce fiscal risks. According to the methodological recommendations, the assessment of financial condition is carried out based on the calculation of liquidity, financial stability, and profitability indicators.

The initial data for such an assessment are obtained from the organization's accounting reports (interim, annual), prepared in accordance with the National Accounting and Reporting Standard "Individual Financial Statements," approved by the Resolution of the Ministry of Finance of the Republic of Belarus № 104 of December 12, 2016 (as amended by Resolution № 64 of December 28, 2022), or other accounting information of the organization [3]

The indicators and criteria introduced by Resolution № 16/46 of August 7, 2023 "On Assessing the Degree of Bankruptcy Risk" [4] (based on the Law of the Republic of Belarus № 227-Z "On Insolvency Regulation" of December 13, 2022 [5]) allow us starting from October 1, 2023, to determine the degree of bankruptcy risk and take measures to ensure the financial stability of organizations.

Two key indicators are used to assess the degree of bankruptcy risk of economic entities:

* the ratio of asset-backed liabilities, reflecting the ratio of the entity's liabilities to its assets;
* the ratio of overdue liabilities, showing the ratio of overdue liabilities to the total amount of liabilities.

These indicators provide an objective picture of the enterprise's financial stability and allow timely measures to prevent its bankruptcy.

In the Russian Federation, approaches to analyzing the financial condition of organizations are formed considering their industry-specific and financial-legal status. These approaches are regulated by various normative acts that include recommendations for assessing indicators such as liquidity, financial stability, solvency, and profitability.

The legal regulation of the financial condition of organizations in the Russian Federation is carried out through a set of normative acts that establish the procedure for accounting, reporting, and financial analysis. The main normative acts include the Constitution of the Russian Federation, the Civil Code of the Russian Federation, the Budget Code of the Russian Federation, the Tax Code of the Russian Federation, as well as federal laws and subordinate acts.

One of the key documents is the "Methodological Guidelines for Conducting Analysis of the Financial Condition of Organizations in the Russian Federation" dated January 23, 2001, № 16. This document establishes the basic principles and approaches to conducting financial analysis of organizations, including indicators such as liquidity, financial stability, solvency, and profitability. The methodology includes the assessment of liquidity, financial stability, solvency, and profitability, which allows for an objective assessment of the organization's current financial condition and identification of potential risks [2].

In Russia there are criteria for identifying the insolvency of an organization and the threat of its bankruptcy, which are used by the Federal Tax Service in relation to strategic organizations.

In addition, the Russian Federation has the law of May 10, 2020, № 651 "On Measures to Support System-Forming Organizations," which is aimed at supporting large organizations that have strategic importance for the country's economy. This law provides for measures to improve the financial condition of such organizations, including the provision of state support and control over their financial activities.

The methodologies of both countries offer a comprehensive analysis, including the assessment of liquidity, financial stability, solvency, and profitability. Both approaches have their strengths and provide a reliable mechanism for identifying and minimizing financial risks.

For the Russian Federation, a strong point is the emphasis on supporting large strategically important organizations through state programs. This helps prevent the bankruptcy of large companies that have a significant impact on the country's economy. Additionally, methodologies in the Russian Federation ensure standardization and transparency of the analysis, which contributes to a high level of trust in the results.

In the Republic of Belarus, the emphasis is on assessing the degree of bankruptcy risk and taking measures to prevent it. This allows us to timely identify potential problems and take measures to solve them. The methodology also clearly regulates procedures and requirements, ensuring uniformity and accuracy of the analysis.

The study of methodologies for assessing the financial condition of an organization has shown that, despite the large number of methodologies described in economic literature, they all involve the analysis of the organization's liquidity, solvency, financial stability; evaluation of business activity indicators (capital utilization intensity) and profitability.

In conclusion, it is important to note that both methodologies offer reliable mechanisms for identifying and minimizing financial risks, ensuring financial stability, and effective risk management. Continuous improvement and adaptation to changing financial conditions are necessary to maintain the relevance and accuracy of these assessments.

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В статье рассматриваются подходы к оценке финансового состояния организаций в Республике Беларусь и Российской Федерации. Проведен сравнительный анализ методик и нормативных актов, регулирующих финансовую отчетность и оценку показателей ликвидности, финансовой устойчивости, платежеспособности и рентабельности. Подчеркиваются ключевые различия и схожие черты в подходах обеих стран, а также влияние законодательных изменений на финансовое управление.

[**к содержанию**](#содержание)

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**PSYCHOLOGICAL AND PEDAGOGICAL SUPPORT FOR CHILDREN DURING THE PERIOD OF ADAPTATION TO KINDERGARTEN**

Going to kindergarten is an important milestone in a child’s life, often accompanied by feelings of anxiety, excitement, and insecurity. Providing reliable psychological and pedagogical support during this period is essential for the successful adaptation of children to a new daily routine, social environment, and academic expectations. This article aims to examine strategies to facilitate the transition period, highlights the role of educators and parents, and describes the best methods for creating a supportive environment in kindergarten.

Kindergarten adaptation includes both emotional and cognitive adaptations. The initial stage can be challenging as children are faced with unfamiliar daily routines, new peers, and a more structured learning environment. To solve these problems, educators primarily focus on creating a supportive and predictable classroom environment. Clear daily routines, visual schedules, and habitual activities help reduce anxiety by giving children a sense of control and consistency.

Psychological support begins with creating a safe emotional space where children feel that they are being heard and understood. Teachers can use simple methods such as one-on-one inspections, “calm corners”, and age-appropriate conversations about feelings to help children deal with their emotions. Storytelling and role-playing aimed at overcoming common fears, such as fear of separation or fear of the unknown, allow children to explore their feelings in a supportive environment [1]. These classes also provide teachers with the opportunity to show empathy, patience, and active listening.

From a pedagogical point of view, the adaptation process is accelerated by gradual integration. Shorter initial classes, study visits, and parent-teacher conferences can help children adapt at a comfortable pace. Educators can design activities that combine play with learning, ensuring that academic content is presented in a gentle and natural way for the child [2].

Interactive group classes not only develop academic skills, but also promote social interaction and teamwork, which are crucial during the adaptation phase.

Parental involvement is a key element of support. Open communication between teachers and parents allows for the exchange of opinions and concerns. Regular updates, seminars, and joint planning sessions help coordinate strategies between home and school [3]. Parents who are well-informed and involved in the learning process can consolidate the rules of behavior encouraged in the classroom, which will make the transition period smoother for their child.

Equally important is the professional development of teachers. Training sessions on the emotional and social needs of children in transition provide educators with tools to identify early signs of distress and prompt intervention. By combining psychological support with pedagogical strategies, schools create an integrated approach that takes into account both the emotional and educational needs of young students [4].

Kindergarten adaptation is a critical period that sets the tone for a child’s future learning and social experience. Through structured procedures, empathetic teaching methods, and active parental involvement, educators can provide the necessary psychological and pedagogical support to facilitate this transition. Ultimately, by creating a supportive and well-coordinated environment, schools lay the foundation for children to develop resilience, self-confidence, and a love of learning that will serve them throughout their lives.

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В статье рассматриваются методы психологической и педагогической поддержки детей в период адаптации к детскому саду. Описаны основные сложности, с которыми сталкиваются дети на этом этапе, а также стратегии их преодоления. Показана роль педагогов и родителей в формировании благоприятной среды, способствующей плавному переходу ребенка в новую образовательную систему. Подчеркивается важность профессиональной подготовки педагогов и межличностного взаимодействия с родителями.

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**INFORMATION SECURITY AS AN ELEMENT OF ECONOMIC SECURITY**

The modern world cannot be imagined without information technology. Knowledge sharing, data collection and analysis are the engine of progress that allows companies to develop and expand their capabilities. Informatization has become an integral part of management, opening up new horizons for business. However, this same digital revolution has created fertile ground for the rapid growth of cybercrime, which poses a serious threat not only to individual citizens, but also to the entire economic system.

The growth of cybercrimes in Russia is an alarming signal. According to the Prosecutor General's Office of the Russian Federation, in 2024, the number of registered crimes committed using information and telecommunication technologies increased by 75.2% compared to 2019, reaching 281,400 cases in January. The scale and complexity of crimes are growing, and the methods of intruders are constantly being improved, causing damage not only financially, but also reputationally. Moreover, attacks on information and communication infrastructure can have disastrous consequences for the entire country. The danger lies not only in direct financial damage from data theft, extortion, or fraud. Loss of confidential information, disruption of systems, leakage of trade secrets – all this can lead to serious long-term consequences for a business: loss of customer trust, reduced competitiveness, and even bankruptcy. Therefore, ensuring the information security of an enterprise becomes not just desirable, but a vital element of any company's development strategy [2].

The official document that currently contains the definition of information security is Decree of the President of the Russian Federation dated 05.12.2016 № 646 GOST R ISO/IEC 13335-1-2006 "On Approval of the Information Security Doctrine of the Russian Federation". This source states that the information security of the Russian Federation is a state of protection of the individual, society and the state from internal and external cyber threats, ensuring the realization of constitutional human and civil rights and freedoms, the quality and standard of living of decent citizens, sovereignty, territorial integrity and sustainable socio-economic development of the Russian Federation, defense and security of the state [3].

Ensuring information security as the foundation of an enterprise's economic stability in the modern world, where business is increasingly dependent on information, has ceased to be just a desirable measure, it has become a vital condition for economic survival and prosperity. Information security, considered in the context of economic security, is a set of measures aimed at protecting an enterprise's activities, its information resources and the environment from threats that can cause economic damage. It's not just about repelling malicious attacks, but about a more comprehensive approach. It covers ensuring the secrecy of data, its authenticity and usability, as well as maintaining the smooth operation of the organization.

The economic security of an enterprise directly depends on the level of its information security. Data loss, disruptions in the IT infrastructure, as well as attacks by intruders on the network – all this can lead to serious monetary losses, negatively affect the company's image and, as a result, lead to its collapse.

Various fraudulent schemes are implemented using IT solutions. Information technology is becoming a tool for hacker attacks every day and contributes to the growth of crime.

Table 1 – Rating of the cybersecurity index of some countries [1].

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Country | Global Cybersecurity Index | | National Cybersecurity Index | | The Digital Intelligence Index | |
| Scores | Rating | Scores | Rating | Scores | Rating |
| USA | 100 | 1 | 79,22 | 17 | 78,91 | 8 |
| Saudi Arabia | 99,54 | 2 | 77,92 | 19 | 76,27 | 10 |
| Estonia | 99,48 | 3 | - | - | 62,84 | 23 |
| Korea | 98,52 | 4 | 75,42 | 21 | 71,69 | 14 |
| Russia | 98,06 | 5 | 64,94 | 29 | 54,23 | 48 |
| Germany | 97,41 | 13 | 64,94 | 15 | 77,48 | 9 |
| China | 92,53 | 33 | 35,06 | 83 | 58,44 | 40 |

The table shows that Russia has lagged other countries in terms of the Digital Intelligence Index. At the same time, we understand that the guarantee of information security helps to protect the company's information assets from various dangers. These dangers can be both unintentional and intentional, coming from both inside and outside.

Ensuring information security implies a set of measures aimed at data protection. This complex includes:

1. Forecasting potential threats, their identification and analysis of the degree of danger to the information environment.

2. Regular improvement of the information security system and its adaptation to constantly changing conditions.

3. Creation and implementation of tools to prevent, mitigate and repel cyber-attacks, as well as eliminate their consequences.

4. Ensuring reliable protection of all types of media from leaks and illegal access.

5. Control of access and regulation of users’ rights to certain categories of documentation.

For effective data protection, organizations, and the state need, first of all, to identify potential sources of danger to ensure information security. Information security threats are possible incidents and actions that in the future may lead to leakage of important data and unauthorized access to this data. Such threats are largely capable of causing reputational and financial damage to organizations.

In most cases, companies have difficulty implementing all the necessary information security measures on their own. Therefore, it is often the best option to contact relevant companies and qualified specialists in this field.

In the current reality, the importance of information protection is constantly increasing, as it directly affects the economy of both the state and individual enterprises. The main threats are related to the disclosure and loss of confidential data, as well as unauthorized entry into systems containing protected information, and other similar offenses. Threats in the field of information security can have several negative consequences, namely:

1. Reduction of profitability of production.

2. Weakening of the competitiveness of enterprises.

3. Deprivation of powers in relation to the results of intellectual activity.

Thus, the maintenance of information security at the enterprise must be ensured at the current level of IT technology development, which is critically important today, since this is the key to ensuring proper economic security of the enterprise.

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В статье рассматривается влияние цифровизации на экономическую безопасность государства в условиях роста киберпреступлений. Основные угрозы информационной безопасности как элемента экономической безопасности. Предложен ряд рекомендаций по совершенствованию кибербезопасности и защиты данных в информационном поле.

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**INNOVATIVE ANSÄTZE IM ABFALLMANAGEMENT**

In der modernen Welt wird das Problem der Abfälle immer drängender. Mit dem Wachstum der Bevölkerung und der Entwicklung der Industrie steigen die Müllmengen, was zu ernsthaften ökologischen Folgen führt. Traditionelle Entsorgungsmethoden wie Deponierung und Verbrennung können die zunehmende Belastung nicht mehr bewältigen und verursachen eine Verschmutzung von Boden, Wasser und Luft. Unter diesen Bedingungen ist es notwendig, neue Lösungen zu finden, die es ermöglichen, Abfälle zu minimieren, die Recyclingquote zu erhöhen und die Belastung der Umwelt zu verringern.

Ziel des Artikels ist es, innovative Ansätze im Abfallmanagement zu analysieren, ihre Vorteile und möglichen Schwierigkeiten bei der Umsetzung zu identifizieren sowie die Perspektiven für den Übergang zu einem nachhaltigeren und umweltfreundlicheren Abfallwirtschaftssystem zu bewerten.

Innovative Ansätze im Abfallmanagement werden derzeit zu einem Schlüsselbereich bei der Lösung ökologischer Probleme. Standardmethoden zur Abfallentsorgung können nicht mehr das erforderliche Niveau an ökologischer Sicherheit und Effizienz gewährleisten. In diesem Zusammenhang werden neue Technologien entwickelt und implementiert, die darauf abzielen, Abfälle zu minimieren, sie zu recyceln und wiederzuverwenden.

Einer der vielversprechendsten Ansätze ist das Konzept der Kreislaufwirtschaft [1]. Es zielt darauf ab, Abfälle durch Wiederverwendung, Recycling und Rückführung in den Produktionszyklus zu minimieren. Im Gegensatz zu dem linearen Modell, das einmaligen Verbrauch und Entsorgung vorsieht, bietet dieses Konzept einen nachhaltigeren Ansatz. Zum Beispiel ermöglicht die Entwicklung der Biotechnologie die Nutzung organischer Abfälle zur Produktion von Biogas und Kompost, was die Belastung von Deponien verringert und den Übergang zu nachhaltigen Energiequellen fördert.

Moderne Technologien zur Abfallverwertung werden ebenfalls immer ausgefeilter. Die Entwicklung von mechanisch-biologischen Verfahren, plasmatischer Vergasung und chemischem Recycling ermöglicht die Verwertung sogar solcher Abfallarten, die früher als ungeeignet für die Wiederverwendung galten. Zum Beispiel ermöglicht das chemische Recycling von Kunststoffen die Gewinnung von Ausgangsmonomeren, die für die Wiederherstellung hochwertiger Materialien geeignet sind. Ein weiteres Beispiel ist die Verwertung von Textilabfällen unter Verwendung chemischer und biotechnologischer Methoden. Traditionell wurden abgetragene Kleidung und Textilprodukte auf Deponien entsorgt oder verbrannt, aber moderne Technologien ermöglichen es, sie in Fasern zu zerlegen und in der Produktion neuer Stoffe wiederzuverwenden. So hat das Unternehmen Worn Again Technologies einen chemischen Zersetzungsprozess für Polyester und Baumwolle entwickelt, der die Gewinnung reiner Polymere und Cellulose ermöglicht, die zur Herstellung neuer Textilmaterialien ohne Qualitätsverlust geeignet sind [3].

Ein weiteres erfolgreiches Beispiel ist die Verwertung organischer Abfälle. Weltweit werden jährlich Millionen Tonnen Lebensmittelreste weggeworfen, die sinnvoll genutzt werden könnten. Moderne Technologien ermöglichen es, organische Abfälle in Biogas, Kompost und Biokohle umzuwandeln. In Schweden wird eine große Menge an Abfällen in Biogas umgewandelt, das dann zur Stromerzeugung, Heizung und sogar als Treibstoff für den öffentlichen Nahverkehr verwendet wird [2]. Biogas wird durch anaerobe Vergärung organischer Abfälle in speziellen Anlagen gewonnen, in denen Bakterien die organischen Stoffe zersetzen und Methan freisetzen. Darüber hinaus werden die Rückstände nach der Verarbeitung organischer Abfälle als Dünger in der Landwirtschaft verwendet, was die Bodenqualität verbessert und den Bedarf an chemischen Zusätzen verringert [1].

Automatisierung und digitale Technologien tragen ebenfalls erheblich zur Verbesserung des Abfallmanagements bei. Moderne Überwachungssysteme, die mit Sensoren und IoT-Geräten ausgestattet sind, ermöglichen die Echtzeitverfolgung von Volumen, Zusammensetzung und Standort von Abfällen. Künstliche Intelligenz wird auch aktiv bei der Müllsortierung eingesetzt, um die Genauigkeit der Materialtrennung zu erhöhen und den Anteil kontaminierter Sekundärrohstoffe zu senken. Robotergestützte Sortieranlagen, die mit maschinellen Sichtsystemen ausgestattet sind, können Kunststoffe, Papier, Metall und andere Abfallarten mit hoher Geschwindigkeit erkennen und trennen, was die Verwertung effizienter macht. Solche Technologien werden bereits in Ländern mit hohen Innovationsraten eingesetzt, wie zum Beispiel in Japan und Deutschland, wo automatisierte Anlagen in der Lage sind, Abfälle schneller und genauer zu sortieren als manuelle Arbeit.

Ein weiteres innovatives Feld ist das chemische Recycling von Kunststoffen. Im Gegensatz zum mechanischen Recycling, das in seinen Möglichkeiten begrenzt ist und die Materialqualität bei jedem Recyclingzyklus verringert, ermöglicht der chemische Prozess die Zersetzung von Kunststoffen in ihre Ausgangsmonomere, was die Herstellung von neuem Kunststoff höchster Qualität ermöglicht, der praktisch nicht von Primärkunststoffen zu unterscheiden ist. Dies eröffnet enorme Perspektiven für die effektive Wiederverwendung von Kunststoffen, insbesondere für komplexe Arten wie mehrschichtige Verpackungen oder Kunststoffe, die Additive enthalten, die nicht mechanisch recycelt werden können. Durch chemisches Recycling können sogar kontaminierte Kunststoffe wiederhergestellt werden, was das Volumen der recycelten Materialien erheblich erhöht.

Trotz aller Fortschritte gibt es jedoch ernsthafte Barrieren, die einer breiten Einführung innovativer Ansätze im Wege stehen. Erstens hemmt die hohe Kostenstruktur neuer Technologien deren Verbreitung, insbesondere in Entwicklungsländern. Zweitens macht der Mangel an Infrastruktur für die getrennte Sammlung und Verwertung selbst die fortschrittlichsten Lösungen wenig effektiv. Drittens führt das niedrige Niveau des ökologischen Bewusstseins in der Bevölkerung und der Wirtschaft dazu, dass ein erheblicher Teil der Abfälle weiterhin auf Deponien landet. Um diese Probleme zu überwinden, ist ein umfassender Ansatz erforderlich. Die Staaten müssen strenge Umweltvorschriften entwickeln und umsetzen sowie Unternehmen anregen, auf nachhaltige Produktions- und Konsummodelle umzusteigen. Die Unternehmen sollten ihrerseits in die Verwertung investieren und Produkte entwickeln, die leicht entsorgt werden können. Die Bevölkerung muss die Bedeutung eines verantwortungsvollen Umgangs mit Abfällen erkennen und aktiv an den Prozessen der getrennten Sammlung teilnehmen.

Zusammenfassend lässt sich sagen, dass innovative Ansätze im Abfallmanagement ein Maßnahmenpaket darstellen, das in der modernen Welt notwendig ist. Sie umfassen fortschrittliche Recyclingtechnologien, die Digitalisierung von Prozessen, die Kreislaufwirtschaft und die Schaffung einer neuen Konsumkultur. Ihre erfolgreiche Umsetzung erfordert gemeinsame Anstrengungen vom Staat, Wirtschaft und Gesellschaft. Nur ein umfassender Ansatz wird es ermöglichen, die ökologische Belastung zu reduzieren und eine nachhaltige Entwicklung auf lange Sicht zu gewährleisten. In Zukunft wird der Verzicht auf traditionelle Abfallentsorgungsmethoden und der Übergang zu geschlossenen Recycling-Systemen ein integraler Bestandteil der nachhaltigen Entwicklung sein.

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Статья посвящена инновационным подходам к управлению отходами, включая современные технологии переработки, автоматизацию процессов и развитие циркулярной экономики. Автор анализирует перспективные методы переработки органических и пластиковых отходов, такие как биогаз и химический рециклинг, а также роль цифровых технологий в оптимизации управления мусором.

[**к содержанию**](#содержание)

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**THE TRAINING PROCESS**

The training process is a systematic activity aimed at developing the physical, technical and psychological qualities of an athlete. It is the foundation of a successful sports career. It includes many aspects, from class planning to performance evaluation. The article analyzes the main components of the training process, its goals and importance for achieving high results in sports.

The training process is the basic plan or form of preparation of an athlete, which is the development and improvement of all the qualities of an athlete, including not only physical qualities, but also moral training to overcome all difficulties.

The training process consists of several key elements. First, it is planning which includes developing an individual training programme that takes into account the athlete’s level of fitness, physical and psychological characteristics. Planning helps to avoid overtraining and injury, as well as promotes more effective development of necessary skills [1, p. 105].

Secondly, an important aspect is the variety of training methods. Athletes should use different types of training: aerobic, anaerobic, strength and special training. It helps to develop various physical qualities such as endurance, strength, speed and coordination. Besides, this variety helps to maintain interest in training and prevents psychological fatigue.

The third component is the regularity of training. To achieve high results, it is necessary to practice sports on an ongoing basis. Regular classes contribute not only to physical development, but also to the formation of discipline and perseverance in athletes. These qualities are important not only in sports, but also in life in general.

Also, we must not forget about recovery. Rehabilitation activities play a key role in the training process. They help the body recover from stress, prevent injury and help improve the results. These activities include massages, physical therapy, proper nutrition and sleep patterns.

Finally, psychological preparation is an important aspect. Success in sports largely depends on the psycho-emotional state of the athlete. Training should include elements of psychological preparation, such as visualizing success, working with motivation, and stress management [2, p. 47].

Let’s take an example of a runner’s training process.

Running is a natural way of human movement. The main criterion for a good medium- and long-distance running technique is the efficiency and economy of the athlete’s movements, which spend a minimum of effort moving forward, and are able to alternate muscle tension phases with relaxation phases. This kind of running is straightforward, soft and smooth.

There is also such a type of running as a relay race. The relay race is the most spectacular type of team athletics competition. Athletes run through their stages, passing each other a baton 30 cm long, 4 cm in diameter, weighing 50-150 g. The main distances are 4\*100 and 4\*400 m.

Middle-distance running is one of the most difficult types of athletics requiring a high level of special, physical, technical, tactical, psychological, moral and volitional training and intellectual development from the athlete.

Runner training is a long process of education and upbringing. Interested in improving both his running and physical fitness, he must simultaneously improve all the qualities he needs over the years: speed and endurance, strength, flexibility and dexterity, placing more and more increased demands on the body and mastering rational techniques, using new means to solve the tasks set, following the path of selecting exercises that are most appropriate and purposeful.

At the first stages of training, a wide range of running and general physical exercises are used and the mastery of running techniques takes place at moderate speeds. However, as the necessary qualities improve and results increase, it is necessary not only to increase the volume and focus of physical training, but also to use mainly special exercises that help maintain a good level of physical fitness and develop the necessary qualities.

The higher the skill level of an athlete, the more complex and purposeful special and running exercises need to be applied, because the basis for further growth of skill and stability of results is a high level of special physical training.

Changing the means of training during the annual cycle is also of great importance. The correct selection and volume of running and special physical exercises during different periods of training will ensure the maximum increase in results.

One of the reasons that middle-distance runners lag behind international-class results is the lack of long-term planning of not only running training, but also special physical training over the years and during periods, underestimation of the role of special exercises aimed at developing the necessary qualities and improving running techniques, incorrect selection of running and special exercises depending on the level of physical fitness and technical training, athletic experience, age, gender, degree of health, and study conditions.

This, in turn, does not lead to systematic training of a high-class runner, but to training him for results through accelerated running training and ignoring the use of general and special physical training tools.

The point is not that specializing in middle-distance running in adolescence is harmful, but that some coaches, unaware or forgetting about the training methodology and pedagogical principles in working with boys and girls, use means and forms, workouts available only to runners with extensive athletic experience. It is clear that the methodology of using the entire arsenal of training tools, including special exercises, depends primarily on the theoretical knowledge, practical experience, and the ability to plan and analyze the coach-educator himself. Not all trainers have fully understood the importance of physical fitness for runners, including the use of special exercises during training.

The most effective method of conducting classes with middle-distance runners is an individual group, which makes it possible to work with a small group (the quantitative composition of the group is determined by the skill level of the athletes), taking into account the individual characteristics of each student. Training in a group helps to carry the running load easier, to be more organized and interesting, and to conduct special exercises with greater emotion.

It must be remembered that classes should be diverse in the form of organization of the educational and training process, methods of application and the variety of exercises themselves; this will ensure the flexible adaptability of the body to the application of the acquired skill in various conditions, will help to maintain interest in educational and training work. However, diversity should be rational, so as not to lead to poor mastery of skills and dispersion in classes.

It is advisable to change the places of training (classes in the arena, in the forest, in the gym), which will ensure an increase in performance, will facilitate the performance of the training.

An individual approach should be expressed in the application of such targeted exercises that would give the greatest results for this particular athlete.

And for this, the coach needs to know both the physical and psychological characteristics, the environment of the athlete in order to use his observations in training and educational purposes.

The coach must ensure that athletes completely disconnect from all activities that interfere with the development of the skill, tune in to the lesson, pay attention to his remarks and cultivate a sense of introspection in the athlete, and must also master the exercises that he offers, since only a personal demonstration of the exercise along with an explanation makes it possible to learn a particular skill quickly and correctly. The trainer needs not only to be present at the lesson, but also to lead and direct the educational and training process, being in a place from where the exercises can be best observed.

The exercises used in training should be alternated both by the nature of the effect on the body (after strength exercises, flexibility exercises are performed, followed by relaxation, etc.) and by the muscle groups they affect (after exercises aimed at developing back muscle strength, exercises are performed to develop leg strength, etc.) [3, p. 24].

Exercises should alternate in orientation. So, running at the beginning of a workout with a high hip lift with a high frequency of movements will promote the development of speed, and running at the end of a workout with weights will promote the development of strength, etc. It follows that most special exercises performed at different intensities can be used to develop various qualities.

Special exercises are divided into exercises aimed at developing the physical qualities necessary for a runner (strength, speed, endurance, flexibility, agility), and exercises aimed at mastering a rational running technique.

Thus, the training process is a multifaceted system that requires careful planning and consideration of various factors. It includes a variety of training methods, exercise regularity, recovery, and psychological preparation. Each of these components plays an important role in achieving high athletic performance. Understanding the importance of each aspect of the training process will help athletes not only achieve success in sports, but also develop personal qualities that will be useful in life outside the sports arena.

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В статье рассматриваются тренировочный процесс и особенности его организации. Автор анализирует разнообразные методы тренировок, проблемы регулярности занятий, а также процессы восстановления и психологической подготовки спортсменов.

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**TENDENCIAS DEL DESARROLLO COMERCIAL EN ESPAÑA**

En España, el comercio es un sector importante de la economía. Proporciona estabilidad adicional, elasticidad y apoyo a la economía. El desarrollo del comercio contribuye al crecimiento del PIB, la creación de empleo, la mejora de la infraestructura, la atracción de inversiones y el aumento de la eficiencia de la producción. Una parte importante de la estabilidad económica es el mercado interno del estado.

El sector minorista español es un sector empresarial fragmentado. A pesar de la importancia del retail, se ha producido un descenso en el número de empresas, ya que en 2016 había unas 462,4 mil empresas, finalizando 2020 incluía 435,8 mil empresas, un descenso del 6,1%, a pesar de ello, el retail supone alrededor del 13% del tejido empresarial español, donde la industria alimentaria, incluido el tabaco, ocupa el primer puesto y el 21,3% en número de empresas [3].

En el sector mayorista en España, el número de empresas ha ido disminuyendo desde 2016, empezando en 229,9 mil y acabando en 2022 en 203,7 mil, lo que supone un 12,9% menos [2].

El comercio exterior no es menos importante para la economía. Así, a partir de 2020, las importaciones de bienes de España aumentan desde 329 mil millones de dólares estadounidenses y en 2022 alcanzan los 499 mil millones de dólares estadounidenses, un incremento del 51,7%, pero a partir de 2022, se observa una tendencia a que las importaciones disminuyan un 6,4% [1].

Figura 1 – Volumen de las importaciones de España en el periodo 2019-2023 [1]

Las exportaciones en España, así como las importaciones, muestran tendencias de crecimiento. Así, a partir de 2020, las exportaciones ascendieron a 312 mil millones de dólares, y en 2022 ascendieron a 424 mil millones de dólares, una mejora del 35,9%.

Figura 2 – Volumen de exportaciones de España para el período 2019-2023. [1]

Así, el comercio en España presenta una tendencia en general positiva, que se ve facilitada por: el crecimiento de los productos y servicios vendidos al exterior. También hay tendencias negativas: una disminución en el número de empresas dedicadas al comercio minorista y mayorista, lo que conduce a una disminución de la competitividad del mercado, lo que a su vez reduce las oportunidades para la economía del país. Aumento de las importaciones, que a largo plazo crea dependencia de bienes procedentes de países extranjeros.

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В статье раскрываются проблемы, возникающие в связи с ростом экономики. Автор анализирует тенденции развития торговли в Испании, показывает, в каких областях торговли присутствует или отсутствует положительный рост.

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**ENVIRONMENTAL PROTECTION AND WAYS TO IMPROVE ECOLOGICAL SITUATION IN THE WORLD**

The environmental situation in the world in recent decades has been characterized by an increase in global problems: climate change, environmental pollution, natural resources depletion and loss of biodiversity. These problems pose a serious threat to the sustainable development of mankind, human health and the future of the planet.

Understanding the scale of these challenges and finding effective ways to improve the environmental situation is one of the most important tasks of our time. Environmental protection is an integral part of sustainable development, which includes measures to prevent and reduce the negative impact of human activities on nature. The key aspects of environmental protection are not only the conservation of resources, but also the restoration of ecosystems, the maintenance of biodiversity and ensuring human health. This paper examines the main environmental problems, their causes, and suggests ways to improve the situation at the global and local levels. Let’s consider the most vital environmental problems.

1. Climate change. An increase in the average temperature on the planet caused by greenhouse gas emissions leads to melting of glaciers and permafrost, extreme weather events (droughts, floods, hurricanes), rising sea levels and other serious consequences. Reasons: Intensive use of fossil fuels (coal, oil, gas) in energy, industry and transport, deforestation and degradation of forests, animal husbandry (emissions of methane and nitrous oxide), cement production.
2. Atmospheric pollution. Air pollution is one of the most serious environmental problems. The main sources of pollution include:

* industrial emissions: Factories emit harmful substances such as sulfur dioxide, nitrogen oxides and heavy metals into the atmosphere.
* transportation: Cars, planes, and ships are significant sources of carbon dioxide and other pollutants.
* agriculture: The use of pesticides and fertilizers also contributes to air pollution.

Atmospheric pollution leads to various diseases such as asthma and lung cancer, as well as global warming, which causes climate change.

1. Depletion of natural resources. Unsustainable use of water resources (excess of water intake over renewal), soil degradation (erosion, salinization, and desertification), deforestation (excess of timber harvesting over restoration), and depletion of mineral reserves poses a threat to economic development and food security. The reasons are exponential growth in consumption, inefficient methods of extraction and processing of resources, the growth of the world's population, irrational land use, and increased demand for energy.
2. Water pollution. Pollution of water bodies occurs due to several reasons:

* wastewater discharge, which takes place when rivers and oceans receive wastewater from industrial and domestic sources, which leads to a deterioration in water quality;
* plastic pollution, referred to about 8 million tons of plastic ending up in the oceans every year, causing damage to marine ecosystems and animals;
* agricultural practices when fertilizers and pesticides used in agriculture enter water bodies and cause eutrophication, leading to massive algal blooms.

Water pollution threatens the quality of drinking water and ecosystems living in reservoirs.

1. Loss of biodiversity. The decline in the number and disappearance of plant and animal species, the destruction of their natural habitats leads to the loss of genetic diversity, disruption of ecological links and weakening of ecosystem resilience to external influences. Natural habitat destruction, as well as deforestation and urbanization lead to habitat loss for many species.
2. Poaching or illegal hunting and harvesting of rare species of animals and plants threatens their existence.

Improving the environmental situation in the world is one of the most urgent tasks of our time. Global environmental issues such as climate change, air and water pollution, and loss of biodiversity require an integrated approach and the active participation of all countries.

This paper researches the main ways that can help improve the environmental situation on the planet. These ways are as follows:

1. Switching to renewable energy sources. One of the key steps to improve the environmental situation is the transition to renewable energy sources such as solar, wind and hydropower. These sources not only reduce carbon dioxide emissions, but also reduce dependence on fossil fuels, which contributes to combating climate change.

2. Reducing the use of plastic. Plastic pollution is one of the most serious environmental problems. Reducing the use of single-use plastic, switching to reusable materials and actively recycling plastic waste will help reduce the negative impact on the environment.

3. Reforestation and protection of forests. Protection of existing forests and programs to restore deforested forests play an important role in maintaining carbon balance and preserving biodiversity. Forests are natural carbon dioxide sinks and provide habitat for many species.

4. Development of environmentally friendly transport. Promoting environmentally friendly modes of transport such as electric cars, bicycles, and low-emission public transport can significantly reduce air pollution and reduce the carbon footprint.

5. Increasing environmental education. Education and awareness of the importance of environmental protection play a key role in shaping a responsible attitude towards nature. Environmental education should begin in childhood and continue throughout life, helping people to consciously choose environmentally friendly alternatives.

6. Sustainable resource management. Efficient use of natural resources and the introduction of sustainable development principles in agriculture and industry will help reduce the negative impact on the environment. This includes the use of environmentally friendly technologies and methods such as organic farming and waste recycling.

7. International cooperation. Global environmental problems require joint efforts of countries. International agreements such as the Paris Agreement play an important role in combating climate change and contribute to joining forces to achieve sustainable development.

Improving the environmental situation in the world requires an integrated approach based on the principles of sustainable development, environmental safety and social justice. The key areas of activity are: transition to a "green" economy, rational use of natural resources, reduction of environmental pollution, conservation of biodiversity, development of environmental education and strengthening international cooperation. The implementation of these directions will ensure a decent life for future generations and preserve the unique beauty and wealth of our planet. It is necessary to consolidate the efforts of the scientific community, business, governments and the whole society in order to achieve these goals.

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Статья посвящена анализу основных путей улучшения экологической ситуации в мире. В условиях глобальных экологических проблем, таких как изменение климата, загрязнение окружающей среды и утрата биоразнообразия, рассматриваются стратегии, которые могут способствовать устойчивому развитию. Среди них выделяются переход на возобновляемые источники энергии, снижение использования пластика, защита и восстановление лесов, развитие экологически чистого транспорта, повышение уровня экологического образования, устойчивое управление природными ресурсами и международное сотрудничество. Подчеркивается важность комплексного подхода и активного участия всех слоев общества в решении экологических проблем, а также необходимость совместных усилий на локальном и глобальном уровнях для достижения устойчивого будущего.

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**THE ROLE OF PARENTS IN PRESCHOOL EDUCATION**

Preschool education is an important stage in a child’s life. Early childhood education isn’t solely about academic learning; it’s a holistic process that shapes a child’s character, instils values and nurtures their academic abilities. During this period, young minds are like sponges, absorbing knowledge and experiences that will influence their choices, beliefs, and behaviours for years to come. The interaction between parents and teachers creates the basis for successful education and upbringing. The active participation of parents in the preschool education of their children plays a key role. The article aims to show how exactly parents can influence preschool education.

To start with partnership with teachers is of primary importance. Cooperation between parents and caregivers is the foundation of a successful educational process. Parents and teachers should see each other as partners for the development of their children. Regular meetings, parent-teacher conferences, and discussions about educational goals help create an atmosphere of trust and mutual understanding [1].

Enhancing the environment at home is also related to the academic success of children. Parents can significantly enrich the home environment for their children by actively participating in their education. This includes reading books and discussing what you’ve read, games that develop logical thinking and creativity, joint projects, for example, creating crafts or scientific experiments. Such interaction promotes the development of interest in learning and independent exploration of the world [1].

Parents foster values and socialization. Parents play an important role in shaping the moral values of their children. Discussing important issues with children, such as friendship, honesty, and respect for others, helps them adapt to a social environment. It also promotes the development of emotional intelligence and communication skills [1].

The active participation of parents in the project activities carried out in kindergartens enriches the educational process. This may include joint events, such as exhibitions or holidays, as well as assistance in organizing educational games and contests. Such cooperation not only promotes the development of children’s cognitive interests but also strengthens the bonds between family and kindergarten [2].

Formation of a socio-psychological climate. Parents play an important role in creating a favorable socio-psychological climate in preschool institutions. Their involvement in the educational process and interaction with caregivers contribute to creating a comfortable and supportive atmosphere for children. This, in turn, has a positive effect on the emotional state of children and their willingness to learn [3].

Thus, the role of parents in preschool education should not be underestimated. Their active participation in the educational process, the support of teachers, the enrichment of the home environment and participation in project activities contribute to the harmonious development of children and their successful adaptation to future education. It is important that parents and teachers work closely together, creating a single space for development and learning.

To sum up, parents can play an important role in the early education of children. Their active participation not only improves children’s academic skills but also keeps them ahead of the curve.

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В статье показана роль родителей в дошкольном образовании ребенка. Взаимодействие между родителями и учителями создает основу для успешного образования и воспитания. Активное участие родителей способствует гармоничному развитию детей и их успешной адаптации к будущему образованию.

[**к содержанию**](#содержание)

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**DIGITALIZATION AS A FACTOR IN FOREIGN ECONOMIC ACTIVITY**

Digitalization has radically changed approaches to foreign economic activity (FEA). Companies operating both in the region and in international markets use modern technologies to speed up processes, increase transparency and minimize risks. This includes the use of specialized electronic platforms, automation of technological processes and the introduction of artificial intelligence (AI) for data analysis. The purpose of this article is to identify problems in the field of digitalization of foreign economic activity at the regional level, as well as to develop proposals for their solution.

According to the state program "Digital Development of Belarus" for 2021-2025 the achieved level of "digital maturity" of economic sectors is the basis for the further formation of plans for their digital development. The programme involves the formation of the state digital platforms for the transformation of management processes in economic sectors, enterprises, information relations between them and the development of electronic services [1].

Since 2019 against the backdrop of the development of "smart city" technologies around the world, the Republic of Belarus has initiated the work on comprehensive and consistent digital regional development. The "Smart City" system collects information about the life and work of a settlement, analyses it and immediately offers options for optimal management [2].

Digitalization has also come to the sphere of foreign economic activity. Electronic trading platforms have simplified export and import provided access to international markets for small and medium businesses. The Deal.by, Onliner.by, Wildberries, Yandex.Market platforms help sellers find buyers in other countries, conclude contracts and pay for goods. AI is used in supply chain management, allocates resources, optimizes delivery routes, monitors the condition of goods, which is especially important for the goods with a limited shelf life.

Blockchain is used to increase the transparency of foreign economic transactions. This technology allows tracking the movement of goods from the manufacturer to the consumer.

Digitalization has influenced international settlements. Electronic payment systems allow people to make payments online using cards, by bank account number or using alternative tools (electronic wallet). The national electronic payment system of Belarus is ERIP, which allows you to pay for goods and services remotely within the country, to use additional services (acquiring). International electronic payment systems are available to residents of Belarus: WebMoney, YuMoney, PayPal, QIWI.

Cryptocurrencies are becoming alternative to traditional currencies in foreign economic activity. According to the current legislation cryptocurrency is not an official means of payment in Belarus, that’s who it cannot be used to pay for goods and services in stores or salaries. But outside the country it is legal for the citizens of Belarus to perform such actions. Popular payment systems that work with cryptocurrency are CryptoCloud, BitPay, NOWPayments.

The widespread introduction of digitalization in various spheres of public life also leads to the emergence of specific problems, which includes:

– a shortage of qualified specialists in the field of information and communication technologies (ICT);

– increasing threats of cyberattacks and the need to protect data;

– high costs of implementing ICT for small businesses.

To overcome these challenges the government support is required including the creation of educational programmes in the field of ICT, the development and implementation of information security standards.

Thus, in the future digitalization will continue to develop: AI will become more accurate, blockchain will spread to new industries, payment systems will become more accessible. This will make regional foreign economic activity more efficient and transparent. The use of ICT will increase the competitiveness of regional companies, reduce costs and adapt the changes in international markets. Digitalization in the modern world is a key factor in success in the modern global economy.

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В статье охарактеризованы основные направления цифровизации региональной внешнеэкономической деятельности, определены проблемы её осуществления и предложены пути их решения.

[**к содержанию**](#содержание)

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**MEMES AS A SPACE FOR DIALOGUE BETWEEN CULTURES**

Social media has become a global platform for communication, bringing together people from different cultures. A meme is a unit of culturally significant information. It is any idea, symbol, manner, situation, or course of action, consciously or unconsciously transmitted from person to person through speech, writing, video, rituals, gestures, and so on. They combine humor, irony and visual metaphors, overcoming linguistic and geographical barriers [1, p.6]. The objectives of this article are to consider the role of memes in intercultural communication, to dissect their history of origin, as well as pros and cons. We will analyze memes on real examples and what impact they have had on culture in their time. We will try to understand why memes are talked about as a phenomenon of mass culture.

Memes are similar in structure to “jokes” they make you laugh, they don't have a defined authorship, and both are shared to feel a sense of community or to see if your humor and cultural background are similar.

But, according to Google Trends, as early as 2004, the popularity of the query “joke” on the Internet is declining, while interest in memes is growing. The language of memes is more suitable for modern teenagers, as they prefer spontaneous and situational humor. The language of memes has become a new language of communication among teenagers: they send memes to each other every day on social networks, retell them at school, and actively introduce them into communication. Memes allow you to deliver a piece of information, greatly reducing the time for storytelling. Memes can also be used to attract the audience's attention or help them relax during a long serious story [2, p.6].

However, memes play a much bigger role than we think. Memes, as one of the key elements of digital culture, play an important role in overcoming cultural barriers and forming a global dialog. Their advantages in intercultural communication can be highlighted as follows [3, p.6]:

1. Universal Visual Language

Memes rely on images, emotions and humor that can be understood without translation. For example, the "Woman yelling at cat" meme or the "Surprised Pikachu" template convey surprise, joy or irony, regardless of the language of the audience. The meme "Two Buttons" is used in different countries to illustrate dilemmas related to local traditions or global issues.

1. Overcoming Stereotypes

Memes often break down one-dimensional perceptions of cultures through self-irony and satire. For example, memes about "Russian winter" or "Scandinavian hygiene" can mock stereotypes.

1. Stimulate cultural exchange

Memes serve as a bridge to hybridize cultures. The meme “Bongo Cat” (cat with drums), a drawn animated white cat presented as an Internet meme and playing different musical instruments in different remix videos to make it seem as if the cat is playing along with different songs, has become the basis for musical collaborations between cultures.

1. Simplifying complex topics

Memes reduce complex cultural codes to simple and accessible forms. Political, social or historical phenomena are presented through humor, which makes them easier to understand. For example, the "Suffering Middle Ages" meme explains historical events through absurdity. This is a historical community in the social network “VK”, which has almost half a million subscribers. It is known for publishing popular memes – humorous collages consisting of a medieval painting or fresco along with a witty statement or joke that reveals the meaning of the image in a new way.

1. Creating global communities

Memes form transnational groups around common interests. For example, fans of anime, K-pop, or gaming unite through niche memes across geographic boundaries. Memes based on the TV series The Squid Game have become a universal language for fans around the world.

1. Supporting marginalized cultures

Memes give voice to minorities and localized communities. Indigenous peoples, diasporas or LGBT activists use them to express identity and fight discrimination.

1. Emotional connection through humor

Laughing together at memes brings people closer together, reducing prejudice. Even across cultural differences, humor becomes a point of common ground.

1. A tool for soft diplomacy

Memes can mitigate political differences. For example, during conflicts, users create memes that emphasize shared human values rather than differences.

1. Developing language creativity

Memes stimulate language learning through the blending of cultural references and local slang. Bilingual memes are popular among migrants and expats. The meme "¿Por qué no los dos?" ("Why not both?") from a Mexican advertisement has become an international expression for choosing a compromise. Memes, despite their potential to unite cultures, can create barriers and conflicts in intercultural dialog. Their disadvantages are related to simplifying context, risking cultural misunderstanding, and reinforcing stereotypes.

Memes often detach content from its original context, leading to misinterpretations. For example, memes with the Japanese word "Baka" (fool) may be perceived as a harmless joke, but in Japanese culture it is a gross insult. Memes about "Russian vodka" or "Mexican sombreros" reduce complex cultures to clichés, ignoring their diversity.

In addition, humor in memes is often based on hypertrophied cultural traits, which reinforces prejudices. For example, memes about “stingy Scots” or “aggressive Americans” turn stereotypes into a digital norm. The use of sacred symbols or historical traumas in memes can cause sharp rejection. Memes with Buddha in funny situations offend Buddhists, while Holocaust jokes devalue the tragedy.

Moreover, textual memes lose their humor when translated. The “Suffering Middle Ages” meme is often misinterpreted by foreign users unfamiliar with Russian-language humor. Borrowing cultural elements without understanding their meaning. For example, the use of African masks or Indian mantras in ironic memes invites accusations of disrespect. Western memes dominate social media. African or Latin American memes rarely become global trends unless adapted to Western patterns.

Complex topics (migration, war, inequality) are presented through simplified memes, depriving them of depth. For example, memes about refugees turn the humanitarian crisis into a cause for ridicule. Often, social networks promote content that generates scandal rather than dialog. Provocative memes about cultures get more views, increasing confrontation. What is considered funny in one culture may look offensive in another. For example, memes about “Chinese food” (dog meat, insects) are perceived as racist in Asia.

Thus, memes are a double-edged instrument of intercultural communication. On the one hand, they facilitate dialog, on the other hand, they risk deepening conflicts through stereotyping and devaluation. To minimize harm, it is important to develop media literacy, respect the cultural context and support equal representation of all cultures in the digital space. Memes are a mirror of society: they reflect not only our laughs, but also our prejudices.

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В статье рассматриваются мемы: "Женщина ругается на кота", "Удивлённый пикачу", "Две кнопки, кот с барабанами", "Страдающее Средневековье", мемы по мотивам сериала "Игра в кальмара", "Почему не оба?", "Дурак", мемы с Буддой. Делается вывод о том, что мемы, с одной стороны, упрощают диалог, с другой – рискуют углубить конфликты через стереотипы и обесценивание.

[**к содержанию**](#содержание)

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**URBAN ECOLOGY: CREATING GREEN CITIES**

Urbanization is currently a primary force driving environmental change. Cities are expanding at an unprecedented rate, leading to the infrastructure expansion and natural zones shrinking. A key challenge in modern urban planning is finding balance between urban development and natural ecosystems conservation. Amidst global environmental challenges, protecting nature in urban environments is essential, not only for preserving biodiversity but also for maintaining the quality of life for megacity residents.

The growth of cities inevitably exerts significant pressure on natural ecosystems. The construction of new residential areas, roads and industrial facilities leads to the reduction of natural forests, wetlands and rivers. This results in the destruction of habitats for numerous species of animals and plants, threatening biodiversity.

For example, increased construction leads to forest fragmentation, hindering animal migration and reducing the availability of resources necessary for their survival. Such changes are often irreversible and can lead to entire ecosystems disappearance [2].

Furthermore, infrastructural development disrupts natural water flows, pollutes rivers and lakes, and increases carbon dioxide emissions, exacerbating climate change. However, it is crucial to remember that urbanization is an integral part of societal development, and the key challenge lies in finding methods that minimize its negative impact on nature.

The preservation of natural zones in cities is of immense importance for maintaining ecological balance and improving quality of life. Green areas, such as parks, forest parks, and gardens, not only provide spaces for recreation and interaction with nature but also perform essential ecological functions [2]. For example, they contribute to improving air quality by absorbing carbon dioxide and releasing oxygen, which is particularly important in the context of urban pollution.

Additionally, natural zones serve as natural buffers, protecting cities from floods and other natural disasters. They also ensure the preservation of biodiversity, allowing plants and animals to exist even amidst active urbanization. Here are the main reasons why preserving natural zones in cities is crucially important:

1. Protecting biodiversity. Natural areas in cities serve as refuges for many species of plants and animals.
2. Regulating climate. Green spaces help reduce urban temperatures and mitigate the urban heat island effect.
3. Improving air quality. Plants absorb carbon dioxide and filter out pollutants.
4. Conserving water resources. Green zones promote the retention and filtration of rainwater.
5. Enhancing quality of life. Access to nature improves the physical and mental health of citizens.

Thus, natural zones in cities not only beautify the urban environment but also perform vital functions for its sustainable existence.

Modern cities strive to implement innovative solutions to ensure sustainable development. One of the key approaches is the integration of green infrastructure, which not only supports ecological processes but also enhances the quality of life for urban residents. Green roofs, vertical gardens, and rooftop parks are examples of how nature can be preserved without sacrificing urban space. These technologies allow for the efficient use of space in densely built-up areas and the creation of additional spaces for green zones [1].

In addition to architectural solutions, sustainable urban development also involves the use of environmentally friendly technologies and renewable energy sources. For example, solar panels and wind turbines provide clean energy to buildings and urban infrastructure, which reduces carbon dioxide emissions.

Such approaches allow for minimizing the impact on the environment and creating cities that not only develop but also support nature.

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В статье рассматривается роль и место зелёной инфраструктуры в контексте урбанизации и защиты экосистем. Автор анализирует факторы, оказывающие влияние на совершенствование экосистем и приходит к выводу, что зелёная инфраструктура, включающая парки, зелёные крыши и водно-болотные угодья, играет ключевую роль в поддержании экологического баланса современных городов, а также снижении негативного воздействия урбанизации на природные экосистемы и их восстановление.

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**IMPACT DES PRODUITS DU PÉTROLE SUR L’ENVIRONNEMENT**

Les raffineries sont des usines industrielles où se déroulent divers **processus chimiques** pour séparer les intrants du pétrole brut. Une fois raffinés, ces **intrants** se transforment en une large gamme de produits de grande valeur économique car **ils peuvent être utilisés dans d’autres industries manufacturières.**

En même temps, lors du raffinage du pétrole, l’une des plus importantes sources de pollution de l’air est générée, tant aux abords de leurs complexes installations industrielles que, de manière plus générale, par la dispersion de ces polluants sur de longues distances, **dégradant considérablement la** qualité de l’air que tout un chacun peut respirer.

Le but de l’article cosiste à présenter l’analyse des principaux problèmes causés par la pollution atmosphérique des raffineries et influence des produits pétroliers sur les organismes vivants.

La consommation élevée d’énergie et de ressources naturelles, comme l’eau, par les raffineries de pétrole s’accompagne d’une **production importante de déchets**, dont certains sont toxiques. Parmi les plus dangereux figurent les **émissions atmosphériques** qui contaminent non seulement **l’air**, mais aussi **le sol** et **l’eau**.

La forte présence de protoxyde d’azote (N2O) dans l’air favorise sa combinaison avec l’humidité atmosphérique, donnant naissance aux **pluies acides**. Les dommages causés par ces pluies sur les écosystèmes sont considérables car elles **détruisent les forêts et acidifient les masses d’eau** continentales et océaniques. La diminution du pH de l’eau modifie la biodiversité des écosystèmes aquatiques marins et d’eau douce [1, c. 13]. De plus, les organismes aquatiques sont gravement affectés lorsque les hydrocarbures aromatiques polycycliques issus des émissions de raffinage se déposent dans l’eau.

Les **oxydes d’azote et les composés organiques volatils** émis par les raffineries réagissent avec l’oxygène de l’air, modifiant la concentration d’ozone au niveau du sol. Les NOx, sous l’effet de réactions photochimiques activées par une forte radiation solaire, deviennent des précurseurs de fortes concentrations d’ozone troposphérique. L’ozone au niveau du sol est considéré comme un **polluant secondaire très nuisible** car il affecte les cultures agricoles, les forêts, le développement des plantes et la faune associée [2, c. 24].

De même, les **émissions de gaz à effet de serre** des raffineries contribuent de manière significative au **changement climatique mondial**. La **combustion des combustibles fossiles** dans ces installations génère de grandes quantités de dioxyde de carbone, l’un des principaux gaz responsables de l’effet de serre.

De plus, en se répandant à la surface de l’eau, le pétrole pollue de vastes étendues d’eau. Il est bien connu qu’une unité de volume de pétrole peut polluer un volume d’eau mille fois plus grand qu’elle. Ainsi, 1 litre de pétrole endommage 1000 m3 d’eau. La raison en est la teneur en tensioactifs. Ils contribuent à la formation d’émulsions huile-eau stables. La fine pellicule d’huile formée lors de la propagation des produits pétroliers empêche les échanges d’air, tout en ayant un impact négatif sur la flore et la faune. La solubilité du pétrole dans l’eau est insignifiante, c’est pourquoi l’accumulation de produits pétroliers se produit principalement à la surface et au fond des réservoirs. Lorsque l’épaisseur du film d’huile est supérieure à 0,1mm, les processus de pénétration de l’oxygène atmosphérique dans l’eau et d’élimination du dioxyde de carbone de l’eau ralentissent [1, c. 15].

Quant à l’influence des produits pétroliers sur les organismes vivants, elle se manifeste par des perturbations de l’activité physiologique, des maladies provoquées par l’introduction d’hydrocarbures dans l’organisme, des modifications des caractéristiques biologiques de l’habitat, etc. Certaines fractions contenues dans le pétrole sont toxiques. Il convient de noter que plus la concentration de ces fractions lorsqu’elles sont absorbées ou dissoutes dans l’eau est élevée, plus leur toxicité est élevée. L’huile forme des émulsions toxiques qui provoquent la suffocation des organismes vivants.

Donc l’impact de la pollution pétrolière sur l’environnement est très vaste et complexe. Dans le cadre du développement de l’industrie pétrolière, on peut supposer que la superficie des territoires contaminés par le pétrole et les produits pétroliers va augmenter. Par conséquent, la situation environnementale actuelle va se détériorer, ce qui affectera directement la santé humaine.

La surveillance des émissions dans les raffineries de pétrole est essentielle pour se conformer aux règlementations environnementales et protéger tant l’environnement que la santé publique. Cette mesure permet d’identifier les polluants, tels que les oxydes de soufre (SO2) et les composés organiques volatils (COV), émis au cours du processus de raffinage. De plus, un contrôle continu facilite la détection précoce des fuites et optimise les processus.

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В статье рассматривается воздействие нефтеперерабатывающих заводов на окружающую среду и экологические проблемы, связанные с их работой, включая загрязнение воды и воздуха, а также угрозу морской жизни. Уделяется внимание ухудшению качества воздуха из-за выбросов оксидов азота, летучих органических соединений и парниковых газов. Автор приходит к выводу, о необходимости осуществления строго контроля работы нефтеперерабатывающих предприятий.

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**HISTORY OF BUSINESS CARDS**

Business cards play an important role in business and personal communication. They serve not only as a means of exchanging contact information, but also reflect the style and status of their owner. A business card can tell a lot about a person or company, from professionalism to creativity. In this article, we will look at how business cards have evolved over the centuries and what changes they have undergone to the present day.

Business cards are an integral part of business etiquette and personal branding. They help to make first contact, create a positive impression and be remembered. A business card is not just a piece of paper with contact information, but a powerful tool that can help you make useful connections and enhance your professional image. Business cards are used in a variety of fields, from business to art, and their importance cannot be overemphasized.

The history of business cards begins long before the advent of modern technology. The first mentions of business cards can be found in ancient civilizations such as China and Egypt. In China, for example, as early as the 3rd century BC, wooden tablets with engraved names and positions were used. These tablets served to present themselves before dignitaries and were important in the social hierarchy [1].

In ancient civilizations, business cards played an important role in establishing social and business ties. They helped people to present themselves and their achievements, and to strengthen their position in society. In Europe, business cards began to gain popularity during the Renaissance. In the 15th century, the first paper business cards appeared in Italy and France, which were used to present oneself at court and in high society. These business cards were luxuriously decorated and often contained coats of arms and other symbols indicating the social status of the owner.

In the 17th century, business cards became an integral part of business etiquette in England. They were used to introduce people when visiting homes and offices, as well as for invitations to various events. Business cards of the time were handmade and often decorated with engravings and calligraphy. Business cards became an important element of social life, and their use was governed by strict rules of etiquette.

The emergence of printing houses made it possible to produce business cards in large quantities and at an affordable price. During this period, business cards became more standardized and acquired a modern look. Business cards began to be used not only in high society, but also among the middle class, which contributed to their widespread use.

The 20th century brought many changes to the design and production of business cards. With the development of technology, new materials, such as plastic and metal, appeared and began to be used for the manufacture of business cards. This made it possible to create more durable and original business cards that stood out from their traditional paper counterparts.

In the 1960s, business cards became an important element of corporate identity. Companies began to pay more attention to business card design, using them as a marketing and branding tool. Business cards began to include logos, corporate colours, and other elements that emphasized the uniqueness of the company. Business cards became an important element of corporate culture and helped companies stand out from the competition.

With the development of computer technology and design software, the creation of business cards became available to a wide range of people. Online services have emerged that allow you to create and order business cards without the need to contact professional designers and printers.

Business cards became an important element of marketing strategies and helped companies establish and strengthen business relationships. They were used at trade shows, conferences and other events to attract new clients and partners. Business cards became an important tool in the business world and their importance continued to grow.

Today, business cards continue to evolve, adapting to the demands of the digital age. One of the main trends of recent years has become the digitalization of business cards. Many companies and individuals have started to use QR codes on business cards, which allow to instantly transferring contact information to smartphones. This greatly simplifies the process of data exchange and makes business cards more functional [2].

Another important trend is the use of innovative materials and technologies. For example, business cards made of metal, wood or even transparent plastic have become popular among those who want to stand out and make an impression. Also gaining popularity are business cards with NFC-chips, which allow you to instantly transfer information using contactless technology.

In addition, modern business cards often include interactive design elements such as augmented reality (AR). With the help of special applications, a business card can be brought to life by adding animation, video or other multimedia elements to it. This makes business cards more interesting and memorable, which helps them stand out from the competition.

Business cards remain an important tool in business and personal communication, despite the development of digital technology. They continue to evolve, offering new ways to express and share information. It's important to remember that a business card is not just a piece of paper, but a powerful tool that can help you create a positive impression and make useful contacts.

Modern business cards also play an important role in the environmental movement. Many companies and individuals have started using eco-friendly materials and production methods to create business cards. This helps reduce the negative impact on the environment and supports sustainable development.

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В статье речь идет об истории возникновения и развитии визитной карточки, которая является важным элементом фирменного стиля компании и имиджа делового человека.

[**к содержанию**](#содержание)

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**BAD HABITS OF YOUTH AND THEIR CONSEQUENCES**

In the modern world the problem of bad habits among young people has become actively progressing. These include smoking tobacco and electronic cigarettes, drinking alcohol-containing beverages, taking narcotic and psychotropic substances. Such habits affect the health, social relations and future of young people. The consequences can be very dire. First of all, physical and psychological health is destroyed, later problems in society appear. As a rule, through turning to bad habits, young people want to find their place in society. To solve this problem, active prevention of bad habits is important, as well as creating conditions for young people to be able to develop comprehensively. A clear understanding of the causes and consequences plays a major role in solving the problem of bad habits.

What is a habit? A habit is a person’s need to perform certain actions in certain conditions. A habit implies automated ways of performing actions that have become ingrained in a person through their repeated repetition. A habit does not require either volitional or mental abilities of a person. If we talk about bad habits, then these are habits that negatively affect a person’s mental and physical condition, interfere with his favorable existence in society. In modern realities, according to the statistics of a sociological study conducted by the Republican Center for Hygiene, Epidemiology and Public Health together with the Institute of Sociology of Belarus 24% of the surveyed teenagers smoke. Among smokers, young men make up 54%, girls – 46%. In 60% of cases, teenagers begin using tobacco and electronic steam generators at the age of 10 to 14. According to experts from the World Health Organization the following reasons have been identified for why young people start smoking: curiosity, imitation of adults, prestige, the company of friends, nothing to do in their free time, lack of understanding of the dangers.

Vapes also known as electronic cigarettes have become a popular phenomenon, especially among young people. Advertised as a safer alternative to traditional cigarettes, vapes create the illusion of harmlessness. “Vapes contain various chemicals, including nicotine, flavorings, formaldehyde and heavy metals. These substances can cause significant damage to the respiratory, cardiovascular and general systems of the body” [1, с. 51]. Since the long-term effects of vaping have not yet been fully studied, it is important to exercise caution and avoid this harmful activity

Smoking causes serious effects on the lungs, respiratory and cardiovascular systems. Tobacco smoke contains more than 7,000 chemicals and more than 70 of them are carcinogens. Smoking is one of the main causes of lung cancer. Thanks to research it is known that smokers have a 2-3 times higher risk of developing cardiovascular diseases. In the Republic of Belarus the fight against smoking is carried out through a set of measures aimed at limiting young people’s access to tobacco and electronic cigarettes, and awareness of the harm of this bad habit is growing every day. In our country there are laws prohibiting the sale of various types of nicotine-containing products. Educational institutions conduct various preventive classes that are aimed at forming a negative attitude towards smoking. In the Republic of Belarus, there is a ban on advertising tobacco products. It reduces the likelihood that young people will be attracted to smoking through marketing strategies.

In the modern world there is an increase in the problem of alcohol consumption among young people. Alcoholism among young people affects not only health, but also the future of a person, his family and society. This bad habit is characterized by an addiction to the use of substances containing ethyl alcohol, the development of physical and mental dependence, withdrawal syndrome and personality degradation. Today the problem of alcoholism among young people remains actual. According to statistics, every third teenager aged 12 drinks alcohol. Surveys have shown that 39% of teenagers in grades 8-11 drink alcohol weekly.

There are several ways to solve this problem in the Republic of Belarus. In our country there are drug treatment centers and specialized clinics where it is possible to get help from specialists such as psychiatrists, psychologists and narcologists, for example, the “AlcoMed” clinic. It has a good reputation and positive patient reviews, provides qualified assistance in the treatment of addictions and accompanies patients throughout the recovery process. If necessary, the doctor can prescribe detoxification and drug therapy. In the Republic of Belarus self-help groups operate free of charge, for example, “Alcoholics Anonymous”, which provide psychological support and the opportunity to be inspired by those people who were able to overcome this harmful addiction. Preventive measures are carried out in educational institutions. Alcohol consumption always has consequences. Often, they can be very deplorable, especially for a young organism, since it is in the stage of growth and development. “Regular alcohol consumption is fraught with liver disease, cardiovascular diseases and digestive problems. We must not forget that alcohol consumption also affects the mental health of a young person, it can cause anxiety disorders and even depression” [2, с. 147]. Alcohol affects all areas of human life. Young people who are fond of drinking alcoholic beverages most often face difficulties in education. This is due to the fact that alcohol reduces concentration and memory, a person only has a motive for drinking and the motive for studying is reduced to a minimum

Another problem that alcohol creates is the loss of trust and interest of once close people. The addict is only interested in alcohol, he sets his priorities so that close people always fade into the background. This leads to the breakdown of friendly and family relationships. As a result, the person remains isolated from the world. In addition to all of the above, alcohol consumption can affect problems with the law. Under the influence of alcohol, a person is out of his consciousness, thereby not controlling his actions. This can lead to behavior that violates the moral standards of society. As a result, you can serve time in a correctional facility. In order to solve this problem, it is necessary to make joint efforts of parents, society and the state.

Drug addiction is a disease caused by the use of toxic substances (drugs), accompanied by severe disorders of physical and mental functions. Narcotic drugs are substances of synthetic or natural origin, drugs included in the list of narcotic drugs, psychotropic substances and their analogues subject to control in the Republic of Belarus, in accordance with the legislation. Young people are most susceptible to drug use. In the age of information technology, it is not difficult to buy substances on the Internet. Among young people the most popular drugs are marijuana, smoking mixtures, LSD. The number of drug addicts is growing every year. The surge in drug addiction occurred in the second half of the nineties of the last century. Today the number of drug users exceeds 200 million people. In Belarus more than 15 thousand patients are under the supervision of doctors. If you look at the statistics, in 2017 alone, there were 731 patients with drug addiction under 18 years old and 3860 people from 18 to 25.

There are many reasons why young people start using drugs. For example, due to personal problems: broke up with a boyfriend/girlfriend, clothes that are out of fashion, a conflict in the family. Some are attracted by curiosity. Sometimes a young man just wants to cheer himself up to abstract himself from external problems, not realizing that their number will only increase because of drugs. Youthful maximalism plays a negative role in this. “Young men and women, without thinking about the consequences, looking at people who are already using drugs, find themselves in this difficult and dangerous situation” [3, с.471]. They constantly want to seem older, smarter, more independent, thereby they give ground for experienced users to introduce them to addiction. An additional reason for drug addiction is the lack of reasonable entertainment, which is sometimes replaced by “unhealthy” literature, TV shows, specific films that show the experiences of drug addicts, their life and adventures.

In Belarus, the problem of drug addiction among young people is a serious social task. In our country programs are being implemented to prevent drug use among young people. Classes are held in educational institutions that discuss drug addiction issues, promote healthy lifestyles. Social rehabilitation centers are being created where young people can receive professional help. In 2018 amendments were made to the criminal code, which tightened the penalties for storing and distributing drugs. One of the most obvious consequences of drug use is physical health. Drugs cause serious diseases of the liver, kidneys, lungs and heart. As for mental health, the situation is just as deplorable. Drugs cause anxiety disorders, psychosis, depression and bipolar disorder. Relationships with family and friends deteriorate, which includes the risk of remaining isolated from society.

In conclusion, it can be said that the acquisition of bad habits by young people poses a threat first of all to themselves, and secondly, to society. It is very important to remember that young people are a vulnerable group, their values ​​and worldview are just forming. From this follows that it is important to take measures for preventive work, promotion of a healthy lifestyle, support for families that are in a socially dangerous situation and single-parent families. It is important to create a society where any person would feel safe and comfortable.

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В статье рассматриваются основные виды вредных привычек, их причины и последствия для здоровья и социальной жизни человека. Анализируются психологические факторы, способствующие формированию этих привычек, а также их влияние на физическое и психическое здоровье. Особое внимание уделяется последствиям, включая развитие хронических заболеваний, ухудшение качества жизни и влияние на отношения с окружающими.

[**к содержанию**](#содержание)

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**TIERSCHUTZ IN DEUTSCHLAND**

Obwohl Tierschutz seit 20 Jahren zu den Staatszielen gehört, ist unvorstellbares Leid für unzählige Tiere in Deutschland nach wie vor Alltag: in der Massentierhaltung, Tierversuchen, dem illegalen Tierhandel, als Straßen-katzen oder Qualzuchten und in vielen weiteren Situationen. Selbst mit dem Gesetz ist nicht sichergestellt, dass das Tierwohl eingehalten wird. Denn das Tierschutzgesetz in Deutschland geht nicht weit genug. Das Gesetz enthält zudem viele Lücken und offene Fragen, sodass es auslegungsbedürftig erscheint. Häufig ist es extrem schwierig, im deutschen Tierschutz Änderungen zu erreichen, die wirklich von Dauer oder Bedeutung sind. Diesen Kampf führen Tier-schützer\*innen, was den Tierschutz in Deutschland sehr wichtig macht. Im vorliegenden Artikel wird geklärt, was Tierschutz in Deutschland wirklich bedeutet, wie es mit dem Tierschutzgesetz in Deutschland besteht und wo noch etwas getan werden muss, um das Leben der Tiere dauerhaft zu verbessern.

Unter Tierschutz werden alle Aktivitäten verstanden, die darauf ausgerichtet sind, Leben und Wohlbefinden von Tieren zu schützen, sie vor der Zufügung von Schmerzen, Leiden und Angst oder vor Schäden zu bewahren und ihnen, wenn sie sich in der Obhut des Menschen befinden, ein artgerechtes Leben zu ermöglichen [1]. In der Regel bedeutet Tierschutz die Bewahrung des Einzeltieres vor menschlichen Einwirkungen, in besonderen Situationen jedoch auch seinen Schutz vor anderen Tieren, Pflanzen, Mikroorganismen (Seuchen, Krankheiten etc.) oder nachteiligen Umwelteinflüssen. Der Tierschutz muss bei der Tierhaltung, dem Transport und der Schlachtung von Tieren, beim Sport mit Tieren, auf Veranstaltungen oder bei Tierversuchen berücksichtigt werden. Grundsätzlich ist jeder Mensch, der Tiere hält oder mit ihnen umgeht, verpflichtet, sich die notwendigen Kenntnisse und Fähigkeiten anzueignen, um die ihm anvertrauten Tiere gut zu versorgen, zu pflegen und verhaltensgerecht unterzubringen. Bund, Länder und Gemeinden sind dazu verpflichtet, in der Öffentlichkeit ein Verständnis für den Tierschutz zu erwecken und dieses zu vertiefen.

Außer dem Schutz vor Missbrauch/Vernachlässigung und der Förderung von artgerechter Haltung umfasst der Tierschutz auch kontinuierliche Überprüfung und Anpassung von Tierschutzgesetzen. Im Jahre 2002 hat Deutschland als erstes Land in Europa den Tierschutz als Staatsziel in das Grundgesetz, Artikel 20a, aufgenommen. Es handelt sich um eine ethische Verantwortung, die darauf basiert, dass Tiere fühlende Lebewesen sind und daher bestimmte Rechte und Schutzmaßnahmen verdienen. Somit werden die Tiere als Mitgeschöpfe anerkannt. Das Gesetz umfasst Verbot von Tierquälerei und die wesentlichen Vorschriften zur Tierhaltung, zur Tötung von Tieren (Schlachtung), Eingriffe und Versuche an Tieren sowie zahlreiche Regelungen zur Zucht und zum Handel mit Tieren. Laut Tierschutzgesetz muss im Umgang mit einem Tier auch seine Würde, also der Eigenwert eines Tieres, geachtet werden. Das Tierschutzgesetz gilt abgesehen von wenigen Ausnahmen für Wirbeltiere.

Bei der Aufklärung der Öffentlichkeit über Tierschutzfragen und der Durchsetzung von Tierschutzstandards spielen Tierschutzorganisationen eine wichtige Rolle. Sie arbeiten daran, das Bewusstsein für das Leiden von Tieren zu schärfen, gesetzliche Änderungen voranzutreiben und durch Bildungsprogramme eine nachhaltige Veränderung im Umgang mit Tieren zu erreichen.

Den ersten deutschen Tierschutzverein, der später in den Deutschen Tierschutzbund mündete, gründete Albert Knapp im Jahr 1837. Heute ist der Deutsche Tierschutzbund die Dachorganisation der Tierschutzvereine und Tierheime in Deutschland. Er ist der größte Tierschutzdachverband in der BRD und in Europa und repräsentiert 16 Landesverbände, rund 740 örtliche Tierschutz-verbände und 550 Tierheime und circa 800.000 Tierschützer\*innen. Die Organisation setzt sich für die Erhaltung und Ausweitung von Tierrechte in jeglichen Branchen und Bereichen des Lebens ein. Das Ziel des Deutschen Tierschutzbundes ist es, dass jedes Tier ein artgerechtes Leben führen kann. Sei es im Privathaushalt, in der Landwirtschaft, in der Forschung und wo immer Menschen mit Tieren Umgang haben. Er betreibt eigene Auffangstationen für in Not geratene Haustiere, unterstützt seine Tierheime und Tierschutzvereine mit Futterspenden, Material, Soforthilfen etc. Der Deutsche Tierschutzbund macht Druck bei Politikern, führt persönliche Gespräche im EU-Parlament, im Bundestag und mit der Bundesregierung. Durch Lobbyarbeit fordert der Verein Alternativen zur Massentierhaltung und eine artgerechte Haltung von Haus-, Nutz- und Wildtieren.

Die Ideenfabrik des Deutschen Tierschutzbundes ist die Akademie für Tierschutz in Neubiberg bei München, wo sich engagierte Wissenschaftler\*innen aus den Bereichen Biologie, Tiermedizin und Recht fundiert mit den verschiedenen Tierschutzthemen auseinandersetzen. Damit erarbeiten sie die Grundlagen für die Tierschutzarbeit in Deutschland und Europa und schlagen Lösungsstrategien für Tierschutzprobleme vor. Besonders aktiv ist die Akademie auf dem Gebiet der Erforschung tierversuchsfreier Methoden. Das Ziel ist es, in Zusammenarbeit mit Behörden, Industrie und Hochschulen die Abschaffung von Tierversuchen zu beschleunigen [3].

Die Tätigkeit vieler Umweltschutzorganisationen umfasst auch Maßnahmen zum Tierschutz. Zum Beispiel der NABU – der älteste und der mitgliederstärkste Umweltverband in Deutschland – engagiert sich für den Tier- und Artenschutz, indem er Pflege- und Auffangstationen für verletzte Vögel und Säugetiere unterstützt. Die Deutsche Wildtier Stiftung befasst sich mit dem Schutz von Wildtieren. Ziel ist es, Lebensräume zu erhalten und neue Lebensräume zu schaffen. Ein breites Spektrum an Projekten soll Menschen für das Thema Wildtier- und Naturschutz begeistern. PETA Deutschland ist landesweit die größte Tierschutzorganisation, die sich für die Rechte der Tiere einsetzt. PETA arbeitet mit medienrelevanten Mitteln und spektakulären Aktionen, um die Öffentlichkeit über Tiermissbrauch zu informieren und Druck auf die Verantwortlichen aus Wirtschaft und Politik auszuüben [2].

Von grundlegender Bedeutung für den praktischen Tierschutz sind natürlich auch die Bemühungen unzähliger Privatpersonen, die sich im Alltag unabhängig von Rechtsnormen für einen sorgsamen Umgang mit Tieren einsetzen. Dazu gibt es wahrscheinlich so viele Wege, wie es Menschen gibt, und jeder wird seine individuelle Art und Weise finden. Es ist erst einmal wichtig, dass man sich über seine eigenen Gewohnheiten und die Auswirkungen seines Handelns klar wird. Dieser erste Schritt ist meist der schwerste und beinhaltet eine Menge Selbstkritik. Hierbei muss man daran denken, dass auch kleine Aktivitäten dazu beitragen, den Tieren ein artgerechtes Leben in Sicherheit zu ermöglichen. Man kann zum Beispiel freiwillig in einem Tierheim helfen oder dieses auch regelmäßig mit Geldspenden unterstützen, denn die artgerechte Haltung von Tieren ist sehr teuer. Auch über Tierfutter und Tierzubehör freuen sich übrigens die meisten Tierheime. Eine Alternative ist die Möglichkeit, eine Tierpatenschaft zu übernehmen. Dabei beteiligt sich der Pate an der Pflege des entsprechenden Tieres und kann dieses, auf Wunsch hin, meistens auch regelmäßig besuchen, gegebenenfalls mit ihm Gassigehen usw. Gnadenhöfe und Tierheime werden dadurch ebenfalls finanziell deutlich entlastet. Wenn Sie einem Tier langfristig Ihren Schutz und Liebe schenken möchten, wird womöglich die Adoption eines Haustieres eine gute Entscheidung sein. Dann sollten Sie vielleicht zunächst ein Tier aus dem Tierheim in Betracht ziehen, anstatt von einer Zucht zu kaufen.

Ein weiteres Engagementfeld ist die Aufklärung und Sensibilisierung der Öffentlichkeit. Durch das Teilen von Informationen über soziale Medien oder Verteilung von Flyern in der Nachbarschaft, das Halten von Vorträgen oder das Organisieren von Veranstaltungen kann man das Bewusstsein für Tierrechte und Tierwohl schärfen. Dies trägt dazu bei, das Verständnis und die Empathie für Tiere zu fördern und die Unterstützung für Tierschutzinitiativen zu stärken. In akuten Notsituationen oder einem eindeutigen Fall von Tierquälerei können Sie direkt Strafanzeige bei der Polizei oder bei der Staatsanwaltschaft stellen. Das ist für Sie nicht mit Kosten verbunden und trägt dazu bei, Tierquäler\*innen für ihr Verhalten zur Verantwortung zu ziehen. Natürlich kann man sich politisch engagieren, indem man Petitionen unterzeichnet oder sich für Gesetze und Vorschriften einsetzt, die den Schutz von Tieren verbessern. Durch aktive Teilnahme an politischen Prozessen und Lobbyarbeit kann man Einfluss auf Entscheidungs-träger nehmen und positive Veränderungen für Tiere herbeiführen.

Nicht zuletzt ist das eigene Konsumverhalten wesentlicher Bestandteil gelebten Tierschutzes. Im Alltag muss man verstärkt auf tierfreundliche Konsumentscheidungen achten. Hinter jedem Stückchen Fleisch steckt ein Lebewesen, das für unser Genuss leiden und sterben musste. Die einfachste und effektivste Möglichkeit, dem entgegenzuwirken, ist eine vegane oder vegetarische Ernährung. Auch die Wahl der Kleidung ist zu hinterfragen. Echtpelz und Tierleder sollte man vermeiden, da diese Textilbranche eine unglaubliche Tortur von Tieren in Kauf nimmt.

Sowohl Verbraucher als auch Investoren sollten ihre Entscheidungen über den Kauf von Produkten und das Investieren in Unternehmen darauf basieren, wie diese das Wohlergehen von Tieren respektieren und schützen. Durch die Unterstützung tierfreundlicher Unternehmen können wir dazu beitragen, positive Veränderungen in der Beziehung zwischen Menschen und Tieren zu bewirken und eine nachhaltigere Zukunft für alle Lebewesen zu schaffen.

Es gibt also zahlreiche Möglichkeiten, sich im Tierschutz zu engagieren und einen positiven Einfluss auf das Wohlergehen von Tieren zu nehmen. Der Tierschutz umfasst ein breites Spektrum von Aktivitäten, die sowohl lokal als auch international durchgeführt werden können. Die Berücksichtigung des Tierschutzes in der Wirtschaft und im Alltag ist von entscheidender Bedeutung, um eine nachhaltige und ethisch verantwortungsvolle Beziehung zu Tieren zu gewährleisten. Der Tierschutz hat nicht nur Auswirkungen auf das Wohlergehen der Tiere selbst, sondern auch auf die Umwelt, die Gesellschaft und letztendlich auf unser moralisches Gewissen. Tierschutz funktioniert aber nur im Zusammen-spiel von Politik, Verwaltung und den Menschen vor Ort. Nur wenn alle Menschen sich für das Wohl von Tieren einsetzen, können wir etwas bewegen.

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Статья посвящена проблеме защиты животных в Германии. Приведены примеры общественных организаций и государственных мероприятий, способствующих решению актуальных вопросов в области защиты животных. Представлены возможные варианты участия в поддержании благополучия животных.

[**к содержанию**](#содержание)

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**PRINCIPALES ÁREAS DE TRABAJO CON LA AFICIÓN EN EL SISTEMA DE GESTIÓN DE EQUIPOS DEPORTIVOS**

Trabajar con los fanáticos en el sistema de gestión de equipos deportivos juega un papel clave en la creación de una base de fanáticos leales y el aumento de los ingresos de diversas fuentes.

Todas las leyes de marca desarrolladas para productos o servicios del mercado masivo se aplican a los deportes profesionales. Hay un producto, un público objetivo, una arquitectura de marca y otros componentes generalmente aceptados. La creación de departamentos de relaciones públicas en los clubes deportivos profesionales de equipo comenzó a mediados de la década de 1990. Durante estos años, los clubes comenzaron a emplear agregados de prensa o especialistas en relaciones públicas. El propósito de estos servicios es publicar materiales sobre sus equipos, obtener publicidad de los fanáticos, resolver situaciones de conflicto y crisis, encontrar patrocinadores, etc.

En cuanto al balonmano, los clubes profesionales de balonmano son hoy empresas comerciales que necesitan crear una imagen positiva a los ojos del público y, en primer lugar, a los ojos de los medios de comunicación, los aficionados y los seguidores. Existen tres áreas principales de trabajo con los aficionados en los clubes deportivos de deportes de equipo:

• interacción con los medios de comunicación;

• interacción con los aficionados y seguidores del club;

En el marco de la primera dirección se realizan las siguientes actividades:

1) giras de prensa con participación de destacados jugadores, entrenadores, directivos del club y medios de comunicación;

2) presentación de nuevos jugadores;

3) sesiones de formación abiertas para representantes de los medios de comunicación y aficionados;

4) distribución de comunicados de prensa;

5) contacto constante con periodistas de periódicos deportivos;

6) asistir a los periodistas en los partidos que el club juega en casa;

7) control sobre las publicaciones en la prensa;

8) organización y realización de “Transmisiones en vivo” en la televisión regional;

9) mostrar vídeos de anuncios de los partidos locales del club;

10) garantizar información periódica sobre las actividades del club en los medios de comunicación deportivos;

11) organizar entrevistas con los directivos y jugadores del club en los canales de televisión centrales y satelitales y en los medios impresos;

12) Campañas de relaciones públicas para jugadores ofertados para transferencia.

En el marco de la segunda dirección se realizan los siguientes trabajos:

• organizar reuniones con los fans;

• organización de programas de espectáculos especializados en partidos en casa;

• organización de jornada de puertas abiertas;

• participación de los directivos de los equipos en el trabajo del club de fans;

• asistir a clases magistrales en diversas instituciones educativas;

• mejorar el sitio web del club;

• asistencia a los aficionados en la organización de viajes;

• organizar sesiones de autógrafos para los fans;

• realización de torneos de balonmano para los aficionados.

Así, llegamos a la conclusión de que los aficionados siempre reaccionan de forma vivaz y positiva a la posición abierta y confiada de la dirección del club, que respeta las opiniones de los aficionados al deporte. Lo ideal sería que los responsables de relaciones públicas estructuraran los procesos de comunicación informativa entre el club deportivo y los aficionados de tal forma que estos últimos desarrollaran un sentido de implicación en los procedimientos de toma de decisiones, la importancia de la voz de cada aficionado, que es escuchada y percibida favorablemente. Las comunidades de aficionados se alegran de saber que son consultadas, tenidas en cuenta, informadas sobre los planes del club y no vistas simplemente como una masa sin rostro de la que se puede sacar esta o aquella cantidad de dinero. La actitud despectiva hacia los fanáticos del deporte es el peor tipo de interacción mutua.

Las áreas de participación de los fanáticos mencionadas anteriormente ayudarán a los equipos deportivos a crear interacciones sostenibles y productivas con sus fanáticos, aumentando los niveles de participación y compromiso con el equipo. Trabajar con los fans requiere mantener siempre un alto nivel de atención a sus intereses y necesidades. El objetivo principal es crear una imagen positiva del equipo y fortalecer las relaciones a largo plazo con sus fanáticos y seguidores.

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В статье рассматривается менеджмент спортивных команд как способ популяризация спорта и привлечения людей к игровым видам спорта. Основная идея работы заключается в том, что организация работы с болельщиками является одним из важных аспектов менеджмента спортивных команд. Показаны основные направления работы с болельщиками.

[**к содержанию**](#содержание)

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**WELLNESS TOURISM IN BELARUS: A COMBINATION OF NATURE AND HEALTH**

Belarus is a country with unique natural wealth and a rich cultural heritage, where wellness tourism holds a significant place. This type of tourism allows visitors to combine relaxation with health care by taking advantage of therapeutic and preventive procedures. This article will explore the benefits of this sector, popular resorts, and development prospects.

What undoubtedly attracts many tourists to the Republic of Belarus is its natural wealth. The country is renowned for its forests, crystal-clear lakes, picturesque landscapes, and fresh air. Such an environment creates perfect conditions for relaxation and quality rest. Additionally, the moderate climate zone ensures comfortable stays throughout the entire year [1, c. 88]. All of the country's natural resources are actively utilized in medical procedures. For example, mineral waters are used in balneotherapy, coniferous forests positively affect the immune system and help relieve stress, and therapeutic muds are widely applied in treatments like wraps and applications.

The sanatoriums of the Republic of Belarus focus on the primary treatment of such diseases as respiratory system diseases, cardiovascular system diseases, musculoskeletal disorders, and gastrointestinal tract issues.

Respiratory system diseases: In sanatoriums specializing in this profile, treatments include inhalations, therapeutic physical exercises, mineral water baths, procedures using therapeutic mud, as well as massages.

Cardiovascular system: Specialists working in sanatoriums with this focus offer patients procedures such as physiotherapy, massages, hydro- and mud therapy. They also design proper diets to help reduce blood cholesterol levels. Additionally, rehabilitation exercises are included in wellness programs to strengthen the heart muscle and improve the overall well-being of the visitors.

Musculoskeletal system: In sanatoriums specializing in this area, treatments focus on restoring muscle, ligament, and joint functionality, as well as relieving pain symptoms. The most popular method of wellness and prevention in these health resorts is balneology. Additionally, services such as electrophoresis, magnetotherapy, laser therapy, and others are also offered.

Gastrointestinal tract: The primary method of treatment is diet therapy, which is tailored individually for each visitor in the sanatorium. In addition to this, various physiotherapy methods are offered in Belarusian sanatoriums to alleviate discomfort, such as magnetotherapy. Moreover, biological therapy options are widespread in the country's wellness centers – such as phytotherapy and apitherapy, which aim to strengthen the immune system and improve gastrointestinal functioning.

Examples of popular Belarusian sanatoriums for the mentioned profiles include:

* The "Ruzhansky" sanatorium in the Brest region, specializing in cardiovascular system diseases and musculoskeletal disorders.
* The "V.I. Lenin" sanatorium in the city of Bobruisk, which focuses on musculoskeletal disorders, nervous system conditions, and cardiovascular treatments.
* The "Berezka" sanatorium in the Minsk region, known for its specialization in gastrointestinal tract diseases. Additionally, it offers treatments for respiratory system conditions, neurology, and musculoskeletal disorders.

In addition to the treatments and specializations offered by the sanatoriums of the Republic of Belarus, we believe it is worth highlighting their services and infrastructure. Many sanatoriums feature swimming pools, spa salons, and fitness centers on their premises. Moreover, many of them also provide excursion programs for visitors, offering the opportunity to explore local attractions and become acquainted with Belarus's cultural and historical heritage.

The key advantages of wellness tourism in Belarus can be summarized as follows: affordability, the diverse range of services offered by many sanatoriums, a high standard of medical care, individualized attention for every visitor, well-developed infrastructure, and the country's favorable climate and, of course, the country's abundant natural resources.

In conclusion, we would like to emphasize that the sanatoriums and wellness centers of the Republic of Belarus offer excellent conditions for relaxation, prevention, and treatment. The combination of the country's natural wealth, advanced technologies, and high-quality accommodations undoubtedly makes this branch of tourism attractive to both international travelers and Belarusians alike. Belarusian sanatoriums truly deserve your attention if you are looking for a place to focus on your health and enjoy a pleasant getaway.

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В статье раскрывается тема санаторного туризма в Республике Беларусь, его преимущества и особенности, связанные с медицинскими профилями и использованием природных ресурсов, качеством обслуживания и широким спектром лечебных процедур, доступностью для туристов из разных стран.

[**к содержанию**](#содержание)

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**NACHHALTIGE ENTWICKLUNG IM RAHMEN DER INTERNATIONALEN WIRTSCHAFTLICHEN ZUSAMMENARBEIT**

Nachhaltige Entwicklung im Rahmen der internationalen wirtschaftlichen Zusammenarbeit ist die wichtigste Aufgabe der modernen Welt. Sie vereint die Bemühungen der Länder, das Gleichgewicht zwischen dem Wirtschaftswachstum, sozialer Gerechtigkeit und dem Umweltschutz zu erreichen. Globale Herausforderungen wie Klimawandel, Ungleichheit und begrenzte natürliche Ressourcen erfordern die Zusammenarbeit von Staaten, internationalen Organisationen und Unternehmen, um Lösungen zu entwickeln, die eine harmonische Entwicklung und das Wohlergehen sowohl der heutigen als auch der zukünftigen Generationen gewährleisten.

Ziel des Artikels ist es, die Rolle der internationalen Wirtschaftskooperation bei der Verwirklichung einer nachhaltigen Entwicklung unter Berücksichtigung ökologischer, sozialer und wirtschaftlicher Aspekte zu untersuchen und wichtige politische Maßnahmen, die Einfluss auf die rationelle Nutzung von Ressourcen, den Umweltschutz und die Verbesserung der Lebensqualität haben, zu analysieren.

Die internationale wirtschaftliche Zusammenarbeit spielt eine entscheidende Rolle bei der Förderung einer nachhaltigen Entwicklung, da sie verschiedenen Ländern und Organisationen eine Plattform bietet, um ihre Kräfte bei der Lösung globaler Probleme zu bündeln. Eines der Hauptinstrumente der Zusammenarbeit sind multilaterale Initiativen und Abkommen, wie das Pariser Klimaabkommen zur Bekämpfung des Klimawandels und die UN-Ziele für nachhaltige Entwicklung (SDGs), die ein breites Zielspektrum abdecken – von der Beendigung der Armut bis zum Schutz von Ökosystemen.

Durch internationale Zusammenarbeit haben Entwicklungsländer Zugang zu den Technologien, den Investitionen und dem Wissen, die sie benötigen, um ihre Ziele für eine nachhaltige Entwicklung zu erreichen. Darüber hinaus trägt es zur Schaffung globaler Normen und Standards bei, die auf eine nachhaltige Nutzung von Ressourcen und die Reduzierung negativer Auswirkungen auf die Umwelt abzielen.

Die wirtschaftlichen Aspekte der nachhaltigen Entwicklung nehmen einen zentralen Platz ein, da sie darauf abzielen, Bedingungen für langfristiges Wachstum zu schaffen, dabei die rationelle Nutzung von Ressourcen zu berücksichtigen und negative Auswirkungen auf die Umwelt zu minimieren.

Einer der Schlüsselbereiche ist die Finanzierung ökologisch nachhaltiger Projekte wie erneuerbare Energien und energieeffiziente Technologien. Internationale Organisationen wie die Weltbank und die Global Environment Facility stellen erhebliche Ressourcen für solche Initiativen bereit. Diese Projekte tragen nicht nur zur Reduzierung der CO2-Emissionen bei, sondern schaffen auch Arbeitsplätze, entwickeln die Infrastruktur und verbessern die Lebensqualität.

Besonderer Wert wird auf die Unterstützung von Entwicklungsländern gelegt, die mit begrenzten wirtschaftlichen Ressourcen konfrontiert sind. Durch internationale Zusammenarbeit in Form von Zuschüssen, Darlehen und Investitionen können diese Länder nachhaltige Technologien und Wirtschaftswachstumsstrategien umsetzen [1].

Die sozialen Aspekte einer nachhaltigen Entwicklung spielen eine wichtige Rolle bei der Verbesserung der Lebensqualität der Menschen und der Erreichung globaler Gleichberechtigung durch internationale Wirtschaftskooperation. Eine der Hauptaufgaben dabei ist die Bekämpfung von Armut und sozialer Ungleichheit, die für viele Länder nach wie vor akute Probleme sind. Internationale Organisationen entwickeln aktiv Programme zur Verbesserung des Zugangs zu Bildung, Gesundheitsversorgung und grundlegenden sozialen Diensten.

Große Bedeutung wird auch dem Schutz der Menschenrechte und der Stärkung der sozialen Infrastruktur beigemessen. Die internationale Zusammenarbeit unterstützt Länder bei der Umsetzung von Programmen zur Verbesserung der Arbeitsbedingungen, zur Schaffung neuer Arbeitsplätze und zur Förderung der Gleichstellung der Geschlechter. Dies ist wichtig, um soziale Gerechtigkeit und nachhaltiges Wirtschaftswachstum zu gewährleisten. Beispielsweise ermöglichen Programme, die darauf abzielen, den Zugang zu Bildung für Mädchen in Afrika zu verbessern, nicht nur ihre Lebensqualität, sondern legen auch den Grundstein für langfristigen sozialen und wirtschaftlichen Fortschritt [1].

Umweltaspekte einer nachhaltigen Entwicklung stehen im Mittelpunkt der internationalen Zusammenarbeit, da der Umweltschutz eines der Schlüsselelemente für das zukünftige Wohlergehen der Menschheit ist. Eine der wichtigsten globalen Initiativen ist das Pariser Klimaabkommen, das die Bemühungen der Länder im Kampf gegen den Klimawandel bündelt. Ziel dieser Vereinbarung ist es, den Kohlendioxidausstoß zu reduzieren, erneuerbare Energiequellen zu entwickeln und die Umweltverschmutzung zu verringern.

Internationale Projekte wie die der Global Environment Facility finanzieren aktiv Projekte zur Erhaltung der biologischen Vielfalt, zur Wiederherstellung von Wäldern und zum Schutz aquatischer Ökosysteme. Solche Initiativen unterstützen die nachhaltige Nutzung natürlicher Ressourcen und minimieren die negativen Auswirkungen menschlicher Aktivitäten auf die Natur. Beispielsweise tragen Projekte zur Schaffung von Naturschutzgebieten im Amazonaswald dazu bei, einzigartige Ökosysteme zu erhalten und die Zerstörung von Lebensräumen für viele Arten zu verhindern.

Eine große Bedeutung wird auch der Entwicklung von Standards und Normen zugeschrieben, die den Ressourcenverbrauch auf internationaler Ebene regeln. Dazu gehören Fischereikontrolle, nachhaltige Landwirtschaft und Abfallreduzierung. Beispielsweise unterstützt die Europäische Union aktiv Projekte zum Übergang zu einer Kreislaufwirtschaft, in der Abfälle recycelt und in die Produktion zurückgeführt werden [1, 2].

Nachhaltige Entwicklung im Kontext der internationalen Wirtschafts-kooperation ist der wichtigste Aspekt moderner Weltpolitik. Dabei geht es um ein Gleichgewicht zwischen Wirtschaftswachstum, sozialem Fortschritt und Umweltsicherheit. Durch internationale Zusammenarbeit können Länder Erfahrungen, Technologien und Ressourcen austauschen, um gemeinsame Nachhaltigkeitsziele zu erreichen.

Im Rahmen der Zusammenarbeit können sich Länder an gemeinsamen Projekten zur Reduzierung von Treibhausgasemissionen, zur Entwicklung erneuerbarer Energiequellen und zum Erhalt der Artenvielfalt beteiligen. Darüber hinaus trägt die internationale Zusammenarbeit dazu bei, gleiche Wettbewerbsbedingungen für die soziale Entwicklung zu schaffen, einschließlich des Zugangs zu Bildung und Gesundheitsversorgung.

Insgesamt ist eine nachhaltige Entwicklung im Rahmen der internationalen wirtschaftlichen Zusammenarbeit von entscheidender Bedeutung für die langfristige Sicherung der Stabilität und des Wohlstands der Weltgemeinschaft.

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В современном мире устойчивое развитие становится все более важным аспектом международного экономического сотрудничества. В данной статье основное внимание уделяется взаимосвязи между экономическим ростом, социальным прогрессом и экологической безопасностью в контексте глобальных отношений. В статье рассматривается роль международного сотрудничества в достижении целей устойчивости, в том числе совместные проекты по защите окружающей среды и социальному развитию.

[**к содержанию**](#содержание)

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**LA INTERCULTURALIDAD COMO MEDIO DE APRENDIZAJE DE UNA LENGUA EXTRANJERA Y EL FORTALECIMIENTO DE LA COOPERACIÓN INTERNACIONAL**

El aprendizaje de una lengua extranjera está mayormente basado en la práctica de las habilidades necesarias para el dominio de la misma. Adquirir vocabulario y la fluidez necesaria para ser competente comunicativamente va más allá del estudio mediante libros, audiciones o el uso de audiovisuales, también se puede lograr a través del conocimiento de otras culturas, específicamente, de los países que hablan el idioma de interés. El inglés como lengua globalizada y al ser de las más difundidas, tiene alta demanda en la sociedad actual, siendo también de las más estudiadas y enseñadas, por lo que se necesitan de experiencias reales que permitan tanto al estudiante como al profesor lograr una experiencia más efectiva en el aprendizaje y dominio del mismo, para lo que una excelente forma de aprender y lograr competencia en la comunicación en una lengua extranjera está dada mediante los intercambios culturales con hablantes nativos. Esto también posibilita la adquisición de vocabulario real mediante conversaciones en diferentes contextos y situaciones de la vida diaria, y a su vez, lograr efectividad en el idioma permite estrechar vínculos en la cooperación internacional en áreas específicas.

El siguiente trabajo pretende demostrar resultados concretos luego de una vivencia real de la autora que tuvo lugar durante dos semanas, ambas intercambiando con profesores y estudiantes hablantes nativos del idioma inglés y de cómo a su vez, ellos aprendieron y perfeccionaron su español a través de la interculturalidad y la cooperación en áreas como son la educación general, la enseñanza del idioma inglés como lengua extranjera y las artes respectivamente.

La primera semana de intercambio fue llevada a cabo como parte de una capacitación para profesores de inglés y el Sindicato de la Educación, las Ciencias y el Deporte de Cuba (SNTECD) en la ciudad de La Habana en los días comprendidos entre el 23 de febrero y el 28 de febrero de 2025 por parte la Federación de Maestros de Columbia Británica de Canadá (BCTF) como una acción de internacionalización además de la Comisión Nacional de la Carrera Licenciatura en Lenguas Extranjeras (CNC) durante la cual los participantes tuvieron acceso a bibliografía, audiovisuales y otros materiales relacionados con la población indígena canadiense y sus costumbres, juegos tradicionales, “storytelling” y vocabulario relacionado con ese tema, los cuales podemos emplear en nuestras clases tanto en la asignatura Historia de los pueblos de Habla Inglesa como en la Práctica Integral de la Lengua Inglesa o en el estudio de la Lingüística. El objetivo de esta capacitación fue fortalecer los vínculos para la colaboración solidaria entre el SNTECD y BCTF, propiciar la práctica comunicativa del idioma inglés de los docentes y estudiantes participantes, actualizar a los participantes sobre aspectos de la cultura canadiense relevantes para la formación de docentes cubanos y propiciar el intercambio cultural entre los participantes cubanos y canadienses para promover la solidaridad y la cooperación.

Como participantes estuvieron profesores representantes de todas las provincias del país además de los profesores invitados canadienses. Como elemento cultural cada provincia realizó una presentación en la que se evidenciaron aspectos culturales e identitarios distintivos de cada región. Por la parte canadiense también se realizó una presentación mediante la cual se introdujo Canadá como país, sus provincias, sus habitantes y elementos generales útiles para nuestras clases. Luego de este momento se realizó un ejercicio en el cual se debía emparejar una provincia cubana con una canadiense, para así encontrar las ciudades hermanas en cuanto a geografía, clima, economía, cultura, idioma y teniendo en cuenta esos elementos, identificar semejanzas y diferencias entre ambas.

Los artículos abordaron temáticas como la elaboración de cestas, joyería y medicina con técnicas indígenas y un documental que muestra el día a día de una familia indígena que estuvo nominado a los premios Oscar y es de gran relevancia ya que muestra al mundo sus luchas y la resiliencia en la forma de vida. Simultáneamente sesionó un encuentro entre representantes de ambos sindicatos para establecer vínculos de cooperación mutua, acciones de formación de líderes y dar respuesta a diversas problemáticas existentes, objetivos de lucha y apoyo mutuo, analizando la educación y características fundamentales que debe tener un líder para lograr mantener la unidad de los maestros, la calidad de la educación y continuidad a los procesos revolucionarios.

La segunda semana de intercambio se realizó entre los días 1ero y 7 de marzo de 2025 entre estudiantes y profesores de Illinois College, Estados Unidos y la Universidad de Pinar del Río, Cuba, con el fin de celebrar los 13 años de las relaciones bilaterales entre ambas instituciones durante el cual se establecieron vínculos de investigación científica en las carreras de Matemática y de Educación Artística. Para asistir a dichas actividades se seleccionaron estudiantes de la Universidad de Pinar del Río (UPR) para integrar un coro que se presentaría de conjunto con el coro de Illinois College (IC). El primer paso para la integración de ambos coros fue asignar a cada estudiante y profesor parejas conversacionales para ir estableciendo relaciones e intercambiar datos como información personal, expectativas, datos de interés, gustos y preferencias en inglés y en español. Luego de la llegada al país y a la provincia realizaron un primer recorrido por la ciudad con los pares conversacionales, quienes explicaron para ellos los lugares significativos de la capital provincial y aclararon dudas a los visitantes.

Profesores de nuestra institución les impartieron clases de fotografía, español básico para la comunicación, en la cual intercambiaron con estudiantes de la carrera de Informática, danza cubana tradicional y medio ambiente. Como actividades nocturnas se desarrollaron los ensayos para la actuación del coro en uno de nuestros teatros. Asistieron además a una vega de tabaco para conocer más de nuestro producto estrella y también a un proyecto comunitario que se basa en nuestras raíces africanas, su música y sus danzas. También compartimos comidas y elementos culturales de cómo es la vida y las costumbres de allá y la vida y costumbres cubanas. También se firmó un documento con frases en español e inglés que resumieran la experiencia de haber cantado juntos cubanos y americanos en ambos idiomas. El concierto se realizó en el teatro de la universidad de Ciencias Médicas, al cual asistieron profesores, directivos, estudiantes, familiares y público en general donde, durante el mismo, se procedió a la firma del Memorándum de Entendimiento de ambas universidades y fueron interpretadas canciones tradicionales cubanas en español y canciones tradicionales americanas en inglés y la canción “Stand by Me” de forma bilingüe.

Al finalizar la semana y a modo de conclusión los estudiantes realizaron una presentación donde compartieron reflexiones y aprendizajes sobre sus vivencias en Cuba y la caracterizaron como una nueva forma de pensar, vivir y aprender, crearon vínculos duraderos y establecieron semejanzas y diferencias entre Pinar del Río y Chicago con un enfoque intercultural, destacando la familiaridad con que fueron tratados, la vida de la ciudad, los niños jugando en los parques que son elementos que en sus sociedad no suceden.

El saber es la capacidad que tiene el individuo para establecer y mantener una relación armónica y respetuosa entre la propia cultura y la cultura extranjera. En esta interacción se fortalece el vínculo entre comunicación y cultura como procesos sociales. Esto, a su vez, permite que la cooperación internacional sea favorecida, ya que el dominio real tanto del inglés como del español a través de la interculturalidad, permite estrechar vínculos profesionales y personales y nos permite además dar otra mirada a la sociedad actual. La cultura une los pueblos, los hace semejantes, lima asperezas y solidifica relaciones. Mediante estas dos experiencias no solo la autora se vio enriquecida, sino también todos los involucrados en ambos momentos de intercambios y aprendizajes. Se hace necesario fomentar más intercambios de este tipo con otros países y en otros idiomas, para de esta forma lograr seres humanos más humanos y a su vez más cultos.

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Межкультурность как мощный инструмент изучения иностранных языков представляет собой один из лучших способов совершенствования языковых навыков и достижения реальной коммуникативной компетенции. В свою очередь, это способствует международному сотрудничеству, укреплению единства и миру во всем мире. В качестве примера приводятся реальные жизненные ситуации автора, а также группы студентов и преподавателей, в которых подтверждаются данные утверждения.

[**к содержанию**](#содержание)

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**LIBERATION STRATEGIC OPERATION “BAGRATION”**

The Great Patriotic War is one of the tragic events in the history of Belarus. From the very first hours of the war Belarus became a place of fierce battles. Not a single border outpost left its section of the border without an order. However, on June 28 German troops occupied the capital of Belarus and the entire territory of Belarus by the beginning of September 1941 was under the occupation of Nazi troops, which lasted for a long 1132 days. The purpose of this article is to tell about the course of the liberation of Belarus from Nazi troops.

The liberation of the territory of the Byelorussian Soviet Socialist Republic (BSSR) took place in two stages. The first stage lasted from the autumn of 1943 to the winter of 1944. After the victory of the Red Army in the Battle of Kursk (July 5 – August 23, 1943) the offensive initiative passed to the Soviet Union. The Wehrmacht (German armed forces) began to build the defensive line “Eastern Wall”. In Belarus, defensive structures ran along the line Vitebsk - Orsha - Sozh River - Dnieper River. On September 23, 1943, soldiers of the 360th Rifle Regiment of the 74th Rifle Division of the 13th Army under the command of Lieutenant Colonel N.I. Stashek liberated the first regional center of Belarus – the urban settlement of Komarin in the Polesie (now Gomel) region [2]. On September 26, 1943, troops of the 108th and 110th rifle divisions of the 50th army liberated the urban settlement of Khotsimsk. Subsequently, from September to mid-October 1943 the Red Army took control of Klimovichi, Kostyukovichi, Mstislavl, Krichev, Krasnopolye, Cherikov, Bragin, Dobrush. On October 15, 1943, an operation to force the Dnieper began in the Loyev district of the Gomel region. The Battle of Loyev is considered one of the most significant battles of the Great Patriotic War. This operation paved the way for the liberation of the southern Belarusian lands in the Gomel direction. On November 26, 1943 the first regional center of Belarus, Gomel, was liberated. Belarusian partisans actively contributed to the liberation of the Motherland. From September 19 to early November 1943, they carried out the second stage of “Rail War” operation. During this operation, tens of thousands of rails were blown up, more than 1,000 trains were derailed, 72 railway bridges were destroyed, and 30,000 German soldiers and officers were killed. The success of Operation facilitated the advance of the Red Army troops and reduced human losses [1, с. 198]. As a result of the first stage of the liberation of Belarus, by the beginning of winter 1943, the Red Army, together with the partisans, liberated 40 regions of the republic.

The second stage of the liberation of Belarus was the implementation of operation “Bagration” (June 23 – August 29, 1944). By June 1944, the front line in the east approached the Vitebsk-Orsha-Mogilev-Zhlobin line, forming a huge salient – a wedge facing deep into the USSR, the so-called “Belarusian balcony”. The Red Army managed to achieve a series of impressive successes in Ukraine but the attempt to break through in the Minsk direction in the winter of 1943-1944 did not bring success. From October 1943 to April 1, 1944, 11 operations were carried out to break through to Minsk and Orsha.

In March 1944, the Supreme Commander-in-Chief of the USSR Armed Forces I. V. Stalin invited General of the Army K. K. Rokossovsky and announced the plan of “Bagration” operation. According to the plan the main actions of the summer campaign of 1944 were to unfold in Belarus. Preparations for “Bagration” operation were very thoughtful. The main task of the preparatory stage was to create the impression that the Red Army was preparing for defense, and not for an offensive. The supply of equipment and ammunition was carried out only at night. With the first rays of the sun, the columns stopped and began to camouflage. Since one of the main attacks of the 1st Belorussian Front was to be carried out in swampy terrain, soldiers prepared in advance to overcome swamps, learned to navigate in the forest, made swamp skis, rafts for transporting light artillery and tanks across the swamps. Plans for combat operations, orders were written by hand [3]. “Bagration” operation was carried out by troops from four fronts. The Dnieper Military Flotilla also assisted in carrying out the operation. Coordination of the troops was carried out by Marshals G. K. Zhukov and A. M. Vasilevsky [1, с. 200].

“Bagration” operation took place in two stages. In its first stage – from June 23 to July 4, 1944, – the Vitebsk-Orsha, Mogilev, Bobruisk and Polotsk operations were successfully carried out, the enemy’s Minsk group was surrounded. In the second stage – from July 5 to August 29, 1944, – the Shauliai, Vilnius, Kaunas, Bialystok and Lublin-Brest operations were carried out. Taking into account the additional reserves received during the battles, more than 4 million people participated in “Bagration” operation on both sides, about 60 thousand guns and over 8 thousand aircraft were involved. On the territory of Belarus, the German aggressors created a powerful deep (up to 270 km) defense line “Fatherland”. The very name of this line emphasized that the fate of Germany depended on its power. By special order of A. Hitler, the cities of Vitebsk, Orsha, Mogilev, Bobruisk, Borisov and Minsk were declared fortresses. The commanders of these fortresses gave the Fuhrer written commitments to hold them to the last soldier [3].

The offensive of the Red Army troops was developing successfully in all directions. Troops of the 1st Baltic Front in cooperation with troops of the 3rd Belorussian Front surrounded and defeated the Vitebsk group of Nazis consisting of 5 divisions on June 25–27, 1944. Vitebsk was liberated on June 26, 1944, and Lepel – on June 28. On June 26, 1944, troops of the 3rd Belorussian Front eliminated a powerful enemy defense node near Orsha, liberated Dubrovno, Senno, and Tolochin. At the same time, troops of the 2nd Belorussian Front launched operations in the Mogilev direction. They broke through the powerful enemy defenses and captured Mogilev, Shklov, Bykhov, and Krichev. Large forces of the German army were surrounded and defeated. As a result of the Bobruisk operation the troops of the 1st Belorussian Front eliminated an enemy group by June 29, 1944 [1, с. 201].

Now the Soviet troops faced the following task: by means of a two-pronged offensive from the Borisov and Osipovichi regions towards Minsk and a frontal pursuit from the Mogilev-Minsk direction, complete the encirclement of the enemy, destroy the main forces of the 4th German Army, which was retreating to the west, and liberate the capital of Belarus. The troops of the 3rd, 1st and 2nd Belorussian Fronts were to accomplish this task. Meanwhile, the 1st Baltic Front continued its offensive northwest of Polotsk and westward in the direction of Glubokoye. On July 4, 1944, Polotsk was liberated. The Soviet troops, having advanced 120–130 km westward from June 29 to July 4, 1944, reached the approaches to Lithuania from the east, completely isolating the enemy Army Groups Center and North from each other.

On June 30, 1944 troops of the 3rd Belorussian Front crossed the Berezina, defeated the enemy’s Borisov grouping and liberated Borisov. On July 2, 1944, Soviet troops bypassed Minsk from the northwest, captured Vileika, Krasnoye and cut the Minsk-Vilnius railway. Troops of the 1st Belorussian Front, advancing south of Minsk, liberated Slutsk on June 30, 1944, Gorodeya, on July 2, Nesvizh on July 4, thus depriving the enemy of the opportunity to retreat to the southwest. At dawn on July 3, 1944, the 2nd Guards Tank Corps of the 3rd Belorussian Front entered Minsk. In the afternoon of July 3, 1944, the capital of Belarus was completely liberated from the enemy. The 4th German Army and some other enemy units east of Minsk were surrounded. A 105,000-strong enemy group found itself in the Minsk “cauldron” [3].

On July 4, 1944, the first stage of the grand battle for Belarus ended. In two weeks of fighting, Soviet troops routed the main forces of the German Army Group Center. On July 4, 1944, troops of the 3rd Belorussian Front fought in the areas of Lake Naroch, Smorgon, Molodechno, Krasnoye, and Volma. On July 5, they captured Molodechno, and on July 1 – Grodno. Together with Soviet air units, the 1st Fighter Aviation Regiment of French pilots, Normandie, fought selflessly as part of the 1st Air Army. Troops of the 2nd Belorussian Front covered about 270 km in 12 days of fighting, liberated Novogrudok, Volkovysk, and reached the state border in this direction. Troops of the 1st Belorussian Front advanced in the Baranovichi-Brest and Pinsk directions. On July 8, 1944, Baranovichi was liberated, and on July 14, Pinsk. On July 21, the Red Army crossed the state border in the Belovezhskaya Pushcha area. On July 28, the city of Brest was taken by storm. This day became significant in the history of the Belarusian people. By taking Brest, our troops completed the expulsion of the Nazi invaders from Belarusian soil [1, с. 201].

During the successful completion of “Bagration” operation, the Red Army liberated the territory of Belarus and entered the territory of Europe. The outstanding results of the operation were possible due to the high offensive impulse, patriotism, courage and heroism of the Soviet troops. Belarusians remember and honor their liberators.

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В статье речь идет об освобождении территории Белорусской Советской Социалистической Республики в 1943 – 1944 гг. Автор описывает ход освобождения Беларуси в конце 1943 года. В статье показана разработка плана операции «Багратион» и ее ход. Автор акцентирует внимание на быстрых темпах освобождения Красной армией белорусских городов. В результате операции «Багратион» Беларусь была полностью освобождена от немецко-фашистских захватчиков.

[**к содержанию**](#содержание)

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**TYPES OF CHEESE AND THEIR HEALTH BENEFITS IN NATURAL AND EXACT SCIENCE CONSIDERATION ASPECTS**

Firstly, our research relevance is due to its multidisciplinary approach. The first science our research deals with is food processing technology that considers cheese as a foodstuff. The second science is dairy-cattle breeding. Dairy-cattle breeding systems influence milk quality that is the main raw material for cheese production. Therefore, dairy-cattle breeding systems finally affect cheese quality. The third science is food microbiology. Lactic milk bacteria are able to trigger the fermentation process that transforms lactose into lactic acid and as a result, change the product taste as well as texture. Food chemistry is closely connected with nutriology. The former studies cheese chemical composition. The latter learns the influence of cheese chemical ingredients on human health aspects that depends on their exact numbers. The fifth science is economics, as cheese is known as the product that can be sold and bought at dairy stores and departments. Different types of cheese are sold at different prices depending on their quality.

Secondly, cheese consumption norms and the population size established determine the total production volume of dairy products and dairy production assortment. As the population is growing nowadays, the demand for dairy products is rising as well. Thirdly, wide cheese assortment is meeting the demand for various cheese consumers, according to their age, professional activities.

Our research aim is to analyze the influence of our cheese types as the research subject on consumers` health as the object. Our research tasks are to: define cheese from natural scientific as well as technological standpoint; analyze cheese production cycle; consider chemical composition of different cheese types from exact scientific viewpoint; view the influence of cheese ingredients on cheese consumers` health aspects; specify cheese consumption advantages and disadvantages.

Research basic definitionsHealth means the dynamic balance between the organism, its functions and the environment factors [2, p 27]. Therefore, health is changing according to nutrition received, the latter being the environmental factor example. Being studied from natural science aspect, cheese is known as the fermented milk product, manufactured by enzymatic coagulation of the milk received from different animals’ species, such as cows, sheep, goats [1, p.34]. Milk coagulation and fermentation are the problems studied within biology, and different animals` lactation is viewed within animal husbandry issues.

Cheese production cycle is evaluated as the complex process consisting of several stages; each one has got its own characteristics and is of special importance. The first stage is milk preparation. Milk is collected from such farm animals, as cows, goats and sheep. As a result, milk quality influences the final cheese product. The second stage is milk coagulation. The first sub-stage is adding sourdough. Fermentation process influences cheese characteristics, such as both taste and aroma. The second sub-stage is adding rennet enzyme. Rennet enzyme (or rennin) is able to promote the clot formation that is capable of separating proteins and fats from whey [3, p.1]. The third stage is cutting a clot. The size of the sliced clot pieces influences cheese texture. Smaller sliced clot pieces release more serum and result in the cheese denser texture. The fourth stage is serum separation. The whey is separated from the curd mass by means of pressing. This process can be performed either manually or using specialized equipment. The fifth stage is molding. The sixth stage is pressing. Pressure application is able to remove the remaining whey. It is also capable of forming cheese texture. The seventh stage is salting. Cheese can be salted either dry or immersed in a saline solution. Salt is not only able to improve the cheese taste, but it is also capable of acting as the preservative. Salt is also able to slow down the microorganisms` growth. The fifth stage is maturation. Cheese maturation conditions include both temperature and humidity. Types of cheese determine the cheese maturation longevity period that lasts from several weeks to several years.

Cheese chemical composition may vary depending on its type as well as brands (view table 1), the former idea being wider than the latter.

Table 1 – Chemical composition for various cheese types and brands

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Cheese type** | **Brands** | **Component /%** | | | | |
| Hard… | Parmesan, Cheddar | **Water** | **Proteins** | **Fats** | **Carbohydrates** | **minerals** |
| 30-40 | 25-35 | 30-40 | 0-2 | 5-7 |
| Semi-Hard | Gouda, Emmental | 35-45 | 24-30 | 28-34 | 0-2 | 4-6 |
| Soft | Brie, Camembert | 45-60 | 15-20 | 20-30 | 0-1 | 2-4 |

It is possible to use this material for applied purposes, for example in teaching food technology students. We suppose that the material presented can contribute to developing analytical as well as synthetical mental skills, provided we ask the students, which idea is wider – a cheese type or brand, a kind of chemical component or its example (view table 1 and 2).

Table 2- Chemical components in hard cheeses and their examples

|  |  |
| --- | --- |
| **Component** | **Example** |
| Proteins | Casein |
| Fats | triglycerides |
| Carbohydrates | Lactose |

Cheese can be a useful diet component, provided its consumption is moderate. However, it is important to take into account both individual health characteristics and dietary restrictions. In order to maintain health, it is recommended to choose cheese types that are low in fat as well as sodium.

Cheese consumption is characterized by both advantages and disadvantages. On the one hand, cheese consumption advantages can be classified in various ways. The first group of cheese consumption pros concerns its positive impact on human health. The examples of such pros include high nutrient content, consumption safety, and probiotics. The second group concerns variety of flavors and tastes as well as usage convenience. On the other hand, cheese consumption disadvantages contain high fat and sodium content, caloric density, lactose intolerance in some cheese consumers, allergies, overeating risk.

Our research method is a questionnaire. Our research takes part on the basis of two first year students` groups- DT 105-24 and DT 102-24 as the control group at the food Technology Institute as the experimental group. The research took place on January-February, 2025. The total number of students corresponds to 23 in group DT 105-24 and 17 in group DT 102-24.

Our research consists of several stages in the experimental group. We gave DT 105-24 group students the sentences about cheese that cover the content of different scientific disciplines. They were asked to determine the discipline and formulate cheese definition on its basis. Here is the example of the sentences: Cheese is a dairy product. It can be of hard, semi-hard or soil texture. And the outcome sentence may sound in the following way: “Cheese is known as the dairy product that can be of hard, semi-hard or soil texture”. The second experimental stage involves asking to define cheese from different viewpoints again, but without any sentences as the basis for them. DT 102-24 group students were also asked to define cheese from the standpoint of different science. However, they were not given any sentences as the basis for their own statements. After that, the DT 105-24 group students were asked to distinguish the ideas: general (types of cheese, chemical components) as well as particular (cheese brands for each type and the chemical component examples). After that they were asked to say what cheese type is the best for health and why. They were given tables 1 and 2 as the chemical composition analysis material from the exact science position in order to use this material for explaining the use of different cheese types and brands. The DT 102-24 group students were only asked to name the cheese that is the best for health as well as explain the reasons. However, they were not given any reference material in order to supplement their answers. At the end the DT 105-24 group students were asked to explain their cheese preferences according to taste, aroma and health importance. The DT 102- 24 group students were not given any detailed schedules for their answers.

The DT 105 -24 group students demonstrated higher level of knowledge about cheese consumption peculiarities than DT 105 -24 group students. Most students (20 people or 89. 96 %) gave detailed answers about their cheese preferences and its importance for human health. A number of students who are able to define cheese in different ways corresponds 19 people or 82.61. The opposite outcomes were received in group DT 102- 24. Most students (15 participants or 88.24 %) have got lower knowledge about cheese consumption peculiarities. They can`t give detailed answers about cheese preferences and its importance for human health. They are able to define cheese from only one standpoint.

Cheese consumption can be a part of a healthy diet when done in moderate quantities and considers the individual health factors. It is important to choose high quality cheese as well as combine it with other foodstuffs in order to achieve a healthy diet. Our research is of great theoretical importance, as it attempts to define cheese from different standpoints as well as classify it, considering various factors. Our research is of great practical significance, as it formulates the recommendations for cheese healthy consumption.

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В статье анализируется влияние сыра на здоровье людей с точки зрения преимуществ и недостатков данного продукта питания, его химического состава. Химический состав сыра рассматривается в рамках естественнонаучных и точных дисциплин. Формулируется дефиниция сыра с позиций естественных научных дисциплин.

[**к содержанию**](#содержание)

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**USEFUL PROPERTIES AND PRODUCTION METHODS FOR FERMENTED DAIRY FOOD PRODUCTS FROM NATURAL AND EXACT SCIENCE POSITIONS**

Our research topic is of great urgency, as it can be viewed from different scientific standpoints. The first scientific discipline is dairy food production and processing technology. Firstly, it studies milk as the raw material for fermented dairy food production [2, p.7]. People of different ages consume fermented dairy products as foodstuffs, such as cottage-cheese, cream, yoghurt, kefir. The second scientific discipline is food microbiology. It studies how lactic acid bacteria cause dairy fermentation. Lactic acid bacteria digest lactose and glucose by means of enzymes to lactic acid. The third scientific discipline is dairy-farming. We take into account that dairy foodstuffs are produced from cow`s, sheep`s, goat`s or mare`s milk. It studies the ways in which breeding, feeding and managing influence milk quality as the raw material for fermented dairy food production. The fourth scientific discipline is food chemistry. It studies the fermented dairy food valuable chemical composition. The fifth scientific discipline is medicine that learns the impact of dairy food chemical components on human health parameters. The fifth and sixth scientific disciplines are both fruit production and fruit – processing that are interconnected. We take this interconnection into account, because people produce fermented dairy foodstuffs with supplements, such as both jam (strawberry, plum, cherry) and fresh fruit pieces (apples, pears, peaches, oranges).

The research aim and objectives The aim is to specify the production methods for manufacturing fermented dairy products with useful properties from modern and historical standpoints. The research objectives are to: 1) define the term “a fermented dairy product” from the natural science standpoint; 2) enumerate the examples of fermented dairy products; 3) specify the fermented dairy product properties; 4) compare the fermented dairy product pros and cons.

Research course Research basic definitions Our first basic definition is a fermented milk product means the foodstuff made by either milk lactic acid bacteria or yeast from milk in the fermentation process. This definition has been formulated from biological standpoint. Our second major definition, manufacturing, is termed as the process of creating a useful product [1, p.245]. Manufacturing is also referred to as the process of combining both tangible and intangible resources for creating the goods that satisfy human requirements. Therefore, speaking about our paper, milk can be viewed as the tangible resource for fermented dairy food production.

The fermented dairy food assortment One can find quite a wide range of fermented milk products [3, p.12].

The first fermented dairy food example is kefir. It comes from North Osetia. Milk is its production raw material. We can use either skimmed or whole milk for kefir production. The main kefir microflora group is lactic acid bacteria. They form lactic acid that enables kefir to acquire special taste and aroma. Kefir is made on special kefir fungi as a natural starter.

Lactic and carbonic acids determine such kefir properties as thirst quencher and appetite stimulant. Kefir consumption benefits comprise antibacterial, antibiotic, antiseptic valuable properties. Kefir consumption also enables to treat such diseases as both anemia and pneumonia. It also stimulates vitamin absorption. Nutrients exist in highly digestible form in kefir.

Different types of kefir vary in the lactic acid alcohol degree. One-day kefir contains less lactic alcohol degree than others. Two-day kefir comprises more lactic acid alcohol degree. Three-day kefir is characterized by the highest strength due to its percentage of alcoholic substances as well as acid content.

The second example of dairy fermented product is yoghurt. Yoghurt is nearly the same as sourdough. The protein amount corresponds to 4.5 milligrams in yoghurt. The fat quantity is equal to 6 milligrams.

The third example of fermented dairy product is varenyets. It is made from clarified milk by means of special starters including both thermophilic lactic acid streptococcus and Bulgarian bacillus.

Cottage-cheese is formed when milk is fermented by the gradual whey withdrawal. There are several cottage cheese types. Each type has its own-targeted consumers. For example, skimmed milk is good for diabetics. Low-fat milk is suitable for allergists. And classical milk is universal.

According to chemical composition, cottage cheese is high in proteins. It is also rich in proteins. Minerals are also abundant in cottage cheese.

There are 226 grams of calories in the 110-gram total product amount. Cottage cheese consumption has a lot of benefits. Firstly, it enables to lose weight. Secondly, it is able to increase hemoglobin level. Thirdly, cottage cheese consumption results in treating a lot of diseases, such as liver, hypertension, atherosclerosis. It is capable of strengthening many organism systems, for example both skeleton and nervous systems.

Fermented dairy foodstuffs have both advantages and disadvantages. On the one hand, they are good for health. Fermented dairy foodstuffs are able to improve food digestion. They are also capable of strengthening the immune system. Fermented dairy food can also promote nutrient absorption by the organism.

Fermented dairy foodstuffs are more digestible than ordinary milk. Fermented dairy foodstuffs also have great antibacterial effect. Fermented dairy food consumption also influence different organs, hair, nails and skin greatly. Fermented dairy foodstuffs can also improve a person`s bower function. Fermented dairy food influences the person`s hair, nail and skin health. These foodstuffs enrich our organism with both calcium and protein. Calcium and protein favor a person`s cardiovascular and skeleton system development. But, on the other hand, fermented dairy food consumption can cause flatulence, foodborne diseases, headaches. It is also undesirable for some categories of people to consume fermented dairy food. For example, histamine intolerant patients cannot consume fermented dairy foodstuffs.

Our main research method is testing. It contains the following questions with the answer variants:

1. Do you like to eat fermented dairy foodstuffs and why?

1) I like to eat fermented dairy foodstuffs, because they are delicious.

2) I like to eat fermented dairy foodstuffs, as they are good for health.

3) I like to eat fermented dairy foodstuffs for their delicious taste and aroma, because they can be mixed with different fruit.

2. What foodstuff is more interesting on our menu - milk or fermented dairy foodstuffs and why?

1) Fermented dairy foodstuffs are more interesting, for there are different types of them.

2) Fermented dairy foodstuffs are more interesting, because they can be mixed with grain, different fruits in the form of both fresh pieces and jam.

3. Is milk a drink, a foodstuff or both?

1) People drink milk

2) Milk is a foodstuff, because it is very nutritious and you are not hungry after having had it.

3) Milk is both a drink and a foodstuff.

After that, students were asked to make a monologue on the topic “My attitude to milk and fermented dairy foodstuffs”

Our research was conducted in two groups- DT –05 -24 as the experimental group and DT –02- 24 as the control group at the technological institute on January-February, 2025. The experimental group students participated in the testing procedure. The control group took part in the questionnaire.

In order to interpret our outcomes we described four levels of understanding the preference reasons for consuming dairy foodstuffs. The high level students are able to explain their attitude to fermented dairy foodstuffs, considering both advantages and disadvantage. They are also capable of analyzing the factors from different scientific disciplines in order to explain their attitude to fermented dairy foodstuffs. The good level students can also explain their attitude to fermented dairy foodstuffs, considering both advantages and disadvantages. However, they are incapable of analyzing the factors from different scientific disciplines in order to explain their attitude to fermented dairy foodstuffs. The average level students try to explain their attitude to fermented dairy foodstuffs. However, they are unable to give the detailed as well as scientific explanation. The low level students are not able to express their attitude to milk and dairy foodstuffs.

We have found that DT -05- 24 group students (23 participants) expressed high level of understanding the preference reasons for consuming dairy foodstuffs (21 students or 91.30 %). A number of good-level students constitutes to 3 people or 8.69 %. The average as well as low level subgroups were not specified in group DT -05-24.The opposite outcomes were found in group DT -02-24, the total students` number equaling 17. A number of low level students corresponds to 14 students or 82.35 %. A number of average level students constitutes to 3 people or 17.64 %.

Our research is of practical importance, as it proves the idea of great fermented dairy food influence on human organism.

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В работе изучается влияние молочно-кислых продуктов на организм человека с позиций преимуществ и недостатков их потребления. Рассматривается ассортимент молочнокислых продуктов с точки зрения естественных (с учётом качества сырья для производства, стадий производственного цикла) и точных научных дисциплин (процентные соотношения разных компонентов).

[**к содержанию**](#содержание)

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**HISTOIRE DU SPORT ET DU MOUVEMENT OLYMPIQUE EN RÉPUBLIQUE DU BELARUS**

Le choix du thème de l’histoire du sport et du mouvement olympique en République du Bélarus est conditionné par notre intérêt pour la façon dont le sport unit les gens, forme l’identité nationale et influence la société. Les exploits sportifs de nos compatriotes inspirent de nouveaux exploits et renforcent le patriotisme. L’étude de l’histoire du mouvement olympique nous permet de mieux comprendre comment le sport contribue à la paix et à l’amitié entre les peuples, ainsi que de déterminer l’importance des traditions sportives dans différents pays. Ce sujet présente également un intérêt en termes d’échanges culturels et de développement du sport en tant qu’outil du progrès social.

L’histoire du mouvement olympique au Bélarus remonte à 1952, lorsque pour la première fois des athlètes soviétiques, dont des Bélarussiens, ont participé aux XVe Jeux Olympiques d’été à Helsinki (Finlande). Au cours de cette période mouvementée, le mouvement olympique s’est développé et s’est adapté aux changements sociaux, économiques et politiques. Lorsque la République a acquis sa souveraineté le 22 mars 1991, le Comité National Olympique (CNO) de la République du Bélarus a été créé lors de la conférence à Minsk. Il s’agit d’une association publique indépendante, dont le statut et le rôle sont pleinement conformes à la Charte olympique et à la loi de la République du Bélarus sur la culture physique et le sport. Lors de la 101e session du Comité International Olympique (CIO), tenue à Monaco du 21 au 24 septembre 1993, le Comité National Olympique de la République du Bélarus a été officiellement reconnu. La mission du CIO est de développer et de protéger le Mouvement olympique dans le pays conformément à la Charte olympique [1, p. 24]. Le CNO coopère avec des organismes gouvernementaux et non gouvernementaux, tout en conservant son autonomie et son indépendance. Il a le droit exclusif de représenter son pays aux Jeux Olympiques, ainsi qu’aux compétitions sportives régionales, continentales ou mondiales. Conformément à la Charte olympique et à ses propres statuts, le CNO du Bélarus doit promouvoir les principes fondamentaux de l’Olympisme, encourager le développement des sports de haut niveau, ainsi que des sports de masse, contribuer à la formation du personnel sportif, à l’éducation de la jeunesse, lutter contre toute forme de discrimination et de violence dans le sport, développer la coopération sportive internationale, protéger les intérêts des athlètes, des entraîneurs, des arbitres, des vétérans de la culture physique et du sport.

Les athlètes bélarusses participent aux Jeux Olympiques depuis 1952. Les exploits sportifs du lutteur Alexander Medved, triple vainqueur des Jeux Olympiques, de la gymnaste Olga Kobrut et de l’escrimeuse Elena Belova, quadruples médaillées d’or olympiques, de la quintuple championne olympique Nelly Kim, du sextuple champion olympique Vitaly Shcherba et de nombreux autres athlètes bélarusses célèbres sont inscrits en lettres d’or dans l’histoire des Jeux Olympiques.

Les athlètes bélorusses ont commencé à participer aux Jeux en tant qu’équipe indépendante en 1994. Depuis lors, ils ont remporté 94 médailles olympiques, dont 18 d’or, 30 d’argent et 46 de bronze. Ekaterina Karsten (aviron, 1996, 2000), Ellina Zvereva (athlétisme, disque, 2000), Janina Karolchik (athlétisme, poids, 2000), Igor Makarov (judo, 2004), Yulia Nesterenko (athlétisme, 100m, 2004) ont apporté l’or olympique au Bélarus, Alexey Abalmasov, Artur Litvinchuk, Vadim Makhneev et Roman Petrushenko (canoë, quatre, 2008), Andrey Aryamnov (haltérophilie, 2008), Alexander et Andrey Bogdanovichi (canoë, double, 2008), Oksana Menkova (athlétisme, marteau, 2008), Victoria Azarenka et Maxim Mirny (tennis, mixte, 2012), Sergey Martynov (tir, 2012), Alexei Grishin (ski acrobatique, 2010), Daria Domracheva (biathlon, 2014), Alla Tsuper (ski acrobatique, 2014), Anton Kushnir (ski acrobatique, 2014), Vladislav Goncharov (trampoline, 2016) [2, p. 74]. Les Bélarusses se souviennent tout particulièrement de la première médaille d’or olympique remportée par Ekaterina Karsten, de l’or d’Alexei Grishin, premier champion des Jeux olympiques d’hiver dans l’histoire du sport bélarusse, de la victoire sensationnelle de la coureuse brestoise Yulia Nesterenko sur 100 mètres, et de la victoire de Sergei Martynov, qui a établi un nouveau record du monde.

Les Jeux Olympiques d’hiver de 2014 à Sotchi ont été les plus réussis de l’histoire du sport national. Nos athlètes ont remporté 5 médailles d’or et une médaille de bronze. La triple championne olympique Darya Domracheva a reçu le titre de héros du Bélarus. Aux Jeux Olympiques d’été de 2016 à Rio de Janeiro, les athlètes bélarusses ont remporté 9 médailles, dontt 1 d’or, 4 d’argent, 4 de bronze. Les bons résultats des athlètes paralympiques bélarusses sont une source de fierté et de respect. Aux Jeux de 2010 à Vancouver, les athlètes du pays ont remporté 9 médailles, dont 2 d’or et 7 de bronze. Aux Jeux Paralympiques d’été de 2012 à Londres, le Bélarus a remporté 10 médailles (5 en or, 2 en argent, 3 en bronze) et a pris la 25e place au classement final [2, p. 96].

En 2024, aux Jeux olympiques de Paris, nos athlètes ont remporté une médaille d’or, deux d’argent et une de bronze. Deux des quatre médailles ont été remportées en sauts à ski : chez les hommes, Ivan Litvinovich a défendu son titre olympique, et chez les femmes, Violetta Bordilovskaya a pris la deuxième place. Yevgeniy Zolotoy a également remporté l’argent en aviron masculin, et Yevgeniy Tikhontsov a gagné le bronze en haltérophilie dans la catégorie des 102 kg [2, p. 102].

Donc, l’histoire du sport en République du Bélarus reflète l’évolution de la culture physique et du mouvement olympique, dont l’importance ne peut être surestimée. Le sport est devenu non seulement un élément important de l’identité nationale, mais aussi un moyen de coopération et d’harmonie internationales. Le Bélarus est fier de ses réalisations sur la scène mondiale, grâce à ses athlètes talentueux et à ses infrastructures sportives développées. Alliant traditions et tendances modernes, le mouvement sportif continue d’inspirer les nouvelles générations, de promouvoir un mode de vie sain et de renforcer les liens d’amitié entre les pays. L’étude de l’histoire du sport nous permet donc de nous rendre compte de son impact sur la société et la culture et nous incite à poursuivre le développement et les réalisations dans ce domaine.

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В статье рассматривается история развития олимпийского движения в Республике Беларусь и его влияния на укрепление дружеских отношений с другими странами, а также на воспитание национального патриотизма. Прослеживается история участия белорусских спортсменов в Олимпийских играх, начиная с 1952 года. Делается вывод, что спорт в Беларуси стал не только важным элементом национальной идентичности, но также средством международного сотрудничества и гармоничных взаимоотношений Беларуси с другими странами.

[**к содержанию**](#содержание)

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**GLOBAL WARMING AS A THREAT TO ECONOMIC SECURITY**

Over the past 200 years, humanity has raised the Earth’s temperature by 1.1 degrees Celsius, emitting large amounts of greenhouse gases into the atmosphere. Significant climate changes have been observed around the world and the frequency of ‘heatwaves’ continues to increase. The article aims to identify the possible threats of global warming towards economic security as well as to propose measures that need to be taken to mitigate these negative consequences.

Based on the energy strategy of such countries as India and China, these consequences are becoming real. It will take about 400 billion tonnes of carbon dioxide to achieve a 1.5 degrees Celsius increase in the Earth’s temperature. Given that we emit about 40 billion tonnes each year, we have about 10 years to adapt to the new climate conditions. The future of our planet will depend solely on the level of carbon dioxide emissions and our ability to remove it from the atmosphere. The logic is simple: an increase in emissions means an increase in temperature, increased heating of the Earth and, consequently, more frequent “heat waves”, droughts, floods, landscape changes, melting glaciers and permafrost, as well as rising sea levels [1].

Every year the world is faced with news of natural disasters around the world: fires (Australia, Siberia, Turkey, Hawaii, Hollywood), earthquakes (Turkey, Japan, Myanmar), floods and tsunamis (Thailand, Sri Lanka, Indonesia, Russia). The situation is worsening, indicating a trend towards an increase in such disasters, and this trend is irreversible.

These climatic changes have both a direct and indirect impacts on all spheres of human life, including economic security of the world’s countries. As a result of global warming, the number of environmental disasters is growing, infrastructural facilities and housing are destroyed, anthropogenic environmental damage is increasing, which is expressed in the loss of biodiversity and destruction of terrestrial and marine ecosystems, and sources of resources for humanity are being destroyed. In this regard, international organisations such as the United Nations Organisation, the International Monetary Fund, World Bank and the Economic Forum consider global warming as one of the most dangerous economic factors in the modern world [1].

The relationship between climate, geographical location and socio-economic level influences the vulnerability of countries and regions to the most common natural risks (hurricanes, cyclones, heavy rainfall, sand and dust storms) and determines the degree of their protection against these risks. The vulnerability factors of a country or region are as follows: being in a risk zone (seismological hazard, volcanic activity), soil degradation, increasing population, poverty, insufficient infrastructure, concentration of population or economic activity in hazardous areas, dependence on certain natural resources, food shortages, health problems [2].

Global warming is having a negative impact on the world’s economies by reducing crop yields, lowering labour productivity due to heat stress, exacerbating water availability problems, increasing vulnerability of coastal zones and worsening public health.

According to estimates climate change will have a particularly serious economic impact on the poor hot countries, while its impact on the developed economies of the cold countries will be limited.

Thus, in order to mitigate the negative effects of global warming, a number of measures need to be taken, including investing in early warning systems for storms, tsunamis and other extreme weather events; improving the sustainability and reliability of infrastructure facilities (roads, bridges, buildings and structures); transition to more drought-resistant varieties of agricultural and ornamental crops; reforestation to protect coastal and mountain residents from landslides and storms; water supply to the population in developing countries; mitigating the impact of vulnerabilities; reduction of greenhouse gas emissions into the atmosphere.

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В статье показаны возможные экономические угрозы глобального потепления, а также предложены меры для смягчения негативных последствий глобального потепления.

[**к содержанию**](#содержание)

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**ISCHEMIC HEART DISEASE : CAUSES AND FACTORS**

Despite the rapid development of scientific research and significant achievements in the field of medicine, in most economically developed countries of the world, including Belarus, cardiologic morbidity remains very high and mortality from it is still the first place. It is cardiologic diseases that most often limit the overall life expectancy of a person and are the cause of sudden death in relatively young people.

Ischemic heart disease (IHD) is one of the most widespread diseases in the world today. For a variety of reasons, it is one of the main causes of death among the population of developed countries. In this regard, the problem of CHD occupies one of the leading places among the most important medical problems of the XXI century.

Coronary heart disease (CHD) is a disease caused by insufficient supply of oxygen and nutrients to the heart (myocardium), which occurs due to impaired blood supply to the myocardium due to coronary artery disease.

IBS is a collective term that includes a variety of clinical forms and conditions, both acute and chronic, both reversible, transient and irreversible, ending in necrosis.

It has been proven that the incidence of coronary heart disease depends on total blood cholesterol. Prolonged atherosclerosis of coronary arteries can lead to chronic insufficiency of blood supply to the heart muscle, which in turn leads to the development of heart failure.

Another common cause of IHD is smoking, especially in men (increases the risk of IHD by 60%) [1, p. 136].

The main, but by no means the only, symptom of IHD is a pressing or squeezing pain behind the sternum or in the heart area. In chronic CHD, the pain occurs initially during physical activity and causes a gradual decrease in exercise tolerance. In the acute form of IBS, a myocardial infarction or preinfarction state develops. Symptoms of ischemic heart disease are often accompanied by dizziness, nausea, fear of death, the patient may lose consciousness. Sometimes the disease is asymptomatic and is detected during a smooth examination.

To prevent the appearance of IBS is much easier than to cure. To stay healthy, it is necessary to eliminate risk factors that negatively affect your health, and adhere to the following recommendations: stop smoking, control blood pressure, fight stress and depression, minimize alcohol consumption and avoid fatty, fried and salty foods.

Serious consequences, complications are likely with untimely taken under medical control of ischemic brain disease. Brain tissue damage is fraught with restriction of motor activity (up to paralysis), loss of mental abilities, loss of capacity and disability [2].

Heredity can be very important, even fatal, in individuals. Therefore, if this risk factor is present, it should be identified as early as possible, in early childhood.

If inherited, accelerated development of atherosclerosis and CHD can lead to premature death. This condition is caused by hereditary defects in low-density receptors, due to which the liver’s ability to remove them from the blood is completely or partially lost. As a result, their concentration in the blood rises sharply, atherosclerosis develops rapidly, signs of coronary insufficiency appear early, from which patients die at a young age.

Despite the fact that ischemia is a very serious disease, timely medicine allows to do everything to make the prognosis the most favourable.

The earlier the patient is diagnosed accurately, the treatment regimen is chosen, the higher the probability of a successful outcome.

Even with the most complex pathologies of the brain with timely assistance can save the maximum number of nerve cells, and thus preserve or restore the functions of the body.

Nowadays doctors use the latest achievements of medical science and the most advanced medical technologies in their daily practice. When offering IBS patients treatment, cardiologists and cardiac surgeons are always looking for the most effective, less traumatic and most suitable way to perform it for each particular patient.

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В статье рассматриваются основные причины ишемической болезни сердца – состояния, при котором сердце не получает достаточное количество кислорода, что может служить причиной стенокардии, а также инфаркта миокарда. Авторы также анализируют факторы риска, такие как высокое кровяное давление, курение, диабет и ожирение.

[**к содержанию**](#содержание)

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**GESUNDHEITSFÖRDERUNG IN DER SCHULE**

Gesundheit ist eine zentrale Grundlage für das menschliche Wohlbefinden und eine wesentliche Voraussetzung für die Persönlichkeitsentwicklung. Die Kindheit und das Jugendalter sind für die Entwicklung gesundheitsbezogener Verhaltensweisen eine sensible und zugleich entscheidende Phase. Das Bewusstsein für ein gesundes Leben beginnt im Elternhaus und wird aktiv in Kitas und Schulen fortgesetzt. Der Lebensraum Schule begleitet junge Menschen über einen langen Zeitraum hinweg. In ihrem Schulalltag stehen die Kinder immer größeren Herausforderungen gegenüber. Studien belegen einen deutlichen Zusammenhang zwischen Lebensbedingungen, Gesundheit und Bildungserfolg: Wer gut lernen will, muss sich wohlfühlen. Gute Gesundheit wirkt sich in der Schule in vielerlei Hinsicht positiv aus – Herausforderungen werden besser bewältigt, das Konzentrieren fällt leichter und die Leistungsfähigkeit steigt. Gesundheitsförderung sollte daher ein unverzichtbarer Bestandteil des schulischen Lebens und Lernens sein. Die Schule bietet zahlreiche Einfluss-möglichkeiten, die Gesundheitskompetenzen und die Bewusstseinsbildung der Heranwachsenden zu stärken und auszubilden, und die schulische Gesundheitsförderung spielt somit eine entscheidende Rolle für die gesunde Entwicklung von Kindern und Jugendlichen. Im vorliegenden Artikel werden Ziele und Aufgaben der schulischen Gesundheitsförderung dargestellt. Der Schwerpunkt liegt auf notwendigen Maßnahmen zum Schulumbau.

Die schulische Gesundheitsförderung hat sich seit Beginn der 1990er-Jahre als ein stetig wachsendes Teilgebiet der Prävention und Gesundheitsförderung etabliert. Ziel ist es, zum einen alle Mitglieder der Schulgemeinschaft zu befähigen, mehr Verantwortung für die eigene Gesundheit und die ihrer Mitmenschen zu übernehmen. Zum anderen sollen sie Gesundheit als eine Ressource verstehen, die den Schulerfolg und die schulische Bildungsqualität insgesamt günstig beeinflussen kann [3].

Gesundheitsförderung setzt auf vielen verschiedenen Ebenen an und umfasst alle Bereiche des schulischen Lebens. Dabei ist die Schule als gesundheits-förderliche Lebenswelt und Arbeitsumwelt zu gestalten – unter Einbeziehung aller im schulischen Alltag beteiligten Personen: Lehrer\*innen, Schüler\*innen, deren Eltern und des nicht unterrichtenden Personals wie Schulwarte, Schulärzte und -ärztinnen, Schulpsychologen und -psychologinnen. Daneben sollte auch Netzwerk zwischen Schulen und regionalem Umfeld aufgebaut und miteinbezogen werden. Externe Expertinnen und Experten, z. B. der Sozialversicherung – Servicestelle gesunde Schule, können den Prozess begleiten.

Im Vordergrund der schulischen Gesundheitsförderung steht die Befähigung, durch selbstbestimmtes Handeln die eigenen Gesundheitschancen zu erhöhen, also die Herausbildung von persönlichen Kompetenzen und Leistungspotenziale der Schüler\*innen in Hinblick auf gesundheitsbewusstes, eigenverantwortliches Handeln und Wissen, sodass diese fähig sind, ihre Gesundheit selbst in die Hand zu nehmen. Es soll das ganzheitliche Gesundheitsverständniss entwickelt, das körperliche, seelische und soziale Gesundheitsfaktoren im Zusammenhang sieht. Die Gesundheitskompetenz („Health Literacy“) ermöglicht, Gesundheits-informationen zu finden, zu verstehen, zu beurteilen und anzuwenden, und unterstützt dadurch die Entwicklung einer gesundheitsfördernden Lebensweise. Die Förderung von Gesundheitskompetenzen als Lebenskompetenzen ist als Bildungs- und Erziehungsauftrag in den Lehrplänen verankert.

Darüber hinaus sollten bei allen Beteiligten kommunikative und kooperative Kompetenzen gefördert werden, z. B. Stress- und Problembewältigung, Selbstwertgefühl und Selbstvertrauen, Selbstständigkeit, Team- und Kommuni-kationsfähigkeit etc. Für Schüler\*innen ist es besonders wichtig, da sich diese Fähigkeiten wiederum positiv auf ihre Leistungen auswirken [1].

Schulische Gesundheitsförderung zielt aber auch darauf, die konkreten Lehr-, Lern- und Arbeitsbedingungen an Schulen in einer gesundheitsstärkenden Weise zu verbessern. Schulische Lernräume und Arbeitsroutinen sollten partizipativ so gestaltet werden, dass sie die Gesundheit fördern, anstatt sie zu beeinträchtigen.

Um eine Schule gesund zu gestalten, sind verschiedenste Maßnahmen notwendig. Die Empfehlungen zur Realisierung schulischer Gesundheits-förderung sind weitreichend und umfassend. Für Schulen wird Folgendes geraten:

– Entwicklung eines schulspezifischen pädagogischen gesundheitsbezogenen Gesamtkonzeptes, das gesundheitsförderliche Lehr-/Lernformen und Lebens-weisen im schulischen Alltag voraussetzt und spezifische Unterrichtsstunden zu Grundlagen von Gesundheit, Ernährung, körperlicher Bewegung und psychischem Wohlbefinden in Lehrpläne einführt.

– Schaffung der gesundheitsfördernden strukturellen Bedingungen in der Schule: ergonomisch gut ausgestattete Lern- und Arbeitsplätze, die Verfügbarkeit von bestimmten „Funktionsräumen“: Erholungsbereiche (freie Spielflächen, Ruheräume), Individualbereiche (Sitzecken, Einzelarbeitsplätze), Zerstreuungs-bereiche (offene Räume zum Spielen), Begegnungsbereiche (Schülerkaffee, Infothek), Sozialerfahrungsbereiche (Räume für Beratungen und Kleingruppen-arbeit), Orientierungsbereiche (Räume für kreative Gestaltung, kulturelle Schulaktivitäten, produktive Betätigungen) usw.

– Gestaltung des gesamten Schullebens als gesundheitsförderliche Lernumwelt: Prägung der gesunden Ernährungsgewohnheiten von Kindern durch entsprechende Ernährungsangebote (Schulmittagessen mit ausgewogenen Menüs in Schulspeiseräumen, Klassenfrühstück, Kioskangebot) und durch Bildungsprojekte, die Kindern die Grundlagen einer gesunden Ernährung, einschließlich der Zubereitung gesunder Speisen, vermitteln. Dazu gehören auch regelmäßige Bewegungsangebote und sportliche Aktivitäten (Sportfeste, Wettbewerbe und Turniere) sowie Schaffung von Bedingungen für die Ausübung verschiedener Sportarten außerhalb der Schule z. B. in Sportgemeinschaften und -clubs. Bewegungsfreundliche Gestaltung des Pausenhofs oder des Innenbereichs der Schule ist auch vorgesehen.

– Aufbau von gesundheitlichen Service-Angeboten: zur Beratung (psycho-soziale, medizinische, Gesundheits- und Lebensberatung), zur Ernährung, Bewegung, Konflikt- und Stressbewältigung und Selbstsicherheitstraining sowie betriebsärztliche und -psychologische Dienste.

– professionelle Möglichkeiten der Einzel- oder Gruppenförderung z. B. für leistungsschwächere und gesundheitlich vorbelastete Kinder und Jugendliche [2].

– Intensivierung der Zusammenarbeit vom Lehrkörper der Schule und den Eltern zu Fragen der Gesundheitsförderung: Eltern-Workshops, Versorgung der Eltern mit Materialien über die Gesundheit und das Wohlbefinden der Kinder.

**–** Öffentlichkeitsarbeit in den Medien: Veröffentlichung von Artikeln und Materialien über eine gesunde Lebensweise auf Websites der Schule oder in Schulzeitungen, Nutzung sozialer Netzwerke für Aufklärungsarbeit zu Themen der gesunden Lebensweisen und Aktivitäten.

– Für die Lehrerschaft ist Fort- und Weiterbildung zum Themenbereich „Gesundheit und Schule“ erforderlich.

Die gesunde Schule wird durch systematische fächerübergreifende Gesundheitsbildung im Unterricht und moderne erfahrungs-, handlungs-, problem- und schülerorientierte Arbeitsformen und fächerübergreifende Unterrichtsformen, z. B. Projektunterricht, geprägt. Der Unterricht ist gezielt sinnes- und bewegungsaktiv sowie rhythmisierend zu gestalten. Im Unterricht sollen gesundheitsbezogene Kenntnisse zusammen mit wichtigen gesundheits-relevanten Kompetenzen (insbesondere sozialen und psychischen Kompetenzen, z. B. Stress- und Konfliktbewältigungsmethoden) für das alltägliche Handeln vermittelt werden. Dazu könnte man praxiserfahrene Fachleute (Mediziner, Psychologen, Ernährungs- und Sportwissenschaftler, Sozialpädagogen u. a.) in den Unterricht einladen. Alle unterrichtliche und außerunterrichtliche Gesundheitsaktivitäten sollten überfachlich koordiniert werden.

Damit gesundheitsfördernde Maßnahmen wirksam werden können, sind diese in die Schulqualitätsentwicklung und damit in die Schulkultur zu integrieren. Gesunde Schule sollte nach einem Management-Kreislauf umgesetzt werden (Bedarfserhebung, Zielformulierung, Arbeitspläne und Umsetzung, Bewertung). In allen Phasen wird dokumentiert bzw. bei Bedarf auch Öffentlichkeitsarbeit umgesetzt. Schulische Gesundheitsförderung soll langfristig und nachhaltig im Lebensraum Schule verankert werden.

Da Schule nicht ein abgeschlossenes System darstellt, sollte einerseits der Austausch mit anderen gesunden Schulen geschehen, andererseits aber auch Kooperationen mit externen, vor allem auch lokalen, Experten forciert werden. Als schulischer Entwicklungsprozess wird die Gesundheitsförderung auch auf allen Ebenen der Bildungsverwaltung unterstützt, etwa durch Fachberater und Dezernentinnen und Dezernenten für Gesundheit bei den Bezirksregierungen mit dem Ziel der Verbesserung der Bildungsqualität durch eine gesteigerte Gesundheitsqualität.

Die Gesundheitsförderung in der Schule hat in den letzten Jahrzehnten bedeutende Fortschritte gemacht, aber sie steht immer noch vor wichtigen Herausforderungen, die umfassende, systemische Ansätze erfordern. Die Entwicklung in Richtung „gesundheitskompetenter Schule“ braucht ein komplexes Zusammenwirken von Akteurinnen und Akteuren, eine engere Verzahnung von Praxis, Forschung und Politik sowie eine kontinuierliche Weiterentwicklung der fachlichen Kompetenzen. Gleichzeitig muss der Fokus verstärkt auf Nachhaltigkeit und strukturelle Verankerung gelegt werden, um über einzelne Projekte hinaus dauerhafte Wirkungen zu erzielen. Fachkräfte in diesem Bereich haben die wichtige Aufgabe, diese Potenziale durch evidenzbasierte, umfassende und nachhaltige Ansätze bestmöglich zu nutzen und weiterzuentwickeln.

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Статья посвящена проблемам сохранения и укрепления здоровья в образовательном учреждении и пропаганде в школе здорового образа жизни. Основное внимание уделяется необходимым мерам по преобразованию школ в данном направлении. Подчеркивается, что формирование мотивации к сохранению здоровья необходимо у всех участников образовательного процесса.

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**THE WAYS OF OVERCOMING BURNOUT**

Burnout is a state of physical, emotional and mental exhaustion caused by prolonged stress especially in the workplace. It can lead to decreased productivity, deteriorating health and overall dissatisfaction with life. This article aims to examine the main subtypes of burnout, the causes of this condition, ways to overcome it and possible paths to recovery while also exploring potential future outcomes after experiencing burnout.

Burnout is divided into several subtypes. The first subtype is known as “frenetic” (overload burnout) characterized by work overload and, typically, a high level of self-sacrifice. In psychology this condition is often associated with the “law of compensation”, which refers to excessive achievements at work and a lack of accomplishments in other spheres of life such as personal relationships. The second subtype of burnout is related to an insufficient level of challenge. It is marked by an unstimulating environment where work tasks become repetitive over time. As a result, the job becomes uninteresting and monotonous, with no clear paths for professional growth. The third subtype is known as “neglect”. It is characterized by learned helplessness and hopelessness. This type of burnout is usually linked to unstructured or unclear tasks, leading individuals to adopt a progressively negligent approach when faced with potentially challenging and stressful work. The fourth subtype is called “distorted”. This form of burnout arises when there is a misalignment between a company’s values, an individual’s personal values and life principles. Such burnout is often present in jobs that some people consider dull, where professional and personal fulfillment are seen as conflicting.

There are some main causes of burnout**.** It is not just the result of long workdays or managing multiple tasks, although both factors play a role. Such characteristics of burnout as cynicism, depression and lethargy commonly arise when a person lacks control over the perfomance of the work, either at the workplace or at home. Also it is required to complete tasks that contradict their self-perception. Another significant cause of burnout is working toward a goal that lacks personal meaning or when an individual does not receive adequate support. If a person does not adjust his responsibilities to align with his calling or at least take periodic breaks, he will likely experience burnout and numerous mental and physical health problems associated with it. These problems may include headaches, fatigue, acid reflux and other gastrointestinal symptoms as well as an increased tendency toward alcohol, drug or food abuse.

If you dread Monday mornings you are not alone. Many people experience the “Sunday blues”, when the reality of an impending workweek sets in after a blissfully relaxing Sunday. However, this does not have to be the case. Research shows ways to rethink your work experience. “A study published in the Journal of Occupational Health Psychology in 2023 revealed that employees who regularly practiced mindfulness reported lower levels of emotional exhaustion and depersonalization – two key components of burnout” [1]. The study concluded that mindfulness-based interventions effectively enhance emotional resilience and reduce stress. “Another study conducted in 2022 found that mindfulness improves cognitive flexibility and reduces rumination, which is crucial for preventing and combating burnout” [1]. By fostering an open awareness of thoughts and feelings mindfulness helps individuals break the cycle of overthinking and stress.

Burnout can be overcome through certain workplace benefits. One way to combat the “Sunday blues” is to focus on the advantages of Monday rather than its burdens. Many job-related perks may not be available at home. For instance, a desirable workplace location can be a motivating factor. While individuals may live in affordable areas, their workplace might be situated in a more appealing geographic location. Some people even apply for jobs that allow them to work in vibrant metropolitan areas close to parks, restaurants and tourist attractions. Additionally, work may offer parking spaces or paid transportation benefits. Conversely, individuals living in crowded urban areas may appreciate the space and fresh air provided by workplaces located off the beaten path.

Another workplace advantage is privacy. This often comes in the form of a personal workspace. Whether in a corner office, a private office or working independently in the field, having a designated work area is an asset that some individuals can not enjoy at home, especially if they have a large family.

A third advantage is meeting demands. Whatever the job entails, employees are usually provided with the necessary resources – from pens to phones, from helmets to hammers – to complete their tasks. This level of readiness is something that most people do not experience in their personal lives, regardless of their activities. The point is that no matter where you work or what you do, you can shift your focus to the benefits rather than the burdens. Moreover, remember that you are not paid on Sunday afternoons, so do not spend this time on intellectual work. Instead, focus on faith, friends, family and fun.

There are two main paths to recovering from burnout: recovery or growth. “Research by Nick Petri identifies two common choices individuals make after experiencing burnout” [2]. The first is taking time off – whether a vacation or a short break – which may provide immediate relief but often results in repeated cycles of burnout upon returning to the same environment and habits. The second path involves making deliberate, deeper changes to prevent burnout from recurring. This approach requires self-reflection, behavioral shifts and often professional guidance, but it leads to long-term growth and resilience.

Research by Nick Petri outlines four potential outcomes for individuals after experiencing burnout. Post-traumatic stress occurs when burnout is so overwhelming that it leaves lingering emotional distress. Survival mode involves recovering just enough to function without addressing root causes, making future burnout more likely. Sustainable recovery is a return to a previous state, giving a sense of victory but still leaving one vulnerable to future burnout pressures. Burnout growth is the most transformative path, where burnout becomes a catalyst for personal and professional development, leading to long-term change and resilience.

In conclusion we can say that overcoming burnout is a process that requires time and effort. It is crucial to remember that you are not alone in your struggle and that there are resources and strategies available to improve your condition. Self-care and attending to your needs are not acts of selfishness but necessities for maintaining well-being.

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В статье рассматриваются основные подтипы выгорания, а также причины его возникновения. В ней представлены методы борьбы с выгоранием и пути выхода из этого состояния, а также потенциальные варианты будущего после пережитого выгорания. В заключение подчеркивается тот факт, что преодоление выгорания – это процесс, требующий времени и усилий.

[**к содержанию**](#содержание)

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**ÖL – TÖDLICHE GEFAHR FÜR DIE MEERE**

Der Volksmund nennt das aus der Erde gewonnene Öl “Schwarzes Gold”, obwohl es sich diesen edlen Namen allerdings nicht verdient hat. Denn die Nutzung von Erdöl geht mit fatalen Folgen für Natur und Klima einher. Erdöl schädigt die Umwelt bei der Suche nach Förderstätten, der Förderung selbst, beim Transport und beim Verbrauch. Ölverschmutzungen gefährden unsere Meere und Flüsse und können ganze Ökosysteme zerstören. Innerhalb der letzten Jahrzehnte gelangten bereits mehrere Millionen Liter des Stoffes in die Weltmeere durch Unfälle bei der Gewinnung und Verarbeitung von Erdöl. Die Konsequenzen für Umwelt und Artenvielfalt sind meist verhängnisvoll. Doch auch die Lebensgrundlage und Gesundheit der Menschen in der betroffenen Region wird durch Öl-Katastrophen gefährdet. Die Verölung des Weltmeeres ist damit ein aktuelles Thema in der modernen Gesellschaft. Im vorliegenden Beitrag werden Ursachen der Ölverschmutzung analysiert, ihre Auswirkungen auf die Umwelt untersucht und Maßnahmen zur Ölunfallbekämpfung dargestellt.

Die Verschmutzung der Ozeane durch Öl ist eine der auffälligsten Formen von Umweltschäden im Meer. Trotzdem nimmt die Öffentlichkeit meist dann Notiz von der Ölverschmutzung, wenn ein Öltanker in schwerer See zerbricht oder eine Plattform havariert. Die großen Ölunfälle der Vergangenheit, z. B. der Tankerunfall der “Exxon Valdez” (Alaska, 1989), die Explosion der Bohrplattform “Deepwater Horizon” (Mexiko, 2010) oder die andauernde westsibirische Ölkatastrophe, haben sich in das Gedächtnis der Menschen eingebrannt. In der letzten Zeit ereigneten sich auch Ölverschmutzungen in Peru, Ecuador, Thailand und Nigeria. Hunderttausende Meerestiere starben, ganze Meeresregionen sind über Jahrzehnte vergiftet.

Spektakuläre Tankerunfälle aber tragen nur etwa zu 10 % zur globalen Ölverschmutzung der Meere bei. Das meiste Öl gelangt auf vielen, eher verborgenen Wegen ins Wasser. Entsprechend ungenau sind die Schätzungen der weltweiten Einträge. Rund 5 % stammen aus natürlichen Quellen (Risse und Spalten im Meeresboden oberhalb von Lagerstätten oder Schlammvulkanen), circa 35 % aus dem laufenden Betrieb der Tank- und übrigen Schifffahrt inklusive illegaler Einleitungen und Tankreinigungen. Darüber hinaus werden zu den Öleinträgen auch die flüchtigen Ölbestandteile gezählt, die aus Verbrennungsprozessen verschiedener Art über die Atmosphäre ins Wasser gelangen. Dieser atmosphärische Anteil bringt es zusammen mit den Einträgen aus kommunalen und industriellen Abwässern sowie aus Bohrinseln auf immerhin 45 %. Weitere 5 % stammen aus nicht näher definierten Quellen [1].

Eine der unmittelbarsten und schwerwiegendsten Folgen von der Verölung ist die Wasserverschmutzung. Wenn Öl in Gewässer gelangt, bildet es einen Ölteppich, der sich schnell ausbreitet und große Gebiete bedeckt. Das Öl stellt nicht nur eine direkte Bedrohung für das Leben im Wasser dar, indem es Organismen erstickt und vergiftet, sondern beeinträchtigt auch die Wasser-qualität, was zu lang anhaltenden ökologischen Auswirkungen führt.

Wie gesagt, töten Ölkatastrophen massenweise Tiere, manchmal ganze Populationen. Seevögel sind die ersten Opfer. Das zähflüssige Öl verklebt das Gefieder, zerstört die Wärmeisolation und teilweise die Schwimmfähigkeit der Tiere und wird von den Vögeln beim Versuch der Reinigung aufgenommen. Dies führt in der Regel zu einem Massensterben von Seevögeln durch Ersticken, Unterkühlung, Ertrinken und Vergiftung. Aber auch Meeressäuger, Jungfische und Reptilien reagieren äußerst empfindlich auf die Ölverschmutzung. So kann das Einatmen giftiger Stoffe bei Meeressäugern zu Schädigungen des Nerven-systems führen. Bei vielen Tieren führt die Verschmutzung zur Schwächung des Immunsystems, wodurch sie sterben. Durch die Erdölkohlenwasserstoffe werden auch das Wachstum und der Stoffwechsel beeinträchtigt. Doch oft sind die langfristigen Auswirkungen einer Ölpest nicht mit dem bloßen Auge zu erkennen. Viele Lebewesen, die anfangs der Verschmutzung ausgesetzt sind, können diese zwar überstehen, leiden dann aber über Jahre hinweg an gesundheitlichen Folgen. Die Fortpflanzung zahlreicher Meeresorganismen wird in Mitleidenschaft gezogen. So kann eine Vergiftung durch Öl zu genetischen Schäden führen. Deswegen werden Populationen immer kleiner.

Bei Pflanzen führt eine Verölung der Triebe dazu, dass der Gastransport von den Blättern zu den Wurzeln unterbrochen wird, sodass die Pflanze eingeht.

Die Schadstoffe gelangen auch in die ganze Nahrungskette: Ist das Wasser mit Öl verschmutzt, filtern die Muscheln die Schadstoffe aus dem Wasser und fressen die giftigen Partikel. Die Muscheln werden von Fischen gefressen und die Menschen fangen die Fische. So gelangen die Schadstoffe in die Nahrungskette und auf unseren Teller.

Wenn ein Ölteppich die Küstenlinie erreicht, können durch die Ölverschmutzung sowohl die dort beheimatete Flora und Fauna als auch die zahlreichen Aktivitäten des Menschen, die am Meer stattfinden beeinträchtigt werden. So zerstört ein Ölunfall auch oft die finanzielle Lebensgrundlage der Menschen vor Ort. Denn viele lokale und indigene Gemeinschaften sind stark von Fischerei und den Einnahmen daraus abhängig. Durch Verschmutzungen wird der Zugang zu Fanggebieten eingeschränkt, große Populationen an Fischen sind tot oder verschmutzt und oft sind Schäden an Fischen auch noch lange Zeit nach dem Ölunfall feststellbar.

Auch Industrien, die für ihren regulären Betrieb von Meerwasser abhängig sind, können negativ von Ölverschmutzungen beeinflusst werden. Kraftwerke und Entsalzungsanlagen, die große Mengen an Meerwasser ziehen, sind einem besonderen Risiko ausgesetzt. Besonders wenn ihre Entnahmestellen nahe der Wasseroberfläche liegen, steigt die Wahrscheinlichkeit, dass auf der Wasserober-fläche schwimmendes Öl mit angesaugt wird. Aber auch die Routinearbeiten anderer küstennaher Industriezweige wie Schiffswerften und Häfen können durch Ölverschmutzungen und Säuberungsarbeiten unterbrochen werden.

Ölverschmutzungen im Meer haben nicht selten die Beeinträchtigung von touristisch genutzten Küstengebieten zur Folge. Freizeitaktivitäten wie Baden, Bootfahren, Angeln und Tauchen werden durch Öl behindert oder unmöglich gemacht. Menschen, die vom Tourismus leben wie z. B. Hotel- und Restaurantbesitzer, können zeitweise Verluste schreiben [2].

Ölverschmutzungen stellen also eine ernste Bedrohung für die Umwelt und menschlichen Aktivitäten dar und erfordern rasche und effiziente Reinigungs-maßnahmen. Das Hauptziel bei der Bekämpfung von Öl im Meer ist es, die negativen Auswirkungen, die das Öl auf die Natur sowie die Gesundheit und die Aktivitäten des Menschen hat, zu reduzieren. Für die Reinigung von Ölverschmut-zungen werden verschiedene Methoden angewandt, die jeweils auf die spezi-fischen Verschmutzungsbedingungen und Umweltaspekte zugeschnitten sind:

– Ölabsperrungen: Durch Ölsperren, die für den Hochseeeinsatz mehrere Meter hoch sein können, kann die weitere Ausbreitung eines Ölteppichs kleiner Fläche verhindert werden.

– Abschöpfen/Skimming: Auf der Wasseroberfläche schwimmendes Öl kann von Spezialschiffen aufgenommen werden. Nach der Eindämmung mit Ölsperren eingesetzt, trennen Skimmer das Öl effektiv vom Wasser und ermöglichen so seine Rückgewinnung bei gleichzeitiger Minimierung der Umweltauswirkungen.

– Chemisches Dispergieren: Chemische Dispergiermittel werden eingesetzt, um Öl in kleinere Tröpfchen aufzuspalten, so dass es besser von Mikroorganismen abgebaut werden kann.

– Bioremediation: Damit bezeichnet man die Verwendung von Mikroben, um gefährliche Substanzen abzubauen oder zu neutralisieren, wodurch gefährliche Chemikalien aus der Umwelt entfernt werden.

– Umweltabsorbierende Stoffe: Diese Materialien sind so konzipiert, dass sie Öl selektiv absorbieren und Wasser abweisen.

– Thermische Behandlung: Verbrennen des Öls an der Oberfläche, was allerdings nur unter strengen Sicherheitsbedingungen durchgeführt wird.

– Einsatz von Handarbeit: Bei der manuellen Reinigung werden Werkzeuge wie Harken, Schaufeln und absorbierende Materialien verwendet, um Öl und Schmutz von der Oberfläche zu entfernen. Diese Methode eignet sich besonders gut für die Säuberung von Ufern, wo mechanische Geräte unpraktisch oder umweltschädlich sein können. Die manuellen Reinigungsarbeiten sind zwar arbeitsintensiv, aber wirtschaftlich rentabel und beeinträchtigen die Umwelt nur minimal.

– Prävention einer Ölverschmutzung der Meere besteht in der Durchsetzung der Vereinbarungen für Transport und Gewinnung, der Einführung doppel-wandiger Tankschiffe und der Flugüberwachung viel befahrener Meeresgebiete. Internationale Zusammenarbeit und Bereitschaft sind dabei äußerst wichtig [3].

Zusammenfassend kann man sagen, dass Ölverschmutzungen eine proaktive und sachkundige Reaktion erfordern, um die Umweltschäden zu minimieren und marine Ökosysteme zu schützen. Die Beseitigung von Ölverschmutzungen erfordert einen vielseitigen Ansatz, bei dem mechanische, chemische und natürliche Methoden kombiniert werden. Das Wissen um die Vor- und Nachteile des Umgangs mit Ölverschmutzungen in Verbindung mit dem Einsatz umweltfreundlicher Lösungen gewährleistet einen umfassenden und effektiven Ansatz für das Ölverschmutzungsmanagement.

Beim Schutz der Umwelt vor den schädlichen Folgen von der Verölung stehen vor allem schnelles Handeln, verantwortungsvolle Reinigungsmaß-nahmen, anpassungsfähige Strategien und nachhaltige Lösungen, verstärkte Kontrolle und eine kontinuierliche Überwachung im Vordergrund. Durch die Integration fortschrittlicher Technologien und laufender Forschung wird die Wirksamkeit der Maßnahmen zur Bekämpfung von Ölunfällen weiter verbessert und eine widerstandsfähige und umweltbewusste Zukunft gefördert.

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Статья посвящена проблеме загрязнения морей нефтепродуктами. Автор исследует причины нефтяного загрязнения вод и анализирует его последствия для окружающей среды и деятельности человека. Также рассматриваются различные способы борьбы с нефтяными загрязнениями.

[**к содержанию**](#содержание)

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**GLOBALISATION AND JURISPRUDENCE: THE MEANING OF ENGLISH IN INTERNATIONAL LEGAL RELATIONS**

In today's world, understanding legal norms and standards at the international level has become critical. English, as a universal means of communication, plays a key role in the formation of a common legal space, facilitating interaction between states and contributing to the unification of legal systems. Globalisation, in turn, has a significant impact on all spheres of human activity, including the legal sphere. The modern world is becoming more and more interconnected, and international legal relations are becoming increasingly important. One of the factors contributing to the strengthening of such relations is the use of English as a universal means of communication. In connection with the above, in this work we will trace the impact of globalisation on the development of international legal relations, and analyse the meaning of English in the context of international jurisprudence.

Note that in international jurisprudence, English has become not only the language of international negotiations, but also the main language in which the most important legal systems and organisations function. Its importance in international legal relations can hardly be overestimated, since the language serves as a basis for the formation of legal norms, the drafting of international agreements and the interpretation of legal texts.

Globalisation implies, in turn, a process of deepening interaction between countries at various levels, including economic, social and political. In the legal sphere, globalisation leads to the need to create international legal norms governing relations between states, companies and individuals. In response to these challenges, international legal documents such as conventions, treaties and agreements are emerging to create common standards for all participants in the international legal system.

Let us emphasise that it is impossible to overestimate the importance and role of the English language in the modern world, as it covers "both universal spheres of human activity and local ones, which include various sciences" [1, p. 2].

For example, English plays a central role in international jurisprudence. It is the working language of many international organisations, including the UN, the European Union, the World Trade Organisation, the UN International Court of Justice and many others. In addition, English is used as the primary means of communication in international courts, arbitrations and negotiations.

For lawyers, as A.A. Sagitov believes, the command of a foreign language is crucial, as it allows them to effectively negotiate, draw up contracts and ensure compliance with international norms and standards [2, p. 310].

It is noteworthy, however, that the use of English is not limited to the translation of legal documents. It should be noted that it has become the legal language in which international legal acts are developed and formulated, which ensures the unity and consistency of international legal norms. English is also widely used in legal science and practice, which contributes to the creation of a common legal space for all countries.

At the same time, let us draw attention to the fact that the use of English in international jurisprudence has both advantages and certain disadvantages. Thus, experts in the field of jurisprudence highlight the following advantages:

– standardisation of legal norms: the use of English allows the creation of uniform rules and standards that are understood and accepted by all countries;

– acceleration of international negotiations: English serves as a link for communication between countries, which speeds up the process of concluding international agreements;

– training and development of professionals: most legal programmes and teaching materials in international law are conducted in English, which contributes to the training of professionals with global knowledge.

It should be noted, however, that the use of English in jurisprudence also has certain problems, among which linguistic and cultural differences stand out. Despite the widespread use of English, it is not well learnt in all countries, which may lead to legal errors or misunderstandings when interpreting international documents. Moreover, English-language legal traditions do not always coincide with the legal systems of other countries, which sometimes leads to difficulties in the practical application of international norms.

At the same time, practical English language skills in international jurisprudence are difficult to realise. They are used in international seminars to develop legal arguments and in the process of developing legal norms and standards. For example, interstate routes and agreements are often drafted in English, which means that there is no chance of any participant in the route being out of their control. Note also that the use of English as a lingua franca implies the possibility of creating and applying a common inter-ethnic legal practice in which a participant can rely on common legal principles irrespective of its national legal system.

Summarising the above, it can be concluded that the role of English in international legal relations cannot be overestimated, as it not only serves as a means of communication between different legal systems, but also contributes to the unification of norms and standards, which is particularly important in the context of globalisation. Despite existing challenges such as linguistic and cultural differences, the use of English in international jurisprudence offers new opportunities for effective interaction between countries. Thus, English continues to strengthen its position as a basis for the development of international law and jurisprudence in a global context.

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В статье анализируется влияние глобализации на международные правовые системы и значимость английского языка. Отмечается, что английский язык способствует унификации правовых норм и облегчению международного взаимодействия, являясь рабочим языком многих организаций. Несмотря на преимущества, такие как ускорение переговоров и подготовка специалистов, существуют вызовы, включая лингвистические различия.

[**к содержанию**](#содержание)

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**ROLE OF IDENTIFYING WITNESSES IN CRIMINAL PROCEDURE IN THE REPUBLIC OF BELARUS**

Criminal procedural system in the Republic Belarus includes the institution of identifying witnesses. In essence, these are independent witnesses who are brought in to observe and certify certain investigative actions conducted by law enforcement officers. Although the institution of identifying witnesses is disappearing from many legal systems, it remains a rather important aspect of criminal procedure in Belarus.

The purpose of the article is to clarify the role of identifying witnesses in criminal proceedings, as well as their rights and obligations.

An identifying witness may be a legally capable adult person who is not interested in the outcome of the audit with respect to the audited entity and is not an official of the controlling (supervisory) authority, who participated in any stage of the audit to certify the fact of the control (supervisory) activity, its progress and results in cases established by the Regulations [1]. The main purpose of involving identifying witnesses is to increase the transparency and credibility of investigative actions.

The presence of independent identifying witnesses is intended to prevent abuse of power by investigators and to provide an impartial record of what happened during the investigation.

According to article 64 part 2 of the Code of Criminal Procedure of the Republic of Belarus, the identifying witness has the right:

1) to know what investigative action he is involved in, who supervises and who participates in its performance;

2) to make statements and comments about the investigative action that are to be recorded;

3) familiarise himself/herself with the record of the investigative action in which he/she participated;

4) to sign the record of the investigative action only in the part that reflects the circumstances that he personally perceived;

5) to receive reimbursement of expenses incurred by him/her in connection with participation in the investigative actions [2].

Identifying witnesses are generally required in the following situations:

1) Searches and seizures. When law enforcement officers search a home, office, vehicle, or seize any items as evidence, identifying witnesses must be present to witness the process. This ensures that the search is conducted legally and that the items seized are accurately documented.

2) Examination of items and documents. When investigators inspect physical evidence or documents relevant to the case, identifying witnesses are required to be present to testify that the inspection was properly conducted.

3) Identification procedures. If a suspect is identified by a witness or victim, identifying witnesses must be present to ensure the fairness and impartiality of the identification process.

4) Certain investigative experiments. When investigators conduct an experiment to recreate a crime pattern or to test visibility from a certain point, the identifying witnesses are required to be present.

Identifying witnesses have certain duties under the law. According to article 64 part 3 of the Code of Criminal Procedure of the Republic of Belarus, the identifying witnesses are obliged to:

1) to appear at the summons of the criminal prosecution authority;

2) at the request of the body of criminal prosecution to provide information on relations with persons participating in the proceedings on materials and criminal case;

3) to certify with his/her signature in the protocol of the investigative action the fact of production of this action, its course and results;

4) to observe the order in the performance of investigative actions;

5) to obey the lawful orders of the criminal prosecution authority;

6) not to disclose information about the circumstances of the case or other data that became known to him in connection with his participation in the criminal proceedings, if he has been warned about it by the criminal prosecution authority [2].

The study shows that the system of the identifying witnesses has got some common problems, which include:

1) Formalism. The presence of identifying witnesses can sometimes become a mere formality, with officers simply acting by inertia without truly involving identifying witnesses.

2) Lack of independence. In some cases, identifying witnesses may be selected from among persons known to be loyal to law enforcement agencies, which raises questions about their independence.

3) Possibility of intimidation. The identifying witnesses may feel intimidated by law enforcement officers, which may affect their willingness to speak out if they see something inappropriate.

4) Practical difficulties. Finding of identifying witnesses willing to participate can be difficult, especially in rural areas or at some hours [2].

Based on all of the above, it can be concluded that the system of witnesses in Belarusian criminal proceedings is designed to guarantee the integrity of investigations and prevent abuse of power. While it has the potential to promote transparency and accountability, its effectiveness depends on the selection of truly independent identifying witnesses. The continued value of the system is debatable, especially in light of the increasing use of video recording and other technologies that have the potential to provide a more reliable record of investigative actions. However, the preservation of the institution of identifying witnesses reflects the historical emphasis on procedural safeguards in the Belarusian legal system.

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В статье рассмотрена роль института понятых в уголовном процессе Республики Беларусь, представлен анализ его правовых основ, целей и применения на практике. Подчеркнуты потенциальные преимущества системы понятых, такие как повышение прозрачности следственных действий и предотвращение злоупотреблений со стороны правоохранительных органов. Делается вывод, что сохранение института понятых отражает исторически сложившийся акцент на процессуальных гарантиях в правовой системе Республики Беларусь.

[**к содержанию**](#содержание)

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## THE GREAT HEALTH BENEFITS OF SPORT

As defined by the World Health Organization (WHO): **“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”.**

In 1984, WHO brought in a new conception of health, not as a state, but in dynamic terms of resiliency, in other words, as “a resource for living”. This revised definition of health defined it as “the extent to which an individual or group is able to realize aspirations and satisfy needs and to change or cope with the environment”. The contemporary philosophy of health has been quite focused on the problem of determining the nature of the concepts of health, illness, and disease from a scientific point of view.

Some theorists claim and argue that these concepts are value-free and descriptive in the same sense as the concepts of atom, metal, and rain are value-free and descriptive. To say that a person has a certain disease or that he or she is unhealthy is thus to objectively describe this person. Health is a resource for everyday life, not the objective of living; it is a positive concept, emphasizing social and personal resources, as well as physical capacities. Thus, health referred to the ability to maintain homeostasis and recover from insults. Mental, intellectual, emotional, and social health referred to a person’s ability to handle stress, to acquire skills, to maintain relationships, all of which form resources for resiliency and independent living.

Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community. It has intrinsic and instrumental value and is integral to our well-being.

At any one time, a diverse set of individual, family, community and structural factors may combine to protect or undermine mental health. Although most people are resilient, people who are exposed to adverse circumstances – including poverty, violence, disability and inequality – are at higher risk of developing a mental health condition.

Intellectual health includes creativity, curiosity, critical thinking, and problem-solving skills. Intellectual health is not a person's IQ score or how much they know. Intellectual health is sometimes called intellectual wellness, intellectual well-being, or the intellectual dimension of health.

Emotional health refers to our ability to manage and express our emotions in a healthy, balanced way. It involves self-awareness, resilience and the ability to navigate life’s ups and downs with a level-headed approach. While it might sound similar to mental health, there are distinct differences between the two.

**A person who is in good physical health is likely to have their bodily functions operating smoothly and without issue. Positive physical health isn’t only due to the absence of disease, but also via regular exercises, a balanced diet and adequate rest.**

Nurturing a passion for sport should start in childhood, continue throughout life and be passed on from generation to generation. Daily gymnastics, let only 15 minutes at any convenient time should become a habit like washing your face in the morning. Physical exercise makes it easy to cope even with significant physical and moral, mental stresses that we all meet. In an untrained person, climbing stairs will cause shortness of breath, increased heart rate, and in general greatly fatigue. And if you are used to walking, you will run up the stairs without thinking.

All movement outdoors is extremely beneficial. Not only that the muscles are trained, the body tissues and brain are saturated with oxygen, tension is relieved, but excited nerve centers are calmed down, and breathing is normalized.

Physical education and sports train our muscles, circulatory system, strength, and endurance of the body, positively affect immunity, health, youth and beauty, and preserve the ability to work and active lifestyle for many, many years.

A healthy lifestyle is not a short distance run, but a marathon. It is designed to last for a very long time. Therefore, it is important to feel comfortable with this lifestyle. Be patient. Important changes happen slowly, but they take a long time to take hold.

Taking care of your health can seem like a very boring set of activities. Especially considering that this lifestyle cannot last a couple of weeks – for good health and wellness, it must be permanent for many years. Some may feel that rules and restrictions in their own lives limit their freedom. But the fact is that in the long run, the opposite is true – a healthy body and mind are empowering. A healthy person achieves more and has enough energy to do many things.

So make friends with your body. Be able to hear its wishes – it will be pleasant to be awake, eat well and get a good night's sleep. You will feel how grateful it will be [1].

Most people underestimate the possibilities of a healthy lifestyle, and for many people it is associated only with prohibitions. In fact, a healthy lifestyle does not imply sacrifices, but on the contrary – it turns into years of life and good health. Eat only quality food and try not to save money on nutrition. Food is the basis for a healthy and long life.

Our body is our temple and we should take care of it to be healthy and feel good. Most people rarely care about healthy eating and lifestyle, but they care a lot about getting cured of various diseases, losing weight, regaining their natural skin color and feeling light in their bodies. Think of your body as your physical shell that you need to live. If you are constantly abusing junk food, your shell will wear out faster. While you may look normal on the outside, things are not as good as you would like on the inside of your shell.

Today, your vital organs (kidneys, heart, lungs, gallbladder, liver, stomach, intestines, etc.) may work well, but that doesn't mean it will always be that way. Therefore, for you to be healthy tomorrow, you need to take care of your health today [2].

Good health depends not only on proper nutrition and on exercise; you also need to have good mental health, a healthy self-esteem and a healthy lifestyle.

As folk wisdom says, “A healthy body has a healthy spirit”. In our modern world of high competition it is simply necessary.

Sport is an effective prevention of the most common diseases, allowing you to live a happy long life.

In conclusion we would like to say that physical activity in one way or another affects a person, shapes his personality, trains willpower. Usually, practicing any sport, a person strives to achieve specific results. With the help of sports, a person fights laziness, doubts, strives to become better and stronger. This is an undeniable advantage of any sport.

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Раскрывается проблема здоровья, которое является нормальным психосоматическим состоянием человека, что отражает его полное физическое, психическое и социальное благополучие и обеспечивающее полноценное выполнение трудовых, социальных и биологических функций.

[**к содержанию**](#содержание)

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**INTERNATIONAL COOPERATION IN EDUCATION**

International cooperation refers to the collaboration of two or more countries in various international projects: scientific, social, industrial, etc., as well as the joint efforts of countries to solve global problems and achieve common goals. International cooperation in the field of education is a joint activity of educational institutions from different countries to promote the development and improvement in education systems. Many Russian universities are actively working in this direction which makes education more attractive and prestigious. Future and current students surely need information about how international higher education programs are implemented and what they provide. The purpose of the article is to consider such a way of interaction between universities from different countries, using the example of Russian State Agrarian University, the oldest and most internationally renowned educational institution (RSAU).

The RSAU was founded in 1865 and celebrates its 160th anniversary this year. Highly qualified specialists are trained here for large agricultural enterprises both located in Russia and abroad. Its main directions of international cooperation are to create and develop academic mobility programs for students, teachers and researchers; to develop study programs for international students; to develop double degree programs; to facilitate international relations in the field of science through joint conferences and research, exchange of experience in the field of agriculture. Recognition of Russian education abroad is also one of the main goals of international cooperation.

However, due to the political events in the period from 2022 to the present, the situation in Russia is very tense. After the introduction of large-scale sanctions, international cooperation with Western countries has significantly decreased, which also contributed to the development of cooperation with countries in Asia, Africa, South America and the CIS, but despite this, Russia continues to actively involve Europe in joint work in the scientific and educational fields.

Russian universities reacted differently to the current situation. Some completely cut off international relations, while others began to urgently look for new countries of employment, but in the end, those who were able to maintain their accumulated connections over the years and not suspend various project activities remained at the advantage, at the same time expanding the range of international cooperation.

Against the background of improved relations with China and African countries, where agriculture occupy an important place, more international students interested in obtaining agricultural education began to appear on the territory of the Russian Federation. Russian State Agrarian University can serve a perfect example. The number of students studying at the university is over 18,000, including over 1,000 foreign students from 80 countries; there are 310 graduate students and six doctoral students; 40 people assigned to prepare a PhD thesis. Besides, the university provides many student exchange programs, which are in great demand among foreigners. Every year, more than 40 international, all-Russia scientific and practical conferences, symposiums, seminars and competitions are held on the basis of Russian State Agrarian University. The university has extensive foreign relations, implementing more than 80 cooperation agreements with partners in Asia, Africa, Europe and America.

The international links of RSAU are vast, including strong cooperation with Belarusian State Agrarian Technical University and Nikola Tesla University in Serbia.

The educational project, with the indefinite duration, was signed with Belarusian State Agrarian Technical University (Belarus, Minsk).   
Responding to the strategic importance of cooperation between Russian and Belarusian companies, the rector of RSAU V.I. Trukhachev identified three main areas of international activity for agricultural universities: uniting countries to solve scientific and research tasks, taking into account national interests; contributing to the development of scientific potential and integrating science with education and enterprises of the real economic sector.

Memorandum of Understanding, with the duration of 5 years, was singed on March 16, 2022, with Serbian Nikola Tesla University (Faculty of Applied Sciences). One of its points is the joint holding of events in the field of science, within the framework of which a scientific conference was held in Nish on May 17, 2022. During the conference plans for joint research were discussed as well as issues of innovative management of economic and technological processes, digitalization of the economy, the use of IoT for improvement of environmental safety and economic efficiency of production.

International students often have difficulties communicating with Russian–speaking students, the main reasons being the peculiarities of cultural norms of behavior, a completely different value system, differences in daily routine etc. One should not forget that interethnic contacts can negatively affect others and have negative consequences related to the perception of another's culture through the prism of one's own, with the unsuccessful organization of the educational process that does not take into account cultural differences and the period of adaptation to a new culture. As a result, a higher education institution should provide international students with support, gradually introducing a foreign student to a new culture.

A special project called TimStudy has been created at the university to help develop intercultural dialogue among students of RSAU. There are four main directions in the activity of this project.

1. ‘TimTandem’ includes speaking clubs in foreign languages. Currently five conversation clubs are held in English, French, Spanish, German and Korean. Club members meet every week, communicating exclusively in a foreign language, which creates an excellent opportunity to find new acquaintances, develop language proficiency and learn about the cultural peculiarities of other countries by talking with native speakers.

2. ‘TimBuddy’ involves a Russian student who is assigned to a foreign student as a mentor. They explain a foreigner the culture of Russia, help him/her settle into a new country and become their first friend, which significantly reduces the negative effects of cultural shock and promotes the development of intercultural dialogue.

3. ‘TimStudy Entertainment’ is a media center. The guys from the media team cover various international events organized by the TimStudy project, publish articles about international activities and interesting facts about the culture of other countries on different social media platforms.

4. ‘TimEvent’ implies the organization of intercultural entertainment events; these can be days dedicated to cultures of countries from different parts of the world, for example ‘Asia Day’, ‘Latin America Day’ or ‘Africa Day’.

Russian State Agrarian University unites students from dozens of countries around the world, which undoubtedly affects not only the university's reputation abroad, but also the formation of stable and successful international relations with a long-term perspective.

International cooperation is incredibly important for continuous progress in education and, as following, science on a global scale. Apparently current political situation in Russia has to some extent suspended the development of international relations in all areas, but at the same time, it has contributed to strengthening the policy of agricultural universities in Russia, focusing on the formation of a research-type university that produces world-class professionals who are able to freely navigate the market economy, use and implement innovations and make a big contribution to the development of the agro-industrial sector. The result of the development of international relations between agricultural universities will be an increase in the number of research and development in the field of veterinary medicine, crop production and animal husbandry, as well as other priority sectors of agriculture, relevant not only in Russia but also abroad.

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В статье раскрывается тема международного сотрудничества в сфере аграрного образования (на примере Российского государственного аграрного университета). Автор рассмотрел такие аспекты, как влияние и степень значимости поддержания международных связей для совершенствования системы образования и совместных научно-исследовательских проектов, а также способы поддержки и развития отношений с иностранными студентами вуза.

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**LES DROITS DE L’HOMME ET LEUR PROTECTION DANS LES SYSTÈMES JURIDIQUES DE LA FRANCE ET DU BÉLARUS**

Les droits de l’homme sont la base fondamentale de la société moderne et de l’État de droit. Leur protection et leur promotion sont des tâches clés pour de nombreux pays à travers le monde. La France et le Belarus, malgré des différences dans leur développement historique et politique, accordent une attention particulière aux questions des droits de l’homme dans leurs systèmes juridiques respectifs. Dans cet article, nous présentons une analyse comparative des mécanismes de protection des droits de l’homme en France et au Belarus, en mettant en évidence les similitudes, les différences et les perspectives contemporaines.

Tout d’abord, examinons le contexte historique. La Grande Révolution française (1789–1799) a été marquée par l’adoption de la Déclaration des droits de l’homme et du citoyen en 1789, un tournant dans l’histoire. Ce document a proclamé les principes d’égalité devant la loi, de liberté d’expression et de religion, jetant les bases de la compréhension moderne des droits de l’homme. Au XIX siècle et pendant la Troisième République (1870–1940), la France a continué de renforcer son système juridique par des réformes législatives qui ont élargi les droits et libertés civils [3]. Après la Seconde Guerre mondiale, la France a activement participé à la création d’organisations internationales et a signé en 1950 la Convention européenne des droits de l’homme, renforçant ainsi son engagement envers les normes internationales [2]. À l’époque contemporaine, la Constitution de la Cinquième République de 1958 contient les droits et libertés fondamentaux des citoyens, et son préambule se réfère à la Déclaration de 1789 et au Préambule de la Constitution de 1946, soulignant l’importance des droits sociaux et économiques [3].

Le parcours historique du Belarus est différent. Pendant la période soviétique (1919–1991), le Belarus suivait le système juridique soviétique, où les droits de l’homme étaient envisagés dans le contexte des intérêts collectifs de la société. Après avoir obtenu son indépendance en 1991, le Belarus a adopté la Constitution de 1994, qui est consacrée aux droits et libertés fondamentaux des citoyens, marquant une étape importante dans la formation du système juridique national [1]. En 2022, des modifications significatives ont été apportées à la Constitution du Belarus, révisant le préambule et plusieurs articles, garantissant ainsi les droits et libertés fondamentaux des citoyens et reflétant le désir d’améliorer la base juridique [1].

Ensuite, il est important d’analyser la structure des systèmes juridiques et les mécanismes de protection des droits de l’homme. La France dispose d’un système judiciaire hiérarchique et spécialisé, comprenant le Conseil constitutionnel, la Cour de cassation, le Conseil d’État et des juridictions spécialisées selon les différentes compétences [3]. Chaque tribunal a une compétence territoriale et matérielle déterminée. Les principes de justice en France reposent sur la séparation des pouvoirs, l’égalité devant la loi et l’accessibilité de la justice pour tous, des principes inscrits dans la Déclaration des droits de l’homme et du citoyen et la Convention européenne des droits de l’homme [2]. La France collabore activement avec des organisations internationales telles que le Conseil de l’Europe et l’Organisation des Nations Unies, respectant ainsi les normes internationales en matière de droits de l’homme [2].

De son côté, le système judiciaire du Belarus comprend la Cour constitutionnelle et les tribunaux de juridiction générale (la Cour suprême, les cours régionales et la cour de la ville de Minsk, les tribunaux économiques des régions et de la ville de Minsk, les tribunaux de district et municipaux) [1]. Ce système est organisé pour garantir la justice et la protection des droits des citoyens. La Constitution de la République du Belarus garantit les principes de primauté du droit, d’égalité devant la loi et le droit à un procès équitable [1]. Le pouvoir judiciaire agit dans le cadre établi par la Constitution et la législation nationale [1]. Le Belarus a adhéré au Pacte international relatif aux droits civils et politiques et, en 2022, à la Convention de la CEI sur les droits de l’homme et les libertés fondamentales, participant ainsi à la coopération régionale sur les questions relatives aux droits de l’homme [2].

Les défis contemporains auxquels les deux pays sont confrontés méritent également d’être examinés. En France, il est nécessaire d’équilibrer les mesures visant à assurer la sécurité nationale avec le respect des droits et libertés individuels. Les questions d’intégration des migrants et la protection de leurs droits restent d’actualité, tout comme la réduction des inégalités économiques et sociales au sein de la société. Les perspectives de développement incluent la poursuite du travail d’amélioration de la législation dans le domaine des droits de l’homme, l’élévation du niveau de connaissances juridiques et de sensibilisation des citoyens, ainsi que la participation active aux organisations internationales pour résoudre les problèmes mondiaux liés aux droits de l’homme [2].

Au Belarus, le renforcement du système juridique et des mécanismes de protection des droits de l’homme se poursuit. Les défis principaux incluent l’amélioration de la compréhension et de la sensibilisation des citoyens à leurs droits, ainsi que la participation aux initiatives régionales et internationales pour l’échange d’expériences dans le domaine des droits de l’homme [2]. Les perspectives de développement comprennent le développement continu des institutions judiciaires et des mécanismes juridiques, le soutien aux projets et programmes contribuant au développement social et juridique, et la mise en œuvre des dispositions de la Convention de la CEI sur les droits de l’homme et les libertés fondamentales pour renforcer la protection des droits des citoyens.

En conclusion, il est à noter que l’analyse comparative des systèmes juridiques de la France et du Belarus montre que les deux pays reconnaissent l’importance des droits de l’homme et s’efforcent de les protéger à travers des mécanismes juridiques établis. La France, s’appuyant sur ses longues traditions démocratiques, continue d’améliorer les systèmes de protection des droits et participe activement au dialogue international. Le Belarus travaille également au développement de son système juridique, reflétant sa fidélité aux principes des droits de l’homme dans les récents amendements constitutionnels et sa participation aux conventions régionales. La poursuite du développement, du dialogue et de la coopération peut contribuer au renforcement continu de la protection des droits de l’homme dans les deux pays.

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В статье представлен сравнительный анализ механизмов защиты прав человека в правовых системах Франции и Беларуси. Рассматриваются исторический контекст, структура судебных систем и современные вызовы, с которыми сталкиваются обе страны. Выделены основные правовые акты и международные конвенции, регулирующие права человека. Сделан вывод о значении прав человека для обеих стран и необходимости дальнейшего развития и сотрудничества в этой области для укрепления защиты прав граждан.

[**к содержанию**](#содержание)

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**SOCIAL MEDIA INFLUENCE ON PUBLIC OPINION FORMATION**

Social networks play a key role in shaping public opinion, providing users with the opportunity to quickly access news, exchange opinions, and participate in public discussions. They unite people, allowing to express their views, find like-minded individuals and actively influence social processes. However, the work of content filtering algorithms significantly affects the flow of information received by users. These algorithms, using personalization mechanisms, select content based on user preferences, creating the so-called “filter bubble”, where a person encounters only a specific viewpoint, which may limit access to diverse perspectives [6].

Despite its usefulness in organizing information, content filtering carries several risks. One of the main issues is disinformation and fake news spread [5]. Due to algorithmic bias, certain types of information may be prioritized, contributing to public consciousness manipulation. These algorithms operate by analyzing user preferences and activity offering content that best matches a user’s previous interactions with the platform. As a result, people receive information that reinforces their beliefs, while alternative viewpoints rarely reach them [1].

Filtering algorithms are widely used in popular social networks such as VKontakte, YouTube, and Yandex.Zen. VKontakte applies machine learning to create a personalized news feed, taking into account likes, shares, subscriptions, and even users’ geolocation [8]. YouTube relies on recommendation algorithms that analyze viewer behavior and suggest videos that align with their interests. Yandex. Zen combines content filtering and user ratings to form an individualized news flow. These systems significantly influence how users perceive information and, consequently, how public opinion is shaped.

The impact of filtering algorithms on public consciousness is widely studied by researchers. One of the key problems is the “filter bubble” effect, which restricts user access to diverse information and reinforces existing beliefs [3]. A Pew Research Center study shows that most users do not understand how social media algorithms work and do not realize that their news feed undergoes thorough personalization [1]. This leads to increased information bias and even manipulation of public opinion.

Some algorithms may also unintentionally amplify stereotypes and biases. For example, research conducted at the University of Berkeley found that algorithms may rely on historical data containing stereotypical representations, thereby reproducing biased decisions [2]. This issue extends beyond social networks to broader areas such as credit scoring and judicial decisions.

To combat disinformation, social networks develop various strategies, including fact-checking and identifying suspicious content. Many platforms use automated algorithms to assess the credibility of information and employ specialists who manually verify publications. However, these measures have not yet fully resolved the problem. Some studies indicate that users continue to share fake news even when it is flagged as false [7].

One way to improve filtering algorithms is their modernization. More advanced machine learning models need to be implemented, capable of considering a broader context and reducing the likelihood of creating “filter bubbles.” Additionally, ensuring greater transparency in algorithm operations is essential so that users understand how their news feeds are formed and can control the personalization process. Enhancing media literacy among the public also plays a crucial role, as informed users are more capable of critically evaluating information and distinguishing reliable sources from fake ones.

In conclusion, social networks have a significant impact on shaping public opinion, and filtering algorithms play a central role in this process. While they help users navigate the vast flow of information, they also pose risks related to disinformation, bias, and manipulation of public consciousness. Improving algorithms and promoting media literacy can contribute to a more objective perception of information and mitigate the negative consequences of filtering mechanisms.

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В статье рассматривается влияние алгоритмов фильтрации социальных сетей на формирование общественного мнения. Анализируются механизмы персонализации контента, их роль в распространении информации и создание «информационных пузырей». Особое внимание уделяется рискам дезинформации и алгоритмической предвзятости, а также возможным способам совершенствования алгоритмов для обеспечения более объективного информационного потока.

[**к содержанию**](#содержание)

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**ANIMAL RIGHTS IN THE LEGISLATION OF THE REPUBLIC OF BELARUS AND SOME FOREIGN COUNTRIES**

There are many social regulators in the modern world, for example: law, morality, conscience, public opinion, and many others. All of them are separate systems, but they interact and complement each other. The legal system may be unfair from the point of view of morality, conscience or public opinion, but this does not invalidate it. However, moral considerations can influence the development of law.

And what is law? Law is a system of generally binding, formally defined norms of rules of conduct that are established by the State to regulate public relations, enforced by force of state coercion. This is one of the most common formulations of the meaning of the word “rights”, referring to a person.

The purpose of the article is to present a comparative analysis of legislation in the field of animal rights protection in Belarus and other developed countries of the world, to point out the achievements and shortcomings of domestic legislation in this area.

Recently, a lot of attention has been attracted by animals that, according to defenders of fauna, need to protect their rights and freedoms. Therefore, there is a question of creating rights for animals. The authorities began to deal with this issue when problems began with the disappearance of many rare species. They decided to change the attitude towards animals, from an object of exploitation to a living being, and to define their respective rights, which later became reflected in the legislation of many countries.

In the Republic of Belarus, legislation does not have a clear concept of “animal rights” in the literal sense. Here, animal protection is primarily regulated by law aimed at preventing abuse and ensuring animal welfare. The main legal acts regulating this area are:

1. The Criminal Code of the Republic of Belarus: Provides for responsibility for the cruel treatment of animals, leading to their death or injury (art. 339). However, the qualification of an act depends on the severity of the harm caused and is often applied selectively.

2. The Code of Administrative Offences of the Republic of Belarus: Defines responsibility for violation of the rules for keeping animals, cruel treatment (not resulting in death or injury), as well as for non-compliance with veterinary rules.

3. The Law of the Republic of Belarus “On Veterinary Medicine”: Regulates the prevention and control of animal diseases, veterinary supervision, and defines general requirements for keeping animal. The law is aimed at protecting human and animal health from diseases.

4. Other regulatory legal acts: Various departmental acts supplement and detail the requirements for the maintenance and use of animals in various fields (for example, in agriculture, scientific research, zoos) [1, p. 91].

Despite this, there are disadvantages of this legal framework, such as the lack of a clear definition of “cruelty to animals” – this notion remains rather vague, which makes it difficult to enforce; insufficient effectiveness of sanctions – low fines and weak enforcement mechanism do not provide an adequate level of animal protection; limited coverage ‑ legislation covers mainly domestic and farm animals, leaving wild animals without sufficient protection; lack of control mechanisms – insufficiently effective control over the implementation of existing standards makes it difficult to implement them in practice.

As for foreign countries, their animal protection legislation is at a higher level than in Belarus. Different countries use different approaches:

‑ Countries with animal rights legislation: In some countries (for example, Switzerland, partly Germany, and some US states), legislation reflects some principles that are close to recognizing animals as subjects of law, although not fully. The laws are based on the need to take into account the interests of animals when making decisions affecting their well-being. This includes restrictions on keeping animals in unsuitable conditions, bans on certain types of experiments, and raising standards for keeping animals on farms.

‑ Countries with developed animal welfare legislation: Many European countries, as well as Canada, Australia, and New Zealand, have developed animal welfare legislation. The laws regulate in detail the conditions of animal keeping in various fields, set high standards, ensure strict control and significant sanctions for violations.

‑ Countries with more liberal legislation: In some countries, animal protection legislation is at an early stage of development or is not strict enough, which leads to de facto impunity for animal cruelty [2, p. 32].

From the above facts, it can be seen that the Belarusian legislation in the field of animal protection significantly lags behind the legislation of many developed countries. Insufficient coverage, weak sanctions, and an ineffective enforcement mechanism hinder real animal protection. International experience shows that effective animal protection requires an integrated approach, including clear and strict legislation, effective control mechanisms and the formation of public awareness.

In conclusion, it can be said that the need to improve the legislation of the Republic of Belarus in the field of animal protection is obvious. The introduction of stricter standards, increased control over their implementation, an increase in public awareness and the use of foreign experience can help improve the situation and ensure decent treatment of animals. The transition from legislation focusing on the prevention of cruelty to legislation that takes into account the interests of animals as living beings is an important task for the future. Discussions about the legal status of animals and their rights should encourage the development of more effective and humane protection mechanisms.

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В статье представлен сравнительный анализ законодательства в сфере защиты прав животных, разработанного в Республике Беларусь и других развитых странах мира. Подчеркивается, что во многих странах уровень законодательных актов соответствует высоким стандартам. В Беларуси законодательство в данной области находится еще в начальной стадии развития. Делается вывод, что правовой статус животных и их права должны способствовать разработке более эффективных и гуманных механизмов защиты в отечественном праве.

[**к содержанию**](#содержание)

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**DER KÖLNER DOM: EIN WAHRZEICHEN DEUTSCHLANDS**

Im Herzen von Köln, Deutschland, erhebt sich ein Symbol des Glaubens und der Beständigkeit, das Jahrhunderte überdauert hat – der Kölner Dom. Er ist eines der bekanntesten Wahrzeichen der BRD und zählt zu den beeindruckendsten Kathedralen der Welt. Seine atemberaubende Architektur, die reiche Geschichte und die spirituelle Bedeutung machen ihn zu einem Magneten für Millionen Besucher jedes Jahr. Doch ist der Dom weit mehr als nur ein katholisches Gotteshaus. Im Laufe seiner Geschichte ist er auch immer wieder vereinnahmt worden: politisch, kommerziell und gesellschaftlich. Im Jahr 1996 erklärte die UNESCO den Kölner Dom zum Weltkulturerbe. Somit zählt er zu den unersetzlichen Kulturgütern von unschätzbarem Wert für die gesamte Menschheit, deren Bestand für folgende Generationen zu sichern ist.

Der Kölner Dom ist ein Ort zum Nachdenken und zur Debatte. Rund um den Kölner Dom ranken sich auch zahlreiche Mythen und Legenden. Die Tatsache, dass an der Kathedrale, deren Bau im 13. Jahrhundert begann, noch immer weiter gearbeitet wird, spricht Bände. Der Dom wird als die „ewige Baustelle“ Kölns bezeichnet. Ein altes Kölner Sprichwort lautet: „Wenn der Dom fertig ist, geht die Welt unter“. Die einigen glauben sogar, dass an dem endlosen Bau tatsächlich der böse Geist beteiligt war. Solche Geschichten tragen zur mystischen Aura des Doms bei und spiegeln die Faszination wider, die dieses Bauwerk auf die Menschen ausübt.

In der wichtigen Wallfahrtsstätte frommer Katholiken verbirgt sich also viel Geheimnisvolles und viel Interessantes für Kunst- und Kulturinteressierte. Wie etwa: Warum hat es so lange gedauert, den Dom zu bauen? Was hat der Teufel mit dem Kölner Dom zu tun? Warum wurde der Dom im 2. Weltkrieg nicht viel stärker beschädigt? Wie hält dieses gewaltige Gewölbedach überhaupt? Und was hat es mit den zahlreichen Fenstern auf sich? Diese und andere Fragen wurden vielfach bestritten und führten auch in eine Sackgasse. Für uns als Historiker ist es wichtig herauszufinden, was sich hinter den Geheimnissen des Kölner Doms verbirgt und was den Kölner Dom so besonders macht. In diesem Artikel werden wir daher spannende Fakten aus der Vergangenheit des Doms und seiner Gegenwart erläutern, um seine Rolle als Symbol des geistigen und kulturellen Erbes Deutschlands und der Welt hervorzuheben.

Ähnlich wie der Eiffelturm in Paris, so gehört der Kölner Dom zu den Wahrzeichen, die so mit ihrer Stadt verwachsen sind, dass man den Eindruck erhält, sie seien „schon immer“ da gewesen. In der Tat steht der Dom schon sehr lange an seinem Platz, wenn auch nicht von Anfang an so imposant wie heute. Schon bevor er gebaut wurde, standen an seiner Stelle diverse Kirchen. Die erste, von der man weiß wie sie aussah, war der 870 vollendete karolingische Dom – der Alte Dom. Durch seine beiden Querhäuser fungierte er als Vorbild für viele Kirche dieser Zeit. Nachdem die Reliquien der Heiligen Drei Könige durch Erzbischof Rainald von Dassel 1164 von Mailand nach Köln gebracht worden waren, wurde der Dom mit einem Schlag eine der bedeutendsten Wallfahrtskirchen Europas, für die eine andere Größe und architektonische Form notwendig war. Daher entschlossen sich die Kölner zu einem monumentalen Neubau im Stil der französischen Gotik. Der Grundstein des heutigen Kölner Doms wurde 1248 von Erzbischof Konrad von Hochstaden gelegt, die Bauarbeiten wurden von den Architekten Meister Gerhard und später Meister Michael überwacht. So begann die jahrhundertelange Baugeschichte des Doms.

Mit dem Bau sind viele Legenden verbunden. Eine der bekanntesten Erzählungen ist die des „Teufelspakts“. Demnach soll der Baumeister des Doms einen Pakt mit dem Teufel geschlossen haben, um den Bau zu vollenden. Als Gegenleistung verlangte der Teufel die Seele des ersten Wesens, das den Dom betreten würde. Durch eine List des Baumeisters betrat jedoch ein Wolf als erstes den Dom, wodurch der Baumeister seine Seele rettete [1].

Der Bau des Kölner Doms zog sich über sechs Jahrhunderte. Der Dom wurde nach französischem Vorbild im gotischen Stil gebaut. Unter dem ersten Dombaumeister dürfte das gesamte Untergeschoss des Domchores mit Chorumgang und Chorkapellen entstanden sein. Im 16. Jahrhundert wurden die Bauarbeiten jedoch eingestellt – vermutlich aus finanziellen Gründen und der nachlassenden Begeisterung für einen nun als „unmodern“ empfundenen Baustil. Der Dom blieb für mehr als 300 Jahre unvollendet. Erst im 19. Jahrhundert, im Zuge der Romantik und des wachsenden Interesses an mittelalterlicher Architektur, wurde der Bau wieder aufgenommen und schließlich 1880 vollendet. Die lange Bauzeit spiegelt die Herausforderungen der Zeit und den Wandel der Baustile wider, wodurch der Dom zu einem Zeugnis der Baukunst mehrerer Epochen wurde und stellt zugleich den Zenit und krönenden Abschluss der Kathedralarchitektur dar.

Zunächst weiß der Kölner Dom mit imposanten Zahlen zu beeindrucken. Das ist der Ort der Superlative: Mit einer Länge von 144,58 Metern, einer Breite von 86,25 Metern und mit dem 43,35 Meter hohen Mittelschiff zählt der Dom zu den größten der Welt. Die beiden Türme erreichen eine Höhe von 157,22 Metern und prägen das Stadtbild von Köln. Auf der fast 11.500 Quadratmeter großen Grund-fläche des Doms finden mehr als 20.000 Personen Platz. Die gesamte Kathedrale besteht aus über 300.000 Tonnen Sandstein, seine Dachfläche misst über 12.000 Quadratmeter. Der Dom verfügt über 10.000 Quadratmeter Fensterfläche, darunter einige der ältesten noch erhaltenen Glasmalereien Europas. Diese imposanten Dimensionen machen ihn zu einem der beeindruckendsten Bauwerke der Gotik. So ist das beliebteste Bauwerk Deutschlands [2].

Ein erstaunliches Kapitel der Domgeschichte ist seine teilweise Rettung vor den Bomben im Zweiten Weltkrieg. Bis heute erscheint es wie ein Wunder, dass der Kölner Dom trotz aller schweren Schäden den Krieg verhältnismäßig gut überstanden hat. Die gewaltigen Bombenangriffe auf Köln verschonten auch das berühmte Bauwerk nicht, doch trotz der Zerstörungen blieb die Grundstruktur erhalten. Diese Robustheit ist eine Mischung aus Glück und gezielten Schutzmaßnahmen. Nach Kriegsende begann ein langwieriger Prozess der Restaurierung, der mehrere Jahrzehnte dauerte, um den Dom in seinen ursprünglichen Glanz zurückzuversetzen.

Auch heute wird auf Gottes ewiger Baustelle weiter gearbeitet – ständig wird die Kathedrale renoviert und restauriert. Ohne diese Maßnahmen würde der Dom langsam verfallen. Bis 30.000 Euro pro Tag kostet die Instandhaltung des Kölner Doms, etwa 100 Leute der Dombauhütte arbeiten täglich daran. Sein Erhalt ist somit eine der größten Herausforderungen der Denkmalpflege in Deutschland.

Millionen Besucher\*innen beeindruckt die majestätische Kathedrale in Köln auch durch seine architektonische Schönheit und die feinen Verzierungen und Symbole, die sich in jeder Ecke des sakralen Gebäudes wiederfinden. Charakteristisch für den gotischen Baustil sind die hohen Spitzbögen, die prächtigen Fenster mit farbigem Glas und die imposanten Türme, die sich hoch in den Himmel erheben und die Silhouette Kölns prägen. Die Architektur des Doms steht symbolisch für den Glauben und die göttliche Erhebung, die in der Gotik eine zentrale Rolle spielte.

Besonders eindrucksvoll sind die farbigen Glasfenster, die eine vibrierende Farbintensität in den Dom bringen. Lichtdurchflutete Kathedrale sollte die Allmacht und Nähe zu Gott erlebbar machen – das erklärt die möglichst vielen Fenster. Manche Fenster aus dem Mittelalter sind bis heute erhalten, andere wurden nach alten Skizzen wiederhergestellt und wieder andere Fenster, wie das Richter-Fenster, entstanden erst in jüngster Zeit. Die Fenster des Kölner Doms sind aber mehr als nur dekorative Elemente. Sie erzählen Geschichten durch ihre Glasmalereien, die biblische Szenen darstellen und Heilige ehren. Die Verwendung von Farben in den Fenstern hat eine psychologische Wirkung auf die Betrachter\*innen, die sowohl beruhigend als auch inspirierend wirkt. Jedes Fenster ist ein Beweis für die handwerkliche Fertigkeit und das künstlerische Geschick der Handwerker, die diese meisterhaften Kunstwerke geschaffen haben. Die Fenster verleihen dem Dom eine einzigartige Atmosphäre und spielen eine wichtige Rolle im Zusammenspiel von Licht und Architektur.

Der Kölner Dom besitzt mehrere Orgeln, die eine herausragende Akustik ermöglichen. Die bekannteste ist die Schwalbennestorgel, die 1948 eingebaut wurde und in 20 Metern Höhe hängt. 1998 kam die Querhausorgel hinzu. Die Domorgeln bieten eine beeindruckende Klangvielfalt. Neben den Orgeln ist auch der Domchor von großer Bedeutung, der regelmäßig Gottesdienste und Konzerte musikalisch begleitet. Die Orgelkonzerte im Kölner Dom gehören zu den bekanntesten in Deutschland [2].

Im Inneren des Kölner Doms befindet sich einzigartiges Kunstwerk – der Dreikönigsschrein von Nikolaus von Verdun (um 1190–1220), der größte Reliquienschrein in Europa. Der Schrein enthält angeblich die Gebeine der Heiligen Drei Könige. Er ist mit Gold, Silber und über 1.000 Edelsteinen verziert und stellt ein herausragendes Beispiel mittelalterlicher Goldschmiedekunst dar. Diese Reliquie macht den Dom zu einem wichtigen Pilgerort und verleiht ihm eine besondere spirituelle Bedeutung. Zu den bedeutendsten Werken der reichen Kirchenausstattung im Kölner Dom zählen zudem das Gerokreuz (976), die Mailänder Madonna (um 1280/90), der Clarenaltar (um 1360) sowie der Altar der Kölner Stadtpatrone von Stephan Lochner (um 1445).

Zusammenfassend kann man sagen, dass der Kölner Dom weit mehr als nur ein architektonisches Meisterwerk ist. Mit seinen Kunstwerken bezeugt der Dom die beständige Stärke des christlichen Glaubens im mittelalterlichen und modernen Europa. Er ist ein bedeutender Teil der Gesellschaft, ein religiöses Zentrum und Ort für die Entfaltung lebendiger Traditionen. Der Kölner Dom begeisterte nicht nur Architekten und Künstler, Schriftsteller und Musiker, sondern auch große Militärführer und bleibt ein lebendiger Teil der europäischen Kulturgeschichte. Seine jahrhundertelange Bauzeit, die faszinierenden Mythen und die beeindruckenden Maße machen ihn zu einem einzigartigen Monument, das jährlich Millionen von Besuchern aus aller Welt anzieht. Trotz der Kriegszerstörungen und jahrhundertelangen Bauunterbrechungen erstrahlt der Dom heute als eines der bedeutendsten Wahrzeichen Deutschlands.

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Статья посвящена шедевру готической архитектуры, символу Германии – Кёльнскому собору. Представлены факты из прошлого и настоящего собора, подчеркивающие его роль как символа духовного и культурного наследия Германии и всего мира.

[**к содержанию**](#содержание)

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**LEGAL COMMUNICATION SKILLS: THE NECESSITY OF ENGLISH IN LAW**

In modern socio-economic conditions of expanding foreign economic relations, entering the world market and developing international cooperation in all areas and spheres of life, the need for qualified personnel is increasing. A modern specialist is in demand at every stage of development not only at the regional level, but also at the level of the world market. As a result, a modern specialist must have specific personal and professional qualities that support his social and professional adaptability. Simultaneously, the primary requirement for employment in the legal sphere is a high degree of proficiency in a foreign language, since this allows a lawyer to communicate professionally with representatives of various cultures and obtain additional information. All this determines the relevance of studying this subject for modern education in the field of law and puts the English language in one row with the main language [1].

Thus, in this paper we will analyse, what legal communication skills are most relevant in modern law, give examples of the successful use of English in legal practice, and reveal why knowledge of English is not only an advantage for lawyers of all specialties, but also a necessity.

The following oral and written legal communication skills are becoming increasingly important in modern law:

– Argumentative speaking – the ability to clearly and persuasively present one’s thoughts in court or during negotiations;

– Active listening – the ability to listen attentively to the interlocutor and adequately respond to his arguments;

– Legal drafting: the ability to draft high quality contracts, orders and other legal documents written in clear language;

– Legal analytics: the ability to analyse and interpret complex legal texts.

It should be emphasised that negotiation skills, namely the ability to find compromises and reach mutually beneficial agreements, as well as the ability to effectively resolve disputes and find solutions that satisfy both parties, become critical in legal communication. However, foreign language skills are recognised as a key skill by legal professionals. In today’s world, English, as the central language of international law, is becoming an important tool for lawyers working internationally. Intercultural communication skills are crucial in this regard, as they include the ability to adapt communication style to the cultural specificities of the interlocutor, especially in international practice. Thus, these skills do not only help lawyers to fulfil their professional duties effectively but also enable them to build successful careers in an ever-changing legal landscape.

At the same time, the English language is particularly relevant due to the fact that globalisation and international relations require lawyers and advocates to have knowledge of a foreign language. According to A.S. Sagitov, this topic is primary for modern lawyers working in a multinational and multicultural world [2].

English is also a central language in international legal practice. It provides lawyers with access to more resources, as most legal publications are written in English. Moreover, many legal conferences, seminars and trainings are conducted in English, which in turn gives lawyers the opportunity to broaden their professional horizons. In other words, English is becoming an integral part of the legal profession and contributes to the professional growth and successful career of lawyers at the international level.

Along with the above mentioned, English is widely used in legal practice in various fields. One of the most important examples is the drafting of international contracts. In many cases, contracts between companies from different countries are drafted in English, which requires from lawyers not only knowledge of the language, but also a deep understanding of international law. This helps to avoid legal errors and misunderstandings that may arise due to language barriers.

English also plays a crucial part in legal disputes. International arbitral tribunals and courts often use this language, and lawyers must be fluent in legal terminology. This knowledge enables them to effectively represent their clients and successfully participate in the process.

Regular reading of specialised literature contributes, in turn, to expanding vocabulary and improving understanding of legal concepts, and therefore helps in language acquisition and provides up-to-date information on the latest trends and changes in the law.

In summing up, it can be concluded that knowledge of English is not just an additional skill for lawyers, but a prerequisite for success and professionalism in the legal field. Investing time and effort in developing these skills is an investment in the future, which opens new prospects and opportunities for professional growth.

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В статье показано значение владения английским языком для успешной карьеры юриста в условиях глобализации и изменений в правовой сфере. Обсуждаются ключевые аспекты, такие как устная и письменная коммуникация и проведение переговоров. Также акцентируется внимание на роли английского языка как основного языка международного права, открывающего новые возможности для профессионального роста и успешной практики.

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# INNOVATIVE METHODS AND APPROACHES IN FOREIGN LANGUAGE TEACHING

The modern world is characterized by rapid globalization and increasing intercultural communication, making foreign language proficiency a crucial skill for personal and professional development. Traditional language teaching methods, which often emphasize rote memorization and grammar-focused instruction, have been widely criticized for their limited effectiveness in fostering real communication skills. As a result, educators and linguists continuously explore and implement innovative teaching methods that enhance engagement, improve retention, and develop practical language competence. These approaches integrate technological advancements, psychological insights, and interactive learning techniques to create a more immersive and effective language learning experience.

One significant innovation in language teaching is the integration of digital technologies. Online platforms, such as Duolingo, offer learners personalized experiences through artificial intelligence algorithms that adapt to their progress and learning styles. Gamification elements, such as achievement badges and progress tracking, help maintain learner motivation. Moreover, AI-powered chatbots provide students with opportunities to practice conversational skills with virtual partners, offering instant feedback and language corrections. Virtual reality (VR) and augmented reality (AR) applications further enhance immersive learning by enabling students to engage with realistic scenarios in their target language. For instance, VR applications simulate real-life conversations in various settings, such as ordering food in a restaurant or asking for directions in a foreign city [3].

Another groundbreaking approach in foreign language teaching is the communicative language teaching (CLT) method, which prioritizes interaction and real-life communication over traditional grammar drills. This method encourages students to use the target language in meaningful conversations, thereby improving fluency and confidence. Role-playing exercises, debates, and discussion-based activities foster active participation and make the learning process more dynamic. Research suggests that learners exposed to communicative approaches develop a higher level of conversational proficiency compared to those following traditional, textbook-centered instruction. The success of CLT is evident in immersive language programs and international exchange initiatives, where students acquire language skills naturally through daily interactions [2].

Gamification, or the application of game elements in education, has gained significant popularity in language teaching due to its ability to enhance engagement and motivation. Incorporating game mechanics such as point systems, leaderboards, and storytelling elements makes language learning more enjoyable and rewarding. Studies indicate that gamified learning environments increase student motivation and improve retention rates compared to conventional methods. Language learning games enable learners to reinforce vocabulary and grammar structures in a competitive and entertaining manner. Additionally, escape room-style activities, in which students solve language-related challenges to progress through a story, have been successfully implemented in classrooms to make learning more interactive [3].

One of the most effective yet challenging methods is the immersion approach, which exposes learners to the target language in authentic settings. Language immersion can occur in formal educational programs, such as bilingual schools, or through study-abroad experiences where students must use the foreign language for daily communication. The concept of «language islands», where specific classrooms or environments are designated for exclusive use of the target language, has proven highly effective in enhancing linguistic competence. Studies suggest that learners in immersion programs develop near-native pronunciation and a deeper understanding of cultural nuances compared to those in conventional language courses. Some innovative institutions implement «language dormitories», where students live and communicate exclusively in their target language, accelerating their language acquisition process [2].

Cognitive and neurolinguistic research has also contributed to the development of innovative language teaching methods. Studies on brain plasticity indicate that learning a new language stimulates cognitive functions and enhances memory retention. One influential approach based on these findings is the Total Physical Response (TPR) method, which links language learning with physical movement. Developed by James Asher, TPR encourages learners to respond to commands using body movements, reinforcing language acquisition through kinesthetic learning. This technique has been particularly successful in teaching young learners and beginners, as it reduces anxiety and increases engagement. Another neurolinguistic approach is suggestopedia, a method developed by Georgi Lozanov, which utilizes music, relaxation techniques, and positive reinforcement to enhance learning efficiency. Research suggests that learners exposed to suggestopedic methods demonstrate higher retention rates and a more positive attitude toward language learning [2].

Additionally, the flipped classroom model has transformed traditional language instruction by shifting the focus from passive learning to active participation. In a flipped classroom, students study new material independently through online resources, videos, and readings before attending class. Classroom time is then dedicated to interactive activities, such as discussions, role-plays, and problem-solving tasks, where students apply their knowledge in real-life scenarios. This approach maximizes the effectiveness of face-to-face instruction and allows educators to provide more personalized feedback. The flipped classroom model has been particularly effective in higher education institutions and professional language training programs [1, с. 5].

Social and cultural awareness has also become a key component of modern language teaching. Language is deeply intertwined with culture, and understanding cultural contexts enhances communication skills and prevents misunderstandings. Intercultural competence is increasingly emphasized in language curricula, with courses integrating real-world materials such as films, music, and news articles to provide students with authentic cultural insights. Programs like Tandem language learning, in which students partner with native speakers for mutual language exchange, offer valuable opportunities to develop both linguistic and cultural competence. Research highlights that learners who engage in intercultural exchanges demonstrate greater adaptability and confidence when using their target language in real-world settings [1, с. 3].

The future of foreign language teaching lies in the continuous integration of technological advancements and pedagogical innovations. Artificial intelligence and machine learning will further personalize language learning experiences, while advancements in virtual reality will create even more immersive learning environments. Additionally, hybrid models that combine traditional instruction with digital tools will continue to evolve, providing flexible and effective learning opportunities. Educators must remain adaptable and open to new methodologies to ensure that language teaching keeps pace with the changing needs of learners in the 21st century.

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В статье рассматриваются инновационные методы и подходы в преподавании иностранных языков, включая использование цифровых технологий, коммуникативного подхода, геймификации, метода погружения и достижений нейролингвистики. Анализируется их влияние на эффективность обучения и усвоение материала. Автор подчеркивает важность интеграции современных методик в образовательный процесс для повышения мотивации и языковой компетенции студентов.

[**к содержанию**](#содержание)

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**FEATURES OF THE DEVELOPMENT OF ARTIFICIAL INTELLIGENCE IN THE REPUBLIC OF BELARUS**

All spheres of human activity increasingly trust artificial intelligence (AI), which, according to various forecasts, will become an integral part of our lives by 2029. And Belarus will not lag behind the rest of the world in this matter. Today, artificial intelligence manages energy systems and transport flows; domestic developments in the field of artificial intelligence are used in education, urban environment management, etc.

The purpose of this article is to analyze the achievements of Belarusian scientists in the field of development and use of artificial intelligence in various areas of scientific and practical activity.

By the end of the Soviet period, the BSSR had a stable image as a high-tech republic, where a huge army of scientists and practitioners in the field of cybernetics and computing technology worked. Thanks to people who previously worked in mathematics, cybernetics, and computing, private IT companies such as IBA, EPAM Systems, and others have emerged and flourished.

In 2005, the Hi-Tech Park (HTP) was established. Its first residents were the few IT companies operating in Belarus at that time, which worked on an outsourcing model. As a result, they have gained a reputation as first-class developers who are able to create their own software products [1].

At the moment about 100 thousand people are employed in the field of information and communication technologies in our country and about 50 thousand of them are in the segment of IT products and services. 76% of IT specialists have higher education. Another characteristic of the sector is youth: 57% of the staff of HTP resident companies is under 30 years old. A career path in the industry usually begins before the age of 25 [2].

Belarusian scientists have successfully developed such areas as image recognition, speech recognition and synthesis, computer graphics, machine learning, etc. Many conferences on AI have been organized, and many of them are still being held. In 2017, BSU hosted the 12th International Symposium on Bioinformatics, and in 2018, the 15th International Symposium on Neural Networks. Since 2015 the Interdepartmental Research Center for Artificial Intelligence operates on the basis of the Joint Institute of Computer Science and the Institute of Physiology of the National Academy of Sciences of Belarus. It unites the efforts of specialists in the field of medical, biological, information, technical, and physico-mathematical sciences to create advanced and competitive AI technologies and provides conditions for the implementation of scientific research projects in this field. In 2018 the Belarusian Public Association of Specialists in the field of artificial intelligence has been established.

Among the most famous scientists in the field of artificial intelligence are V. V. Krasnoproshin, V. V. Golenkov, V. A. Golovko, M. A. Zhuravkov, A. V. Tuzikov, S. V. Ablameyko, V. V. Starovoitova, B. M. Lobanova, A. M. Nedzvedya, and others. All this indicates a fairly high level of researchers and research conducted in Belarus in the field of AI.

In 2017, investor and IT entrepreneur A. Melnichek compiled a list of companies leading developments in the field of artificial intelligence in Belarus, which included more than 70 private firms [3]. In November of the same year, 192 companies and sole proprietors were HTP residents, and more than 30% of them were engaged in AI. The companies are using AI in the fields of healthcare (Flo, doc, Lung Passport), agriculture (OneSoil, Zoner.ag ), retail, industrial production, finance, transport, environmental protection. A number of major international IT giants have research offices in Minsk: Profitero, IHS Markit, WorkFusion, Yandex, Teqniksoft, Viber. There are successful examples of the development of AI startups from Belarus: AIMatter, which came under the control of Google, MSQRD – bought by Facebook, Zoner.ag, Juno – merged with Gett, Apalon – came under the control of IAC Applications. The capabilities of Belarusian programmers are eloquently evidenced by their world–famous products – “World of Tanks” (Wargaming), “Viber” (Viber), “Masquerade”, etc.

In 2018, the Bulba Ventures foundation, specializing in artificial intelligence and machine learning, was opened in our country. The Foundation has invested in 3 projects: Friendly Data, Rocket Body and Wannaby. At the same time, the latter raised a significant amount of $ 2 million, in addition to Bulba Ventures, Haxus, a company specializing in computer vision and augmented reality for shopping, also participated in the round. A similar amount was raised by the Nicola parental control application from FaceMetrics from the Belarusian fund VP Capital and the Russian Larnabel Ventures. AI products developed in Belarus are used in healthcare, the automotive industry, and agriculture around the world. The American startup Flo (an application for monitoring women’s health) was founded by Belarusians and in two years attracted 18 million investments from partners of the Mangrove Capital Foundation and the Flint Capital Foundation. The app is currently available in 20 languages on iOS and Android, and 60% of its users are in the United States and Europe. Engineers from MapData, the Minsk R&D office of MapBox, have achieved significant success: they use computer vision in tasks of recognizing the traffic situation on a video stream.

The Minsk office of Yandex develops solutions for self-driving cars, speech recognition, and search technologies. The OneSoil startup helps farmers to increase the efficiency of using acreage, plan agricultural activities and predict yields. This involves neural networks, computer vision, and machine learning algorithms that analyze satellite images. In one year, the company raised 500 thousand dollars of investments from the funds Haxus, Bulba Ventures and investors Y. Melnichuk and L. Lozner [3].

It should be noted that in recent years Belarusians have been creating highly intelligent concrete practical products in very complex areas that are successfully sold on the world market. Here are some examples concerning computer vision and graphics. AI Matter is a well–known company, one of whose products is image processing using neural networks, which allows users to select a person from the background with the possibility of replacing the background of the image. MSQRD has made an application for applying face masks in real time. This is computer graphics. Such developments cannot be carried out without serious mathematical training. There are more and more completed products developed by domestic IT companies, despite the difficulty of building them. In many ways, these are works in the field of computer graphics and image processing based on rather complex mathematics.

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Статья посвящена вопросам развития искусственного интеллекта (ИИ) в Республике Беларусь. Подчеркивается, что сегодня достижения белорусских ученых в сфере ИИ активно используются в здравоохранении, сельском хозяйстве, охране окружающей среды, управлении транспортными системами и т.д. не только в стране, но и за рубежом. Приводятся примеры новых разработок отечественных специалистов в сфере ИИ. Делается вывод, что данные разработки требуют серьезной подготовки в области математики.

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**WETLANDS AND THEIR ROLE IN ENVIRONMENTAL PROTECTION**

Wetlands play a key role in the global ecosystem, although they make up less than 6% of the Earth’s total land surface. In fact, by some estimates, over the past 50 years, our planet has lost about 35% of its marshland area, and the rate of degradation is accelerating. Despite their small area, wetlands perform important functions. They serve as natural sponges and water purifiers in the world, regulating climate, maintaining the global hydrological cycle, and preserving ecosystem diversity.

Peatlands are unique and at the same time the least studied ecosystems on the planet. Their presence brings undeniable benefits to the climate, people, and nature. Peat bogs accumulate and store fresh water, largely determining the productivity of agricultural land, and maintain groundwater levels. It is widely recognised that wetlands are also the most effective carbon absorbers on the planet and possess a huge potential for reducing the impact of climate change. Despite their importance for the environment, today they remain vulnerable and endangered ecosystems as about 15% of all the world’s peatlands have been drained.

The purpose of the article is to analyse the state of wetlands in the Republic of Belarus, the problems they encounter and what is being done to improve the situation.

In the Republic of Belarus 3.77% of land are swamps [1, p. 170]. According to current legislation, swamps are “a natural complex characterized by constant waterlogging of lands and growing swamp vegetation, the death of which results in the processes of peat formation and peat accumulation” [2].

Today, Belarus has 2,390,000 hectares of peat bogs, but only 4% have been preserved in their natural condition. The presence and, in the future, the increase in the area of disturbed peat bogs will cause significant damage to the environment and the economy.

Human intervention is recognized as the main cause of wetland recession and manifests itself as a land use conflict due to spatial land scarcity and spatial externalities. The need to expand arable and forest lands, as well as commercial interest in peat as a fuel, became the main drivers of a large-scale campaign to drain Belarusian peatlands, which continued until the end of the 20th century. Drainage of swamps led to the loss of 40% of wetlands in Belarus. As a result of peat extraction and intensive agricultural development of drained lands, large areas of disturbed peatlands appeared, the further economic use of which became unprofitable for various reasons.

Inventory, assessment and monitoring of wetlands are a necessary basis for their successful conservation, restoration and sustainable use. In Belarus, inventory is mainly carried out using remote sensing of the earth, which has become a powerful tool for monitoring and assessing wetlands and has allowed better planning of measures for their conservation, restoration and sustainable use.

According to the inventory of peatlands with the remote sensing method, the area of identified and studied peatlands in Belarus is 2,560.5 thousand hectares (12% of the country’s territory). 1,348 peatlands with a total area of about 863 thousand hectares (33.7% of the original area) have been preserved in a natural or close to natural state, 946 thousand hectares of peatlands have been drained for use in agriculture, and 300 thousand hectares for peat extraction.

To stop the rapid loss of wetlands and to promote conservation and restoration measures, it is vital to increase national and international knowledge about the importance of these ecosystems. This is evidenced by the Convention on Wetlands, adopted in 1971 in Ramsar, Iran, which aims to conserve and wisely use all wetlands through local, regional and national action and international cooperation. In the Republic of Belarus, wetlands are protected by the Law of the Republic of Belarus dated December 18, 2019, № 272-Z “On the Protection and Use of Peatlands.” This Law establishes the legal basis for the protection of peatlands, the rational (sustainable) use of their resources and is aimed at preserving peatlands, preserving and restoring the biosphere functions of peatlands, and satisfying the economic and other needs of present and future generations for these resources.

Currently, 26 natural sites in Belarus have the status of wetlands of international importance. The total area of the Belarusian network of Ramsar sites is 765.3 thousand hectares, or 3.7% of the country’s territory. This network is most developed in Brest, Vitebsk and Gomel regions, where 85.1% of the area of Ramsar sites is concentrated. They are least represented in Mogilev (6.4%), Grodno (3%) and Minsk (2.5%) regions.

Given climate change and the increasing frequency of dry days, the presence of about 500 thousand hectares of over-drained peatlands in Belarus can lead to large-scale peat fires with serious consequences for people and the environment. In addition, disturbed peatlands stop absorbing carbon and abundantly emit reserves accumulated over thousands of years back into the atmosphere. Globally, disturbed peatlands supply 5% of all CO2 emissions to the atmosphere. In such a situation, re-wetting is considered one of the most appropriate ways to prevent further degradation of disturbed bogs.

Restoring drained peatlands has many advantages and solves a huge number of problems. The swamping of disturbed areas reduces the emission of carbon dioxide into the atmosphere: the process of decomposition and mineralization of peat will be replaced by its accumulation, which will reduce the emission of greenhouse gases.

Today, Belarus is one of the world leaders in ecological reclamation of peatlands. A National Program for Ecological Rehabilitation of Disturbed Peatlands until 2040 is being developed. Together with UNDP partners, a number of innovative natural solutions for the conservation and sustainable use of wetlands are being implemented in Belarus. One of these solutions was a unique technology for accelerated restoration of swamps using the method of sowing swamp plants. The method of ecological rehabilitation of disturbed raised bogs by raising the groundwater level of drained peatlands through the construction of a system of hydrological structures – dams and locks – is successfully applied. Another natural solution aimed at preserving the ecosystems of lowland swamps and floodplain meadows has become the controlled (winter) burning of dry vegetation. Implementation of technology for the sustainable use of floodplain meadows for haymaking with the collection of biomass is important for the preservation of spring migration sites for a number of wetland bird species. Today, in the reserves of Belarus, a method of natural rehabilitation of meadow lands through the recreation of sustainable pasture food chains is being successfully tested. In addition, some of the exhausted peatlands themselves become swamped. Swamps are a huge reservoir of clean and fresh water and a real treasure for Belarus. They clean the air more effectively than trees. 35 percent of birds and about 40 percent of insects listed in the Red Book live in swamps.

Thanks to the solutions, disturbed peatlands on a total area of more than 60,000 hectares have begun to return to their natural state. Nature-based solutions implemented in Belarus are part of systematic and consistent work on the conservation and sustainable use of globally significant ecosystems for people and the planet. It is still early to assess the full scale impact of repeated swamping on the rehabilitation of marsh species – large-scale restoration of peatlands is only gaining momentum. But today we can already say that there is a positive trend, which means there is a good chance that in the near future the disturbed marshes of Belarus will restore its biosphere function.

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Статья посвящена проблеме водно-болотных угодий в мире и в Республике Беларусь. Автор анализирует состояние болот в Республике Беларусь, факторы, вызвавшие деградацию водно-болотных угодий и торфяников. Особое внимание уделено мерам, принимаемым государством, для восстановления водно-болотных угодий и предотвращения дальнейшей деградации нарушенных болот.

[**к содержанию**](#содержание)

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**KRIMINALPRÄVENTION UND KRIMINALBEKÄMPFUNG**

Kriminalität hat es immer gegeben, seit das Strafrecht erfunden wurde. Eine Gesellschaft ohne Kriminalität ist nicht denkbar, weil jede Norm, die die Grenzen zulässigen Verhaltens markiert, kann auch gebrochen werden. Es wird „geklaut“, es wird „abgezockt“, es wird vergewaltigt, es wird getötet. Kriminalität und Delinquenz gehören zweifellos schon seit eh und je und in jeder Gesellschaft zu jenen zentralen Ereignissen, die heute oft als „soziale Probleme“ oder sogar als „soziale Krankheit“ bezeichnet werden. Ihre Behandlung in Politik, Massenmedien und Wissenschaft, aber auch die zu ihrer Prävention und Repression geschaffenen Institutionen sozialer Kontrolle legen hierzu ein jederzeit beredtes Zeugnis ab. Noch immer wird versucht, ein Heilmittel zu entwickeln, das die Gesellschaft heilen und die Menschenrechte und -freiheiten vor verschiedenen Angriffen schützen könnte. Aber bis heute ist es jedoch nicht gelungen, einen einheitlichen, gut koordinierten Mechanismus zu schaffen, mit dem die Kriminalität umfassend bekämpft werden könnte. Das Wesen der mit kriminellen Handlungen verbundenen Phänomene ist oft verborgen, und die Bestimmungsprozesse sind so dynamisch, dass ihre Entstehung sowie ihre weitere Entwicklung nur schwer vorherzusagen sind. Deswegen ist die Kriminalitätsent-wicklung nicht nur für die Sicherheitsbehörden, sondern auch für Politik, Forschung und andere Bereiche von großem Interesse. Nur wenn der Entwicklungsstand der Kriminalität bekannt ist, können passende kriminalpolitische und präventive Maßnahmen ergriffen werden. Das Ziel dieses Artikels ist es, den Begriff ‘Kriminalität’ zu erläutern und zu bestimmen, welche Maßnahmen zur Kriminalitäts-bekämpfung und Verbrechensprävention ergriffen werden sollten.

Sicherheit gehört zu den wichtigsten Grundbedürfnissen der Menschen und ist Bestandteil einer ganz persönlichen Lebensqualität. Die größte Gefahr für die Bürger – im Zusammenhang mit dem Eingriff in die wichtigsten öffentlichen Institutionen und Güter – stellt die Kriminalität dar. Kriminalität (von lateinisch crimen „Beschuldigung, Anklage, Schuld, Verbrechen“) ist eine Bezeichnung für Straftaten im Sinne eines gesellschaftlichen Gesamtphänomens. An dem individuellen Verhalten misst sich eher „Straftat“ oder „Verbrechen“. Unter einem Verbrechen wird ein schwerwiegender Verstoß gegen die Rechtsordnung einer Gesellschaft oder die Grundregeln menschlichen Zusammenlebens verstanden. Allgemein gesprochen handelt es sich um eine von der Gemeinschaft als Unrecht betrachtete und von ihrem Gesetzgeber als kriminell eingestufte und mit Strafe bedrohte Verletzung eines Rechtsgutes durch den von einem oder mehreren Tätern schuldhaft gesetzten, verbrecherischen Akt [2].

Kriminalität hat viele Gesichter – vom Wohnungseinbruch bis zum Rauschgifthandel, von der Wirtschaftskriminalität über Cybercrime bis zum Terrorismus. Die Normüberschreitung wird durch verschiedene Faktoren beeinflusst: durch das soziale Umfeld eines Menschen, seine sozioökonomische Lage, die sich ihm bietenden Gelegenheiten zur Tatbegehung und seine erlernten individuellen Fähigkeiten zur Konfliktregulierung und zur Bewältigung schwieriger Lebenssituationen. Risikofaktoren sind frühe Gewalt- und Missbrauchserfahrung, geringe Intelligenz, niedrige Schulbildung und mangelnde Impulskontrolle. Außerdem zählen Suchterkrankungen, antisoziale Charakterzüge, Familienkonflikte und Delinquenz im näheren Umfeld dazu.

Kriminalität und Gewalt beschäftigen die Bürger derzeit intensiv. Kriminalität schlechthin wird immer auf das Sicherheitsgefühl der Bevölkerung und auf den Schutz der Öffentlichkeit hinauslaufen. Nur in einer Gesellschaft ohne Bedrohungen können Menschen frei leben. Der Staat ist verfassungsrechtlich verpflichtet, die Bevölkerung zu schützen. Die Verhütung und Bekämpfung der Kriminalität wird daher zu einer der Hauptaufgaben jedes Rechtstaates. Eine effiziente Kriminalitätsbekämpfung stützt sich auf folgende drei Säulen: Prävention, Kooperation, Repression. Die Prävention steht hierbei im Vordergrund.

Mit dem Konzept der Kriminalprävention verfolgt die öffentliche Sicherheit die Strategie: „Vorbeugen ist besser als strafen“. Gemeint ist, dass rechtzeitige Vorbeugung helfen soll, Straftaten und Verbrechen zu verhindern, noch bevor sie passieren. Das ist nicht nur eine Verantwortung der staatlichen Organe, sondern hat den Charakter einer gesamtgesellschaftlichen Aufgabe. Die Kriminalprävention umfasst somit sämtliche staatlichen und privaten Bemühungen, die auf die Verhinderung von Straftaten ausgerichtet sind. So sollen diese Maßnahmen die Kriminalität sowohl als gesamtgesellschaftliches Phänomen wie auch als individuelle Erfahrung verhüten, in der Intensität mindern oder zumindest in ihren Folgen gering zu halten. Auch die Furcht vor Kriminalität soll den Bürgerinnen und Bürgern genommen werden, damit sie sich an ihrem Wohnort sicher fühlen.

Kriminalprävention orientiert sich an einem dreistufigen Modell. Man unterscheidet in primäre, sekundäre und tertiäre Prävention.

1. Primärprävention, deren Ziel ist zu verhindern, dass eine Person Straftaten begeht. Deshalb sollen vor allem soziale Ursachen für Straftaten beseitigt werden. Es geht darum, das Rechtsbewusstsein, die Rechtstreue der Bevölkerung zu festigen und zu stärken. Diese Maßnahmen richten sich überwiegend an Kinder und Jugendliche. Hierzu könnte bspw. die Durchführung von Aufklärungskampagnen zu Bürgerrechten und Rechtskenntnissen gehören, die den Menschen helfen, ihre Rechte und Pflichten besser zu verstehen. Die Aufklärung der Bevölkerung über kriminelle Phänomene, Präventionsmöglichkeiten und Hilfsangebote schließt auch das Erstellen von Broschüren, Faltblättern und Ähnlichem zu bestimmten Themen der Kriminalprävention (z. B. Einbruch, Stalking, Zivilcourage) und für spezifische Zielgruppen, wie z. B. Jugendliche oder Seniorinnen und Senioren, ein. Darüber hinaus erläutern die Sicherheitsbehörden in Sozialnetzwerken unterschiedliche Aspekte der Kriminalprävention und gehen auf neuartige Phänomene ein, zu denen auch aktuelle Warnungen vor Phishing-Attacken und anderen Betrugsmaschen gehören. Nebst der Aufklärungsarbeit erweisen als wirksam auch Angebote, die sich an konkret kriminalitätsgefährdete Personengruppen richten, wie Sportprogramme, Anti-Agressionstraining, Therapieangebote für Drogenabhängige.

2. Das Ziel der Sekundärprävention ist es, Gelegenheiten für eine Straftat zu verhindern bzw. zu reduzieren, z. B. Versperren von Fahrzeugen und mittels Wegfahrsperren sichern, Alarmanlagen scharf schalten und kenntlich machen, Videoüberwachung. Aber auch Maßnahmen, die dabei helfen, das eigene Verhalten zu ändern, sind hiervon erfasst. Hierzu gehört etwa die Sensibilisierung der Nachbarschaft in der Urlaubszeit. Eine aufmerksame Nachbarschaft kann dazu beitragen, das Entdeckungsrisiko für Straftäter zu erhöhen und so z. B. Wohnungseinbrüche zu verhindern. Dazu sollte die Anzeigebereitschaft der Bevölkerung verbessert werden.

Verschiedene öffentliche Initiativen und Gruppen, die sich aktiv an der Aufrechterhaltung der öffentlichen Ordnung beteiligen und die Strafverfolgungsbehörden über verdächtige Aktivitäten informieren, leisten auch einen wesentlichen Beitrag zur Vorbeugung gegen Kriminalität.

3. Tertiärprävention richtet sich gezielt auf Personen, die bereits eine Straftat begangen haben. Die Strategie zielt darauf, die Rückfallwahrscheinlichkeit zu minimieren, auszuschließen. Für die Rückfallverhütung gibt es verschiedene Maßnahmen, z. B. können Straftäter durch die Möglichkeit einer Berufsausbildung im Strafvollzug, durch eine Therapie oder durch die Bewährungs- und Straffälligenhilfe Unterstützung bekommen [1].

Die Kriminalprävention ist offenbar ein komplexer und mehrdimensionaler Prozess. Entsprechende Maßnahmen setzen zunächst auf der Ebene der Bevölkerung insgesamt an und bei Institutionen, die die Entwicklung junger Menschen zu verantwortungsvollen und normtreuen Mitgliedern der Gesellschaft fördern sollen, wie Schulen, Kindergärten und Elternhaus.

Trotz erheblicher Erfolge auf dem Gebiet der Kriminalprävention bleibt das Problem der Kriminalität in der modernen Gesellschaft weiterhin aktuell und erfordert eine kontinuierliche Überwachung. Für eine gelingende Prävention ist eine Vielzahl von Akteuren gefragt. Die verschiedenen gesellschaftlichen Instanzen arbeiten an der Entwicklung von Konzepten und Strategien und deren Umsetzung zusammen. In solchen kriminalpräventiven Gremien sind alle Ebenen von der Justiz über die Polizei, Gemeindebehörden, Kirchen und Wirtschaftsverbände bis hin zu Lehrer-, Eltern- und Schülerverbänden beteiligt. Und natürlich die Politik und die Medien sind eingebunden. Der kriminologischen Forschung kommt ebenfalls eine wichtige Rolle zu, indem sie einerseits die theoretischen Grundlagen für Präventionsmaßnahmen zur Verfügung stellt und andererseits durch Evaluation ergriffener Maßnahmen nicht nur eine Erfolgskontrolle, sondern auch eine ständige Verbesserung ermöglicht. Das Zusammenwirken dieser Akteure ist unerlässlich für eine erfolgreiche Kriminalprävention, die eine nachhaltige Strategie und ein ganzheitliches Konzept erfordert.

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В статье автор раскрывает понятие преступности, описывает влияние преступности на общество и пути ее профилактики. Представлены мероприятия в рамках первичной, вторичной и третичной превенции преступности.

[**к содержанию**](#содержание)

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**THEORETICAL BASES OF APPLICATION OF GAMING TECHNOLOGY IN TEACHING**

Modern education is undergoing significant changes, requiring new approaches to learning. In the context of digitalization and globalization, traditional teaching methods do not always meet the needs of learners. One of the effective tools to increase student and learner engagement is the use of gaming technology.

Gaming technology includes various forms of learning, such as role-playing and business games, gamification, computer-based educational programs, board and card games. Their application allows for the development of academic and professional skills as well as to improve students’ communicative and critical abilities.

The goal of this article is to analyze the theoretical foundation of gaming technology in learning contexts on the basis of its principles, benefits, and implications for improving the extent of student engagement, learning retention, and development of cognitive abilities. In discussing the pedagogical theories underpinning the integration of gaming technology into the learning system, the article seeks to offer a deeper insight into their efficacy and relevance to different areas of study.

Game-based learning technology is founded on several psychological and pedagogical concepts. L.S. Vygotsky and A.N. Leontiev emphasized that active interaction between students and learning materials through play contributes to the development of higher mental functions. According to D.K. Rhyne, E. Deci, and R. Ryan, the game format stimulates learners’ intrinsic motivation, allowing them to achieve educational goals in a more engaging way.

Research by L.V. Zankov and D.B. Elkonin highlights the significant role of play in fostering independent and critical thinking. J. Piaget and D. Bruner viewed play as a means of cognition, enabling students to develop cognitive structures and adapt to new knowledge.

Thus, the use of game-based methods in education is grounded in a broad theoretical framework, integrating active engagement, motivation, cognitive development, and the formation of critical thinking skills [4, p. 2].

Game technology can take many forms depending on the learning objectives. Role-Playing Games (RPGs) immerse learners in simulated real-life scenarios, fostering skills such as teamwork, negotiation, and empathy. In educational settings, RPGs help students develop problem-solving strategies by adopting different character roles. However, challenges include the potential for students to become overly engrossed in their roles, possibly leading to off-topic discussions, and the time-consuming nature of organizing such activities [5].

Business games are designed to emulate corporate environments and enhance professional skills in fields like economics, management, and law. They provide a risk-free platform for decision-making and strategic thinking. Nevertheless, their complexity can be intimidating, and there’s a risk of oversimplifying intricate business concepts.

Gamification integrates game like elements such as points, badges, into the leaderboards non-game contexts to boost engagement and motivation. While this approach makes learning more interactive, it may oversimplify complex subjects, leading to a superficial understanding.

Computer educational games are interactive programs aimed at developing specific skills and reinforcing learning material. They can increase motivation and provide immediate feedback. However, drawbacks include the high costs of development and the possibility of distracting students from learning objectives.

Board and card games integrate strategy, logic, and cooperation, serving as active learning tools. They encourage face to face interaction and can enhance critical thinking. Yet, they might not always align with curriculum objectives, and some students may find them less engaging compared to digital alternatives.

The use of game technology has numerous advantages, such as enhancing students’ motivation and interest, improving academic accomplishments through interactive engagement, and fostering critical thinking, logical reasoning, and creativity. It also assists in alleviating students’ anxiety, thus promoting a conducive learning environment and facilitating communication and social abilities. There are, however, challenges related to the utilization of gaming technologies. Developing good game materials takes time and resources, and it could be difficult to integrate them into traditional educational structures. Also, if game elements are too concentrated on at the expense of lesson content, overall educational value can be lost.

Game technologies are a powerful tool of modern education, contributing not only to the increase of students’ motivation, but also to the development of their cognitive, social and professional skills. Their successful application requires a competent approach and methodological training of teachers. Further research in this area can be aimed at developing new game techniques, adapting existing technologies to different disciplines and analyzing their long-term impact on the learning process.

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В статье раскрываются разновидности игровых технологий, которые представляют собой одно из наиболее перспективных направлений современной педагогики. Их применение способствует повышению мотивации обучающихся, активному усвоению знаний и развитию когнитивных навыков. Рассматриваются теоретические основы использования игровых технологий в образовательном процессе, анализируются их ключевые принципы и преимущества, а также приводятся примеры их применения в различных учебных дисциплинах.

[**к содержанию**](#содержание)

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**ENVIRONMENTAL PROBLEMS IN THE REPUBLIC OF BELARUS**

The ecological situation in the world is getting worse every year. The reason is not only human activity but also external factors. The purpose of the article is to analyze the existing environmental issues and to define ways to solve them.

Since 2008, every two years researchers have been calculating the Environmental Performance Index. It is a global study accompanying world’s countries ranking for indicators of pressures on the environment and natural resources management. The purpose of the study is to reduce pressure on the environment and as a consequence on human health, to stimulate viability of the ecosystems and stable management of natural resources.

The Index measures country’s achievements with regard to the environmental state and natural resources management on the basis of 22 indicators in 10 categories that reflect various aspects of the state of the environment and viability of its ecosystems, biodiversity conservation, fighting climate change, public health, practice of economic activities and degree of environmental pressure and also the effectiveness of government policies in ecology.

In fact, the state’s work to address existing environmental issues is assessed. According to recent data, in 2018 Belarus was in 44th place out of 180, and in 2016 it was in 35th [1]. The country systematically records natural resources, there is the maintenance of 13 state cadastres including forest, land, water and climate cadastres, the cadastre of atmospheric air, the cadastre of fauna and flora, the waste and subsoil cadastres, renewable sources of energy that allow to have detailed, up-to-date information about natural and resource potential of all regions of Belarus.

Analyzing the data the scientists have come to the conclusion that the environmental situation in Belarus is quite stable, we don’t have problems that exist in other countries of the world, because our economy is developing evenly and does not have a great negative impact on the environment. However, there are still some problems with the state of the biosphere in the country. The main environmental problems include the problem of radioactive contamination, problems of air pollution and pollution of the hydrosphere.

So, one of the most intractable problems of the country is radioactive pollution which is caused by the accident at Chernobyl Nuclear Power Plant. The analysis of radioactive pollution of the territory of Europe by cesium-137 shows that about 35% of Chernobyl fall of this nuclide on the European continent is on the territory of Belarus. The pollution of the territory of Belarus by cesium-137 with density over 37 kBq/m2 amounts to 23% of the whole territory of the republic (for Ukraine is 5%, for Russia is 0,6%). At present time continuing radioactive impact on the residents of the republic, which is attributed to long-lived cesium nuclide, forms different in size and input doses of external and internal exposure to radiation depending on radio-ecological conditions and pollution levels of territories by cesium-137 [2, p. 27].

It is recorded that the population living in areas polluted with radionuclides has a higher incidence of diseases of the nervous and endocrine systems, malignant neoplasm of thyroid compared to population not living on this territory.

Despite the fact that by now a significant part of radionuclide with a short half-life has ceased to exist, the natural and agricultural ecosystems of Belarus are still polluted by cesium-137, strontium-90, plutonium isotopes, americium-241, that have half-lives from 14 to 24065 years. The consequences of this disaster will be felt for more than a dozen years. To reduce exposure level water, food and wood are monitored. Deactivation of some polluted areas and rehabilitation of them are held. Radioactive substances and waste are also buried.

One more source of environmental pollution is vehicle exhaust and industrial emissions. They contribute to significant air pollution. In the 2000s there was an increase in production and an increase in emissions, but recently enterprises have taken measures to reduce the amount of harmful emissions. The worst atmosphere is in Mogilev, the average one is in Brest, Rechitsa, Gomel, Pinsk, Orcha and Vitebsk. The main task of the state is to improve air quality.

Water in lakes and rivers of the country is moderately polluted. Less water is used for domestic and agricultural use, but in industry water is polluted by elements such as manganese, copper, iron, oil products, zinc, nitrogen.

The condition of water in rivers differs. Thus, the Western Dvina and Neman including some of their tributaries are the purest reservoirs. The Pripyat is believed to be relatively pure. The Western Bug is moderately polluted and its tributaries are polluted to a different degree. The waters of the Dnieper in the lower reaches are moderately polluted, but they are pure in the upper reaches. The most critical situation concerns the Swislach [3, p. 521].

Today Belarus has about 260000ha of peat drained bogs. The increased area of destroyed peat bogs causes a considerable ecological damage to the environment. The violation of natural hydrological conditions of these bogs leads to the reduction in water supply, function in water purification, the violation of hydrological condition of rivers, peat and forest fires.

The rehabilitation of destructed bogs will help to stabilize the subsoil water level, to prevent peat mineralization and soil drying. It will influence the rivers and meadows near this area in a good way.

Thus, the existing system of ecological management in the country together with a large part of natural ecosystems in land-tenure provide an acceptable level of ecological safety. However, it’s necessary to use natural resources effectively in the future and preserve the integrity of natural complexes. Also we should conduct a further modernization of industrial objects and apply ecologically secure technologies.

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В статье раскрываются проблемы радиоактивного загрязнения, вызванного аварией на ЧАЭС, загрязнения гидросферы и атмосферы, обусловленные работой промышленных объектов и эксплуатацией транспортных средств, а также нерациональной мелиорации и её последствий. Предлагаются пути решения указанных проблем.

[**к содержанию**](#содержание)

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**FEATURES OF CREATING AND USING COLLOCATIONS IN RUSSIAN-LANGUAGE MEDICAL TEXTS**

The term collocation has been actively used in combinatorial linguistics relatively recently. However, scientists have been studying issues using collocations and phraseological units in our speech for a very long time. It is known that the term “collocation” was first used by G. Harris back in 1750. And only in 1933, thanks to the British linguists J. R. Firse and G. Palmer, this concept was firmly entrenched in linguistics. The concept of “collocation” refers to such difficult phenomena of language that have no clear interpretation. Some linguists consider collocation as a constant combination of words (J. R. Firse, M. A. K. Halliday, J. Sinclair, O. S. Akhmanova, and others), others believe that a collocation is a stable combination of words with signs of an integral unit in semantic and syntactic terms (F. de Saussure, V. V. Vinogradov, and others). Nevertheless, all existing definitions of the term “collocation” are based on the phenomenon of “semantic and grammatical interdependence of the elements of a phrase” [2, p. 25].

In Russian linguistics, the term collocation was first used by V. V. Vinogradov, who distinguished the concepts of word combination and collocation. In his opinion, phrases are “historically formed forms of combining two or more significant words in a language, devoid of the main features of a sentence, but creating a fragmented designation of a single concept” [1, p. 5]. Functioning as a linguistic sign, phrases are used to denote concepts characteristic of a particular field or discipline, thereby belonging to towards a structured system. Within this system, they establish relationships with other units at the same level, as well as with units at other levels with which they build a discourse.

There are the following approaches to the study of collocations: theoretical, lexicographic, linguodidactic, phraseological, corpus, combinatorial, cognitive. Let’s take a closer look at the criteria that determine the stability of collocations and allow us to separate such combinations into a separate group and consider them as a linguistic phenomenon:

1. Collocations have a structural integrity that relies on the grammatical consistency of the components. For example, in adjectival collocations, the dependent component (adjective) is consistent with the key (noun) in gender, number, and case.

2. Collocations are characterized by lexicalization, which means that a whole combination of words becomes a phraseological unit and acquires semantic integrity. For example, the phrase brushing teeth is perceived by native speakers as lexicalized, denoting a single process.

3. Collocations are characterized by usuality, that is, the frequency of use in speech of units consisting of certain words in a certain order, which is considered generally accepted by native speakers of the given language.

All these characteristics fully correspond to medical collocations, which are terminological phrases related to medical discourse and expressing one concept, for example, heart attack, heart failure, hemorrhagic shock, etc.

Only by perceiving collocation as an integral component can we explain such speech patterns in medical discourse as putting on a thermometer; taking medications; taking therapeutic baths. A huge number of collocations that we use in medical texts are mostly descriptive predicates consisting of a verb and a name. V. V. Vinogradov and other linguists believe that the use of descriptive predicates in stable phrases is due to the desire of special terminological systems for universality, standardization, with the need to mask the shade of a specific everyday orientation that is characteristic of the usual form of a particular verb.

Morphological and syntactic characteristics of collocations determine the ways of combining components in them. Let’s take a closer look at what grammatical features are characteristic of collocations. In accordance with the morphological affiliation of the free component, it is possible to distinguish:

1. The combination of verb and noun. This is the most common and important combination. It will depend on the correct choice of the verb meaning whether the interlocutor understands the whole statement: to make a diagnosis, to collect an anamnesis, to conduct an appointment.

2. Combining a verb and a noun using a preposition. This combination is similar to the previous one, but it will be distinguished by the preposition located between the verb and the noun: to inject into a vein.

3. The combination of adjective and noun. In this combination, the subject is designated and its characteristics are given: a folded tongue, an Achilles heel, a fatal outcome.

4. Combinations of two nouns: the labyrinth of the snail, the gate of the lungs, the horn of the uterus.

5. A combination of a verb and an adverb or an adverb and a verb. This group of words names an action (verb) and describes it (adverb): carefully administer the drug; safely, quickly and pleasantly (take the medicine).

6. The combination of adverb and adjective. Both words in the collocation characterize the subject: an extremely serious disease, a slowly progressing disease.

Thus, collocations are characterized by semantic coherence, that is, the meaning of a complex concept or phenomenon is expressed by the whole construction, and not by a single word. At the same time, the components of the phrase, on the one hand, fall into the same semantic field of semantic associations, on the other hand, they form a pair based on linguistic tradition; the most frequent combination of words is perceived as neutral and does not carry additional coloring.

The significant role of collocations and the need to study them are obvious: they are found in all natural languages; they represent the main feature of the language; collocation concretizes the meaning of the words that it contains; the way words are combined into collocations is fundamental to all linguistic use; collocation can "predict" the environment of the main word.

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Статья посвящена рассмотрению теоретических и практических проблем, относящихся, во-первых, к понятию «коллокации» в отечественной и зарубежной лингвистической литературе; во-вторых, к критериям выделения типов коллокаций, их определений и характеристик; в-третьих, к разработке и представлению функционально-семантической классификации коллокаций, которая будет способствовать разграничению различных их типов в теоретических и прикладных исследованиях

[**к содержанию**](#содержание)

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**ON THE USE OF CINEMA IN THE STUDY OF MEDICAL ENGLISH**

In today’s constantly developing world, knowledge of a foreign language, in particular English, is an integral part of life and professional activity. English is important for communication and exchange of experience in a professional environment. In this case, the question arises how is it most effective and exciting to learn a foreign language with less effort? Now the method of learning English through watching films in original voice acting and/or with subtitles is gaining popularity. However, medical terminology has its own specificity, many films emphasize entertainment at the expense of realism, which can distort understanding and lead to incorrect use of vocabulary. So is this method suitable for studying professional medical vocabulary?

The purpose of this scientific work is to study the effectiveness of the use of cinema, on the example of the series “The Good Doctor,” as a tool for learning medical English. The work is aimed at analyzing the lexical material presented in the series, as well as assessing its impact on the development of professional vocabulary, listening skills and understanding of medical terminology among students of medical universities. Within the framework of the study, the potential of visual and audiovisual means in learning is considered, as well as methods for integrating film segments into the educational process to increase the motivation and interest of students in learning medical English.

To achieve this purpose, the following tasks were set: 1) analysis of the lexical composition; 2) use context research; 3) identification of difficulties faced by students in the perception and use of medical vocabulary; 4) making recommendations for learning medical English through cinema.

When performing the research, we used the continuous sampling method, the comparative method, the method of statistical processing of the material.

We reviewed the first season of the series “The Good Doctor” 2017. We conducted a lexico-semantic analysis of words related to medical topics in the original voice acting of the series. English subtitles were used to assist in the selection of vocabulary. 145 words were selected, which included words, phrases and abbreviations. A survey was also conducted among students of the Grodno State Medical University, where they were asked to choose the translation of words from the film and recognize the context by ear (by ear + visually) when watching fragments of the film.

The series features many situations in which medical vocabulary is used. It can be roughly divided into two categories:

1) words with a unique value (VP Shunt, urinary tract, Savant syndrome, etc.). They cannot be interpreted in any way other than their singular meaning. However, in the context of our research, these words meet with another problem: in a work of art, these words can be used in the wrong context and mislead the viewer about their meaning.

2) words with several meanings, or multi-valued words (soft tissue, trauma, ventilation, etc.). They can have different meanings depending on the context and definitions of those standing nearby. These words need to be analyzed in context, to understand their true meaning. For example, the word “trauma” can be both physical and psychological trauma. The specificity of medical vocabulary is such that most words have one meaning and cannot be used in another context. There is also an abbreviation specific to the manufacturing country NPO (Nulli Per OS – take nothing inside – American medical instruction, meaning refusal of food and liquids), which will not be useful for students of Belarusian universities, but is an interesting point that allows you to learn more about foreign health care.

It is also important for our study to mention that the comments of many doctors indicate that the medical realism of this series is quite large, i.e. most medical terms are used in the right context, with the right lexico-semantic meaning.

A survey was also conducted among students of the Grodno State Medical University. They were asked several questions, which were divided into two blocks. In the first block, it was necessary to translate the words found in the film from English into Russian, among them were both words that had been studied in English classes by that time and unknown words. In the second block, students were asked to view an excerpt from the film and understand what was said in the selected scene, this block also consisted of two parts: with and without subtitles. Over 200 students took part in the survey.

Note the example of a task that caused difficulties. We have suggested that this is due to the complexity of the dialogue. The doctor clearly says... “the swelling is not coming down...” that is, he says “отек не спал”, as was suggested as a correct answer, but most students perceived this as the fact that “the tissue did not survive” which was not said in the passage.

Thus, students’ knowledge is sufficient to watch this film and perceive it both with and without subtitles. Taking into account the studied articles on the topic, we can make some recommendations for effective study of medical English on films:

• the film should be watched carefully, analyzing what is happening on the screen, you should not go about your business: cleaning, needlework, etc., but you should carefully analyze what is happening on the screen;

• if you feel uncertain about your knowledge, then at first it is worth including subtitles, while unfamiliar terms can be written out for future repetition, but it is worth mentioning that only watching films in English with subtitles in English has efficiency. Subtitles in Russian do not give a positive effect in learning, but are perceived by our brain rather as a simple reading of a book in Russian, while the sound in English is completely ignored;

• if knowledge of the language allows it is better to turn off subtitles. This helps develop contextual and listening comprehension skills;

• it is important that there is a sufficiently good level of understanding of the general vocabulary used, without this a sufficient understanding of medical terms is impossible;

• it is worth listening carefully to the speech of the actors (regarding watching films with subtitles) so that the words are not only perceived by ear, but also their correct pronunciation is remembered;

• Remember to put your knowledge into practice. If you manage to remember the studied words in conversation or in class, they will be deposited in long-term memory, and will not be forgotten soon.

Watching medical films, in particular the series “The Good Doctor,” cannot replace classical English studies in higher education institutions, as it does not provide a complete understanding of the structure of sentences, but can be used for independent study to facilitate understanding of English by ear and visually, as well as expand the vocabulary of medical terminology.

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В статье раскрывается вопрос об эффективности использования кинематографа при изучении медицинского английского языка. Автор также предлагает список рекомендаций по эффективному изучению медицинского английского языка по фильмам.

[**к содержанию**](#содержание)

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**INNOVATION AS A KEY TO IMPROVE SPEAKING SKILLS IN THE CUBAN CONTEXT**

Cuba is a country characterized by one of the most integral educational systems all over the world. It possesses not only free education but high-quality education that have become a beacon of social justice and a testament to the nation’s beliefs in the power of knowledge. However, the heart of Cuban Educational System lies in the principle of a universal access; that is why, along Cuban Revolution, the government has created several scholarships in order to give countless opportunities to foreign people. On the other hand, English is crucial for its role in today’s society and the opportunities students can get by speaking a second language.

Researchers in language learning have created different definitions of the word “speaking” in the last decades. Therefore, there is a wide range of them, for instance, in Webster New World Dictionary, speaking is the action of saying words orally, it is to communicate as by talking, to make a request, and to make a speech (Nunan, 1995). According to Chaney (1998), speaking is the process of making and sharing meaning by using verbal and non-verbal symbols in different contexts. On the other hand, Brown (1994), Burns and Joyce (1997) defined speaking as an interactive process of making meaning that includes producing, receiving and processing information.

The objective of this research is to create a set of activities through mobile applications for the correct development of English-speaking skills in 9th grade at Carlos Ulloa Aráuz Secondary School. The main purpose is to embrace technology in the Cuban context and through this way update the teaching-learning process by applying dynamic and creative methods.

The whole research was developed in the Secondary School Carlos Ulloa Aráuz, in Pinar del Río, where instruments like a survey to students, an interview to an English professor, an interview to a student, an observation guide and a pedagogical test were applied.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicators | High(4-3) | % | Middle(2) | % | Low(1-0) | % |
| Pronunciation | 21 | 61.76 | 10 | 29.41 | 3 | 8.82 |
| Vocabulary | 15 | 44.12 | 13 | 38.24 | 6 | 17.65 |
| Grammar | 15 | 44.12 | 10 | 29.41 | 9 | 26.47 |
| Fluency | 29 | 85.29 | 2 | 5.88 | 3 | 8.82 |
| Content | 27 | 79.41 | 5 | 14.71 | 2 | 5.88 |

|  |  |
| --- | --- |
| Sample(34) | Average Results |
| High | 62.94 |
| Middle | 23.53 |
| Low | 13.53 |

Total: only 86.47% acceptable

The final pedagogical test has as objective to verify the effectiveness of the proposal and as all you can verify in the chart above the result was 86.47% acceptable. In comparison with the initial pedagogical test the advancement rate is 16.472 % and this number confirms the improvement of speaking skills among students.

Thus, the teaching-learning process of English as a foreign language is a complex process according to the national situation. Therefore, the author has made a wide research about the different researchers who have written articles about speaking skills and mobile applications. The different instruments applied were priceless at the time of characterizing the real status at Carlos Ulloa Aráuz Secondary School. Considering the indicators with lower levels, the author has created a set of activities to develop speaking skills using mobile applications. The alternative of using mobile applications was designed due to the necessity of interactive ways to teach English in Cuban classes.

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На протяжении всей истории человечества языки представляли собой способ связи с различными цивилизациями и ознакомления с фактами межкультурного общения. Значение владения иностранным языком возрастает с годами в связи с социокультурным этапом современности. С другой стороны, то же самое развитие, достигнутое в течение десятилетий, сделало возможным совершенствование методов дидактики в процессе обучения. Однако технология считается лучшим инструментом в процессе обучения благодаря своим характеристикам. Кроме того, мир постоянно меняется в сторону технологий, поэтому некоторые профессора включают эти технологические методы в учебные заведения. Этим двум направлениям следовал автор, чтобы создать комплекс мероприятий с использованием мобильных приложений. Кроме того, целью работы является развитие навыков говорения с учетом текущего состояния средней школы Carlos Ulloa Aráuz. Диагностика состояния характеризуется использованием различных методов, таких как теоретические и эмпирические методы. Выборка состоит из учащихся девятых классов и насчитывает 34 ученика, что составляет 9,39% от общего числа учащихся.

[**к содержанию**](#содержание)

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**ARTIFICIAL INTELLIGENCE IN MODERN MEDICINE**

Artificial intelligence (AI) has become an important tool in modern medicine, capable of transforming approaches to diagnosis, treatment and patient management. With the development of machine learning algorithms and big data processing. AI is finding applications in various medical fields, including radiology, oncology, cardiology and surgical practice. The relevance of this research is determined by the need to describe current trends, advantages, and disadvantages of using AI in medicine, as well as to forecast its further development [3].

In this article we analyse the principles of artificial intelligence in medicine; examine specific examples of AI usage in various medical fields; identify the advantages and disadvantages of applying AI in medical practice; determine the prospects for the further development of AI in medicine.

Principles of AI in medicine.

Artificial intelligence in medicine is based on the use of machine learning and deep learning algorithms that allow systems to interpret large volumes of medical data. The main principles of AI operation include:

– data processing (AI processes data from various sources such as electronic medical records, laboratory test results and medical images);

– learning from examples (algorithms are trained on large datasets enabling them to identify patterns and make predictions, for example, neural networks can be trained on images to recognize pathologies);

– interactivity (some systems can interact with physicians in real time providing recommendations or alerts based on data analysis) [1].

Specific examples of AI usage in modern medicine:

1. Disease diagnosis. Google Health has developed algorithms for diagnosing breast cancer based on mammographic images with accuracy exceeding that of experienced radiologists. PathAI uses AI to analyze biopsy samples and determine the presence of cancer cells [2].

2. Treatment. IBM Watson for oncology analyses patient data and offers personalized treatment regimens based on the latest research and clinical data.

Tempus uses AI to analyse genomic data from cancer patients and helps doctors select the most effective treatment methods.

3. Patient monitoring. In critical care AI algorithms can predict the deterioration of patients in intensive care by analyzing real-time monitoring data. Wearable devices such as smartwatches use AI to monitor heart rate and other health indicators alerting users to potential issues.

Future prospects for using AI in medicine appear promising: AI is expected to be actively used in telemedicine platforms to improve remote monitoring and diagnosis; continuous improvement of machine learning algorithms will enable the creation of new, more accurate and effective technologies for diagnosis and treatment; AI can be integrated into various fields of medicine, including psychiatry, dentistry and rehabilitation.

Advantages of using AI in medicine: a) increased diagnostic accuracy; b) reduced workload for physicians; c) personalized treatment approaches; d) improved access to healthcare. Thus, AI can help reduce diagnostic errors and enhance treatment efficiency; automation of routine tasks allows doctors to focus on more complex aspects of patient care; AI can analyse individual patient data to create personalized treatment plans; the use of AI can help expand access to quality medical services, especially in remote areas.

Disadvantages of using AI in medicine: a) ethical issues; b) dependence on technology;c) need for staff training; d) limited data interpretation.The use of AI raises questions about data privacy and patient consent for processing their information; excessive reliance on AI may lead to a decline in physicians’ skills and a deterioration in the quality of patient care; physicians must be trained to work with new technologies which requires time and resources; algorithms may not always correctly interpret complex clinical situations which can lead to erroneous conclusions.

Artificial intelligence represents a powerful tool capable of significantly changing approaches to diagnosis and treatment in medicine. Its use already demonstrates considerable advantages including increased diagnostic accuracy and improved quality of patient care. However, there are also certain drawbacks such as ethical issues and the need for training medical personnel. In the future the integration of AI with other advanced technologies may lead to even more significant improvements in the field of medicine.

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В статье рассматривается использование искусственного интеллекта (ИИ) в современной медицине, принципы его работы, конкретные примеры применения, а также преимущества (точность диагностики, улучшение качества медицинского обслуживания, снижение нагрузки на врачей) и недостатки (этические вопросы, необходимость обучения медицинского персонала, зависимость от технологий). Определяются перспективы дальнейшего развития ИИ в медицине.

[**к содержанию**](#содержание)

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**INNOVATIVE METHODS AND APPROACHES IN TEACHING ENGLISH**

In the world of rapidly developing technologies and globalization each teacher thinks about the need to choose the right method for teaching a foreign language. However, over time, traditional teaching methods become ineffective, offering students limited opportunities for the development of skills. In this context, innovative methods of teaching a foreign language occupy a central place, allowing modern students to achieve a memorable and effective training [3, p. 100]. That is why the goal of our research is to study and systematize innovative methods and approaches used in the modern practice of teaching the English language to identify the most effective strategies to improve the quality of learning [3, p. 100].

One of the main innovative methods of teaching a foreign language is a role -playing game. In the process of such training, students find themselves in a situation as close as possible to reality, and can use the language to solve practical problems. This helps to simulate a real communicative situation, as well as develop the skills of listening, speaking and listening [3, p. 100–101].

The next interesting method is the case method or the method of specific situations. The method of active problem-indication analysis, based on training by solving specific problems-situations. The direct goal of the case method is the joint discussion and analysis of the case (events that occurred in a particular field of activity) by a group of students, the development of practical decisions with the subsequent assessment of the proposed algorithms and the choice of the best in the context of the problem. In fact, the case is events that occurred in a particular field of activity in order to provoke a discussion in the educational audience [2, p. 310].

Another crucial change was caused by scientific innovations that advanced progress forward and now cover all spheres of human knowledge. The following types of innovations are distinguished: socio-economic, organizational management, technical and technological innovations. One of the varieties of social innovations is pedagogical innovation. Pedagogical innovation is an innovation in the field of pedagogy, a purposeful progressive change that introduces stable elements (innovations) into the environment, improving the characteristics of both its individual components and the educational system itself as a whole. Pedagogical innovations can be carried out at the expense of their own resources of the educational system and by attracting additional capacities (investments) – new means, equipment, technologies, capital investments, etc. (extensive development path). The combination of intensive and extensive ways of development of pedagogical systems allows you to carry out the so-called “integrated innovations”, built from the end of diverse, multilevel pedagogical subsystems and its components. Integrated innovations, as a rule, do not look far-fetched, purely “external” measures, but conscious transformations that come from deep needs and system [1, p. 4].

In general, innovative teaching methods in English and education as a whole are a significant prospect for improving the quality of education and the development of competencies among students. However, their successful implementation is necessary for the training of teachers, access to resources and attention to the needs of students [1, p. 4].

The effectiveness of communicatively directed teaching of foreign languages in higher education institutions will be from the desire and ability of teachers to use the positive experience of domestic and foreign scientists and practitioners in the humanistic approach in training. Methods of teaching foreign languages, which are based on a humanistic approach, help to reveal the creative potential of students and contribute to the development and self-improvement of the educational and communication process [1, p. 9].

The study confirms the significant potential of innovative methods and approaches in modern English teaching. The systematic use of interactive platforms, the case method and other interesting approaches helps to increase students’ motivation, develop their communicative competencies and form a sustained interest in learning a language. To further increase the efficiency of training, it is necessary to develop adapted educational materials and advanced training of teachers in the field of innovative technologies.

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В данном исследовании изучается эффективность конкретных инновационных методов в преподавании английского языка как иностранного. Сосредоточившись на применении интерактивных платформ и анализа кейсов, исследование изучает их влияние на мотивацию учащихся, коммуникативные навыки и способности к критическому мышлению. Результаты показывают, что эти методы приводят к значительному улучшению вовлеченности учащихся и результатов обучения. В статье обсуждаются практические последствия для преподавателей и предлагаются направления для будущих исследований.

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**THE DAMAGE OF PARENTAL GASLIGHTING**

Manipulation by parents is the most painful and traumatic experience for a child because the child is in a dependent relationship with his parents, in addition, children consider parents the closest people. Constant gaslighting and manipulation by parents undermine the child’s safety, trust in both the family and people in general. The purpose of this article is to reveal what gaslighting is, what types it can be in families, how this manipulation affects a child in adulthood and how to deal with it. This article will help people better understand how to recognize gaslighting and what to do when you do encounter it.

The term “gaslighting” appeared in the late 1930s in a popular play and subsequent film called “Gaslight”. This story tells about a husband who manipulates his wife into doubting her own perception and sanity, which eventually drives her to the brink of insanity. This method of psychological manipulation became known as “gaslighting” due to the fact that the husband used gas lamps in their house to dim and flicker, making his wife think that she was hallucinating. Since the term “gaslighting” appeared, it has evolved and gone beyond its original theatrical context. It is now widely used to describe a form of emotional abuse and manipulation in which one person seeks to undermine another’s trust in reality. Gaslighting techniques can include denial, distortion and doubt of a person’s experiences, memories and emotions [1].

In denial the gaslighter rejects the victim’s experience, often causing her/his to doubt own memories or perceptions. Using distortion, the gaslighter misrepresents and exaggerates information, making it difficult for the victim to understand what is true and what is false. Through doubt, the gaslighter questions the victim’s emotions, making her/him doubt own feelings and reactions.

Stephanie A. Sarkis, Ph.D., author of the book “Gaslighting: Recognize Manipulative and Emotionally Aggressive People and Free Yourself” gives an excellent description of what gaslighting is: “Gaslighting is a form of manipulation and control over another person that can seriously affect the mental health and well-being of the victim, causing her/him to doubt own feelings, thoughts, actions and even right mind” [2].

There are four types of gaslighting in families. The first one is a lie. This type of gaslighting consists of lying to a child in order to distort his perception of the world. Imagine that there is a red notebook in front of you and you are told that it is blue. One person comes and talks about it and then the other confirms the words of the first person. What does the child start thinking about after such words? That means that either everyone has gone crazy or he has problems with his eyesight or with his head. But a child, especially a small one, cannot assume that his parents, the foundation of his life, have gone mad. He begins to doubt himself and eventually stops believing himself at all. The true picture is distorted and goes into the opposite, forcibly introduced, thereby instilling in the child that his experience is not true. Children stop trusting themselves.

Unfortunately, parents don’t always adhere to the “don’t cheat” principle when dealing with children. They may feel that the truth is hurting the child. So they decide to protect him from the truth. They think that they are protecting the child through lies, but in fact, lies only distort the child’s perception of the reality of the environment. The child’s pet died. It’s better to tell the child the truth. But the need to be honest with a child does not mean that you need to deprive him of imagination and joy. The child can continue to believe in Santa Claus or the Tooth Fairy. If the child starts to doubt and ask questions about fictional characters, then it’s time to tell him the truth. He’s old enough to hear it.

The second type of gaslighting is associated with unpredictable or fickle parents. This category includes adults who can allow a child to go to a meeting with a friend today and scold him a couple of days later for going there without permission. When a child grows up, he will stop understanding other people and trust problems will begin because people are extremely unreliable. The defining phrases of this type of gaslighting are the following: “I never agreed to this!”, “It never happened”, “I never said that”, “I’ve never done this!”.

The third type of gaslighting is the ideal family. There can be no negative emotions or mistakes in such families. They show the society the perfect picture of their family, their achievements in order to be admired and envied. But as adults children who grow up in such families will begin to be ashamed of their shortcomings, begin to ignore their feelings, ignore or be dissatisfied with their achievements and will be too critical of themselves, making mistakes.

The final type of gaslighting is a family with emotional neglect. Perhaps this type of gaslighting is the most subtle as it is the most difficult to notice. Since emotions are the most personal biological expression of who we are, when our feelings are devalued, we naturally feel that our inner self has been erased. Wishing well to the child, trying to show that life is a cruel thing because of the fear that their child will grow up spoiled, parents behave coldly and indifferently. They don’t show empathy. Instead, when a child falls and gets hurt, they tell him: “It doesn’t hurt!” When he’s full and doesn’t want to eat anymore, they tell him: “You really want to, eat three more spoonfuls!” – and so on in everything. When we tell a child that he’s fine or that he needs to stop crying urgently, or that life is unfair, we’re trying to ignore his feelings. In adulthood, a person who encountered this type of gaslighting in childhood will begin to develop the belief such as “no one helped me, and I don’t have too either”. In addition, an attempt to make a child feel and think the opposite, not what it really is, destroys the mechanism of correct assessment of the situation, embedded in the consciousness of every person. This type of gaslighting is accompanied by the following phrases: “These are your problems”, “Life is cruel”, “Who’s having it easy now?”, “Forget it”, “Don’t make up what’s not there”, “I don’t like it either, but I’m silent”, “You don’t have to try, I can’t hear you”, “It’s not that bad. Stop thinking about it. Others have it even worse”, “Why are you so emotional?” [3].

A person who was gaslighted by his parents in childhood needs to admit first of all that his parents manipulated or lied to him. It is not necessary to take on all the responsibility but to shift it onto the parents. The first step towards confidence is to understand that he/she is not to blame for the current situation. The second step is to stop expecting other people to confirm his/her expectations because only by taking risks and trusting in his/her own abilities can a person change his/her life for the better.

In conclusion, it can be noted that gaslighting is a serious form of manipulation that can have a devastating effect on the mental health of victims. It should be emphasized that understanding and recognizing the signs of gaslighting are important steps in overcoming it. Awareness of manipulative methods will allow victims to protect themselves and their boundaries as well as seek support if necessary.

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В статье раскрываются проблемы родительского газлайтинга и его разрушительное влияние на психическое здоровье детей. Автор анализирует четыре типа газлайтинга: ложь, непредсказуемость, идеализацию семьи и эмоциональное пренебрежение. Подчеркивается важность распознавания манипуляций и предлагаются шаги для восстановления доверия к себе. Понимание и осознание методов газлайтинга являются ключевыми для преодоления его негативных последствий и восстановления психического благополучия.

[**к содержанию**](#содержание)

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**DEATH PENALTY: ETHICAL, LEGAL AND SOCIAL ASPECTS**

The death penalty is an exceptional measure of punishment applied by the courts of different countries for certain particularly serious crimes involving the intentional deprivation of a person’s life under aggravating circumstances.

The death penalty has been a common practice throughout world history. However, as humanity progresses, including in the field of legislation, the question of the admissibility of capital punishment arises. The death penalty can be considered the only possible solution for delivering a punishment proportionate to the crime committed. At the same time, capital punishment may contradict the principles of humanism and the right to life enshrined in the legislation of democratic countries.

As the highest measure of punishment, the death penalty is applied in the Republic of Belarus. Article 24 of the Constitution states that “The death penalty, until its abolition, may be applied in accordance with the law as an exceptional measure of punishment for particularly serious crimes and only by a court verdict.” [2, с. 12] In the 1996 referendum, the citizens of the Republic voted against abolishing the death penalty.

The death penalty remains one of the most controversial and debated issues in moral and legal philosophy. The purpose of this article is to highlight both the advantages and disadvantages of capital punishment through the lens of ethical, legal, and social aspects, as well as to assess its impact on the legal system and society.

As previously mentioned, the death penalty is often seen as a proportional punishment. The anticipation of death is a severe punishment that may compensate for the suffering that murderers inflicted on their victims. Proponents of capital punishment argue that criminals should not continue to live after they have sentenced another person to death. This follows the so-called principle of retribution – “an eye for an eye, a tooth for a tooth.” In their view, sending a murderer to prison, where they will have shelter and three meals a day, does not fully solve the problem, as it leaves the possibility of repeated offenses and does not have a sufficient deterrent effect on potential criminals. Moreover, keeping a criminal in prison for life requires significant state expenditures. The death penalty protects society from particularly dangerous criminals.

Opponents of the death penalty argue that every life should be valued and that life imprisonment (or long-term imprisonment) is an adequate punishment. There is always the risk of judicial error. The Criminal Code of the Republic of Belarus enshrines the principle of humanism. According to opponents, the death penalty violates this principle, as it involves excessive physical suffering. It is considered ethically and morally unacceptable in modern society. They also refer to religious doctrines, recalling passages from the New Testament and the principle of “turning the other cheek.”

Studies are being conducted on the practical benefits of the death penalty. In the United States, some claim that states where the death penalty is legal have lower murder rates. In China, where capital punishment is applied for state crimes, the level of corruption is lower. At the same time, in European countries where the death penalty has been abolished, crime rates are not higher than in the United States [1]. Research presents contradictory data, making it unreliable as a decisive argument in this discussion. Additionally, participants in the debate tend to present other arguments.

What is the current situation? The death penalty is applied only to a legally defined list of crimes. The Criminal Code of the Republic of Belarus includes crimes such as waging war, terrorism, genocide, murder under aggravating circumstances, and others. None of the articles mandate a compulsory death sentence [3]. Since 1999, the number of executions has been decreasing. Courts tend to impose life imprisonment instead. The President of the Republic of Belarus has the right to grant clemency to individuals sentenced to death.

All this suggests that Belarus is making progress on the issue of capital punishment, even though it does not strive for its abolition. The reduction in the number of crimes for which the death penalty is imposed indicates an increase in public legal awareness and a decline in crime rates. Article 24 of the Constitution contains the phrase “until its abolition…,” [3] which implies the possibility of future legislative changes under appropriate conditions.

Thus, the analysis of the ethical, legal, and social aspects of capital punishment shows that this form of punishment remains one of the most debated issues in modern society. Supporters see it as fair retribution for serious crimes, while opponents consider it a violation of the right to life. Globally, there is a trend toward the abolition of the death penalty, although it continues to be applied in some countries. In Belarus, the possibility of its application remains, though the number of death sentences is decreasing. This indicates gradual changes in law enforcement practices.

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В статье представлен анализ правовых, этических и социальных аспектов смертной казни как высшей меры наказания. Рассматриваются аргументы сторонников и противников, включая вопросы справедливости, гуманизма, судебных ошибок и экономической целесообразности. Особое внимание уделяется практике применения смертной казни в Республике Беларусь, её правовому регулированию. Приводятся результаты исследования, демонстрирующие противоречивые данные о сдерживающем эффекте смертной казни. На основе рассмотренных аспектов делается вывод о продолжающейся дискуссии вокруг этой меры наказания и возможных изменениях в её применении.

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**C****HEMICALS IN BEAUTY PRODUCTS: HEALTH AND SAFETY**

Beauty products have long been an integral part of our lives: we use them every day to improve our appearance, for skin and hair care. In recent years, more attention has been paid to the safety and impact of cosmetics on human health and the environment. Many of us are beginning to realize that beauty can have a price, and this price is often hidden in the products we apply to our skin, hair, and nails.

This article aims to describe common chemicals found in beauty products, their potential risks to people’s health and the environment, as well as current research and alternatives that can help us make more informed choices when buying cosmetics.

Cosmetic products include a wide range of products used to enhance the appearance and care of skin, hair, nails and teeth. These include creams, lotions, shampoos, soaps, deodorants, lipsticks, and many others. The main types of cosmetics are decorative cosmetics (makeup, nail polishes, hair dyes), care cosmetics (moisturizers, skin cleansers, sunscreens) and therapeutic cosmetics (products for problem skin, anti-aging creams). Enhancing beauty, taking care of skin and hair, and maintaining cleanliness and health are the goals of applying cosmetics. [1]

Chemicals contained in personal care products have many uses, from preserving the product and giving it flavor to making it smooth and silky.

Preservatives in cosmetics are used to help prevent contamination and the growth of harmful bacteria. Some common preservatives include parabens and formaldehyde. Parabens are used to prevent the growth of microorganisms. Parabens can penetrate the skin and accumulate in the body, causing allergies and being associated with health risks. Formaldehyde is used as a preservative; however, it is a known carcinogen and can cause skin irritation and allergic reactions.

While dyes and perfumes are widely approved for use in cosmetics, they come with potential risks. Some artificial colors, such as phthalates, can be toxic and cause allergies. Artificial flavors can contain dozens of chemicals, some of which are linked to allergic reactions. [2]

UV filters are synthetic chemicals, which work by absorbing UV radiation. Some common organic filters include avobenzone, octinoxate and oxybenzone.They can penetrate the skin and cause allergic reactions, as well as potentially disrupt hormonal balance.

Retinoids are one of the most popular ingredients used in antiaging treatments. Retinoids are used to accelerate the renewal of skin cells. However, they may cause skin irritation and hypersensitivity to the sun.

Many chemicals have been researched and found to be potentially harmful to human health. It is important to note that many claims still require further research to substantiate the true risk. Often, chemical substances are linked to a process change in the body which can then lead to other diseases. Many chemicals in cosmetics can cause allergies, especially in people with sensitive skin. Allergy symptoms may include rashes, redness, itching, and swelling. Certain chemicals can accumulate in the body and cause long-term negative effects. For example, formaldehyde is a known carcinogen, and phthalates can disrupt hormonal balance. [3]

Many chemicals in cosmetics do not decompose in nature and can harm the environment. For example, microplastics contained in some products pollute aquatic ecosystems and can harm marine organisms.

Modern scientific research in the field of cosmetics is aimed at finding safe and natural ingredients. Many manufacturers are switching to using natural and safe ingredients such as plant extracts, essential oils, and natural preservatives.

There are various certifications such as COSMOS, Ecocert, USDA Organic and others that guarantee the safety and quality of cosmetic products. These certifications confirm that the products meet strict standards and are free of harmful chemicals.

Modern research and technological development contribute to the creation of safer and more effective cosmetic products. New testing methods make it possible to verify the safety of ingredients without using animals, which makes production more ethical.

To sum up, it is worth emphasizing that chemicals in cosmetic products play a significant role in our daily lives. On the one hand, they ensure the efficiency and long shelf life of products, on the other hand, they can pose potential risks to health and the environment. It is important to remember that not all chemicals are harmful, but it is necessary to be cautious. Modern research and technology offer safer natural alternatives that can minimize their negative impact on our bodies and nature. As consumers, we should pay attention to the composition of cosmetics, choose certified and safe products, and support manufacturers who adhere to high standards of quality and ethics. It is important to remember that our choices affect not only our health, but also the future of our planet.

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В статье описаны основные химические вещества, используемые в косметической продукции, показаны потенциальные риски и вредные воздействия этих химических веществ на здоровье человека, а также их безопасные альтернативы.

[**к содержанию**](#содержание)

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**ROLE OF SPORTS AND TOURISM IN PROMOTING A HEALTHY LIFESTYLE**

Modern society faces growing problems associated with deteriorating public health. Global urbanization, rising stress levels, and lack of physical activity have led to an increase in the number of diseases associated with a sedentary lifestyle. In such conditions, sport and tourism are becoming key tools not only to improve health, but also to popularize an active lifestyle among all age groups. The article aims to study the role of sport and tourism in the formation of healthy lifestyle habits and their impact on society. The purpose of the study is to show how sport and tourism activities contribute to the strengthening of physical and mental health, form positive habits, and help society move towards a sustainable development model focused on health.

Sport plays a fundamental role in maintaining and improving human health. Regular physical activity helps:

1. to strengthen the cardiovascular system. Research shows that people who regularly engage in physical activity have a significantly reduced risk of cardiovascular diseases such as hypertension and heart attack.
2. to improve metabolism. Physical activity speeds up metabolism, which helps normalize weight and prevent obesity.
3. to increase endurance and strength. Sports strengthen muscles and bones, which is especially important for older people.
4. to develop social skills. Team sports such as football or basketball help develop communication skills, the ability to work in a team and resolve conflicts.

It is a well-known fact that tourism is a form of active leisure. Tourism is a universal way to combine active recreation with cognitive activity. There are many types of tourism, and each of them has its own advantages. For example, walking and hiking along nature trails allow us to enjoy the beauty of the environment and improve our physical fitness at the same time. Climbing peaks and trekking along mountain routes develop endurance and help overcome fears and internal barriers.Cycling is a great way to combine sports and travel exploring new cities and regions. Rafting, kayaking and other water activities develop coordination of movements and provide unique sensations from interaction with nature. Programmes aimed at popularizing sports and tourism are actively implemented at various levels – from local communities to national initiatives.

The main ways to promote a healthy lifestyle include:

1. organization of mass events. Sports competitions, tourist festivals and marathons involve a large number of people, contributing to the popularization of active leisure.
2. creation of accessible infrastructure. The construction of sports grounds, bicycle paths and tourist bases encourages the population to a more active lifestyle.
3. educational campaigns. Educational programmes aimed at informing the population about the health benefits of sports and tourism play an important role.

Sports and tourism are not just the ways to spend leisure time, but also effective tools for strengthening physical and mental health. They contribute to the development of communication skills, overcoming stressful situations and the formation of sustainable habits associated with an active lifestyle. For further development of this area, it is necessary to increase the availability of sports and tourism programmes, as well as continue to implement initiatives aimed at popularizing active recreation among the population.

Sports and tourism play an important role in the Republic of Belarus offering a variety of opportunities for active recreation and cultural enrichment. Sports such as hockey, football, basketball, athletics and gymnastics are actively developing in our country. Hockey is especially popular, and the national team has significant achievements in the international arena. Due to the climate in Belarus, winter sports such as biathlon, cross-country skiing and figure skating are developing. The country regularly holds international competitions in these sports. A healthy lifestyle is also actively promoted in Belarus. A lot of people are engaged in fitness, running and other types of physical activity.

Tourism in Belarus is a separate art form. Belarus is known for its beautiful natural landscapes including forests, lakes and rivers. National parks such as Belovezhskaya Pushcha and Narochansky National Park attract tourists with their unique flora and fauna. Besides, Belarus has a rich historical and cultural heritage. Castles such as Mir and Nesvizh, as well as historical cities such as Grodno and Brest, attract tourists with their architecture and history. Ecological routes are actively developing in the country, allowing tourists to enjoy nature and engage in active recreation – hiking, cycling and fishing. Belarus hosts many festivals, exhibitions and sporting events, which also attracts tourists. For example, festivals of music, art, and folk traditions. Culinary traditions of Belarus are becoming more and more popular among tourists. The local cuisine offers a variety of dishes such as draniki, meat dishes and dairy products.

Sports and tourism in Belarus have great potential for development. The country offers many opportunities for outdoor activities and cultural enrichment for both locals and tourists. In recent years, Belarus has significantly improved its sports infrastructure. New stadiums, sports complexes and training facilities have been built, which creates favourable conditions for the training of athletes. Belarus regularly hosts international sporting events such as championships in hockey, athletics and other sports. This not only raises the prestige of the country, but also attracts tourists. Belarus hosts many festivals and cultural events that attract tourists from all over the world. The examples include the Festival of National Cultures in Grodno and the Music Festival in Minsk. It is important to develop tourism taking into account environmental standards and the conservation of natural resources. This will allow us to preserve unique natural landscapes for future generations.

Thus, sports and tourism in Belarus have enormous potential for further development. Their successful integration can significantly improve the standard of living of the population, improve the country’s image in the international arena and attract new investments. Creating modern conditions for sports and tourism development will be the key to a successful future for the country.

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В статье рассматривается роль спорта и туризма в формировании здоровых привычек и здорового образа жизни. Автор доказывает, что спорт и туризм – это не только способы проведения досуга, но и эффективные инструменты для укрепления здоровья и выработки устойчивых привычек активного образа жизни. Особое внимание уделено анализу современного состояния развития спорта и туризма в Беларуси, а также перспективам их развития.

[**к содержанию**](#содержание)

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**CULTURAL AND LINGUISTIC FEATURES OF ADVERTISING SLOGAN ADAPTATION FOR THE CHINESE MARKET**

China is an important economic partner for many countries, including Belarus. Successful trade with this country is impossible without considering cultural characteristics, particularly the perception of advertising. Marketing is a key tool in promoting goods and services, and advertising slogans, in turn, play a crucial role in shaping a brand’s image and attracting consumers. However, for successful adaptation of advertising in the Chinese market, it is necessary to take into account cultural and linguistic features, that require high-quality translation and adaptation of advertising materials.

The purpose of this article is to analyze the cultural and linguistic aspects of adapting advertising slogans for the Chinese market and to demonstrate which translation methods (functional equivalence, transcreation, creative, and literal translation) help make advertising more effective. The article explains how cultural factors, such as high power distance, a preference for stability, and traditional values, influence the perception of advertising in China and suggests strategies for adapting advertising slogans accordingly.

Chinese culture differs significantly from Western culture, and this is reflected in the perception of advertising. One important aspect is the deep respect for authority, traditions, and family. In advertising, emphasis is placed on stability, security, and adherence to social norms. In contrast, Western culture is oriented toward individualism, innovation, and a sense of adventure. These differences influence how advertising messages are perceived and how they should be adapted for a Chinese audience. Let us take a closer look at the techniques used to translate advertising slogans for China.

Nida’s theory of functional equivalence emphasizes the importance of focusing on the target language and culture. In advertising, the main task is to create a need for purchase, which means that the advertising message must evoke similar emotions and reactions in the target audience as in the original. This approach is ideal for translating advertising slogans, as its goal is to create an equivalent response from consumers while taking into account their cultural characteristics [3].

Since China is a country with a high degree of uncertainty avoidance, and people tend to choose proven and safe brands, a translation that includes words related to adventure may not be suitable for Chinese consumers. It is better to use a slogan that emphasizes safety and authority.

As an example, let’s consider the slogan of the automobile company Land Rover: "路虎，实力派越野王者" (lù hǔ, shí lì pài yuè yě wáng zhě) – “Land Rover – a powerful king of off-road.” The words “wáng zhě” (king) and “shí lì pài” (very strong, significant) effectively convey the product’s safety and authority, which helps gain the trust of Chinese consumers.

Let’s look at another example – an advertisement for an automotive brand, where the product concept highlights that this SUV can meet the needs of all adventure seekers: “冒险是我们的天性” (màoxiǎn shì wǒ men de tiān xìng) – “Adventurous spirit is our nature” or “Adventure is in our blood”.

Since the uncertainty avoidance index in Western countries is low, the word “adventure” is well-suited for a Western audience. However, using this slogan for the Chinese market would be inappropriate, as it does not align with Chinese values, which are centered on safety and stability.

The next method is transcreation – the process of adapting text while preserving its meaning, style, and emotional impact, which is especially crucial for advertising materials. In the case of the Chinese market, transcreation may involve the use of proverbs, epigrams, and well-known expressions from Chinese culture, helping to bridge the cultural gap between manufacturers and consumers [2].

For example, when translating a Chinese advertising slogan, epigrams or famous phrases familiar to Chinese consumers may be used, making the advertisement more accessible and appealing. Transcreation highlights the creative role of the translator, as it is a combination of translation and creative adaptation. This requires not only linguistic skills but also a deep understanding of the values, beliefs, and social norms of the target culture.

Successful advertising often relies on evoking emotions. Transcreation goes beyond language to adapt visual elements, metaphors, and tone, ensuring that the audience resonates with the intended emotional appeal. It also helps prevent misunderstandings, as a literal translation may lead to misinterpretation or even offensive connotations.

Effective transcreation requires careful consideration of multiple elements. Language and dialects are fundamental; incorporating local idioms and slang can add authenticity to a campaign, though they must be used cautiously. Visual and symbolic elements also play a crucial role. Colors, images, and symbols often carry different meanings across cultures. In China, red is traditionally associated with luck, happiness, and prosperity, making it a popular choice in advertising to attract attention and create positive associations. Gold symbolizes wealth and success, whereas white can be linked to mourning and loss, requiring careful usage in marketing materials.

Another approach is creative translation. This method demands not only linguistic expertise but also the ability to adapt marketing messages in alignment with the cultural and social realities of the target audience. For example, Chinese advertising slogans frequently employ metaphors and expressions that may not be immediately clear to Western consumers. Instead of providing a literal translation, a creative translator reworks the phrase into a culturally relevant and impactful form, preserving the effectiveness of the original message [1].

For example, let’s consider the slogan of Dayang Motorcycles: “心随我动,大阳摩托” (Xīn suí wǒ dòng, dà yáng mótuō), which can be literally translated as “The heart follows my movement, Dayang Motorcycle”. However, a direct translation may not effectively convey the intended meaning to the target audience. A more culturally adapted version would be: “Dayang Motorcycle –Always in Your Heart”.

Another method is literal translation. This approach is suitable when a slogan consists of factual information, without linguistic transformations or strong cultural references. In such cases, the original text should be translated without modifications, preserving its structure, meaning, and metaphors. A well-executed literal translation ensures that the message remains clear, natural, and easily understood by the target audience.

Let’s move on to the problems of adapting advertising slogans for China.

The first problem is the high power distance in China, which affects the perception of advertising. Advertising that emphasizes authority and respect will be more successful than advertising that focuses on individualism.

The second problem is conservatism in the perception of novelty. Chinese consumers prefer proven and safe brands. Advertising slogans that highlight innovation or adventure may not resonate well with the Chinese audience. Instead, it is better to use slogans that emphasize stability, reliability, and safety.

In conclusion, the adaptation of advertising slogans for China requires a careful approach that takes into account not only linguistic but also cultural differences. The application of the theory of functional equivalence, transcreation, and creative translation allows for the effective adaptation of advertising materials for the Chinese audience. Successful adaptation not only enhances brand perception but also strengthens consumer trust, which, in turn, contributes to increased sales and the growing popularity of products in the Chinese market.

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В статье рассматриваются ключевые принципы адаптации слоганов, среди которых использование культурных символов, игра слов, сохранение эмоционального посыла, рифмы, ассоциации с удачей и процветанием, которые особенно важны для китайских потребителей. Приведены конкретные примеры адаптированных слоганов международных брендов, что позволяет проанализировать, какие стратегии наиболее эффективны для продвижения в Китае.

[**к содержанию**](#содержание)

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**PATENTS AND TRADE SECRETS AS INSTRUMENTS OF INTELLECTUAL PROPERTY PROTECTION**

The results of human intellectual activity are fundamental to modern society and a critical component of the market economy. Therefore, it is necessary to develop an effective system for regulating rights to these creations.

The purpose of this study is to analyze and compare intellectual property protection systems, specifically patents and trade secrets, to determine their effectiveness in the modern market and their role in ensuring the competitiveness of companies.

Intellectual property represents a specific type of economic relationship between economic entities concerning the appropriation and use of the product of intellectual labor, grounded in new knowledge [1, p. 4]. Intellectual property rights encompass a set of property rights and non-property personal rights pertaining to the results of intellectual activity, implemented as prescribed by law [3, p. 19]. This concept can be analyzed from both economic and legal perspectives. Economically, it is rooted in ownership, while legally, it is framed within the law.

Intellectual property objects include tangible and intangible assets governed by laws concerning unfair competition, copyright, and patent legislation.

A patent is a document certifying authorship, priority, and exclusive rights. It grants the patent holder exclusive rights, such as the production or sale of the patented product or process. A key characteristic of obtaining a patent is that the subject matter cannot be significantly altered after the application is filed.

A trade secret is confidential internal information of a company for which a confidentiality regime has been established. This information can include technical, production, and financial data, as well as production secrets (know-how).

Modern companies establish research departments to develop innovations that increase their competitiveness. These companies must choose between trade secret protection and patent protection. The main advantage of a trade secret is the absence of time restrictions, while patents have the disadvantage of a limited term of validity. Patenting provides protection from unfair competition, although the procedure can take up to two years, unlike establishing a trade secret, which requires less time.

However, trade secrets carry risks: a company may lose its exclusive rights due to information leakage. If a trade secret is disclosed, the possibilities of compensation for damages and holding the responsible parties accountable are limited. To protect a trade secret, it is necessary to clearly define the scope of protected information. In legal disputes, the court assesses whether all necessary protective measures were taken, evaluates the evidence presented (e.g., photos or videos from surveillance cameras, witness testimony), and establishes a causal relationship. Proving such violations can be challenging. In contrast, enforcing patent rights is often simpler due to the existence of specialized registers [2, p. 20].

These two methods of protection are often mutually exclusive. Filing a patent application requires disclosing the essential characteristics of the invention, while a trade secret relies on maintaining confidentiality and does not provide state-backed protection. Inventors must carefully analyze the risks and consequences of choosing between these options [2, p. 21].

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В статье анализируются особенности патентования и коммерческой тайны, выявляются их преимущества и недостатки. Обсуждается сравнение систем защиты интеллектуальной собственности. Изучение этих систем позволяет оценить их влияние на конкурентоспособность компаний и выбор оптимальной стратегии защиты интеллектуальной собственности.

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**THE SEASONAL FLIGHT DYNAMICS OF THE CODLING MOTH, CYDIA POMONELLA (INSECTA; LEPIDOPTERA; TORTRICIDAE)**

Among seed fruit crops grown in Russia, apples, pears, quinces, and irga play an important role. At the same time, the yield of these crops can be significantly reduced by some winged pests, for example, the codling moth (Cydia pomonella L.) (Insecta: Lepidoptera: Tortricidae). A lot of insecticide treatments are needed to keep the codling moth and other pests away from fruit crops. However, because these crops are used for food and children’s nutrition, the use of insecticides is limited. This also applies to organic farming systems. In this regard, the issue is particularly acute: the use of safe methods of crop protection that are safe for humans and the environment, especially the use of synthetic insect sex pheromones for this purpose, which can be used for monitoring and mass trapping of the pest. The advantages of pheromone monitoring over other methods are the capture of a single species, even with a low population. The use of sexual attractants makes it possible to quickly and accurately determine the early appearance of harmful lepidoptera [1–3].

During our research, we sought to develop effective methods of using domestically produced synthetic pheromone preparations to control the number of codling moth in the Moscow region in 2023.

The research was conducted in the Michurinsky Garden of the Russian State Agricultural Academy named after K. A. Timiryazev in 2023. The garden is located on a gentle 0.5–1 degree slope of the southern exposure. The soil in the garden is sod-slightly podzolic, the humus content is 2.5%. It is deep-arable, slightly loamy, formed on moraine loam, slightly acidic, with average levels of potassium, phosphorus, and nitrogen.

The natural and climatic conditions of the Michurinsky Garden are similar to the average of the Moscow region, but the temperature regime is closer to the southern regions of the Moscow region, the northern regions of the Tula and Ryazan regions, and the central regions of the Republic of Belarus.

The main experimental studies were conducted using synthetic pheromone preparations of the apple codling moth. The primary emphasis of the experiments was the examination of the flight dynamics of the pests during summer. To observe the seasonal flight dynamics of the apple moth, we used pheromone preparations and delta-shaped glue traps of the type “Attraction A”, manufactured by “Schelkovo Agrohim”. These traps are made of water-repellent material, laminated cardboard. An adhesive insert with a surface area of 184 cm2 is placed at the bottom of the traps. On one side, the trap is coated with a layer of special entomological adhesive layer. To attract male codling moths, various forms of pheromone emitters are fixed under the trap arch above the adhesive liner, which must emit pheromones evenly and continuously, be resistant to environmental influences, and maintain activity throughout the entire period of the pest’s flight.

The rubber dispensers manufactured by “Schelkovo Agrohim” retain their biological effectiveness for a period of 4–6 weeks, requiring replacement after this period. The traps were positioned in the garden at a height of 1.7 m. Traps in the experiments were hanged according to the accepted recommendations: at the distance of 30–50 meters from each other, and at least 5 meters away from traps for other species, in order to avoid mutual inhibition of synthetic pheromones they emit. The males of the codling moth were captured by the adhesive surface of pheromone traps on fruit plantations and were counted weekly. Glue liners were replaced when they became dirty, usually after two to three weeks, during the summer months, once a week. Traps were placed randomly within repetitions. At the same time, the total number of males of codling moths and other non-targeted individuals was calculated simultaneously. Five experiments were conducted, and the data showed that the development of codling moth was characterized by a moderate duration and less intensity. During one week in summer up to 8–18 codling moth larvae were caught per trap, not exceeding ETL (Tab. 1). The peak number on July 4th was recorded at 14 individuals per trap with weaker peaks in late July and mid-August, indicating the development of two generations.

Table 1. Seasonal flight dynamics of the codling moth in pheromone traps in the conditions of the Moscow region in 2023.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Accounting date | 01/6 | 08/6 | 14/6 | 21/6 | 04/7 | 12/7 | 20/7 | 27/7 | 04/8 | 11/8 |
| Average catch per 1 trap/ week | 2.00 | 2.17 | 5.17 | 4.67 | 14.0 | 1.17 | 2.33 | 1.77 | 0.50 | 0.50 |

Thus, the flight of male codling moth into pheromone traps in the Michurinsky Garden was much milder. The pest attack began after the blooming of seed fruit blossoms (late May) and lasted until August. Thus, the results of the research conducted in 2023 showed that the flight dynamics of the codling moth in the Moscow region is much milder. During the active season of this pest, there were on average, less than 10–18 males per trap, which fell within the ETL. Pest abundance peaks were observed in mid June and July.

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В статье описано исследование, направленное на поиск возможностей отслеживания численности основных вредителей плодовых культур в садах с помощью синтетических феромонных препаратов. В результате исследования были сделаны выводы относительно привлекательности изучаемых препаратов и продолжительности их действия. Установлено, что динамика пролета плодожорки в условиях центрального региона России значительно мягче. Новые феромоны обладают низкой продолжительностью действия и эффективностью воздействия на яблоневую плодожорку.

[**к содержанию**](#содержание)

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**Advancing Construction with Bio-Based and Smart Concrete Technologies**

The construction industry is undergoing a paradigm shift driven by technological innovations that enhance durability, efficiency, and environmental sustainability. The integration of self-healing materials, intelligent monitoring systems, and bio-based alternatives is reshaping modern infrastructure. A key factor in this transformation is the international exchange of knowledge. This paper examines bio-concrete, smart concrete, and alternative sustainable materials, focusing on their benefits and applications.

Bio-concrete is an innovative material designed to address the durability challenges of traditional concrete by integrating biological self-healing mechanisms. This technology relies on encapsulated bacteria, such as Bacillus subtilis, Bacillus sphaericus, Bacillus pseudofirmus, and Sporosarcina pasteurii, which remain dormant within the concrete matrix until cracks form. When moisture infiltrates the structure, the bacteria activate, metabolizing calcium lactate to produce calcium carbonate (CaCO₃), which naturally seals the cracks and prevents further deterioration [2].

Research institutions such as Leiden University (Netherlands) and Durham University (UK) have played a crucial role in advancing bio-concrete technologies. The Fraunhofer Institute in Germany has explored the potential of cyanobacteria, which utilize light, moisture, and CO₂ to continuously generate calcium carbonate, thereby reinforcing the concrete structure over time [1].

In addition to bacterial-based self-healing, recent studies have examined fungi as alternative biological repair agents. Trichoderma reesei and Neurospora crassa have demonstrated the ability to precipitate calcium carbonate on their cell walls, effectively sealing cracks in cementitious environments. To sustain fungal growth, various organic materials such as cotton, hay, hemp fibers, corn, and oat have been investigated as potential nutrient sources. Results show that T. reesei thrives on cotton and hay, while N. crassa exhibits strong growth on starch-based materials. When integrated into concrete, fungal growth is most prominent in samples containing corn, oat, and cotton [2].

The application of bio-concrete presents several advantages over traditional materials. Its autonomous self-healing properties significantly extend the lifespan of buildings and infrastructure, reducing maintenance costs and minimizing structural failures. Furthermore, bio-concrete contributes to environmental sustainability by absorbing atmospheric CO2 during the mineralization process. Due to its adaptability, this material can be implemented in terrestrial, aquatic, and even extraterrestrial environments, making it a viable solution for future construction challenges [1].

Despite its potential, the widespread adoption of bio-concrete faces several challenges. The highly alkaline environment of concrete can limit bacterial viability over time, necessitating improved encapsulation techniques. Current production costs are also higher than those of conventional concrete, though ongoing research aims to optimize manufacturing processes to enhance cost efficiency. Additionally, while bio-concrete effectively heals microcracks up to 0.8 mm in width, larger cracks may still require supplementary intervention [2].

As advancements continue, bio-concrete holds promise as a revolutionary material capable of transforming the construction industry by providing self-sustaining, durable, and eco-friendly infrastructure solutions.

The evolution of bio-concrete has led to the development of smart concrete, a material embedded with sensors that monitor structural conditions in real-time. Researcher Luna Lu from Purdue University proposed the concept, emphasizing its potential for reducing infrastructure maintenance costs and enhancing safety. By integrating fiber-optic sensors, smart concrete enables continuous assessment of mechanical stress, temperature fluctuations, and deformation, thereby improving the durability and reliability of structures [3].

Companies such as Luna Innovations have developed fiber-optic sensors capable of detecting pressure, temperature, vibration, and deformation. These sensors provide real-time data, ensuring proactive maintenance and reducing risks associated with structural failures. Furthermore, smart concrete technology is being utilized to monitor CO2 emissions in concrete production, aligning with global sustainability goals [3].

Distributed fiber-optic sensors (DFOS) play a crucial role in smart concrete applications. DFOS systems operate based on light scattering within optical fibers, utilizing Rayleigh, Brillouin, and Raman scattering to detect changes in strain and temperature along the fiber’s length. These sensors provide high-resolution data, enabling early detection of structural weaknesses [3].

Recent advances in DFOS technology include the application of optical frequency domain reflectometry (OFDR), which allows precise measurements of signal loss along fiber-optic cables. Additionally, Brillouin scattering-based sensors offer long-range monitoring capabilities, detecting stress and temperature changes over distances exceeding 100 kilometers [3].

**Advantages of smart concrete:**

* Fiber-optic sensors provide continuous real-time data, improving predictive maintenance and reducing infrastructure failures.
* DFOS systems offer high-resolution measurements, ensuring accurate detection of cracks and deformations.
* Early detection of structural weaknesses minimizes risks associated with material fatigue and environmental stressors.
* Smart concrete helps optimize material usage and reduce CO2 emissions by improving construction efficiency and longevity [3].

The implementation of DFOS in smart concrete has been tested in various applications, including bridge monitoring, tunnel construction, and high-rise buildings. Optical fibers are embedded within concrete structures during the construction phase, allowing real-time monitoring throughout the material’s lifespan. These systems can detect microcracks before they propagate, enabling timely interventions and extending the service life of infrastructure [3].

Despite its advantages, smart concrete faces certain challenges, including sensor durability, data processing complexities, and the initial costs associated with integrating fiber-optic systems.

Both bio-concrete and smart concrete represent groundbreaking advancements in the construction industry, addressing critical challenges related to durability, maintenance, and sustainability. Bio-concrete leverages biological mechanisms to autonomously repair structural damage, significantly extending the lifespan of infrastructure while reducing carbon emissions. However, challenges related to bacterial viability and production costs require further research to enhance its scalability.

Smart concrete, on the other hand, integrates fiber-optic sensor technology to provide real-time structural monitoring. This innovation enhances predictive maintenance, reduces the risk of structural failures, and aligns with global sustainability goals by optimizing material efficiency. Despite challenges related to sensor integration and data processing, smart concrete holds great potential for transforming modern infrastructure through improved safety and performance.

The combination of these technologies could lead to the development of hybrid materials that offer both self-healing capabilities and real-time monitoring, further advancing the sustainability and longevity of construction materials. As these technologies continue to evolve, their adoption will play a crucial role in shaping the future of resilient and eco-friendly infrastructure.

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В статье рассматриваются перспективные технологии биобетона и умного бетона, направленные на повышение долговечности и устойчивости строительных конструкций. Биобетон использует микроорганизмы для автономного восстановления трещин, снижая затраты на ремонт и уменьшая углеродный след. Умный бетон, оснащенный встроенными сенсорами, обеспечивает мониторинг состояния сооружений в реальном времени, повышая их надежность и эксплуатационную эффективность. Представлены основные направления исследований, перспективы применения и ключевые технические вызовы, определяющие будущее инновационных строительных материалов.

[**к содержанию**](#содержание)

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**THE IMPACT OF TECHNOLOGY ON SPORTS PERFORMANCE**

Technology has had a profound impact on sporting competitions, changing almost every aspect of how sporting events are conducted and perceived. They have not only improved the quality of officiating and performance analysis, but have also transformed training processes, fan interaction and sports event management. These changes have made sport more accurate, fairer and more engaging for all participants.

One of the most significant changes has been the introduction of video in umpiring decisions, making sporting events fairer and more honest.

Technology has also changed the way athletes train and prepare.

Modern wearable devices such as fitness trackers and smart watches allow athletes and coaches to track physical activity, heart rate, fatigue levels and other metrics in real time [1]. This data helps optimize training programs, prevent injuries, and improve athletes' overall performance. Augmented and virtual reality (AR/VR) provide new tools for training, allowing athletes to practice skills in a virtual environment that mimics real-world competition conditions. This helps to improve assistant referee (VAR) systems and other officiating technologies such as Hawk-Eye. These systems give referees the ability to review disputed points and make more informed decisions, which greatly reduces errors and controversy. For example, in soccer, VAR is used to analyze goals, penalties and red cards, avoiding serious errors that could affect the outcome of a match. In tennis, Hawk-Eye helps determine if the ball has hit the line, ensuring objective and accurate officiating. These technologies have increased spectator and participant confidence tactical knowledge and prepare for different game situations without the risk of injury.

Interaction with fans has also been greatly enhanced by technology. Modern stadiums are equipped with interactive systems and mobile apps that give fans access to additional information such as statistics, video replays and real-time commentary. Augmented reality enables the creation of immersive and interactive experiences, such as through games and quests in stadiums. This increases viewer engagement and satisfaction, making watching sporting events more interesting and engaging. Social media and video streaming technologies also allow fans to follow their favorite teams and athletes anytime and anywhere, increasing loyalty and engagement.

Sports event management technologies have also undergone significant changes. Modern timing systems and photo finishers provide highly accurate measurements, which is especially important in sports where every fraction of a second counts. These systems allow results to be processed and displayed quickly, which improves the perception of spectators and participants [2].

Analytical software helps organizers plan and manage events more efficiently, taking into account various aspects such as security, logistics and spectator comfort. Modern security systems, including video surveillance and access control, provide a high level of protection for all participants and spectators.

Technology is also helping to improve marketing and advertising in sports. Interactive advertisements and AR banners in stadiums allow fans to interact with brands and products, increasing engagement and satisfaction. Social media and mobile apps provide new channels to promote sporting events and engage with fans, helping to grow audiences and revenue. The use of big data and analytics allows marketers to better understand fan preferences and behavior, which helps develop more effective marketing strategies and improve fan experience.

Sensor technology has advanced to such an extent that it can be incorporated into a multitude of sports equipment, such as tennis rackets, golf clubs, rods and swimming goggles. These sensors are able to measure movement and record detailed biometric data, which can be analyzed to determine problems from a swing, throw or hit performed by the athlete.

In conclusion, it should be mentioned that the impact of technology on sporting events cannot be overemphasized. They have changed almost every aspect of sport, from officiating and coaching to fan interaction and event management. Technology has made sports more accurate, fair and exciting by providing new tools and opportunities for all participants. In the future, we can expect to see further development of these technologies and new innovations that will continue to transform the sports industry and make it more attractive and efficient [3].

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В статье речь идет о современных технологиях в физической культуре, которые помогают увеличить эффективность тренировочного процесса и достичь более высоких результатов.

[**к содержанию**](#содержание)

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**WIE BELARUSSISCHE MARKEN MÄRKTE EROBERN**

Belarus ist ein Land mit einer langen Tradition in der Herstellung von Qualitätsprodukten. Seine Marken sind nicht nur auf dem heimischen Markt, sondern auch weit über die Grenzen des Landes hinaus bekannt. Von Lebensmitteln bis hin zu Industriemaschinen stellen belarussische Unternehmen hohe Qualitätsstandards und Wettbewerbsfähigkeit unter Beweis. Ziel des Artikels ist es zu zeigen, wie belarussische Marken zu einem Markenzeichen des Landes werden und zur Stärkung des wirtschaftlichen und kulturellen Images des Landes auf der Weltbühne beitragen. Dabei werden die wichtigsten Erfolgsfaktoren, Werbestrategien und Beispiele von Marken, die im Ausland Anerkennung gefunden haben, untersucht.

Belarussische Marken haben tiefe Wurzeln. Viele von ihnen begannen ihre Tätigkeit bereits zu Sowjetzeiten, zum Beispiel das Minsker Traktorenwerk oder Belarussisches Automobilwerk. Diese Unternehmen wurden zu Symbolen für die industrielle Stärke des Landes. Heute entwickeln sie sich weiter und passen sich den modernen Markterfordernissen an.

Wichtige Marken von Belarus:

* Minsker Traktorenwerk: Einer der größten Landmaschinenhersteller der Welt. Weißrussische Traktoren werden in mehr als 100 Länder exportiert.
* Belarussisches Automobilwerk: Ein Hersteller von Steinbruchausrüstungen, bekannt für seine riesigen Muldenkipper. Das Unternehmen nimmt eine führende Position auf dem Weltmarkt ein.
* Milchprodukte: Marken wie „Sawuschkin Produkt“ und „Babusсhkina Krynka“ sind zum Synonym für Qualität und Natürlichkeit geworden. Ihre Produkte werden in die EU, nach Asien und in die GUS-Länder exportiert.

Berühmte belarussische Bekleidungsmarken:

* Damen- und Herrenbekleidung: „Kalinka“, „Elema“, „8 Marta“, „Nadex“, „Elise“, „Komintern“, „Slawjanka“, „Bugalux“;
* Spitzenstrickwaren: „Alessja”, „Polessje“, „Elma“;
* Leinenstrickwaren: „Switanok“, „Kupalinka“, „Ljubawa“, „Mark Formelle“;
* Unterwäsche: „Milawiza“, „Serge“;
* Strumpfwaren: „Conte“, „Brester Strumpffabrik“;
* Kinderkleidung: „Marussja“ [1].

Belarussische Marken entwickeln sich aktiv und erobern dank kompetenter Werbestrategien die internationalen Märkte. Ihr Erfolg beruht auf einer Kombination aus traditionellen Ansätzen und modernen Marketinginstrumenten. Im Folgenden wird betrachtet, wie belarussische Marken beworben werden, wo sie gefragt sind und welche Methoden sie anwenden, um ihre Käufer zu gewinnen.

Eines der wichtigsten Werbeinstrumente ist die Teilnahme an großen internationalen Ausstellungen. Auf diese Weise können Marken ihre Produkte einer breiten Öffentlichkeit vorstellen, Kontakte mit potenziellen Partnern knüpfen und Markttrends studieren. Beispiele für Messen:

* Prodexpo (Moskau): Die größte Lebensmittelmesse, auf der belarussische Molkereimarken wie „Sawuschkin Produkt“ und „Babuschkina Krynka“ jährlich ihre Produkte vorstellen.
* SEMA (Hannover): Internationale Ausstellung für Landmaschinen, auf der Minsker Traktorenwerk seine Traktoren und Geräte präsentiert.
* MINSK AGRO: Eine nationale Ausstellung, die ausländische Gäste anzieht und die Errungenschaften der belarussischen Agrarindustrie vorstellt.

Die Teilnahme an solchen Veranstaltungen hilft den Marken nicht nur beim Abschluss von Verträgen, sondern auch beim Aufbau des Images eines zuverlässigen Partners.

Belarussische Marken exportieren ihre Produkte aktiv in verschiedene Regionen der Welt. Ihre Nachfrage erklärt sich durch die Kombination aus hoher Qualität und erschwinglichen Preisen.

* GUS-Länder: Russland und Kasachstan sind traditionelle Märkte für belarussische Produkte. So sind beispielsweise Minsker Traktoren und Milchprodukte in diesen Ländern weithin bekannt.
* Europa: Belarussische Marken wie „Sawuschkin Produkt“ exportieren erfolgreich Milchprodukte in EU-Länder, darunter Deutschland, Polen und Litauen.
* Asien und Afrika: Belarussisches Automobilwerk liefert Steinbruchmaschinen nach China, Indien und in Länder Afrikas, in denen sich die Bergbauindustrie aktiv entwickelt.

Mit der Entwicklung des Internets beherrschen belarussische Marken aktiv die digitalen Kanäle der Werbung:

* Soziale Netzwerke: Unternehmen nutzen Facebook, Instagram und LinkedIn, um ihre Produkte zu bewerben. „Sawuschkin Produkt“ zum Beispiel unterhält aktiv Seiten in sozialen Netzwerken, veröffentlicht Rezepte und spricht über die Vorteile seiner Produkte.
* Online-Shops: Viele Marken entwickeln Online-Verkäufe, um den Verkauf an eine große Anzahl von Kunden zu erleichtern. So bietet beispielsweise das Schuhunternehmen „Marko“ seine Produkte über einen eigenen Online-Shop an.
* Content Marketing: Marken erstellen nützliche Inhalte, wie z. B. Videos über die Produktion oder Artikel über die Vorteile ihrer Produkte, um die Aufmerksamkeit der Verbraucher zu gewinnen.

Belarussische Marken arbeiten aktiv mit großen Supermarktketten und Händlern zusammen. Dadurch können sie neue Märkte erschließen und ihre Verkaufszahlen steigern. Beispiele für die Zusammenarbeit: Molkereimarken sind in den Ketten „Auchan“, „Magnit“ und „Pjaterotschka“ in Russland vertreten; Bekleidung und Schuhe von belarussischen Herstellern werden in Fachgeschäften und Einkaufszentren verkauft.

Belarussische Marken spielen eine Schlüsselrolle bei der Gestaltung des Images des Landes auf der internationalen Bühne. Ihr Erfolg beruht auf einer Kombination aus Tradition, Innovation und einem strategischen Ansatz für die Werbung. Dank Unternehmen wie Minsker Traktorenwerk, Belarussisches Automobilwerk und „Sawuschkin Produkt“ wird Belarus mit Qualität und Zuverlässigkeit assoziiert. In Zukunft wird die Entwicklung dieser Marken die Position des Landes auf dem Weltmarkt weiter stärken.

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Статья посвящена стратегиям продвижения белорусских брендов на международных рынках. Рассмотрены ключевые инструменты, которые используют компании для завоевания аудитории. Особое внимание уделено акценту на качестве и экологичности продукции, а также роли государственной поддержки в развитии экспорта. Статья подчеркивает, как белорусские бренды адаптируют свою продукцию под требования локальных рынков и формируют положительный имидж Беларуси.

[**к содержанию**](#содержание)

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**MANEFA GOMELSKAYA'S ACTIVITIES DURING THE GREAT PATRIOTIC WAR**

Orthodox believers come to Gomel's St. Peter and Paul Cathedral to worship its relics. The cathedral houses the relics of the holy Great Martyr and Healer Panteleimon, the holy Great Martyr Paraskeva, the relics of the patron saints of the cathedral, Apostles Peter and Paul, as well as the relics of St. Manefa of Gomel.

On April 1, 1918, in the village of Sevruki near Gomel, a daughter was born to the family of Vladimir and Glikeria Skopichev, who was named Maria in honor of the desert woman Maria of Egypt. Soon it became clear that the child was afflicted with cerebral palsy and could not move independently. However, in spite of her health problems, Maria never lost heart. The girl helped her parents with household chores, learned to cut and sew clothes perfectly. Parents instilled in their daughter a love for the temple. From an early age Maria learned to carry her life cross with patience, submission, and love for God and for all the people around her. The girl could not move well, was constantly in pain, but regularly visited the monastery, where she reached on her mother's shoulders [1].

At the age of 24 years Maria enters the number of sisters of the Chenkovsky nunnery in honor of the Tikhvin icon of the Mother of God. On the feast of the Transfiguration of the Lord she took the tonsure under the name of Manefa. From that moment all her life was devoted to the service of the Orthodox Church.

The Cenkovo monastery was closed, and Mother Manefa carried on her monastic life in the world. At first she lived with the people who sheltered her, and then she returned to her native village. Kindness always attracted to her suffering fellow villagers and people from distant places. In the memory of the local population there are a lot of stories of how Manefa helped with advice and prayer. The nun's advice was simple and effective. Mother Manefa advised all those who came with requests to pray and be merciful. Providing people with prayerful help in such a difficult time, when churches and monasteries were closed, Mother Manefa, thereby contributed to the preservation of the Orthodox faith [1].It should be noted that Mother Manefa did not reproach anyone, did not reproach in sins. Only sincere sympathy, love, benevolence and cheerfulness came from her. On the feast of the Transfiguration of the Lord she took the tonsure under the name of Manefa.

By the end of the 1930s, all Orthodox churches and monasteries in Eastern Belarus had been actually closed [2]. In Western Belarus, annexed to the BSSR in 1939, the Soviet authorities also took a course to destroy religious organizations, including the Orthodox Church. The Great Patriotic War became a period of trials for the Belarusian people. At that time Mother Manefa was in the village of Vishnevka. She was taken in by the family of faithful elderly couple Kizevs. People in the village noticed that the young Mother had the gift of clairvoyance. It was during this period that her spiritual gifts were revealed: compassion, clairvoyance, healing of mental and bodily ailments [3]. The young nun became the spiritual center of the village. In Vishnevka during the war years the tradition was formed: every year, on September 24, all houses were renewed with a candle and an icon. The villagers believed that it would help their relatives who went to the front, prayerfully protect them from death [3]. The wooden candle was dressed up in a cloth outfit and solemnly carried in a procession along the village street. The candle in front of the icon was always held by the nun Manefa, and she herself was carried on her shoulders. Every house prayed for men who had gone to the front, and Mother Manefa held a candle in front of the icon during the prayers.

On the way, Mother was often asked what the fate of this or that soldier was, and she answered without error. Mother told women about the fate of their husbands, sons and fathers, comforted them, supported them, but kept silent about the dead, pitying the widows and orphans [3].

Mother Manefa urged people to heartily and urgently ask the Lord for forgiveness of sins, advised to pray, read the Acathistos to the Mother of God, order commemorations in monasteries, give alms and be merciful. There was such power in her words that few people doubted Mother's advice, which gave the right direction on the path of life, led people to faith and strengthened it very much [3].

She did not charge for help, but gratefully accepted what was given to her for the glory of God. With her amazing insight into the needs, sorrows and grieves of her visitors, she was able to comfort everyone. Moving in a wheelchair, she endeavored to attend all the services she could. After the war, Mother Manefa had to return to her parents' home, where her nephew, who was still on his feet and needed help, was left unattended [4].

The ascetic of faith and piety died peacefully on February 25, 1984, leaving numerous testimonies of Orthodox people who knew her. She was buried in the village cemetery in Sevruki. After her death, the faithful continued to come to her grave with requests. Since 2005, the priests of St. Peter and Paul Cathedral have served weekly and then daily funeral services at the grave of the schema nun [4]. On August 11, 2006 the holy relics of schema-monk nun Manefa were found incorruptible and since that time are in the Holy Peter and Paul Cathedral of Gomel [4]. A year later, on August 11, 2007, in the Cathedral of Saints Peter and Paul in Gomel the glorification of the schema-monk nun Manefa in the rank of the Monk in the countenance of the Cathedral of Belarusian Saints took place. Her celebration established on August 11 [4].

Thus, despite all the trials that fell upon her, Manefa of Gomel remained faithful to the Orthodox Church and to her monastic vows.

Because of difficult times, Mother Manefa had to live outside the monastery walls, but she helped people a lot with prayer and advice, instruction in the Orthodox faith. After Mother Manefa's death, the Orthodox faithful continued to come to her grave with requests. In 2007, Nun Manefa was numbered among the saints in the rank of Venerable.

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В статье раскрыта специфика деятельности монахини Манефы (в миру Марии Владимировны Скопичевой), чья деятельность в годы Великой Отечественной войны способствовала сохранению веры у православного населения.

[**к содержанию**](#содержание)

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**ECONOMIC SECURITY OF THE REGION: KRASNODAR KRAI**

In the context of a changing geopolitical situation, ensuring the economic security of the country is formed by the security of each individual region. Economic security is understood as a set of conditions that guarantee the sustainable economy of the state, its sovereignty and stable condition, as well as constant renewal and improvement. This definition is global, revealing the meaning of the term through the concept of “sustainability.” Krasnodar Krai was chosen for this scientific research due to its strategically important geographical position in southern Russia, serving as a “locomotive” for the agricultural sector and a hub for international transport corridors.

The relevance of the study is driven by the need to ensure the economic security of the region. The objective is to analyze the socio-economic development of the region, identify threats, and forecast the achievement of strategic goals.

Ensuring the economic security of Krasnodar Krai is based on three main components: 1) economic diversification; 2) resource management efficiency; 3) adaptation to changing conditions.

Let us examine the directions of economic diversification and analyze the region’s socio-economic strategy. According to Rosstat and the Ministry of Economy of Krasnodar Krai, the current economic diversification of the region focuses on strengthening the role of industry, logistics, and IT technologies. It should be noted that 30% of the Gross Regional Product (GRP) of Krasnodar Krai is generated by the agro-industrial complex. However, the emphasis is shifting from raw material production to deep processing, although raw material procurement remains critically important. Machine-building is developing and currently serves as a key sector for import substitution, compensating for approximately 18.8% of required machinery through the development of the “Yug” agricultural machine-building cluster [1].

Next, we analyze resource efficiency. This category is crucial, as every region must utilize its entrusted resource reserves adequately. Currently, most of the arable land in the region is involved in crop rotation, showing increased yields. This has allowed the reorientation of 45% of agricultural exports from the EU to the Middle East and Asia. For example, wheat exports to Saudi Arabia grew by 70% in 2023. Regarding water resources, vital for agriculture, 27.8% of farms adopted drip irrigation in response to droughts in 2021–2022, reducing water consumption and combating drought effectively. Human resources are also utilized adequately, with the unemployment rate at 3.8%, below the national average of 4.3%. However, labor shortages persist in sectors like IT and industry [3].

Let us consider threats to the region’s economic security. One major issue is the impact of sanctions. The region depends on imported agricultural machinery (40% of the total fleet) and seeds. Frequent droughts pose another serious threat. Demographic challenges include population outflow to other countries (8%) and a shortage of specialists across sectors. Additional problems include deteriorating road infrastructure and port capacity limitations. Solutions include attracting investments for technoparks and machine-building production, expanding capacities through new workshops and modernization, increasing reservoir volumes, further implementing irrigation systems, and developing strategies to attract and retain personnel (e.g., the “Youth Housing Cooperative” program) [2].

The socio-economic development strategy of the region aims to make Krasnodar Krai a global, sustainable, and competitive leader of Russia’s Southern growth pole by 2030. Key indicators (GRP PPP, industrial growth, population size, poverty level) are shown in Table 1. Based on 2023 data, a realistic forecast for 2030 is proposed.

Table 1 – Key Indicators of Socio-Economic Development of Krasnodar Krai [3]

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Target for 2030 | Status as of 2023 | Forecast for 2030 (Realistic Scenario) |
| GRP PPP, billion USD | >200 | ~110 | 160-180 |
| Industrial Growth, % | 2,2 | 1,3 | 1,7-1,9 |
| Population, million people | 6,3 | 5,8 | 6,3-6,5 |
| Poverty Level, % | 2,1 | 4,1 | 2,1 |

As of 2023, the region’s GRP is estimated at $110 billion, slightly over half of the 2030 target of $200 billion. The economy is driven by the agro-industrial complex (30% of GRP), tourism (15%), and transport logistics. Successes in grain exports (up 18% over two years) and year-round resorts in Sochi and Krasnaya Polyana demonstrate the region’s potential [2]. However, achieving the 2030 goal requires an annual GRP growth of 10%, necessitating large-scale infrastructure investments. The industrial sector, growing at 3–4% annually, focuses on food processing, construction materials, and machine-building. A 2.2-fold leap demands revolutionary measures: mass digitalization of enterprises, industrial parks, and reorientation toward exports to Asia and the Middle East.

Krasnodar Krai demonstrates high adaptability and resilience to threats through competent governance and timely responses. Based on the study, we conclude that the region possesses a high level of economic security in terms of sustainability.

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В статье рассматривается экономическая безопасность региона Краснодарский край через понятие устойчивости, проводится анализ направления экономической диверсификации, исследуется социально-экономическая стратегия развития Краснодарского края.

[**к содержанию**](#содержание)

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**CATTLE PRODUCT COSTS: NEW METHODOLOGICAL SOLUTIONS IN THE CONDITIONS OF THE REPUBLIC OF BELARUS**

Agriculture is one of the key sectors of the economy of the Republic of Belarus, with cattle production occupying a significant place within it. In the context of globalized markets and intensifying competition, optimizing production costs is crucial, directly linked to calculating and managing product costs. In recent years, Belarus has actively implemented new methodological approaches to determining costs, enhancing the industry’s efficiency.

The purpose of this article is to analyze modern methods of calculating the cost of cattle product in Belarus, their features, and prospects for application in the country. Particular attention is paid to the implementation of new methodological solutions, such as Activity-Based Costing (ABC), strategic management accounting, and digital technologies, as well as their role in enhancing production efficiency and the competitiveness of Belarusian agriculture.

The Republic of Belarus possesses significant potential for livestock development, including meat of cattle and dairy production. According to the Ministry of Agriculture and Food of the Republic of Belarus, in 2022, milk production exceeded 7.5 million tons, while cattle meat reached approximately 1.7 million tons [3]. However, the high resource intensity of production necessitates constant efforts to reduce costs. A distinctive feature of Belarusian agriculture is the high share of state-owned enterprises, which influences cost management methods. Recent years have seen a trend toward adopting market mechanisms, including transitioning to international accounting and cost-calculation standards.

Traditionally, Belarus calculates the cost of cattle product based on normative costs, covering expenses such as feed, wages, depreciation, energy resources, and other items. However, this approach often fails to account for dynamic production conditions, such as fluctuations in feed prices or climate change. Since 2019, the country has actively introduced new methodological solutions informed by international experience. One such solution is the use of Activity-Based Costing (ABC), which enables more precise allocation of costs across product types. For example, in dairy and meat of cattle product, shared costs (e.g., animal maintenance) can be allocated proportionally to revenue from each product type [2]. Additionally, strategic management accounting methods are increasingly being applied in Belarus, allowing for long-term enterprise development planning – a critical factor amid global market volatility.

State support for agriculture in Belarus plays a significant role in reducing product costs. The government has implemented programs to modernize livestock complexes, adopt energy-efficient technologies, and improve cattle productivity. For instance, subsidies for purchasing modern equipment help lower long-term product costs [1]. However, reliance on state support also poses risks. Amid budget cuts, enterprises must seek internal cost-saving measures, driving the adoption of innovative cost management methods.

In the coming years, Belarus is expected to further refine its methodologies for calculating cattle product costs. Promising directions include the use of digital technologies such as Big Data and artificial intelligence to analyze costs and forecast expenses. For example, sensors and real-time monitoring systems can track feed consumption and animal health, enabling rapid cost adjustments [1]. Another key step will be aligning Belarusian accounting standards with international ones, enhancing transparency and attracting foreign investors.

In conclusion, the cost of cattle product remains a critical factor in the competitiveness of Belarusian agriculture. Adopting new methodologies such as Activity-Based Costing, strategic management accounting, and digital technologies not only reduces costs but also improves production efficiency. In the face of global challenges and shifts in state policy, enterprises must adapt proactively to maintain market positions. The Republic of Belarus has the resources needed to advance the industry, and its success will depend on how swiftly and effectively modern cost management methods are implemented.

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Статья посвящена анализу современных методов расчета себестоимости продукции крупного рогатого скота (КРС) в Республике Беларусь. В условиях глобализации и интенсификации конкуренции, белорусское сельское хозяйство активно внедряет новые методологические подходы, такие как Activity-Based Costing (ABC) и стратегический управленческий учет, для повышения эффективности производства. Кроме того, статья рассматривает перспективы использования цифровых технологий для анализа затрат и прогнозирования себестоимости. Государственная поддержка и адаптация к международным стандартам учета также играют важную роль в снижении затрат и повышении конкурентоспособности белорусской продукции КРС.

[**к содержанию**](#содержание)

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**DIGITAL ECONOMY AND INTERNATIONAL COOPERATION: NEW HORIZONS AND CHALLENGES FOR ECONOMIC DEVELOPMENT IN THE MODERN WORLD**

The modern world is experiencing an era of digital transformation, characterized by the rapid development and spread of digital technologies, including artificial intelligence, blockchain, cloud computing and big data. The digital economy, based on the use of these technologies, is becoming an increasingly important factor in economic growth, innovation and increasing the competitiveness of countries and regions.

At the same time, the digital transformation of the global economy poses new challenges for the international community related to the need to adapt to rapidly changing conditions, ensure cybersecurity, protect data, ensure fair taxation of digital services and overcome the digital divide between developed and developing countries.

Addressing these challenges requires active international cooperation aimed at harmonizing regulations, sharing experiences and coordinating efforts to ensure sustainable and inclusive development of the digital economy.

The purpose of this article is to examine the relationship between the digital economy and international cooperation in the context of modern global development trends. The article examines the impact of digital technologies on various aspects of international economic activity, analyzes the challenges associated with the digital transformation of the global economy, and offers recommendations for strengthening international cooperation to ensure inclusive and sustainable development of the digital economy.

The digital economy is an economic activity based on the use of digital technologies, including the Internet, mobile devices, cloud computing, big data, artificial intelligence and other innovative solutions [1, pp. 23-29]. It covers a wide range of economic sectors, including manufacturing, trade, finance, education, healthcare, culture and public administration.

The main characteristics of the digital economy are:

• Global nature;

• Innovation;

• Network effect;

• Data intensive;

• Automation and robotics.

In recent years, the digital economy has demonstrated rapid growth throughout the world. According to the McKinsey Global Institute, the contribution of the digital economy to the global GDP is about 15.5% and continues to increase. The most developed digital economies are the United States, China, the European Union and Japan.

The main trends in the development of the digital economy are:

• The growth of e-commerce. Online trading is becoming increasingly popular throughout the world, offering consumers a wide range of goods and services at competitive prices.

• The development of digital platforms. Digital platforms such as Amazon, Alibaba, Google and Facebook are playing an increasingly important role in the digital economy, ensuring interaction between producers and consumers, as well as providing a wide range of digital services.

• The introduction of artificial intelligence. Artificial intelligence is finding applications in many sectors of the economy, including healthcare, finance, transportation, and manufacturing, automating processes, improving product quality, and increasing operational efficiency.

• Growing use of blockchain. Blockchain is a distributed ledger technology that enables secure and transparent storage and transmission of data [2]. It is finding applications in various sectors of the economy, including finance, logistics, and supply chain management.

The digital economy is having a significant impact on international cooperation, changing the nature of international trade, investment, financial flows, and labor migration.

Digital technologies are simplifying and accelerating international trade, allowing companies from different countries to find each other, exchange information, and conclude transactions online. E-commerce is facilitating cross-border trade, allowing small and medium-sized enterprises to enter international markets at minimal cost.

Digital platforms and crowdfunding are facilitating access to financing for start-ups and innovative projects. It is also worth noting that the digital economy creates new risks for international investment related to cybersecurity, data protection and regulatory instability.

Digital technologies make it easier to find work abroad, allowing companies and individuals to find each other through online platforms and social networks. Telecommuting and freelancing allow workers from different countries to work remotely without leaving their homes.

Cybersecurity is one of the main concerns of the digital economy, as cyberattacks cause serious damage to companies, governments and individuals. Cybercriminals use various methods, including viruses, malware, phishing and DDoS attacks, to steal data, disrupt computer systems and extort money.

International cooperation in the field of cybersecurity includes sharing threat information, developing common standards and protocols, conducting joint exercises and operations, and cooperating in law enforcement.

To ensure inclusive and sustainable development of the digital economy, it is necessary to strengthen international cooperation in the following areas:

• Developing common standards and principles. The international community should develop common standards and principles in the field of cybersecurity, data protection, taxation of digital services and other key aspects of the digital economy.

• Sharing experiences and practices. Countries should share experiences and best practices in the field of digital economy development to learn from each other and avoid mistakes.

• Providing financial and technical assistance. Developed countries should provide financial and technical assistance to developing countries to help them bridge the digital divide and develop their digital economies.

• Promoting digital literacy. Countries should promote digital literacy among their populations so that people can effectively use digital technologies to get an education, find a job and participate in the digital economy.

• Support research and development. The international community should support research and development in digital technologies to stimulate innovation and create new opportunities for economic growth and development.

• Strengthen multilateral institutions. Multilateral institutions such as the UN, WTO, IMF and World Bank should play a more active role in addressing the challenges of the digital economy and promoting international cooperation [3].

Strengthening international cooperation is key to ensuring inclusive and sustainable development of the digital economy. The international community should develop common standards and principles, harmonize legislation, share experiences and assist developing countries in developing their digital economies.

Only by working together can we create a digital economy that benefits all countries and peoples and promote economic growth, innovation and sustainable development in the modern world.

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Статья посвящена исследованию взаимосвязи между цифровой экономикой и международным сотрудничеством в контексте современных тенденций глобального развития. Рассматривается влияние цифровых технологий на различные аспекты международной экономической деятельности, включая торговлю, инвестиции, финансовые потоки и трудовую миграцию.

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**МЕДИЦИНА: ЭТАПЫ РАЗВИТИЯ И ПОСЛЕДНИЕ ДОСТИЖЕНИЯ**

Медицина – широкая наука, которая может иметь бесконечное множество определений: это наука, которая занимается здоровьем и благополучием людей, не только физическим, но также эмоциональным и социальным, а также созданием лекарств.

За последние десятилетия медицина достигла значительного прогресса, особенно в XXI веке, благодаря интеграции новых технологий, научных открытий и более пациентоориентированному подходу. Исследования в области биотехнологий привели к появлению таких инноваций, как генная терапия и лечение стволовыми клетками, что открывает новые возможности для лечения ранее неизлечимых заболеваний.

Пандемия COVID-19 подчеркнула важность глобального сотрудничества в области исследований и разработок вакцин, продемонстрировав способность медицины быстро реагировать на чрезвычайные ситуации в области общественного здравоохранения. В совокупности эти достижения преобразили медицинскую практику, улучшив качество жизни и результаты лечения во всем мире.

В данной статье предполагается выделить хронологические этапы развития медицины от зарождения до наших дней; описать некоторые из наиболее значимых достижений медицины XXI века и их влияние на здоровье человека.

Хронологические этапы развития медицины:

Зарождение медицины. Первобытная медицина основывалась на шаманских практиках и использовании лекарственных трав и растений. Первые формы лечения были примитивными и были связаны с духовными верованиями.

Античные цивилизации (ок. 3000 г. до н.э. - 500 г. н.э.)

- Египет: Развитие медицинской практики, задокументированное в папирусах, таких как Папирус Эберса. Применялись травы, базовая хирургия и религиозные методы лечения.

- Греция: Гиппократ (ок. 460 - 370 гг. до н.э.) устанавливает этические и клинические принципы. Начинается систематическое наблюдение за пациентами и делается попытка понять болезни через естественные причины.

- Рим: Гален (ок. 130 - 200 гг. н.э.) преуспел в анатомии и физиологии, а его труды оказывали влияние на медицину на протяжении столетий.

XVIII век

- Научная революция: достижения в анатомии, физиологии и химии. Эдвард Дженнер разрабатывает первую вакцину против оспы, положив начало вакцинации.

XIX век

- Достижения в микробиологии: Луи Пастер и Роберт Кох разработали микробную теорию болезней, определив микроорганизмы как возбудителей болезней.

- Анестезия и антисептика: в хирургии внедряются методы анестезии и антисептики, что производит революцию в медицинских процедурах.

XX век

- Биомедицина и технологии: разрабатываются антибиотики, вакцины и методы диагностики, такие как рентгенография и анализы крови.

- Доказательная медицина: применяется научный подход к оценке методов лечения, что позволяет повысить качество медицинской помощи.

- Генетика и передовые методы лечения: открыта структура ДНК, начинаются исследования в области генетики и биотехнологии.

XXI век

- Персонализированная медицина: геномные данные используются для адаптации лечения к индивидуальным особенностям пациентов.

- Телемедицина и цифровое здравоохранение: технологии облегчают доступ к медицинской помощи через цифровые платформы.

- Глобальные исследования в области здравоохранения: пандемия COVID-19 подчеркивает важность международного сотрудничества в области исследований и разработок вакцин [2].

За два десятилетия XXI века медицина достигла колоссального прогресса, увеличив продолжительность и качество жизни людей.

Важную роль сыграл прогресс в фармацевтическом секторе. Мы можем выделить новые методы лечения СПИДа, рака, инсультов и инфарктов, диабета, рассеянного склероза и ревматоидного артрита, а также других заболеваний. Разработка нового оборудования для диагностики заболеваний, более эффективных методов лечения и усовершенствование существующего диагностического оборудования, такого как ультразвуковые сканеры, компьютерные томографы и т. д.

Стоит выделить некоторые достижения, которые имели основополагающее значение для всего человечества в этом столетии:

Жидкостная биопсия: это простое лабораторное исследование, в котором анализ крови позволяет обнаружить раковые клетки и спланировать лечение.

Роботизированная хирургия: следует отметить роботизированную хирургическую систему Da Vinci – четырехрукий робот, который стал одним из величайших технологических достижений в здравоохранении. Его уже используют при неврологических, гинекологических, урологических и других процедурах, делая операции более комфортными и точными.

Секвенирование генома: это настоящая научная революция, открывшая четкую структуру букв и порядок генов в нашей ДНК, что позволяет нам идентифицировать гены, вызывающие заболевания, и применять целевую терапию в таких областях, как онкология, редкие заболевания и инфекционные заболевания.

Достижения в области трансплантологии: в 2020 году во всем мире было проведено около 129 миллионов трансплантаций. За первой успешной пересадкой почки (1954 г.) последовали пересадка печени, сердца и легких. В настоящее время врачи проводят операции по трансплантации роговицы, костного мозга, нервов, кожи, сухожилий, сердечных клапанов и вен и т. д.

Вакцины на основе матричной рибонуклеиновой кислоты (мРНК): разработка и быстрое внедрение вакцин на основе матричной РНК, таких как вакцины от Pfizer-BioNTech и Moderna против COVID-19.

Достижения медицины в XXI веке оказали глубокое влияние на здоровье и благополучие людей во всем мире. Некоторые болезни были искоренены, а для других, ранее считавшихся неизлечимыми, были разработаны методы лечения, что позволило сохранить здоровье и контролировать хронические заболевания, а также улучшить качество жизни сотен тысяч людей. Увеличилась продолжительности жизни. Профилактическая медицина значительно снизила уровень смертности населения.

Научные и технологические достижения позволили создать более эффективную и действенную медицину. Информационно-коммуникационные технологии в здравоохранении обеспечивают доступ к безопасной и надежной информации, позволяют создавать более эффективные методы лечения, делают лабораторную диагностику более быстрой и точной, обеспечивают улучшение медицинского наблюдения за пациентами посредством организованных и компьютеризированных медицинских записей [2].

Достижения медицины в XXI веке, хотя и приносят многочисленные преимущества, также имеют ряд спорных вопросов. Проблема с технологиями не столько в том, что они делают или чем они являются, сколько в том, для чего они используются. Поэтому, когда речь идет о здоровье, не следует избегать технологий из-за того, что они вредны, а, скорее, следует подумать о том, как их можно применять для достижения желаемого положительного эффекта.

Некоторые утверждают, что избыток химических или искусственных средств может разрушить традиционную медицину, но, если рассматривать их как дополняющие друг друга, врачи смогут еще многому научиться. Не следует бояться сбоя в работе сложного оборудования: любая машина или прибор могут выйти из строя. Это делает процессы обеспечения безопасности и обслуживания медицинского оборудования все более строгими и комплексными [1].

Медицина XXI века характеризуется быстрым развитием, обусловленным технологиями и научными исследованиями. Эти достижения улучшили качество жизни, увеличили ее продолжительность и изменили подход к медицинскому обслуживанию. Телемедицина, искусственный интеллект и персонализированная медицина – вот лишь несколько примеров того, как инновации меняют медицинскую практику.

Однако эти достижения также влекут за собой проблемы, такие как необходимость устранения неравенства в доступе к медицинской помощи и этические вопросы, связанные с новыми технологиями. Психическое здоровье получило признание и стало частью общего подхода к здравоохранению.

Медицинские достижения XXI века имеют решающее значение для решения глобальных проблем здравоохранения, но их эффективное внедрение потребует постоянной приверженности принципам справедливости, этики и устойчивости в здравоохранении.

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**CULTURE AND MATERIAL VALUES OF THE BELARUSIAN PEOPLE**

The Belarusian nation, with its rich history and unique cultural heritage, has been shaping its traditions and material values for centuries. The culture of Belarus is the result of a complex interaction of various ethnic, historical and social factors, which makes it diverse and distinctive.

One of the most important components of Belarusian culture is folk crafts. Belarusians are famous for their skill in weaving, blacksmithing, pottery and woodcarving. Craftsmen create both utilitarian and decorative items that reflect local traditions and customs. For example, embroidery, often done in red and white, not only adorns clothing but also has symbolic meaning associated with protection and prosperity.

The musical tradition of Belarus is also diverse. Folk music is characterized by melody and richness of instruments such as the domra, dulcimer, accordion and duda. Belarusian folk dances, such as the “kalinka” or “Polessky dances”, are still popular and are often performed at festivals and holidays, helping to preserve linguistic and cultural norms. Yuryevsky round dance is one of the authentic rites of the spring cycle with beautiful examples of ancient round dances and songs, distinctive material manifestations of regional culture – colorful folk costume and ritual bread (karavai-"karagodam"). The holiday of Yurya (in the Orthodox Christian tradition – the Day of St. George the Victorious) is celebrated on May 6. Associated with the inspection of winter rye and includes ritual actions aimed at the fertility of the land and the well-being of people. In 2019, the Yuryevsky Round Dance ritual was included in the UNESCO Intangible Cultural Heritage List.

The holiday culture of Belarusians is full of unique traditions. One of the most famous holidays is Kupalle, celebrated on the night of Ivan Kupala. This holiday symbolizes the summer solstice and is associated with various rituals: weaving wreaths, jumping through the fire and searching for the fern flower, which, according to legends, brings happiness. “Rite of the Kalyady Tsars” is a unique folk rite of the Kopyl region, which arose in the XVIII century, when the troops of the tsarist army stood near Semezhovo. On the New Year's Day, officers and soldiers went home, showed performances, sang, danced, for which they received refreshments and gifts from their hosts. After the squad left the village, the locals retained and developed this tradition. In 2009, “Rite of the Kalyady Tsars” entered the list of intangible cultural heritage of UNESCO [2].

Antiquities and architecture The most interesting sights of Belarus are fortresses and castles, palace and park ensembles and ancestral estates, temples and monasteries, unique corners of untouched nature, ancient engineering structures, museums and ethnographic villages, the native places of famous artists, writers and scientists.

On the territory of our country there are 4 objects included in the UNESCO World Heritage List. Among them are the pearls of Belarusian architecture: the Mir castle complex and the Nesvizh National Historical and Cultural Museum-Reserve.

Castle complex “Mir”. Mir Castle is considered one of the oldest and most beautiful castles in Europe, where different architectural styles are combined, starting with Gothic and Baroque and ending with the Renaissance era. Mir is the most popular attraction in Belarus, the residence of the famous Radziwills family, is an outstanding example of defensive architecture of the XVI–XVII centuries. In addition to the impregnable citadel, where the museum and hotel are located today, the castle complex includes an Italian Renaissance garden, an English park, a pond and a chapel [1] the tomb of the princes Svyatopolk-Mirsky.

Every year Mir Castle receives thousands of guests from different parts of our country and abroad – in 2021 their number exceeded 180 thousand. They come to admire the majestic structure, take part in knightly battles. Festivals of medieval, classical, jazz and electronic music are regularly held near the walls of the castle.

National Historical and Cultural Museum-Reserve “Nesvizh”. The ancient town is known far beyond the borders of Belarus. It is here that the palace and park ensemble, another residence of the Radziwill dynasty, as well as other unique historical and architectural monuments are located. The Nesvizh Church of the Body of God is the first Baroque church in Eastern Europe, which also houses the Radziwill family crypt (the third largest in Europe after the Habsburg and Bourbon tombs). The Nesvizh Town Hall, the oldest surviving in Belarus, was built in 1596, and the Slutskaya Brama in Nesvizh is the only surviving gate that was part of the system of city fortifications. In 2021, the museum reserve was visited by almost 179 thousand guests [1].

The UNESCO World Heritage Site also includes elements of the Struve Geodetic Arc – a network of 265 points that crosses 10 states from north to south. There are 19 such points in Belarus.

Traditional Belarusian clothing decorated with embroidery and applique is an important symbol of cultural identity. Each region has its own distinctive clothing patterns, emphasizing the diversity of cultural heritage. Women's clothing often includes sarafans and kokoshniks, while men's clothing includes shirts and laptiks.

Belarus' culinary tradition is inspired by natural resources and historical influences. Traditional dishes such as draniki, borscht and pierogi are made from local products such as potatoes, cabbage and mushrooms. Cooking is not only a practical activity, but also an important social ritual that brings family and friends together.

The culture and material values of the Belarusian people have been formed over the centuries and represent a unique combination of traditions, customs and industrial heritage. These elements not only preserve the heritage of ancestors, but also contribute to the formation of national identity, strengthening ties between generations. In the context of globalization, it is important to preserve and develop cultural traditions so that they can continue to enrich and inspire new generations of Belarusians.

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Раскрываются нравственные и эстетические идеалы, национальные традиции и обычаи, произведения культуры и искусства Республики Беларусь, которые имеют историко-культурную значимость, уникальную в историко-культурном отношении.

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**MEDICAL ADVANCES IN THE 21ST CENTURY**

As the world is moving forward day by day, there is an unprecedented surge in medical advances. These advances are reshaping and improving lives of millions of people. Innovations are arising on a daily basis providing promising solutions to chronic diseases and help in betterment for quality of life. From immunotherapies, advanced medical imaging and genetic diagnosis to stem cell therapy and grafting surgeries, the landscape of medicine has been irrevocably altered. In addition to this, there is a more personalized approach in medical advances which suits to one’s genetic make-up making it more effective and less invasive.

Objectives: to review some of the innovative technologies and outline their impact on the 21st century healthcare.

Many biotechnological innovations have shaped the contemporary healthcare system with significant progress to treat or cure various conditions and diseases. Among them are gene-editing technologies including Clustered Regularly Interspaced Palindromic Repeats (CRISPR-Cas9) and gene therapies [1]. CRISPR-Cas9 is a gene-editing tool that allows scientists to target and modify DNA sequences. It can be used to correct gene defects, develop therapies for cancer and engineering resistance to infectious diseases [1]. Immunotherapy uses the body’s own immune system to attack cancer cells. It is highly effective in treating blood cancers, autoimmune disorders and lymphomas. There is a special progress in the field of personalized medicine allowing health care professionals to use genomic sequences of a specific patient’s DNA and helps them in tailoring treatment accordingly. This is a safer and less toxic way, which minimizes side effects and maximizes efficiency.

Medicine has become so advanced that doctors can picture high resolution and more clear imaging to accurately diagnose and treat various conditions including cancer, neurological disorders and cardiovascular diseases. Artificial Intelligence logarithms give doctors the possibility to analyse pathological slides, medical images, blood samples and study reports in order to improve diagnostic accuracy.

Regenerative medicine is a field of medicine, which made most remarkable advancements. One of them is stem cell therapy. This therapy is used to repair or replace damaged tissues or organs. One can also culture desirable cells from stem cells and shape them into necessary tissues. For example, cultured stem cells can be stored under specific conditions and environment and then converted into heart cells, nerve cells etc. This can potentially be a promising treatment for heart failures and spinal cord injuries, which involve regenerating certain tissues or organs. Alternative to culturing stem cells doctors can also bio print 3D organs using bio ink. Bio printing can revolutionize organ transplantation and save lives of millions of people who are dying due to lack of organ donor [2].

Robotics and minimally invasive surgical techniques involve smaller incisions, lesser pain, reduced blood loss and scarring, shorter hospital stays, lower risk of infection resulting in reduced risk of complications and faster recovery. The alternative is laparoscopy and endoscopy, which come under minimally invasive methods [2].

Digital health and telemedicine include wearable monitoring devices that allow tracking health and well-being of patients from afar. This typically involves real-time, two-way interactions between a patient and a healthcare worker using video conferences, phone calls or other platforms. Services such as consultations, remote monitoring and medication management can be carried out [3].

The 21st century is a very transformative era for medical advancements and deeper understanding of human body. The boundaries of medicine are being questioned on a daily basis, expanding realms of our knowledge and technology. As we are moving forward with sustained investments in research and development, we will be able to harness full potential of medical innovations. By these approaches and commitment to medical advancements we are paving a roadway to healthier, longer living and more equitable world for all. The journey of medical advancement is ongoing and its trajectory depends on our collective progress and efforts.

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В статье рассматриваются некоторые инновационные технологии, возникшие в медицине в XXI веке. Автор дает их краткое определение и описывает преимущества этих методов по сравнению с использовавшимися ранее. Отмечается, что научные и практические достижения современной медицины позволяют бороться с заболеваниями, которые прежде считались неизлечимыми, а также решать некоторые вопросы биоэтического характера.

[**к содержанию**](#содержание)

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**THE IMPACT OF NEW TECHNOLOGIES ON ACCOUNTING POLICY: BLOCKCHAIN AND ARTIFICIAL INTELLIGENCE**

Modern technologies are rapidly changing not only everyday life but also professional fields, including accounting and financial reporting. Among the most significant innovations in this area are blockchain and artificial intelligence (AI). The purpose of the article is to review the application of blockchain technologies and AI in accounting, as well as the impact of these technologies on accounting policies and financial reporting of companies.

Blockchain technology is based on accounting. It records and stores assets, liabilities, transactions, and provides methods for tracking cash flows and reconciling accounts. This is “natural” for the accounting field, which currently relies heavily on paper-based records to perform accounting functions in order to comply with regulatory requirements. Although this process is cumbersome, auditors still require paper records, and the way accounting records are prepared remains of interest to auditors [3].

By using blockchain, instead of storing individual records based on transaction receipts, companies can record their transactions directly into a shared ledger, creating an interconnected system of immutable accounting records. Since all records are distributed and cryptographically secured, the chances of destroying or manipulating them to conceal activity are extremely low. This procedure can be compared to a notarized transaction, except that the role of the notary is performed by an electronic system.

With the use of blockchain technology, the range of functions of accountants and auditors shifts from simply filling out documents and entering data on business operations into an information system to forming professional judgments and making management decisions. This requires a comprehensive assessment of external and internal factors affecting the business situation in each specific case.

The following advantages of blockchain technology for accounting departments can be highlighted:

- Blockchain can reduce the costs of maintaining and reconciling accounting books, as well as provide absolute certainty regarding ownership and asset history;

- Reduction of errors: once data is entered into the blockchain, smart contracts automate many accounting functions, reducing the likelihood of human error;

- Reduced risk of fraud: to alter a record in the blockchain, identical changes must be made simultaneously to all copies of the distributed network, which is practically impossible;

- Reduced audit time: smart contracts automate many audit functions, reducing the time required to verify records.

However, the disadvantages of blockchain technology used in corporate accounting should also be noted. These include the high cost of implementing a blockchain platform, significant material and energy costs, and the need for each computer in the network to allocate sufficient memory to store the entire database; outdated legislation, which hinders the use of the technology in accounting and tax reporting; the threat to employment for professionals in these fields; as well as the impact on audit, cybersecurity, financial planning, and analysis [2].

Another innovation in accounting is artificial intelligence (AI). Understanding how AI functions can give accountants an advantage in mastering data analysis, improving their understanding of financial reporting. Strong numeracy and data analysis skills will become extremely important for accountants in the era of AI dominance. Data analysis and financial modeling skills will allow accountants to play a more active role in their organizations.

With the development of technology, it is impossible not to notice the opportunities opened up by the use of AI, as it is capable of analyzing large volumes of data and identifying patterns that are not visible in traditional analysis, allowing for more accurate forecasting of financial results and risk assessment. At the same time, AI can also be used to detect anomalies and suspicious transactions in financial data, which helps prevent fraud [1].

This innovation undoubtedly simplifies the work of accountants by automating routine tasks and improving the efficiency of the organization itself. However, the disadvantages should also be noted. As with blockchain, the implementation and adaptation of AI come with high costs, it poses a threat to jobs, and current legislation does not address the specifics of AI use. Another drawback of AI is its narrow focus in accounting, meaning that encountering situations outside its competence leads to AI failures.

The use of blockchain and AI in accounting will lead to changes in accounting policies. Accounting policies will need to include: an economic justification for the use of these technologies and a description of the expected benefits in terms of cost reduction and efficiency improvement; provisions on the use of blockchain technologies for recording and storing assets, liabilities, and transactions; a description of AI usage processes; and the accounting policy must also ensure compliance with regulatory requirements related to the use of AI and blockchain in accounting, including updating procedures and practices in accordance with new legislative norms.

The integration of AI and blockchain into accounting requires significant changes in a company's accounting policy. These technologies provide a higher level of transparency, process automation, reduced fraud risks, faster audits, and cost savings. However, the use of these innovations also requires compliance with relevant legislative norms and adaptation of accounting policies to new conditions. Companies implementing AI and blockchain gain a significant competitive advantage by improving their accounting practices and increasing overall operational efficiency.

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Статья посвящена анализу влияния современных технологий, таких как блокчейн и искусственный интеллект (ИИ), на бухгалтерский учет и финансовую отчетность. А также проанализированы их преимущества, включая повышение прозрачности, снижение затрат на ведение учета, уменьшение вероятности ошибок и мошенничества, а также ускорение аудиторских процессов, и недостатки, а также необходимость адаптации учетной политики компаний для успешного внедрения этих инноваций.

[**к содержанию**](#содержание)

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**HOW TO AVOID SPORTS INJURIES**

The term “sports injury” refers to the kinds of injuries that most commonly occur during sports or exercise, but they are not limited to athletes. Factory workers get tennis elbow, painters get shoulder injuries, and gardeners develop tendinitis, even though they may not participate in sports. Ultimately, however, “sports injuries” refers to those that occur in active individuals. This article focuses on the most common types of sports injuries – those that affect the musculoskeletal system. The musculoskeletal system is the network of muscles, tendons, ligaments, bones, and other tissues that provides the body with stability and enables movement.

Sports injuries are divided into two broad categories, acute and chronic injuries. Acute injuries happen suddenly, such as when a person falls, receives a blow, or twists a joint, while chronic injuries usually result from overuse of one area of the body (repetitive overload) and develop gradually over time. Examples of acute injuries are sprains and dislocations, while some common chronic injuries are tennis elbow and stress fractures.

Treatment for a sports injury depends on the type of injury, but many can be treated at home by resting, icing, compressing, and elevating the injured part of the body. For severe injuries, you will need to see a health care provider, who may recommend a course of physical therapy for rehabilitation and/or a cast, splint, or brace. In some cases, you may need surgery. A rehabilitation program that includes exercise and other types of therapy is usually recommended before resuming the sport or activity that caused the injury.

While adverse events do sometimes happen when playing sports or exercising, most physical activity is safe for almost everyone and the health and social benefits far outweigh the risks.

Anyone can suffer a sports injury, but several factors can increase the risk of sustaining injury. The risk factors for sports injuries include:

not using the correct exercise techniques; overtraining, either by training too often, too frequently, or for too long; increasing your intensity of physical activity too quickly; playing the same sport year-round; running or jumping on hard surfaces; wearing shoes that do not have enough support; not wearing the proper equipment; having had a prior injury.

Injuries to the musculoskeletal system that are common in athletes include fractures, dislocations, sprains, strains, tendinitis, or bursitis.

Bone fracture. A fracture is a break in a bone that occurs from either a quick, one-time injury, known as an acute fracture, or from repetitive stress, known as a stress fracture. [Growth plate fractures](https://www.niams.nih.gov/health-topics/growth-plate-injuries/advanced) are unique to children who are still growing.

Acute fractures. A fall, car accident, or collision or direct contact can cause a fracture, and the severity depends on the force that caused the break. The bone may crack, break all the way through, or break into many pieces. Injuries that break through the skin to the bone, which are known as open fractures, are especially serious because there is an increased risk of infection. Most acute fractures require an immediate visit to a health care provider.

Stress fractures. Stress fractures occur largely in the weight-bearing bones of the lower extremity. These include the femur, tibia and fibula, and foot bones. They are common in sports where there is repetitive impact, primarily running or jumping sports such as gymnastics, tennis, basketball, or track and field. Running creates forces two to three times a person’s body weight on the lower limbs.

Growth plate fractures. The growth plate is an area of cartilage near the ends of long bones, and they enable the bones to lengthen until children reach their full height. Growth plates are especially vulnerable to injury until they are converted to bone. Each bone growth plate closes at a different age, typically by or around age 18. Growth plate fractures can result from a single traumatic event, such as a fall or car accident, or from chronic stress and overuse [1].

Dislocation. When the two bones that come together to form a joint become completely separated, the joint is described as dislocated. Contact sports such as football and basketball, as well as high-impact sports and sports that involve significant contact, falling, or extreme loads cause most dislocations. A dislocated joint typically requires immediate medical treatment, but sometimes the bones move back into place on their own. A dislocation is a painful injury and is most common in shoulders, elbows, fingers, kneecap, and femur-tibia or knee.

Sprain. Sprains can range from minimal stretching of to partial or complete tears of ligaments, the bands of connective tissue that join the end of one bone with another to stabilize a joint. Sprains are caused by trauma such as a fall or blow that stresses a joint out of position. Sprains can range from first degree (minimally stretched ligament) to third degree (a complete tear). Areas of the body most vulnerable to sprains are ankles, knees, and wrists.

Strain. A strain is a twist, pull, or tear of a muscle, muscle-tendon juncture (where muscle and tendon connect), or a tendon itself. A tendon is a cord of tissue connecting muscle to bone. Athletes who play contact sports can get strains, but they can also happen from repeating the same motion again and again, as in tennis or golf. Like sprains, strains can range from a minor stretch to a partial or complete tear of a muscle or tendon. This is most common in muscle or tendons between two joints [3].

Tendinitis. Tendinitis is inflammation of a tendon, a flexible band of fibrous tissue that connects muscles to bones. It often affects the shoulder, elbow, wrist, hip, knee, or ankle. Tendinitis can be caused by a sudden injury, but it usually results from carrying out the same motion over and over. People such as carpenters, gardeners, musicians, and certain types of athletes, such as golfers and tennis players, have a higher risk of tendinitis. Tendons become less flexible as you age, so you are more likely to get tendinitis as you get older.

Injuries in sport may contribute to the rising burden of overweight and [obesity](https://www.physio-pedia.com/Obesity) in youth, with 8% of youth dropping out of sport per year because of injury or fear of injury. This leads to a further decline in physical activity participation and this has negative implications (obesity, post-traumatic [osteoarthritis](https://www.physio-pedia.com/Osteoarthritis)) on future health. Reducing the significant burden of sport-related injury would have great impact on quality of life through the promotion of physical activity.

Physical activity, sport and recreation is vital in youth and for all age groups to have a healthy lifestyle, to promote healthy growth and development, to prevent chronic disease and to reduce stress. These benefits from participation in sport and recreation have important implications for public health, but the injury risk must be balanced and addressed.

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В статье речь идет о таком довольно частом явлении в жизни не только спортсменов, но и простых людей – о травмах. Приводятся примеры о наиболее распространённых случаях травм и их профилактики.

[**к содержанию**](#содержание)

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**MASS MEDIA IN THE MODERN WORLD – FRIEND OR FOE**

The media is an important component of mass communication, which has gained special social significance in the post-industrial era. Mass media not only reflects the processes taking place in the country, but also influences the formation of a worldview among young people, plays a vital role in the creation and dissemination of behavioral norms, moral values and guidelines.

In this regard, it is important to form a correct attitude towards mass media among the population and, in particular, among the younger generation. It is necessary to understand that the media will always be with us, as long as humanity exists. Taking into account the negative aspects of the media it will help a person to avoid the undesirable consequences of information consumption. Knowledgeable society will be able to perceive mass media as an assistant or a tool that can be used for the common good.

Currently mass media penetrates all spheres of human life and is not only one of the most important information sources, but also the main factor of culture and world outlook formation.

Since ancient times people have been striving to explore this world and gain knowledge, which has contributed to the development of information transfer mechanisms. At the beginning of its journey, humanity used oral tradition to pass on accumulated knowledge. With the development of writing the oral tradition has been replaced. The invention of the printing machine in the 15th century was a real revolution in the field of information. The first periodicals began to appear in the 17th century. The main factor that led to the development of the print was the technological and economic evolution of society. This resulted in mass production of books, newspapers and magazines. At the beginning of the 19th century radio became the most important source of news, but since the middle of the 20th century it has lost popularity due to television. Then the invention of the Internet made it possible to spread information around the globe in no time. Social networks have considerably changed the way of information consuming and users have become even content creators. Therefore, the history of mass media demonstrates the process of gradual transition from the simplest forms of communication to complex global systems.

With the changes in technology and consumer habits the media adapts to new conditions offering a variety of forms and platforms. Today traditional and digital media exist side by side. The traditional ones still include print media, radio and television. However, their influence is gradually decreasing due to the competition with multimedia digital platforms including news web sites, blogs and social networks that combine all information presentation formats: text, images, audio and video content.

In the modern world the media is solidly established so that we cannot even imagine our existence without it in our daily lives. Speaking about the positive influence of the media it is necessary to note its informational role. The media informs the public about the activity taking place in the country and all over the world, which includes coverage of political, economic, social and cultural events.

Here we can also mention the educational function of the media. Firstly, it satisfies public needs for specific knowledge, whether it is business innovations, achievements of modern medicine or new technologies in industry. Secondly, it provides information about global trends, conflicts, political and cultural life in other countries, which allows people to understand the essence of the processes taking place in the world and evaluate certain events independently.

Recently the trend of turning mass media into the sphere of personal self-realization has been gaining momentum, which allows people to find like-minded audience from anywhere in the world. This is how the integration function of the media is implemented. It helps people to form digital communities providing a platform for discussing topical issues, supporting existing norms and forming public consensus.

One of the important features of the media is its interactivity, which implies the presence of two-way communication with the audience. Interactivity means not only communication, but also choice. Everyone can choose the category and the topic of the media they want. However, this also creates some risks, for example, information may be significantly misrepresented. In addition, thanks to the algorithms that select content based on user preferences, social networks can create "information bubbles" where people receive the information that corresponds to their views. It is important for the media and its audience to be aware of these issues and strive for more responsible information consumption and production.

Among the negative aspects of the media we can single out its concentration on covering criminal events, emergencies, catastrophes, wars and conflicts. Of course, such topics have always aroused people's interest, but the constant flow of negative news has a harmful effect on human consciousness leading to anxiety and obsessive thoughts.

Another aspect is related to the fact that the media takes a lot of our time which can unfavorably affect our physical condition. Information consumption becomes an easily accessible opportunity for people to take a break from work, get their mind off the problems, but this does not give any relief to the brain.

The next point is related to using mass media to "create" the active consumer. It's no secret that we live in the era of consumption. Today advertisement can be seen at every step, so it becomes difficult to distinguish the true need for something from imposition.

Despite the positive aspects of the media entertainment function, it has some negative sides. In some cases virtual communication, which is gradually beginning to replace face-to-face meetings, can lead to social alienation of a person in the real world.

In "cheap" content the information is presented in a simplified form and this tendency has several negative consequences. For example, important facts may be misinterpreted. Besides, simplification inevitably leads to the formation of stereotypical thinking among people. It is common for a person to form an opinion based on the majority. But today more than ever it is important to strive for our own point of view, develop critical thinking and try to comprehend everything on a deeper level not to lose our vigilance and allow others to manipulate our consciousness. This is the challenge of the modern world.

Summing up, mass media continues to be an important tool for communicating and informing the public. The media plays various socio-political roles: organizer, unifier of society, its educator. It has access to all the accumulated knowledge of mankind, has a great influence on people, both positive and negative, and can also play a disintegrating, divisive role. The role of the media can be reduced to simple manipulation if the individual is not ready for a critical assessment of the information. Each of us is free to decide for himself what his understanding of the surrounding reality will be based on. Thoughts shape actions ultimately affecting how we manifest ourselves in society. Whether a person becomes an active subject of society depends on many conditions, including the involvement of the media in his real life.

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В статье рассматриваются проблемы, связанные с использованием средств массовой информации в современном мире. Авторы раскрывают положительные и отрицательные аспекты влияния СМИ на разные сферы жизни человека. Приводится историческая справка и отслеживается ход развития различных форм СМИ. Анализируется польза, которую человек может извлечь из СМИ сегодня, и сопутствующий им вред. Авторы ставят вопрос о необходимости формирования в обществе более осмысленного подхода к СМИ и потреблению информации в целом.

[**к содержанию**](#содержание)

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**THE IMPORTANCE AND FEATURES OF THE MEDIA IN THE MODERN WORLD**

In the modern world, the media play a key role in shaping public opinion, disseminating knowledge and providing access to information. With the development of technology and the emergence of new platforms such as social networks, traditional forms of media – newspapers, radio and television – are adapting to new conditions, which leads to a change in their functions and influence on society. Introduction to the topic of the meaning and features of the media allows you to better understand how information affects people's lives, what mechanisms are involved in the process of transmission and perception of news, as well as how the media can serve as a tool for both the democratisation of society and its manipulation. In the context of globalisation and information overload, it is critical to realise how the media shape our perception of the world and how we can use them to obtain reliable information. That’s why the aim of our research is to identify challenges and opportunities provided by the media in the modern world.

The mass media have the following characteristics:

1. mass;
2. frequency, which should not be less than once a year;
3. coerciveness: one signal source (broadcaster, editorial office) ‑ many listeners.

The main function of the media is to promptly and comprehensively inform the population about the events taking place in the world, country, region. This includes political news, economic reviews, social issues, cultural events and other areas of life. Also, the media actively participates in the formation of public opinion, offering different points of view on events and problems. Through publications, reports, analytical articles and comments, the media influence the way people perceive the world and make decisions. They play an important role in monitoring the activities of state bodies, officials and political institutions. Through journalistic investigations, critical articles and reports, the media reveal corruption, abuse of power and other violations of the law, thereby contributing to increased transparency and responsibility of the authorities, fulfilling an educational function by disseminating knowledge, culture and information about various aspects of life. They publish scientific articles, tell about historical events, familiarize with works of art and culture, thereby broadening horizons and raising the educational level of the population. Moreover, they are an effective channel for advertising and promoting goods and services, helping companies attract new customers and increase sales.

K.A. Kabil in the book “Bangladesh: the history of the trend of traditional media and new media” notes the main characteristics of new media [2].

1) Interactive content in real time;

2) A powerful source of information;

3) The main sources of information.

According to the russian researcher K. A. Karyakina, “new media” is a fairly wide range of multimedia information resources, which are based on the principles of convergence of technologies and forms of content creation.

In their articles, E. L. Vartanova notes the main advantage of new media: “New media allow you to involve the audience not only in the process of distribution and active selection of digital content, but also in the process of creativity itself, the process of content creation, and it does not matter in which part of it ‑ the creation of text, pictures or sound”. At the same time, the author gives examples of the formation of the “agenda” of users of the “LiveJournal”, where each user has the opportunity to create media content and participate in the discussion in real time [1].

Modern civilisation is characterised as the era of information technology, where information has become the only important resource of absolute value, since whoever owns information controls the social consciousness. Information is a tool of influence, a tool for managing the mass consciousness of people on a global scale. Currently, the main lever of this mechanism is not only official media: newspapers, magazines, TV channels, radio stations, but also Internet resources, mobile phones that receive messages in different formats (SMS, e-mail). All these and other sources of information are used in the constant struggle for people's consciousness, being a means of forming public opinion.

Young people accept technological changes faster than old people, and rich people accept technological changes faster than the poor. There are many aspects of these changes that affect the whole society both within the country and in the international context.

Features of the media in the modern world:

1. Variety of forms and types: Modern media are presented in various formats – from printed publications to digital platforms. This diversity allows the audience to choose the most convenient and accessible ways of obtaining information.

2. Globalisation: the media is becoming a link between cultures and countries. International news agencies and TV channels provide access to information about events around the world, promoting mutual understanding and exchange of views.

3. Commercialisation: Most media act as commercial enterprises, which can affect the content of information. The need for profit sometimes leads to compromises in the quality of journalism and independence of editors.

4. Polarisation and fragmentation: People are increasingly choosing sources of information that confirm their own views. This leads to polarisation of opinions and a decrease in the overall level of public consensus, which can deepen social differences.

5. Fake news and misinformation: The dissemination of false information has become a serious threat to the credibility of the media. Fake news can manipulate public opinion and undermine democratic institutions.

6. Social responsibility: Modern media are responsible for the dissemination of reliable information. In the face of growing misinformation, it is important that journalists observe ethical standards and strive for objectivity.

Thus, modern civilisation, immersed in the age of information technology, faces unique challenges and opportunities that shape public consciousness. In the context of diversity and globalization of the media, as well as their commercialization, it is important to realise that information not only serves as an instrument of influence, but also requires critical thinking and responsibility from us. The polarization of opinions and the spread of fake news emphasise the need for media literacy and an active search for reliable sources. Ultimately, it depends on us how we will perceive information and what values we will promote in society. It is important to strive for openness, mutual understanding and respect for different points of view in order to create a more informed and cohesive society.

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В статье рассматриваются вызовы и возможности, с которыми современная цивилизация сталкивается в эпоху информационных технологий. Особое внимание уделяется влиянию средств массовой информации на общественное сознание в условиях глобализации и коммерциализации. Автор подчеркивает важность критического мышления и ответственности при работе с информацией. Статья призывает к активному поиску достоверных источников информации и стремлению к открытости, взаимопониманию и уважению различных точек зрения.

[**к содержанию**](#содержание)

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**FEATURES OF COPING BEHAVIOUR IN STRESSFUL SITUATIONS IN ADOLESCENCE**

Adolescence is a period of significant social and psychological changes, accompanied by a large number of stresses. To cope with them, stress-overcoming (coping) behaviour or a coping strategy is necessary. Choosing the right coping strategy in a stressful situation is not easy. Teenagers try different methods, but many of them turn out to be ineffective. Then fear appears. The purpose of this work is to study the characteristics of coping behaviour in adolescents and young people in stressful situations. It also reveals the relationship between the number of coping strategies used and the level of anxiety in adolescents.

Coping strategies or features of congruent behaviour have recently attracted the attention of theorists and practitioners. This is primarily due to the fact that a person’s inability to manage himself leads to serious problems in his socialization, as well as to distortions in personal development [2, p.24].

R. Lazarus and S. Folkman define “coping” as a dynamic interaction of a person with a situation, as cognitive, behavioural and emotional efforts aimed at eliminating external or internal contradictions. They interpret coping behaviour in the broad sense of the word, assuming all types of interaction of the subject with tasks of an external or internal nature – attempts to master or mitigate, get used to or evade the demands of a problem situation [3, p. 59]. There are some differences between coping and defense as specific forms of behaviour. Based on identical processes, they have opposite directions. In particular, coping is flexible and purposeful, takes into account the specifics of the situation, defense is rigid and automated; coping includes the processes of reflection, analysis of the situation and is highly differentiated, defense mechanisms involve a greater number of unconscious reactions [2, p. 20].

The authors identify eight basic coping strategies:

1. planning actions to solve the problem, efforts to change the situation, analytical approach to solving the problem;

2. confrontational coping (aggressive tendencies to change the situation, hostility, readiness to take risks);

3. acceptance of responsibility (recognition of one’s role in the emergence of the situation and attempts to resolve it);

4. self-control (efforts to self-regulate emotions and actions);

5. positive reappraisal (efforts to find advantages in the current situation);

6. search for social support (appealing to others for help);

7. distancing (cognitive attitudes to separate oneself from the situation and reduce its significance);

8. escape-avoidance (desire and efforts aimed at escaping from the problem) [1, p. 122].

I. I. Vetrova in her longitudinal study of adolescents found that the proportion of productive coping strategies increases with age [1, p. 136]. These theoretical and practical studies are confirmed by the studies of A. V. Smirnova, who quite fully described the dynamic processes that are characteristic of the period of formation of coping behaviour in children aged 7-11 years. According to the researcher, it is the period of 7-11 years that is the time of active formation of various specifics of a child’s coping behaviour. During this period, coping styles are characterized by a certain unevenness, instability and significant variability at various crisis points, which may be the establishment of social contacts, mastering new types of activity, etc., that is, those socio-cultural processes that require the use of new adaptation styles. Significant dynamic processes occur from primary school age to early adolescence, characterized by the establishment of socially acceptable coping styles in this category of adolescents, with the actualization of one of the most important characteristics of coping behaviour, which is awareness. At the age of 11, there is a significant regression of coping behaviour from a constructive coping style (problem solving, seeking social support, accepting responsibility and internalization) to external coping, focused on oneself and objects (internalization and distancing) [1, p. 138].

I. I. Vetrova, in the course of studying the relationship between coping strategies, behavioural control, and psychological defenses, concluded that:

1. Coping behaviour, behavioural control, and psychological defenses are closely related constructs in a single self-regulation mechanism.

2. Boys’ coping style is more susceptible to change than girls’. The general “leap” in the dynamics of coping style occurs during the period of graduation from school and entering universities.

3. The dynamics of coping styles is associated with the dynamics of behavioural control and psychological defenses.

4. The revealed gender differences indicate greater variability in the choice of methods for overcoming difficult life situations in girls compared to boys.

5. Boys over the course of 14-18 years more often use distraction strategies, girls prefer emotional coping strategies.

6. The process of formation of coping styles occurs due to changes in the quantity and quality of connections between coping strategies and behavioural control scales [1, p. 138].

Thus, in the vast majority of stressful situations, adolescents choose problem-oriented coping, which indicates an attempt to restrain themselves from impulsive and hasty actions. On the one hand, a characteristic feature of adolescence is an attempt to avoid a traumatic situation, and in some cases its complete denial or behavioural distancing. Thus, the set of life situations, as well as the repertoire of ways to resolve them, can change significantly throughout a person’s life. However, it is in adolescence that the problem of coping behaviour becomes especially acute, since along with worrying about one’s own appearance, there is a need for a professional choice, the discovery of one’s inner “I”, the formation of a worldview. During this period of time, social support plays an important role. In most cases, parent-child relationships, as a factor in the development of a teenager’s personality, are conditions for the formation of personal predictors of coping behaviour. The use of productive coping strategies by adolescents is influenced by the active life position of their parents. On the other hand, a teenager’s choice of coping behaviour may be influenced by his desire to get rid of negative feelings by choosing emotionally-oriented coping.

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В статье рассматривается копинг-поведение молодых людей в стрессовых ситуациях, а также стратегии преодоления стресса. Важное место занимает анализ возрастных особенностей копинг-поведения, подчеркивается большая склонность подростков к проблемно-ориентированным стратегиям. Также отмечается значение социальной поддержки и родительских отношений в формировании эффективных копинг-стратегий.

[**к содержанию**](#содержание)

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**MAIN ADVANCES OF 21ST CENTURY MEDICINE**

Medicine in the 21st century has made significant progress thanks to advances in science and technology. New methods of diagnosing, treating and preventing diseases open up new opportunities for humanity. The age of high technology, genetic research and artificial intelligence has opened up new horizons in understanding human health and disease. Modern advances in medicine not only increase the effectiveness of treatment, but also make it more personalized and accessible to the general population. The article aims at analyzing the key advances that shape the modern medical space.

We will consider achievements such as immunotherapy – a new approach to cancer treatment that activates the patient’s immune system to fight tumors. This direction has shown promising results in clinical trials, allowing many patients to achieve remission and improve their quality of life. Drugs such as checkpoint inhibitors have become the standard of treatment for many types of cancer.

3D printing is another area that promises to change the future of medicine. Research in this field allows the creation of biomaterials for transplantation which can solve the problem of a shortage of donor organs. Although the technology is still in the development stage, the first successes have already been achieved in the creation of simple tissues and organs.

Artificial intelligence is a technology that allows computers and machines to perform tasks that require mental effort that are usually performed by humans. Artificial intelligence (AI) is finding increasing application in the medical field. It is used to analyze medical images, diagnose diseases, and develop new drugs. AI is able to process huge amounts of data and identify patterns that may not be obvious to humans, which significantly increases the accuracy of diagnostics.

Vaccines are medical products that contain weakened, but often killed, microorganisms or their parts to teach the immune system to fight infection. Biotechnology is a complex science that develops ways to obtain substances needed by humans using living organisms. The development of mRNA vaccines against COVID-19 has demonstrated the speed and effectiveness of new approaches to vaccination and the fight against infectious diseases.

Neuroscience is the science that studies the structure, function, development, genetics, biochemistry, physiology, and pathology of the nervous system. Research in neuroscience opens up new horizons for understanding the functioning of the brain and nervous system. Sequencing of the human genome has become one of the most significant achievements. It has opened up new horizons for understanding inherited diseases and developing personalized treatments [2]. Personalized medicine allows us to tailor therapy depending on the patient’s genetic characteristics, which significantly increases the effectiveness of treatment.

The development of telemedicine has become especially relevant in the context of the COVID-19 pandemic. It allows patients to receive medical consultations remotely, which increases the availability of medical care, especially in remote and rural areas. Telemedicine includes video calls, mobile health monitoring applications, and remote patient monitoring.

Regenerative medicine involves the use of stem cells and tissues to restore damaged organs and tissues. Research in this area offers opportunities to treat conditions such as cardiovascular disease, diabetes, and spinal cord injuries.

Modern diagnostic methods such as liquid biopsy and biomarker-based tests allow for the early detection of diseases, which greatly increases the chances of successful treatment [1].

In the 21st century, medicine in Belarus has made significant advances in various fields. Key achievements include the modernization of medical equipment. In recent years, Belarus has upgraded its medical equipment in hospitals and clinics, improving the quality of diagnosis and treatment. Research in genetics and molecular biology has led to the development of new treatments for hereditary diseases. Increased attention is paid to the rehabilitation of patients after serious illnesses and the introduction of palliative care to improve the quality of life of patients with incurable diseases. Education and training of personnel provides improvement of the medical education system, introduction of new educational programmes and advanced training of medical workers. The reform of the health care system is aimed at improving accessibility and quality of medical service.

Thus, these advances are only a part of what has been achieved in medicine and they continue to evolve promising new breakthroughs in the future. Advances in the 21st century medicine are shaping new understanding of health and disease treatment. Innovative technologies, different approaches and new diagnostic methods open up endless possibilities. It is important to continue supporting scientific research and developing the medical structure to take full advantage of these advances, as they have contributed to improving the health of the population and raising the level of medical care in the country. Advances in the 21st century medicine are opening new horizons for the diagnosis, treatment and prevention of diseases. We can expect even more significant changes that will help to improve the quality of life of people around the world in the future.

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В статье раскрываются ключевые достижения медицины XXI века. Особое внимание уделяется иммунотерапии как новому подходу к лечению рака, 3D-печати с целью создания биоматериалов и применению искусственного интеллекта для анализа медицинских данных. Анализируются достижения Республики Беларусь в области генетической медицины, модернизации медицинского оборудования и повышения качества программ повышения квалификации для медицинских работников.

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**FOUNDATIONS OF READING LITERACY DEVELOPMENT IN ENGLISH LANGUAGE LESSONS**

Modern education imposes high demands on students' level of preparation, especially in terms of working with textual information. In the context of a global digital space filled with diverse sources of data, the ability to understand, analyze, and interpret texts becomes a crucial factor for successful socialization and professional growth. Reading literacy serves not only as a foundation for mastering educational material but also as a key component in developing critical thinking and analytical skills. This skill becomes particularly important when learning foreign languages, where working with authentic texts fosters linguistic competence and intercultural understanding.

The aim of this article is to examine the theoretical foundations of reading literacy development in the educational process during English language lessons, to analyze its key components, and to explore modern approaches and methods that contribute to its enhancement.

Reading literacy encompasses a broad range of skills necessary for effective interaction with texts. It is not merely mechanical decoding of written information but a complex cognitive ability involving meaningful analysis, critical evaluation, and practical application of acquired knowledge. In the educational process, developing reading literacy plays a decisive role, as it helps shape analytical thinking, the ability to identify key ideas, establish semantic links, and interpret content according to set tasks [1, p. 147].

The key components of reading literacy include:

* Phonetic and technical reading skills: These involve correct pronunciation, the ability to match sounds with words, and knowledge of reading rules. This is particularly relevant for English, where the spelling system often does not align with phonetics, creating additional challenges for learners [4, p. 35].
* Lexical and grammatical knowledge: Expanding vocabulary and mastering grammatical constructions help students comprehend texts without difficulty and accurately interpret subtle meanings.
* Cognitive skills: These aid in analyzing information, identifying key points, establishing cause-and-effect relationships, and forming independent conclusions.
* Cultural competence and emotional sensitivity: Understanding cultural contexts, allusions, metaphors, and stylistic features of texts allows for a deeper grasp of the material.

The formation of reading literacy requires a systematic approach, involving work with different types of texts, the use of interactive methods, and modern educational technologies [1, p. 148].

The system of foreign language education includes a variety of methodologies aimed at developing text comprehension skills. Modern pedagogical practice employs both traditional and innovative methods for fostering reading literacy.

Traditional methods ‑ such as the grammar-translation approach, annotation, retelling, and structural analysis ‑ help systematize knowledge and develop a deep understanding of the grammatical structure of the language. A step-by-step text analysis, starting from previewing and ending with a detailed breakdown of lexical and syntactic constructions, enables students to master sentence formation rules and word usage features. The teacher plays a central role by directing students' attention to key aspects of the text, explaining complex terms, and ensuring material comprehension [2, p. 305]. However, these methods are often criticized for promoting passive information processing and insufficiently developing communication skills.

Faced with modern educational challenges, traditional methods are supplemented by innovative approaches that encourage active student engagement. These methods include:

* Discussions: These foster the exchange of opinions, develop argumentative skills, and enhance critical thinking. They create conditions for using language in real communicative situations but require a clear moderator to structure the conversation [5].
* Small-group work in the seminar format: This allows for in-depth text analysis, discussion of content, and preparation of reports. It encourages independent thinking but necessitates careful preparation and effective organization.
* Project-based learning (PBL): This combines theoretical knowledge with practical skills. Completing real or simulated projects integrates language competence with teamwork skills; however, this approach is time-consuming and requires constant teacher supervision [3, p. 246].
* Role-playing games: By simulating real-life communication situations, role-playing allows students to practice using foreign languages in a safe environment. This method develops speech adaptability and empathy but relies on active student participation and clear instruction.
* Problem-based learning: This approach presents students with real-world tasks that require information analysis and hypothesis formulation. It fosters analytical thinking and the application of knowledge in practice, though it may pose difficulties for unprepared learners and demands considerable effort in organizing the learning process [3, p. 247].

Innovative methods often rely on digital technologies, enabling the use of interactive platforms, virtual and augmented reality, and gamification. These technologies boost motivation, foster independence, enhance critical thinking, and develop intercultural competence. As a result, innovative teaching methods have significant potential, as they actively engage students in the educational process, cultivate critical thinking, and create opportunities for the practical application of acquired knowledge, making learning more flexible and effective.

Approaches to developing reading literacy in foreign language education range from traditional approaches ‑ such as cognitive, communicative, and lexical-grammatical approaches aimed at deeply understanding grammatical and lexical aspects of texts ‑ to innovative approaches, including personality-oriented, activity-based, problem-based, and interdisciplinary approaches, which encourage active involvement and practical application of knowledge. A comprehensive combination of these approaches not only improves material retention but also helps students acquire the necessary skills for successful interaction in modern society.

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В статье рассматриваются теоретические основы формирования читательской грамотности. Анализируются ключевые компоненты читательской грамотности, а также предлагаются современные подходы и методы её развития. Особое внимание уделяется интеграции традиционных и инновационных методик, способствующих глубокому усвоению текстового материала и формированию критического мышления.

[**к содержанию**](#содержание)

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**THE MULTICULTURAL COMPONENT IN THE PROCESS OF EFL TEACHING**

Nowadays there are more and more different teaching methods and techniques, different goals and tasks that the teacher sets in their lessons. When delivering English lessons, the teacher also needs to carefully select material and develop interesting technologies of conducting the lesson. One of the main educational tasks is to form a multicultural component in such lessons. In the process of teaching English, it is necessary to understand the goals of forming a multicultural component for both students and teachers. To do this, we will draw on the experience and observations of foreign scientists who have considered the essence of this concept, and on the basis of this describe their own views on the issue and make recommendations in preparing for such a lesson to modern specialists.

Thus, the purpose of our study is to examine the essence of the concept of “multicultural education” within the framework of the English language lesson.

The concept of «multicultural education» emerged in the second half of the 20th century in science and was interpreted as “pedagogical solution to the settlement of relations between representatives of different ethnic cultures in a multinational social environment” [2]. This concept has been widely developed and received various definitions in the field of modern education in many countries. First, multicultural education studied such issues as “protection of cultural and educational interests of ethnic minorities”.

James Banks is considered one of the founders of multicultural education. His works are devoted to developing models and strategies for integrating multicultural content into educational curricula, as well as creating a positive attitude towards cultural diversity. He has developed a model of levels for integrating multicultural content into the curriculum, which is widely used in education [1]. S. Nieto is known for her research on the role of culture and identity in education. She emphasizes the importance of taking into account the cultural characteristics of students in the development of curricula and teaching methods. Her work focuses on social justice and equality in education. The works of K. Sims and K. Grant focus on critical multicultural education, which involves not only the study of cultural diversity, but also the analysis of social inequalities and the fight against discrimination. They also train teachers for multicultural classes. G. Ladson-Billings is known for her theory of “culturally relevant pedagogy”, which involves using the cultural experience of students as a basis for teaching. She also does research on racial justice in education. K. Kramer investigated the role of language as a cultural phenomenon and developed the concept of “intercultural competence” in teaching foreign languages. Her work highlights the importance of developing students' ability to understand and interpret cultural contexts. M. Bayram has developed a model of intercultural communicative competence that includes knowledge, skills, attitudes and critical cultural awareness. His work has had a significant impact on the teaching of foreign languages.

Objectives of the formation of a multicultural education:

1. Education of intercultural communicative competence. Develops the ability to communicate effectively and respectfully with people from different cultures who speak English. This includes understanding the cultural characteristics of communication, the ability to adapt to different styles of communication, avoiding stereotypes and prejudices; teaches the ability to perceive and interpret cultural signals, verbal and non-verbal, in different communication situations.

2. Building understanding and respect for cultural diversity. Involves learning about the culture, history, traditions and values of different English-speaking countries and other cultures of the world, which helps to broaden students' horizons and form a more objective view of the world; Promotes a positive attitude towards cultural differences and the overcoming of stereotypes and prejudices, that is, recognition of the value and uniqueness of each culture.

3. Development of tolerance and empathy. It involves helping to develop the ability to empathize with other people, to understand their feelings and needs, regardless of which culture they belong to.

4. Development of cultural identity. This means that each student tries to understand his or her belonging to a certain culture and to form respect for their own traditions and values, to understand the relationship between their own culture and other cultures of the world, as well as to form an active civic position and willingness to participate in the life of a multicultural society.

In order for the teacher not to make mistakes when teaching English, it is necessary to approach very carefully the process of preparation for the training sessions, that is, to choose educational materials so that they were composed according to the rules of grammatical, conceptual and speech integrity. When preparing for the lesson of English you need to pay attention to what class will be given the lesson and choose tasks that will correspond to the age of students, their level of training and individual characteristics of schoolchildren.

It is also important not to forget about the topic of the lesson, its main goals and objectives and in this connection select appropriate material. In some parts of the lesson you can use articles from English-language newspapers and magazines, excerpts from fiction, blogs, websites, podcasts and videos reflecting the cultures of different countries and peoples. If the subject of the lesson is aimed at studying the culture of certain countries and peoples, cultural values of human beings or distinctive characteristics of people, then it is necessary to include texts, audio and video materials devoted to history, geography, traditions, art, literature, music, cuisine and other aspects of the culture of various English-speaking countries and other regions of the world. The teacher will emphasize the influence of inter-subject connections when studying such topics. If the topic is more focused on intercultural communication, then it is acceptable to use materials that tell about the problems and possibilities of intercultural interaction, strategies for successful communication with representatives of other cultures.

Based on the research of foreign scientists who have been engaged in the problem of formation of a multicultural component in foreign language teaching, it can be concluded that when describing their own views on the specificity of this concept, we can learn from the experiences and observations of other scientists. By defining the goals of multicultural education in English lessons, the teacher will understand why it is important to select a certain material to achieve the desired effect in modern school.

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В статье рассматривается сущность понятия «поликультурное воспитание», анализируются исследования зарубежных учёных, которые раскрывают данную проблему с разных точек зрения. Даётся перечень целей формирования поликультурного воспитания, их раскрытия в контексте подготовки к уроку английского языка, а также предлагаются рекомендации учителю при подготовке к такому уроку (отбор материала, учёт возрастных и индивидуальных особенностей учащихся, подбор методов и приёмов при формировании поликультурного компонента на уроках).

[**к содержанию**](#содержание)

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**SCIENCE, THE INTERNET AND YOUTHS: WHAT THEY HAVE TO DO WITH DIGITAL JOURNALISM**

In the age of globalization, modern science has brought unparalleled opportunities, profoundly influencing various aspects of human life. One of the most significant developments is the transformation of communication tools which plays a central role in the dissemination of information. Over a century ago, Nikola Tesla predicted the future where individuals would be able to send their ideas across long distances. Today, his prediction has become a reality, thanks to advancements in science and technology. The rapid exchange of information has revolutionized journalism, leading to the rise of digital journalism. However, while the Internet has provided numerous benefits, it also presents challenges, particularly for the younger generation [1, c. 45].

The progress of science and technology has drastically improved the way information is shared. Fifty years ago, it took weeks to send and receive letters across countries. Now, with just a few clicks, individuals can send extensive documents or access vast amounts of data within seconds. This technological leap has significantly impacted journalism, allowing for real-time reporting and global reach. Digital platforms have enabled journalists to share news instantly, keeping the public informed about developments in medicine, technology, politics, and social issues [2, c.78].

Social media platforms, in particular, have played a crucial role in digital journalism. They provide journalists with immediate access to breaking news, diverse sources and an engaged audience. Tesla’s vision of rapid information exchange is now a reality, as news spreads globally within minutes. The Internet has turned the world into a connected digital village where knowledge is readily available [1, c.102].

However, the ease of information access comes with drawbacks. The rise of digital journalism has led to the proliferation of misinformation and information wars. Social media, while beneficial for news dissemination, also serves as a source of distraction for young people. The Internet can consume time unproductively, offering entertainment that often overshadows valuable educational content. Despite providing vast amounts of information, it does not always equate to deep knowledge. Many young people are drawn to visually appealing but less informative content, which may negatively impact their intellectual development [2, c. 134].

Young people play a crucial role in the modern economy, bringing fresh ideas and innovative solutions. However, to effectively contribute to society, they need access to accurate and reliable knowledge. The Internet, if used wisely, can be a powerful educational tool, offering access to books, research databases and academic resources. A balanced approach to the Internet usage can help youths acquire essential skills and stay informed about global developments.

A recent survey on digital journalism highlights the growing preference for online news consumption among young people. The results indicate that: 52% of respondents read newspapers online, with most of them aged between 18 and 25, 89% believe that digital journalism is superior to traditional journalism, citing its ability to reach a global audience quickly, 35% strongly agree that the Internet has improved science journalism by providing access to diverse resources and facilitating faster research [2, c.189].

These findings demonstrate the growing influence of digital journalism on young people. The shift towards online news consumption signifies the need for journalists to adapt to digital platforms while ensuring the credibility of their content.

The Internet and modern science have transformed the field of journalism, enabling rapid information exchange and global accessibility. Digital journalism has become the primary source of news for many young people, offering both opportunities and challenges. While the Internet enhances knowledge-sharing and provides access to valuable resources, it also presents risks such as misinformation and time-wasting distractions. The key to success lies in the responsible use of digital tools, ensuring that they serve as a means of education and professional growth. By leveraging the Internet for knowledge acquisition and critical thinking, young people can maximize its benefits and contribute meaningfully to the evolving landscape of digital journalism.

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В статье рассматривается влияние науки и интернета на цифровую журналистику и молодёжь, в частности. Показано, как технологический прогресс изменил методы распространения новостей, предоставив новые возможности и вызовы для современного общества.

[**к содержанию**](#содержание)

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**GREAT MATHEMATICIANS AND PHYSICISTS OF ALL TIME**

In the history of mankind there have been many geniuses whose achievements have forever changed our view of the world. Among them, a special place is occupied by outstanding mathematicians and physicists whose discoveries and theories laid the foundation for modern science and technology. This article will explore some of the most famous mathematicians and physicists, their key discoveries, and the legacies that continue to inspire new generations of scientists.

Grigory Yakovlevich Perelman is an outstanding Russian mathematician who was the first to prove the Poincaré hypothesis. The meaning of the Poincaré hypothesis was that any three-dimensional object without holes can be given the shape of a ball – a three-dimensional sphere – by various actions, but without cutting and gluing. But a hypothesis is only an assumption until a precise explanation is found. Thus, the hypothesis of Poincaré remained unproved until the young Russian mathematician Perelman confirmed it with complex, but extremely accurate calculations. If, for example, today, you ask ordinary Spaniards who is the world's most famous mathematician, they will answer without hesitation – Grigory Perelman. “He refused to receive the Fields Prize from the hands of the King of Spain himself. Only great people are capable of such a thing”... Grigory Perelman was born June 13, 1966 in Leningrad, in a family of employees. Perelman is considered a mathematician of high level. Now his name is inscribed on the board of honor for receiving gold medals at international mathematical Olympiads. That grandiose breakthrough in science, which was realized by Grigory Perelman, is invaluable.

The name of Zhores Alferov is well known not only to physics connoisseurs. He is a legend, a man who stood at the origins of the discovery of the principles of new electronics. Thanks to his developments, the world now uses telephony, cellular communication, LEDs and fiber optics. The discoveries of the great scientist helped mankind to master high-speed electronics, photonics, solar energy. Almost all inhabitants of the planet Earth use the fruits of his labours – they talk on cell phones, thanks to semiconductors developed by him, listen to CDs and read information from a disk drive with the help of a laser.

The fact that Zhores Alferov had an excellent understanding of physics was first noticed by his teacher Yakov Meltserzon. It was he who advised the talented young man to continue his studies at the Belarusian Polytechnic Institute in the energy department. Zhores Alferov studied there for several years, and then entered LETI. The scientific career of the young scientist started in 1952.

Zhores Alfyorov is the author of more than 500 scientific papers and 50 inventions. His research in semiconductor physics, semiconductor and quantum electronics and technical physics earned him the fame of a pioneering scientist and laid the foundation for a new scientific school – the physics of semiconductor heterostructures. The first transistors, photodiodes, germanium rectifiers in the USSR – were the inventions of Zhores Alfyorov. It is not without reason that back in 1972 the scientist was awarded the Lenin Prize – the highest award of the Union for achievements in the field of science. It would take several pages to list all the high awards and regalia of the scientific luminary, public and political figure [1].

Who is Stephen Hawking? He is one of the most famous and influential theoretical physicists of the twentieth and twenty-first centuries, one of the founders of quantum cosmology. Known as a writer whose books became bestsellers. The scientist, who worked in the field of cosmology, was concerned with the problems of the future of the planet. He was concerned about global problems:

- Humanity's existence under the threat of sudden nuclear war.

- The problem of global warming.

- The creation of a genetically engineered virus.

- Computer viruses, which the scientist considered a new form of life.

Stephen Hawking considered the greatest threat to life on Earth to be a collision with an asteroid. Stephen Hawking considered dangerous for mankind contacts with extraterrestrials, suggesting that they could come to Earth to plunder Earth's resources.

The scientist was interested in the issues of artificial intelligence. He emphasized that AI could play a key role in controlling humanity's destiny. But there could be problems if the goals do not coincide.

The main directions of the young scientist's research were cosmology and quantum gravity.

What did Stephen Hawking discover? He owns the description of black holes, in which thermodynamics was applied. He developed a theory according to which black holes “vaporize”. This phenomenon was called “Hawking radiation”.

The scientist proposed the concept of “microscopic black holes”, which have a mass of billions of tons with a volume not exceeding the size of a proton. These objects are at the junction of the theory of relativity and quantum mechanics.

The discoveries brought Stephen Hawking high scientific status, as informed by the Encyclopedia Britannica. In 1974 he became one of the youngest members of the prestigious Royal Society. In 1979, Hawking received a named position as Lucas Professor of Mathematics at the University of Cambridge [2].

From ancient times to modern times, mathematics and physics continues to be a major driver of progress and innovation. The scientists listed above are just a few of the great people whose work and discoveries continue to inspire and guide us in our quest for new knowledge and understanding of the world around us.

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Статья посвящена великим учёным разных национальностей, внёсших свой неповторимый вклад в развитие математики и физики.

[**к содержанию**](#содержание)

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**THE RELATIONSHIP BETWEEN COMMUNICATIVE COMPETENCE AND IDIOMS**

Idioms are traditionally described as multi-word units with specific meanings and significant restrictions in their usage. The configuration hypothesis proposed by Cacciari and Tabossi suggests that idioms are configurations of words. McCarthy demonstrates that idioms cannot always be identified by their formal characteristics. Idiom-related skills involve four components: defining, interpreting, explaining, and using idioms. Similarly, the term “communicative competence” reflects the idea that the ability to use language in communication requires not only mastery of linguistic forms but also an understanding of rules for usage in various contexts. It is necessary to study idioms since without them it is impossible to develop communicative competence.

This article reviews the main approaches to examining communicative competence, idioms and their interrelationships. It is necessary to find out how important the study of idioms is in teaching English.

Traditionally, idioms have been described as having a rigid prescribed form. However, corpus studies show that idioms are much more variable than previously thought. A rating experiment assessed the acceptability of both canonical forms of idioms and several idiom variant types found in corpora. Acceptability varies significantly among these variants, with the lowest ratings for literal interpretations where the canonical form enforces a literal meaning. Theories like those by Bobrow & Bell (1973) or Cacciari & Tabossi (1988), which explain idiom processing through fixed-form representations, face challenges similar to accounting for acoustically reduced variants in auditory comprehension. Adding variants to the mental dictionary would predict all idiom variants as fully acceptable, which is not the case, while additional mechanisms for predicting idiom matches might fail due to the creativity of idiom use (e.g., my phone kicked the pail). A simulation study suggests that idiom-specific representations (lexomes) can provide semantic consistency, with their acceptance tied to uninterrupted lexome support. The findings align with the configuration hypothesis by Cacciari & Tabossi (1988) while avoiding engineering fixed configurations. Idioms are inherently tied to communicative competence, reflecting their dynamic role in conveying meaning and enhancing discourse [1, p. 657].

Attempts to provide categorical, single-criterion definitions of idioms are often misleading. In linguistic discourse and lexicography, “idiom” represents a fuzzy category defined by prototypical examples like kick the bucket and keep tabs on NP, in contrast to related categories such as fixed phrases, collocations, and proverbs. Idioms occupy a region in a multidimensional lexical space characterized by semantic, syntactic, poetical, discursive, and rhetorical properties. Prototypical idioms, such as kick the bucket or shoot the breeze, are judged based on distinct properties:

Conventionality: Idioms are conventionalized and their meanings cannot be entirely predicted from their constituents.

Inflexibility: Idioms appear in limited syntactic frames, unlike freely composed expressions (e.g., the breeze was shot).

Figuration: Idioms involve figurative devices like metaphors (take the bull by the horns), metonymies (lend a hand), and hyperboles (not worth the paper it's printed on), even if the precise reasons for their figurative meaning (e.g., shoot the breeze) aren't always clear.

Proverbiality: Idioms are recurrent sayings informally, diversely connected to a scenario, like hitting walls or chewing fat.

Informality: Idioms are typically associated with relatively casual and oral culture.

Affect: Idioms are used to imply a certain evaluation or affective stance toward the things they denote. For instance, a language doesn't normally employ idioms to describe situations that are regarded neutrally, such as buying tickets or reading a book, unless in communities where such activities hold substantial social meaning [2, p. 497].

Idiom skills encompass four components: idiom identification, interpretation, explanation and use. Idiom identification involves recognizing that a phrase is figurative and does not make sense in the given context. Idiom interpretation involves using contextual and pragmatic cues to interpret the meaning of the idiomatic phrase and demonstrate comprehension of the idiom across multiple contexts. Idiom explanation involves clarifying the difference in the meaning of a given idiomatic phrase across multiple contexts. Idiom use involves using an idiom correctly with appropriate surrounding context.

Foremost, the low discourse competence among learners is influenced by their low English language exposure and less focus on this dimension in the teaching of English. Structurally, the low discourse competence is attributed to the fact that English is treated as a foreign language and not as a second language. Such a policy in the country hinders the development of learners' proficiency in English. Specifically, the field of specialization highlights differences in learners' communicative competence, as the expected level of competencies varies across professions. Finally, grammatical and discourse competence among learners is influenced by their exposure to the English language. The more learners are exposed to English, the higher their communicative competence becomes [3, p. 445].

Thus, to teach a foreign language, it is necessary to study idioms. Idioms have conventionality, inflexibility, figuration, proverbiality, informality, affect. Idiom skills encompass four components: idiom identification, interpretation, explanation and use.

Idioms are carriers of the socio-cultural features of a foreign language, their understanding contributes to the effective development of communicative competence.

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Идиомы традиционно описываются как многословные единицы с определенными значениями и значительными ограничениями в их использовании. В данной работе рассматриваются основные характеристики идиом, подходы к их изучению и взаимосвязь с коммуникативной компетентностью. Идиомы ‑ это сложное лингвистическое явление, которое напрямую влияет на развитие коммуникативной компетенции. Наиболее эффективным показателем владения языком является коммуникативная компетенция, которая тесно связана с изучением идиоматических выражений.

[**к содержанию**](#содержание)

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**FINANCIAL PLANNING TO ENSURE FINANCIAL SECURITY FOR THE ENTERPRISE**

In the face of constantly changing market conditions, organizations seek to ensure a high level of economic security for the continuation of economic activities. This requires continuous analysis of risks and adaptation of management strategies, including monitoring of pricing policies, costs and consumer preferences.

One of the most important components of economic security is financial security, as it determines the organization’s internal and external financial relations, its solvency and its financial sustainability.

Financial security ‑ complex system, which is influenced by the current financial situation of the enterprise, external and internal factors, based on the identification of potential threats and their prevention, as well as neutralizing real threats and minimizing consequences.

Financial sustainability of enterprises is determined by their ability to adapt to changes in the environment and readiness to quickly create new business opportunities and make informed decisions. The key tool for realizing these opportunities is financial planning ‑ process of determining the number of appropriate types of financial resources received and their distribution by directions in the planned year [2, с. 52].

However, the key role of this process is that financial planning allows us to identify the needs of an enterprise in terms of finance, their size for different kinds of tasks and execution of commitments.

The stages of financial planning:

step 1 – Goal setting. Specifically, financial planning aims to ensure the organization's financial stability and efficient resource utilization.

step 2 – Analysis of the current financial situation, identification of opportunities and threats, as well as trends in the development of planned indicators.

step 3 – Forecasting of individual financial indicators of the activity of the enterprise considering economic security: volume of sales, profit, forecast balance sheet, etc.

step 4 – Plans are developed based on previous forecasts.

step 5 – Monitoring of implementation. This stage also includes the identification and analysis of the reasons for the deviation of the actual results from the planned ones, application of measures to eliminate these deviations, if necessary.

The financial planning process is cyclical and continuous in nature and carried out with a view to ensuring the financial security of the enterprise’s development.

The main threats to financial security of an enterprise include [3, с. 54]:

1) External threats: crisis of the monetary and financial system of the state, change of interest rates, the rate of inflation, unfair competition.

2) Internal threats: unskilled management, errors in the formation of the price policy, non-compliance of contractual obligations.

The following measures to prevent and neutralize these threats, implemented through financial planning, can be proposed:

1. Systematic analysis of risks affecting financial security, including assessment of potential threats.

2. Out of the previous measure follows: creation of financial reserves. Thus, it is possible to create a reserve on doubtful debts and later use it when the counterparty defaults on its obligations to the company.

3. The diversification of assets, the distribution of investments among different asset classes to reduce risks, is a logical method for financial planning and for the organization’s investment goals.

The method of traditional control involves a preventive effect when there are indicators indicating a potential threat, while the control function is to identify abnormalities, identify their causes and eliminate them.

The objective of controlling is to ensure a balance of financial flows in terms of time and volume.

Allocate the following types of financial flows in the organization [1, с. 10]: proceeds from the sale of products, payments to suppliers of raw materials, payroll calculations, tax payments, investment investments.

The fundamental importance for understanding this area is the principle of feedback in the management cycle, which is implemented through comparison of actual and planned values, identification of causes of deviations and formulation of corrective measures.

By analyzing the differences between expected and actual results, it is possible to understand the elements that may have influenced these deviations, whether they are internal or external. Moreover, these procedures are not limited to mere fact-finding but also aim at preventing undesirable situations by anticipating potential problems before they arise.

As a result, the integration of this feedback principle into the corporate culture promotes transparent communication and effective collaboration between different teams, thus increasing employee engagement and motivation to actively participate in the continuous improvement process.

Very significant is integration of data from different sources [1, с. 10]:

– accounting (For example, a balance sheet that shows assets, liabilities and equity to assess sustainability; a financial statement showing income and expenses for the period etc.);

– management reporting (analysis of costs for optimization, budgeting and control, financial planning, performance evaluation through key indicators (KPI));

‑ bank-client (view of account balance, transaction history, information about credit products and cards);

‑ production systems (raw material costs, labor costs, depreciation of equipment and other operating expenses, which helps to determine the unit value and profitability of various production lines).

It can be concluded that the main function of controlling is to monitor, plan and adjust financial flows to achieve the company’s strategic and operational objectives. Its strengths and limitations can be grouped in several directions, such as speed, precision, adaptability and organizational capacity.

Finally, using financial planning in the management of the economic activities of the organization contributes to an increase in the level of economic security, as it allows not only to prevent potential threats, but also to reduce the risks associated with changes in the market, exchange rate fluctuations and other external factors.

Thus, the integration of financial planning into the overall management strategy of the organization is a key aspect that contributes to its sustainability and competitiveness in the market.

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В статье рассматривается роль финансового планирования как ключевого инструмента для обеспечения финансовой безопасности предприятия. Основное внимание уделяется мерам, которые помогают эффективно управлять ресурсами, минимизировать риски и предотвращать угрозы.

[**к содержанию**](#содержание)

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**Implementation of Virtual Reality technologies in the training process and rehabilitation period of football club players**

In the modern world, football has long ceased to be just a sport ‑ it is a real art that requires a balance of physical fitness, tactical skill and a clear reaction to variable situations. With the advent of Virtual Reality (VR), innovations have been actively introduced into the training process of football players. VR-technologies enable athletes to improve game techniques, tactics, adapt to different game situations. VR also enables non-medical rehabilitation and adaptation of football players with severe motor injuries and nervous system disorders.

The aim of the article is to show the result of the study of the VR using effectiveness in the training and rehabilitation process of football players.

VR is a computer-assisted simulation of a real environment that replicates a particular situation through visual, auditory, olfactory, tactile senses in order to elicit responses. So far, it has been proven that the introduction of VR technologies in sports can significantly accelerate changes in traditional methods and expand their use. When it comes to football, VR is useful for player training, tactical analysis, fan engagement, and non-medical rehabilitation of athletes.

The functions that a football teaching system should have:

1. A football training pitch with a realistic feel.

2. Collection of physiological data of the players.

3. Reproduction and demonstration of movements. The virtual system should be able to record and present the user’s technical movements and clearly indicate the deficiencies between two movements, which facilitate error correction and demonstration of technical skills.

4. Graphical analysis of training results. The graphical display of athletes’ training effects and error analysis results can visually reflect athletes’ training effects and the standardization degree of their movements, helping teaching and training.

5. A virtual simulated training pitch is created using multiple images and data to create a three-dimensional environment almost similar to a real training pitch. The coach can experience many game situations and contingencies in this environment beforehand, which reduces the likelihood of injury in a real game.

The main benefits of implementing this approach are:

Multiple repetitions. With VR, players can perform the same actions over and over again, which helps to automate movements and build muscle memory in football players.

Real-life simulation. Football players can train in a variety of environments, from low visibility to differently textured pitches, to diversify their experience and prepare them for a variety of real-world football match scenarios.

VR gives football players the opportunity not only to improve their technical skills, but also to delve deeper into aspects of the tactics of the game. It has a significant impact on the development of their strategic thinking and ability to adapt to complex game situations.

Here’s how VR technology can help to improve tactical skills:

Game Vision Development. Virtual training allows players to improve their vision by analyzing game situations from all angles [2, p. 2]. They can move around the virtual field, observing the action from their own position, as well as from the positions of their partners and opponents. This develops their ability to see more broadly and predict the game on a more strategic level.

Decision-making under pressure. One of the key parts of tactics in football is the ability of players to react quickly and appropriately to situations in the game. VR simulations can create game moments with a high degree of pressure and uncertainty, requiring football players to make decisions in conditions as close to real matches as possible [2, p. 4]. This helps them develop logic, intuition and the ability to act in complex situations.

Deepening the tactical aspects of the game. VR technology allows to create scenarios where players can practice different tactical strategies. They can experience different positioning, movement on the pitch, interactions with partners and other tactical aspects of the game. This helps them better understand how different tactics can affect the course of a match and how to choose the most effective solutions [2, p. 6].

VR technology also helps to improve the speed of reaction to certain situations, i.e. cognitive ability, and physical fitness:

Reaction accuracy. Simulations with fast and unpredictable events train reactions and help players make good decisions quickly.

Improved coordination. Training virtually raises the load on movement coordination, improving the overall fitness of the players [1, p. 599].

In the case of a serious injury, the player does not start ball exercises until the injury has healed. In doing so, the player spends time not only getting physically fit, but also restoring cognitive abilities, which decline without constant matches. Cognitive abilities do not recover in training, so the player needs to play a few games to make decisions at the same level. Since the player loses up to 60% of his cognitive abilities when injured, it takes an average of four matches to fully recover.

Using VR, a football player’s cognitive abilities return while still recovering from an injury. Method developers claim that virtual games help improve body balance, dexterity and flexibility by allowing participants to perform torso movements (flexion, extension and lateral bending) within their pain tolerance.

Utilizing VR technology significantly reduces cognitive and somatic anxiety while increasing confidence. VR can be a tool for those with high anxiety prior to competition and can be a useful tool after competition when relaxation is needed.

Thus, the implementation of virtual reality in soccer training and evaluations has shown promising results in various areas. Virtual reality has been proven to have a positive effect on benzomotor control and ball handling skills, reduce the risk of head injuries, increase physical performance, and help manage pain and anxiety.

In conclusion, we should say that football players can benefit from the immersive and controlled environment offered by Virtual Reality technology. It helps them to improve spatial and temporal awareness, master technical movement skills, improve soccer skills, prevent injuries, accelerate rehabilitation, and manage anxiety and stress. The introduction of Virtual Reality technology into soccer means a paradigm shift in the way the sport is approached, which has the potential to revolutionize traditional techniques and improve athlete performance.

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Cтатья посвящена исследованию возможностей использования технологий виртуальной реальности в процессе тренировок и в период реабилитации футболистов. Представлен обзор применения ВР в тренировочном процессе и на разных этапах реабилитации спортсменов. Делается вывод, что данные технологии помогают футболистам улучшить их пространственное и временное восприятие, освоить технические навыки движения, улучшить футбольные навыки, предотвратить травмы, ускорить реабилитацию и справиться с тревогой и стрессом.

[**к содержанию**](#содержание)

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**COOPERATION AS A WAY TO INCREASE EFFICIENCY OF FARMING**

For all the time of existence of cooperation in the world there has not appeared a more effective organizational form of self-support and mutual assistance of agricultural producers, which allows combining the benefits of an individual farm with large-scale production having technical and economic advantages, as well as competitiveness in the market.

Cooperative forms of activity are an integral part of economic life in most countries. Supply cooperatives as well as marketing and service ones are equally important in the development of agricultural cooperation.

The theory of agricultural cooperation of outstanding Russian scientists-economists N. D. Kondratiev, M. I. Tugan-Baranovsky, A. V. Chayanov became world famous. According to A. V. Chayanov's definition, a cooperative is an economic enterprise of several people who voluntarily joined with the purpose not to gain profit on the spent capital, but to increase the labour income of its members while reducing costs [1].

Cooperation can be presented as a way of collaboration of individuals and legal entities in order to realize their economic interests. Cooperation is classified by forms and types. The type of cooperation is understood as a set of relationships regarding the realization of economic interests of the subjects of cooperation, associated with the joint use of any type of resources or joint business activities. The form of cooperation should be considered as a way of organizational and legal registration of relations between the subjects of cooperation.

Today, cooperation in agriculture is more relevant than ever, and it is a phenomenon more widespread than the union of peasant farms. Intensive farming and the need to apply new technologies require in-depth knowledge in a wide range of fields. However, while the implementation of a scientific approach from management to biotechnology is a daunting task even for the largest farms, cooperatives and their associations manage to address the issues of scientific excellence for all members, as well as training and retraining of employees. They make possible for their members to use scientific and technological potential on equal terms, regardless of farm size and share of the contributor.

Moreover, the most important task of cooperative associations is to resist the power of monopolists and to defend the interests of their members at the national and international level.

Cooperative forms of activity have been an integral part of the economic life of most countries for 150 years. In today's world, there are about 1 million cooperative organizations of more than 120 types and varieties. They unite approximately 600 million people. Agricultural cooperatives have the strongest economic position in the cooperative sphere of activity. For example, in the USA, Canada, Australia, cooperation is represented mainly only by farmer associations [2, 3].

In the European Community, farmer cooperatives account for more than half of the total turnover of the cooperative sector. In most European countries and Japan, cooperatives represent more than 80% of agricultural producers. In the UK and some other countries, this figure is well below the European average and is around 50%.

Germany is a vivid example of cooperative development. The turnover of agricultural cooperatives in this country is about 50 billion euros a year, of which 50% is for their own products, 50% is diversified: cooperatives own petrol stations, markets for trade in building materials and food markets.

The enterprises founded by cooperative associations serve as a bridge connecting thousands of companies and cooperative members to markets in Germany and abroad

For example, the largest agricultural group BayWa, founded in 1923 in Munich (with a turnover of €14.9bn last year and more than 16,000 jobs), has divisions or subsidiaries in 34 countries. The main areas of activity are agriculture, energy, construction and real estate. The Group provides its members a full service: planning, accounting, warehousing, preparation and sale of plant and animal agricultural products, connecting agricultural producers with consumers and the processing industry. Its own storage and transport infrastructure allows it to create the necessary reserves to overcome the contradictions between seasonal and weather fluctuations in production and continuous consumption.

As the practice of foreign countries shows, cooperation is one of the widespread and preferable forms of economic management. The most important feature of agro-industrial complex development in developed countries at the present stage is cooperation of peasant farms with public agricultural production.

In modern conditions, farms and private subsidiary farms are the main representatives of small-scale farming in the agrarian sector of the Republic of Belarus. Thus, as of 1 January 2024, there were 3822 peasant farm households operating in the country. It is noted that over the last 8 years the number of farmers in Belarus has grown by almost 27%.

Peasant farm households carry out their activities on almost 321 hectares of agricultural land, of which arable land account for almost 222 hectares. Moreover, the total area of land used by farmers, if we compare 2015 and 2023, increased by 96%, including arable land with increase of almost 87%.

During this period of time the amount of agricultural production of farms in comparable prices increased more than 2 times: in crop production ‑ 2.2 times, in livestock production ‑ 1.5 times. There is also an increase in the share of farmers in the total volume of grown products in the agricultural sector of the economy. If in 2015 the contribution of farms to the total food market of the country was 1.9%, in 2023 it was almost 3%.

However, despite the growing number of farms, they still face a number of problems that hinder their development. As a rule, land plots allocated to farmers have low cadastral valuation and fertility. Thus, the cadastral valuation of land plots allotted for farms, on average, is about 20‑26 points, or 1.1‑1.2 times lower than the average for the republic. This requires additional costs from the farmer to carry out measures to improve soil fertility.

The problems of farms in the field of marketing are related to their remoteness from markets, lack of processing centres, and small production volumes. Small farms, which prevail in the region, can’t compete with large farms in terms of access to market infrastructure. Processing enterprises and procurement organizations in most cases prefer to work with larger producers, as material costs and risk are lower in this case. Larger suppliers of raw materials tend to receive a higher price from procurers [1].

In the course of their activities, farms face such a problem as the difficulty of obtaining credit: commercial banks are not interested in working with small borrowers because of the high risk of non-repayment of the loan, on the other hand, farmers do not seek to obtain loans because of their high cost and the complexity of its registration.

Thus, we can say that, in general, farms function effectively, and by some indicators they have achieved better results than agricultural organizations. However, the considered problems hinder the more effective activity of existing farms, become the reason for the termination of the activity of weaker farms, and also restrain the formation of new ones. The existing problems are common for farms, so, in our opinion, farmers should cooperate to solve them. The supply and marketing cooperation can be considered as an effective form.

Marketing and supply cooperatives are mainly established by farms. The main objective of these cooperatives is to increase the competitiveness of regional agricultural products in order to support local producers. Given this goal, the objectives of these cooperatives are to increase the share of production in each region and to create conditions for increasing the share of agricultural products in regional and intra-regional markets.

Another option for promoting agricultural products on the market is the mechanism of selling products through chain shops. In this case, cooperation is discussed when signing contracts for the supply of products.

Thus, it should be noted that of all types of consumer cooperatives, supply and marketing cooperatives have the most significant impact on the growth of production and sales of agricultural products. Supply and marketing cooperatives provide not only members of the cooperative, but also rural population and agricultural enterprises with necessary resources for production. It is the efficiency of supply and marketing cooperatives that determines the full activity of cooperative members. Therefore, the development of supply and marketing cooperatives is of particular relevance, as these cooperatives represent a socially oriented form of management in rural areas.

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В статье дается определение кооперации, а также ее значение в развитии сельского хозяйства. Автором приводятся примеры зарубежного опыта формирования кооперации фермерских хозяйств. Кроме того, дается современное состояние развития фермерских хозяйств в Республике Беларусь, определяются основные проблемы развития фермерства в стране.

[**к содержанию**](#содержание)

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**ESTILO DE VIDA SALUDABLE Y SU EFECTO EN EL ESTADO PSICOLÓGICO DE LOS ESTUDIANTES**

El estilo de vida afecta la salud física y el estado mental de una persona. Malos hábitos como el tabaquismo y el alcoholismo, así como aspectos básicos como los patrones de sueño, la nutrición y la actividad física, juegan un papel importante. Estos factores determinan el estado de ánimo, los niveles de energía y la motivación. A menudo los estudiantes descuidan estos aspectos simples en su vida diaria.

Numerosos estudios destacan la importancia del sueño para los procesos cognitivos. La falta de sueño dificulta prestar atención y afecta la corteza prefrontal, responsable de la atención, el juicio y la toma de decisiones. El sueño es necesario para la asimilación de calidad de la información y la transformación de la memoria a corto plazo en memoria a largo plazo. En este momento se produce el análisis y procesamiento de la información acumulada. Si este proceso tiene éxito, el cerebro se libera de la sobrecarga y está listo para un nuevo trabajo, lo que normaliza el estado neuropsíquico y restablece el rendimiento. Sin un sueño saludable, el hipocampo, encargado de almacenar los recuerdos, no puede realizar sus funciones, lo que dificulta que los estudiantes recuerden la información de la universidad. La información entra al cerebro pero no se retiene [1].

Así, una buena noche de sueño tiene un efecto positivo en el rendimiento y la moral, lo que es especialmente importante para que los estudiantes absorban con éxito la información y se conviertan en especialistas competitivos.

El segundo aspecto importante de un estilo de vida saludable es la nutrición. El sueño y la nutrición están interconectados, y la calidad de su sueño afecta sus hábitos alimenticios y su salud general. La falta de sueño puede aumentar los niveles de la hormona del apetito y disminuir los niveles de la hormona de la saciedad, lo que provoca un mayor apetito y un deseo de comer alimentos ricos en calorías. Además, los niveles de energía y el metabolismo disminuyen, lo que obliga al cuerpo a buscar energía en los carbohidratos y azúcares.

La nutrición es clave para la salud general, incluido el bienestar mental y emocional. Ciertos nutrientes, como los ácidos grasos omega-3, las vitaminas B, los antioxidantes y los minerales, son importantes para el funcionamiento del cerebro. Su deficiencia puede afectar negativamente el estado de ánimo y la función cognitiva. Ciertos alimentos promueven la liberación de hormonas de la felicidad, como la serotonina y las endorfinas. Por ejemplo, los carbohidratos complejos pueden estimular la producción de serotonina. Comer bien ayuda a regular los niveles de azúcar en sangre, manteniendo niveles de energía estables y mejorando el bienestar general.

El estrés afecta la digestión y el apetito, y la nutrición, a su vez, afecta la capacidad de afrontar el estrés. Una dieta equilibrada y saludable puede aumentar tu resistencia al estrés. Si bien la nutrición no es el único factor en la salud mental, juega un papel importante en el mantenimiento del bienestar físico y emocional. Se recomienda seguir una dieta variada para aportar al organismo los nutrientes necesarios [2].

La actividad, la capacidad de atención y la memoria dependen directamente del nivel de condición física. Los procesos mentales están asociados con las cualidades físicas del cuerpo, como la resistencia y la fuerza. Una actividad intelectual eficaz requiere tanto un cerebro entrenado como un cuerpo entrenado, lo que ayuda al sistema nervioso a afrontar el estrés mental.

El trabajo mental va acompañado de un alto esfuerzo cerebral debido a la concentración, lo que puede provocar una rápida fatiga de los centros nerviosos. Para que el cerebro funcione correctamente, necesita impulsos de varios sistemas del cuerpo. El estrés emocional fuerte y la falta de actividad física pueden provocar inactividad física. El ejercicio físico ayuda a aliviar el estrés y proporciona oxígeno al cerebro, mejorando la circulación y la respiración.

La actividad física también aumenta los niveles de serotonina, lo que mejora el estado de ánimo y puede prevenir trastornos mentales. Hacer ejercicio ayuda a liberar endorfinas, que están asociadas con el estado de ánimo positivo y el bienestar general.

Por tanto, la actividad física es un medio eficaz para mejorar la salud mental, aumentar la energía y la calidad de vida en general [3].

De todo lo anterior se desprende que el estado moral está relacionado con la salud física y los procesos internos del organismo, que están influenciados por el estilo de vida. Un sueño saludable es esencial para la adquisición de información y los procesos cognitivos, y la nutrición afecta la capacidad de afrontar el estrés y aumenta la resistencia al estrés. La actividad física regula los procesos del sistema nervioso central y mejora los niveles de energía y el estado de ánimo debido a la liberación de hormonas de la felicidad. Dado el impacto de la información en el aprendizaje y la vida cotidiana, se anima a los jóvenes a construir un estilo de vida saludable y a vigilar la higiene de sus principales aspectos*.*

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В статье рассматривается влияние образа жизни на физическое здоровье и моральное состояние человека. Обсуждаются результаты многочисленных исследований, подчеркивающих важность качественного сна для когнитивных процессов, рассматривается взаимосвязь между питанием и качеством сна, физической активностью и уровнем энергии. Подчеркивается необходимость формирования здорового образа жизни среди молодежи для успешного обучения и общего благополучия.

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**THE LANGUAGE OF FILMS AND TV-SERIES AS A MEANS OF INTERCULTURAL EXCHANGE SUPPORT**

Films and TV series are powerful tools for intercultural communication, offering insights into diverse languages and cultures. However, they also present linguistic challenges, including lexical lacunae, false cognates, idiomatic expressions, and pragmatic misinterpretations. These challenges can lead to misunderstandings and highlight the complexities of cross-cultural interactions.

Lexical Lacunae occur when a word or concept in one language lacks a direct equivalent in another. For example, in “Lost in Translation” (2003), a Japanese director’s instructions are poorly translated, showing how cultural and lexical differences can hinder understanding [1, с.2]. Similarly, “Inside Out” (2015) adapts a scene involving broccoli to green bell peppers in Japan due to different cultural associations with the vegetable.

False Cognates are words that look similar but have different meanings, leading to misinterpretation. In “The Office” (US, 2005–2013), Michael Scott’s misuse of Spanish phrases also exemplifies how direct translations often fail.

Idiomatic Expressions are culturally bound and often untranslatable. In “Pirates of the Caribbean: The Curse of the Black Pearl” (2003), Jack Sparrow’s “savvy?” requires paraphrasing in other languages. Similarly, “How I Met Your Mother” (2005–2014) features idiomatic expressions like “suit up!” that lose their impact when translated literally.

Pragmatic Failures occur when language learners or characters misinterpret cultural norms. In “My Big Fat Greek Wedding” (2002), the American fiancé misunderstands the cultural significance of “opa!” in Greek celebrations. Similarly, in “The Simpsons” (1989–present), Homer’s catchphrase “D’oh!” loses its comedic impact when translated into other languages.

Films and TV series also foster intercultural collaboration. With global projects and streaming platforms like Netflix and Disney+, audiences worldwide can explore new perspectives and develop a more open-minded attitude. The impact of films and TV-series on intercultural collaboration can be observed through specific examples. Below are some films that illustrate how visual storytelling facilitates intercultural communication.

Examples of Films Facilitating Intercultural Communication:

1. The Use of Universal Themes and Gestures Films that rely on universally understood gestures and themes help bridge intercultural gaps. For example, in “The Terminal” (2004), the protagonist Viktor Navorski (played by Tom Hanks), who does not speak English fluently, uses gestures and facial expressions to communicate. This demonstrates the importance of non-verbal communication in intercultural interactions [2, с.2].

2. Films as a Tool for Language Learning TV shows with clear pronunciation and common expressions help language learners understand the structure of a language. For instance, “Friends” (1994–2004) is widely used in language schools because characters speak clearly, use everyday phrases, and frequently repeat important words, aiding vocabulary retention and comprehension.

3. Explaining Cultural Norms Through Dialogue in “Emily in Paris” (2020), the protagonist encounters different cultural norms, and French characters explain linguistic and cultural differences to her. For example, one episode discusses why French people do not smile at strangers, which helps viewers understand variations in politeness and social expectations.

4. Retaining Culture-Specific Words in “Coco” (2017), many Spanish words, such as familia (family), abuela (grandmother), and fiesta (celebration), are preserved in the English dubbing. This helps viewers become familiar with Spanish-speaking culture and memorize essential terms [3, с.2].

Films and TV-series offer valuable lessons in intercultural communication, highlighting both the challenges and opportunities of learning languages and understanding cultures.

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В статье рассматриваются фильмы и сериалы как средство межкультурной коммуникации, способствующее изучению языков и культур. Автор анализирует лексические лакуны, ложные когнаты, идиоматические выражения и прагматические ошибки, приводящие к недопониманию. На примерах известных фильмов и сериалов демонстрируется, как языковые особенности влияют на перевод и восприятие. Также обсуждается роль кино и телевидения в изучении иностранных языков, объяснении культурных норм и сохранении аутентичной лексики.

[**к содержанию**](#содержание)

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**POSITIVE PSYCHOLOGY**

Positive psychology is a rapidly growing branch of psychology that studies human potential, strengths, emotional and social intelligence, mindfulness, well-being and happiness. Historically, psychology has always been a field that focuses on the psychological problems and dysfunctions of people. However, positive psychology, in contrast, explores how ordinary people can become happier, build lives with meaning and purpose and move from surviving to thriving. Martin Seligman and Mihaly Csikszentmihalyi, considered the founders of positive psychology, define it as “the scientific study of positive human functioning at multiple levels, including the biological, personal, relational, institutional, cultural and psychological” [2]. The endless pursuit of happiness and the relentless quest to live a fulfilling life have led to the growth of an entire industry dedicated to prioritizing our well-being, providing countless programs, guides, tools and advice on how to live a positive and prosperous life. The COVID pandemic and other global events have left many people feeling anxious and desperate. Now is the time when positive psychologists can play a big role in the psychological well-being of the population by focusing on what will give them more meaning in their lives. The purpose of this article is to introduce the concept of positive psychology, which explores how people can develop their strengths, find meaning in life, and achieve a state of well-being and happiness.

Positive psychology did not appear out of nowhere; similar areas of scientific research existed long before the new millennium. For example, humanistic psychology, which emerged in the mid-20th century. It has roots in ancient Greek philosophy and has had an important influence on positive psychology. Prominent humanistic psychologists include Carl Rogers, known for his development of client-centered therapy and Abraham Maslow, known for his hierarchy of human needs. In contrast to the somewhat pessimistic theories about human functioning that were characteristic of earlier psychoanalytic theories (e.g. Freud), Rogers, Maslow and other humanistic psychologists focused on human potential and the inherent qualities that are developed [2].

For most of history psychological research focused on psychological defects and anomalies, on diagnoses that explain negative actions and behavior patterns. Scientific research in the field of positive psychology focuses more on positive thoughts and actions. Positive psychology does not deny the existence of shortcomings and weaknesses but argues that people’s strengths should be taken into account to a greater extent.

In order to achieve change and begin the path towards happiness and working on one’s own emotions, positive psychology uses the “PERMA” model proposed by M. Seligman. “PERMA” is an English abbreviation, each letter of which contains a certain psychological meaning. So, the letter “P” (Positive Emotions) is associated with positive emotions. It is important to let as many positive emotions into your life as possible. What can people do for this? For example, every day you can shift your focus to things that lift your mood. This could be a cup of coffee in the morning, a walk with the dog, an interesting book or movie or a massage session. Feel the state of happiness from the process itself. Include in your daily routine the things that bring you satisfaction. The letter “E” (Engagement) is involvement, when people are truly passionate about something so much that they forget about time and problems. M. Csikszentmihalyi calls this state the state of flow. Many people have encountered it, for example, when reading an interesting book, working on a fascinating project or solving an interesting problem, forgetting about the clock and other things. How to achieve this state? You need to find an inspiring environment for yourself, an occupation that captivates and gives results. For example, you can start learning new languages, seeing how your skills grow day by day. Set yourself clear goals, diversify the learning process and surround yourself with like-minded people.

“R” (Relationships) means good relationships. Expand your connections with other people, visit new places, actively meet and look for people similar to you in spirit. It is also important to improve relationships with loved ones.

“M” (Meaning) is meaning. According to the concept of positive psychology, only finding the meaning of life will make a person truly happy. M. Seligman recommended looking for meaning outside of yourself – devoting yourself to caring for someone: for example, your family, animals, people in trouble. Volunteering is very common now. People can always sign up for such an organization through Internet portals or do this activity themselves by calling the nearest orphanage, shelter for homeless animals or reserve/botanical garden and asking how they can help. Be sure, they will be very happy to see you there and even a small help of yours will be fully appreciated.

“A” (Accomplishment) corresponds to achievements. People experience happiness when overcoming themselves and succeeding in something. Focus on goals and achieving them, but do not get hung up. Rejoice in small accomplishments and enjoy the movement towards the goal itself. It is not the end result that is important, but those small accomplishments and failures that make up this path. Remember, that a positive outlook is an asset and a resource for a person that helps in passing life’s trials. Negatively minded people see a problem in everything, while a positive person sees a valuable life lesson.

Like any theory, positive psychology has its pros and cons. The advantages of positive psychology include strengthening mental health. Research shows that the practice of positive psychology strengthens mental health. Positive emotions and an optimistic attitude reduce stress levels and prevent psychological disorders. Most often people get sick because of internal conflicts and not because of bad weather or anything else. In addition, positive psychology focuses on the development of individual strengths, which can become the basis for personal growth and goal achievement [1].

The disadvantages of this theory include ignoring difficulties, since some supporters of positive psychology begin to ignore the difficulties and negative aspects of life, which means they begin to live in an artificial, fictitious world, so it is important to learn to accept the negative aspects of life, work with them and turn them into positive ones. Another disadvantage is the subjectivity of measurements. Measuring psychological well-being often remains subjective, and what is considered “happiness” for one person may differ from the idea of another. Each person is unique and there are no people in the world who are completely similar to you in their inner world. This means that there are no 100% guarantees of achieving happiness, everything depends only on you [1].

Thus, it can be concluded that positive psychology is a branch of psychology that focuses on the study and development of positive aspects of human experience, such as happiness, well-being, personal strength and meaning in life. It emphasizes the importance of optimism, resilience and personal growth, offering practical methods for improving the quality of life. The main goal of positive psychology is to help people not only cope with difficulties but also to effectively develop their strengths to achieve a more fulfilling and satisfying life.

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В статье раскрывается концепция позитивной психологии как области, которая изучает человеческий потенциал, сильные стороны и ресурсы для достижения счастья и благополучия. Анализируются слабые и сильные стороны данного направления психологии.

[**к содержанию**](#содержание)

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**RELACIONES TURÍSTICAS ENTRE BELARÚS Y ESPAÑA**

Las relaciones turísticas entre Belarús y España se desarrollan desde hace muchos años, contribuyendo al fortalecimiento de los lazos culturales y económicos entre los países. Ambos países ofrecen oportunidades turísticas únicas que atraen a los viajeros. Este trabajo examinará los principales aspectos de la relación turística entre Belarús y España, incluyendo el contexto histórico, los destinos turísticos más populares, la importancia económica del turismo y las perspectivas de desarrollo.

Tras el colapso de la Unión Soviética y la independencia, Belarús comenzó a desarrollar activamente sus relaciones internacionales, incluidas las relaciones turísticas. España siempre ha atraído a los turistas con su riqueza cultural, su patrimonio histórico y sus pintorescos paisajes. Los flujos turísticos entre Belarús y España empezaron a formarse en los años 90 del siglo XX y no han dejado de crecer desde entonces.

Los turistas belarusos suelen elegir España para sus viajes, favoreciendo destinos como Barcelona, con su arquitectura única y sus eventos culturales, Madrid, famosa por sus museos y parques, Valencia, con su arquitectura moderna y sus tradiciones culinarias, y Sevilla, con su cultura flamenca y sus monumentos históricos. Los españoles, por su parte, visitan Belarús atraídos por lugares como Minsk, con su arquitectura y cultura históricas, Brest, con su fortaleza y su pasado heroico, y Belovezhskaya Pushcha, conocida por su flora y fauna únicas.

La cooperación cultural belaruso-española se está desarrollando activamente, ofreciendo una amplia gama de actividades para promover la cultura y la historia de Belarús entre la sociedad española. Desde la apertura de la Embajada de Belarús en España en 2018, se han organizado diversas iniciativas destinadas a fortalecer los lazos culturales entre ambos países. Uno de los eventos significativos fue la presentación del libro de traducciones de obras de M. Bogdanovich al español «Guki moya Batsykaushchyna» en el Consulado Honorario de Bielorrusia en Alicante. También hubo conciertos de músicos bielorrusos, como la actuación de una banda de Grodno en la ceremonia de inauguración de la oficina de la Embajada y un concierto para representantes de la diáspora bielorrusa en el Ayuntamiento del municipio madrileño de Sanchinarro.

Además, se celebraron actos para promover el intercambio cultural y el entendimiento mutuo. En el proyecto " Belarús - España. Krok nasustrach« la artista española Aixa Portero habló de las tendencias en las artes plásticas y visuales contemporáneas, y la exposición »NEFT\_b y La Raíz" unió las obras de artistas belarusos y españoles. La Sala Filarmónica Estatal de Belarús acogió un concierto de una banda española de jazz y teatro flamenco, y la exposición fotográfica "Belarús-España: amistad nacida en las batallas. 1936-1945" se exhibió en varias ciudades españolas. Todos estos acontecimientos contribuyen a reforzar los lazos culturales y el entendimiento entre los pueblos de Bielorrusia y España.

Importancia económica del turismo. El turismo desempeña un papel importante en las economías de ambos países. Para Belarús, el turismo es una fuente de divisas y una forma de promocionar su cultura en el ámbito internacional. España, uno de los países más visitados del mundo, obtiene una parte importante de sus ingresos de la industria turística, que contribuye al desarrollo de infraestructuras y a la creación de empleo.

Según el Comité Nacional de Estadística de la República de Belarús, el número de turistas belarusos que visitan España ha aumentado un 20% en los últimos cinco años. Al mismo tiempo, los turistas españoles también muestran interés por Bielorrusia, especialmente por sus reservas naturales y monumentos históricos.

La exigencia de visados y la limitación del transporte aéreo siguen siendo los principales problemas en la relación turística entre Belarús y España. Las barreras de los visados pueden dificultar los viajes de los ciudadanos, y el número insuficiente de vuelos reduce la comodidad y accesibilidad de los viajes. No obstante, en los últimos años se han producido tendencias positivas en este ámbito. La introducción de un régimen sin visado para los viajeros de corta duración ha facilitado enormemente el proceso de viaje, y la apertura de nuevos vuelos contribuye al aumento de los flujos turísticos entre países.

Las perspectivas de desarrollo de las relaciones turísticas entre Belarús y España incluyen varias áreas clave. En primer lugar, una mayor flexibilización del régimen de visados puede estimular el aumento del número de turistas. En segundo lugar, la mejora de las infraestructuras de transporte, incluida la ampliación de la red de vuelos, garantizará viajes más cómodos y asequibles. En tercer lugar, ambos países pueden reforzar la cooperación turística organizando eventos culturales conjuntos e intercambiando exposiciones de turismo. Estos pasos ayudarán no sólo a aumentar los flujos turísticos, sino también a profundizar los lazos culturales entre los pueblos de Belarús y España.

Conclusión. La relación turística entre Belarús y España es de gran importancia tanto desde el punto de vista cultural como económico. El interés mutuo de los turistas, la rica historia y el patrimonio cultural de ambos países contribuyen al fortalecimiento de los lazos y al desarrollo del turismo. Con una mayor mejora de las infraestructuras de transporte y de las condiciones de visado, cabe esperar un mayor crecimiento de los flujos turísticos entre estos países. El desarrollo del turismo también contribuye al entendimiento mutuo y a la amistad entre los pueblos, fortaleciendo las relaciones internacionales.

El turismo abre nuevas perspectivas de cooperación entre Belarús y España, permitiendo a ambos países compartir sus singulares atractivos culturales y naturales. El futuro de la relación turística parece prometedor y, dadas las tendencias actuales, podemos esperar un mayor crecimiento y fortalecimiento de los lazos entre Belarús y España.

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В статье рассматриваются туристические отношения между Беларусью и Испанией, их роль в развитии и укреплении культурных и экономических связей. Туризм способствует экономическому росту обеих стран и культурному обмену. Упрощение визового режима и улучшение транспортной инфраструктуры может значительно увеличить туристические потоки и укрепить международные отношения.

[**к содержанию**](#содержание)

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**SPECIFIC FEATURES OF NEWSPAPER HEADLINE STYLE IN PUBLICIST DISCOURSE**

The most specific features of newspaper articles are the rather original formation of the headlines, the variety of ways of material presentation and the arrangement of the main information at the beginning. The purpose of modern media texts is to convey the domestic and cultural characteristics of the country and the people by referring to the cultural, political and historical events.

Firstly the author gives some clarifications concerning the specifics of newspaper style.

Knowledge of newspaper stylistics is absolutely necessary when realising various information, while being a kind of guide when using aspects of speech culture. For the correct use of semantically specialised words for journalistic texts it is necessary to observe the corresponding literary norms of the language. Consequently, the observance of stylistic norms in the English-language press is an equally obligatory factor necessary both for the transmission and perception of information.

Based on the above-described aspects of publicistic style, it becomes possible to determine its main purpose, which is to convey to the reader relevant information about today's events, and also serves as a means of forming personal and public opinion of the readership to these events. Modern scientists-publicists believe that the style is something unified, but at the same time possessing properties characteristic of most genres of publicistic discourse. Following certain regulating norms of newspaper style, it is necessary to transmit information from official documents and sources exclusively in a revised form. But at the same time accurately conveying important statistical data and proper names, such as names of institutions and events, geographical names, dates, abstract and slang words. Modern periodicals, in order to attract more readers not only in their own country, but also in the world community, present a specific account of current events. In this regard, we can distinguish the most popular categories of press: popular, quality and specialized.

For several centuries now, according to annual statistical reports, publications such as: The Guardian, The Daily Telegraph, The Independent, The Herald, The Times, The Scotsman are considered quality press, and The Daily Mail, The Sun, The Sunday Mail, The Daily Mirror are considered popular press. As well as the above media, online publications, magazines and the yellow press have their own clearly recognizable style, with differences in publication format, content, design, etc. “Quality press are large-format editions that publish events in the country and abroad, carrying an informative function, which is presented in the official language of the press using reliable facts and arguments. Popular press are periodicals published in small formats, have a low frequency (usually once a week), their language is closer to colloquial and they have a more scandalous style, as the main goal is to have an emotional impact on people” [1].

Based on the above definitions, it becomes obvious that newspaper discourse has an influence on both consciousness and sub-consciousness of the readership, using such hidden techniques as coercion and evaluation. Therefore, it is necessary to exclude open propaganda and management of the audience's opinion in publicistic discourse.

Manipulation of public opinion is carried out by means of socially coloured evaluation means, i.e. information is transformed different ways by means of metaphors and euphemisms which are used as tools of open evaluation, linguistic features and words are used to accentuate attention with the help of moral and joke [3, p.152].

The trend of modern periodicals is to attract readers. “In modern English a special term “headlinese” is used, which has a literal translation as “headline”, a piece of information placed in a limited space, which has the function of arousing the interest of the audience to read the article” [2, p. 7].

The main techniques used by authors and publishers in the formation of newspaper headlines are the most common such as: words and word combinations with figurative meaning, the presence of a large number of linguistic means in one sentence, frequent omissions and abbreviations. At the same time, authors should be very careful, as excessive use of language means leads to misinterpretation and misunderstanding. “More than 80 iPads among goods [have been] stolen from BBC” (Telegraph staff, December 23, 2014)

Sometimes there is such a phenomenon in headlines as the presence of grammatical errors. Looking at the above example, we see the incorrect use of the form of the passive voice “stolen”, which distorts the meaning conveyed in this sentence. In addition to omitting words, we also resort to the reduction of synonymous words, which is often found in political and economic articles. This technique is equally popular in high-quality, large-format press and publications for the general reader.

For example: “ex-” replaces “former”, “envoy” replaces “ambassador”, “cash” replaces “money”. “Ex-president Biden returns home from hospital” (AFP, February 16, 2025). In this case, the use of “ex-” indicates that this headline belongs to an article written in the popular press, as this abbreviation is mostly used colloquially to refer to divorced spouses.

Another way to capture the audience's attention and increase the article's rating is to use metaphors to create an intended meaningfulness in the title. For example, the phrase “a glimmer of hope” gives more meaning to the event being reported.

The metaphorical adjective “excellent” shows that expectations of the meeting between Donald Trump and Biden are justified, and that the political campaign will continue to be favorable.

“Behind Moscow's bluster, sanctions are making Russia suffer” (The Guardian, October 2022).

This sentence clearly demonstrates the attitude of the western world towards President Putin's policies, expressed in an unwillingness to accept Russia's position as a strong competitor, using the destructive noun “bluster”, and to recognise the negative effect of sanctions against Russia, primarily on the European Union, evoked by the noun “suffer”, which conveys wishful thinking into reality

To summarize the above evidence and examples from the most popular contemporary English-language periodicals, it should be noted that with the help of unique headlines they can pursue several goals at once, such as the presentation of their unique style, as well as achieving commercial results by attracting new readers, influencing their worldview and public opinion.

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В статье анализируются характеристики современных публицистических материалов, а также их проявление в заголовках статей, на примерах известных англоязычных изданий. Перечисленные в статье стилистические приемы придают заголовку уникальность и особую выразительность, что помогает привлечь внимание читателя. Заголовки характеризуются использованием конкретных языковых приёмов и структур, которые применяются для достижения определенных целей воздействия на аудиторию, формируя общественное мнение и передавая информацию.

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**TURISMO DE MONTAÑA Y MONTAÑISMO: CONCEPTO, PARTICULARIDADES, CARACTERÍSTICAS DE LA ORGANIZACIÓN**

Las montañas atraen a los turistas con sus majestuosos paisajes, flora y fauna únicas, así como oportunidades para practicar deportes extremos. Además, las regiones montañosas a menudo tienen características culturales e históricas que las hacen atractivas para los turistas. Una de las características clave del turismo de montaña es su conexión con condiciones naturales específicas.

El turismo de montaña es una forma de recreación activa que incluye caminatas y senderismo en zonas montañosas. Puede abarcar una variedad de actividades como senderismo, trekking, esquí, montañismo y otras formas de recreación a gran altitud. El turismo de montaña puede ser tanto una recreación en la naturaleza como una actividad más activa, que incluye la exploración de paisajes montañosos, la observación de la naturaleza, actividades culturales y deportivas.

El montañismo es una forma más especializada de turismo de montaña que implica escalar picos de montañas, especialmente los más altos y desafiantes. El montañismo requiere el uso de habilidades y técnicas especiales, como el uso de equipo de montañismo (mosquetones, sistemas de aseguramiento, piolets, etc.), conocimiento del terreno montañoso, las condiciones climáticas y precauciones de seguridad. El montañismo puede incluir varios niveles de dificultad, desde simples ascensos a pequeñas montañas hasta rutas técnicas a los picos más altos del mundo.

Cada año aumenta el número de personas que se dedican al montañismo. Hay muchos factores diferentes que contribuyen a esto.

El turismo de montaña y el montañismo son dos tipos de recreación activa interconectados pero diferentes, cada uno con sus propias características y particularidades. Hablando de las particularidades del turismo de montaña, podemos decir lo siguiente:

El turismo de montaña suele ser accesible a un público más amplio. Básicamente, completar las rutas no requiere ningún entrenamiento físico especial; incluso los niños pueden hacerlo. No se requiere equipamiento especial, sólo ropa y calzado cómodos. A menudo, las rutas están marcadas y requieren habilidades de navegación mínimas. Además, a lo largo del recorrido puede haber campings, diversos refugios y puntos de comida y otras comodidades, lo que hace que estas vacaciones sean bastante cómodas.

El montañismo es un campo más específico que se centra en escalar altas cumbres, que a menudo requiere entrenamiento, habilidades y equipos especializados, y tiene varias características que lo distinguen del turismo de montaña.

Las rutas de montañismo pasan por glaciares, zonas rocosas y grietas. También desempeñan un papel importante la aclimatación y la capacidad de afrontar el estrés, de reaccionar inmediatamente y de trabajar en situaciones de emergencia; en la altitud esto puede costar la vida a una persona.

Así, el turismo de montaña es más accesible y puede resultar más fácil para la mayoría de las personas, mientras que el montañismo requiere más formación, habilidades y conocimientos especiales, pero hay algo que une a estos tipos de actividades: ambos tipos ayudan a las personas a disfrutar de la belleza del mundo montañoso, a desarrollarse física y mentalmente, y también les permiten prestar atención a la ecología y al desarrollo sostenible de los recursos naturales.

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Горный туризм и альпинизм представляют собой два вида активного отдыха в горах. Горный туризм доступен широкой аудитории и включает пешие походы и прогулки, не требуя специальной подготовки и оборудования. Альпинизм, в отличие от него, является более узкой и специализированной областью, сосредоточенной на восхождении на высокие вершины, требующей навыков, подготовки и специализированного снаряжения. Оба вида активностей способствуют физическому и моральному развитию, а также способствуют заботе об экологии и устойчивом использовании природных ресурсов.

[**к содержанию**](#содержание)

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**INTERNATIONAL COOPERATION AND FEATURES OF ECONOMIC DEVELOPMENT IN THE MODERN WORLD**

The first assessment of gross domestic product for January‑October 2024 was carried out. The volume of GDP in January‑October 2024 in current prices amounted to 204.3 billion rubles. The GDP growth rate in January‑October 2024 compared to the same period last year in comparable prices was 104.2%, the GDP deflator index was 109.7%.

In January‑October 2024, in farms of all categories, agricultural production in current prices amounted to 32.1 billion rubles and in comparable prices increased by 3.2% compared to the same period in 2023.

In January‑October 2024, agricultural production in agricultural organizations and peasant (farm) households amounted to 25.6 billion rubles in current prices and increased by 4.9% in comparable prices compared to the same period in 2023 [1].

Let's consider one of the branches of agriculture.

Animal husbandry. As of November 1, 2024, the number of cattle in agricultural organizations, compared to the same date of the previous year, decreased by 115.2 thousand heads (by 2.8%), cows ‑ by 12.8 thousand heads (by 0.9%), pigs ‑ by 237.8 thousand heads (by 10.2%).

At the same time: the average milk yield per cow in agricultural organizations in January‑October 2024 was 5,198 kilograms, which is 291 kilograms (5.9%) more than in January‑October 2023.

In January‑October 2024, the volume of industrial production by types of economic activity “Mining industry”, “Manufacturing industry”, “Supply of electricity, gas, steam, hot water and air conditioning” and “Water supply”, collection, processing and disposal of waste, pollution control activities in current prices amounted to 168.1 billion rubles, or 106.2% in comparable prices compared to the level of January‑October 2023 [1].

It should be noted that the volume of industrial production in various types of economic activity was more than 5 times higher than the production of agricultural products in farms of all categories at current prices for 2024.

The service sector forms almost half of the gross domestic product of Belarus (according to preliminary estimates for 2023 ‑ 47.8%). Let's consider some branches of the service sector of the Republic of Belarus.

In January‑October 2024, the volume of funds invested in housing construction amounted to 6.5 billion rubles (19.1% of the total volume of investments in fixed capital), or in comparable prices 105.6% of January‑October 2023 [1].

An important indicator for the industry is the commissioning of housing. Thus, in the first half of 2024, 1,687.5 thousand square meters of total area of residential buildings appeared in the country, including 849.7 thousand square meters of individual housing development. At the same time, 65.2% of the commissioned housing is located in cities and urban-type settlements, 34.8% ‑ in rural settlements. Over six months, 821.6 thousand square meters of total area of multi-apartment energy-efficient residential buildings and 200.7 thousand square meters of total area of residential buildings using electricity for heating, hot water supply and cooking appeared in the country.

Over the 10 months of 2024, 2,980.1 thousand square meters of housing were put into operation, which is 100.2% of the level of January‑October 2023.

Freight turnover. In January-October 2024, freight turnover of all types of transport performed by organizations and individual entrepreneurs amounted to 61.7 billion ton-kilometers, or 102.3% of the level of January‑October 2023.

Passenger transportation. In January‑October 2024, passenger transport turnover amounted to 21,396.3 million passenger-kilometers, or 109.2% of the level of January‑October 2023, the volume of passenger transportation was 1,361.1 million people, or 104.8%.

Sale of domestically produced goods by trade organizations and their share in the retail turnover of trade organizations of the Republic of Belarus in January‑September 2024. Wholesale turnover amounted to 163 billion rubles or 113.7% in comparable prices to 2022. Inventories in wholesale trade organizations amounted to 9.5 billion rubles [2].

The turnover of catering amounted to 5,136.4 million RUB in 2023 and increased by 11.8% in comparable prices compared to 2022.

Turnover of catering by type of ownership: state ‑ 16.7%; private ‑ 73.8%; foreign ‑ 9.5%.

Turnover of public catering by types of business entities: small and microorganisms ‑ 42.7%; medium-sized organizations ‑ 8.0%; large organizations ‑ 48.2%; individual entrepreneurs ‑1.1%.

The turnover of foreign trade in goods and services according to the balance of payments methodology in January‑September 2024 amounted to 73,709.6 million US dollars, including exports ‑ 36,676.8 million dollars, imports ‑ 37,032.8 million dollars. Compared to the level of January‑September 2023, calculated in current prices, the turnover of foreign trade in goods and services amounted to 105.6%, exports ‑ 104.4%, imports ‑ 107% [2].

In January‑September 2024, the balance of foreign trade in goods and services was negative in the amount of 356 million dollars (in January‑September 2023, the balance was positive and amounted to 527.2 million dollars). The ratio of the balance of foreign trade in goods and services to the gross domestic product was minus 0.6%.

The production sector in the Republic of Belarus accounts for 47% of GDP. The most developed industries in this sphere are mechanical engineering, electric power and metalworking, potash mining, chemical and petrochemical industries.

The Ministry of Economy identifies several key challenges that affect the economic security of Belarus in the current conditions.

External threats:

The first is related to the fact that sanctions have led to the blocking of Belarusian assets. According to the Ministry of Economy, as a result of sanctions, the assets of 26 Belarusian companies have been frozen in the EU, including the locomotives of our industry (Belaruskali, Naftan Oil Refinery, MAZ, BelAZ, Grodno Azot, MZKT, Grodno Tobacco Factory, Belkommunmash, Belshina).

The risk that assets may fall under blocking sanctions from Western countries remains. Accordingly, it can be assumed that Belarusian business entities, especially state-owned enterprises, may be wary of developing business in the Western direction.

Another challenge actually follows from the first problem. Difficulties for Belarusian enterprises operating in the western direction could potentially lead to a significant reduction in revenue. Without appropriate measures to reorient Belarusian exports to third-country markets, sanctions are estimated to result in a loss of 20 billion USD in foreign exchange earnings.

By the way, the Minister of Economy Alexander Chervyakov, speaking at the beginning of November in the assembly hall of the Polimir plant, reported that Belarus has already managed to reorient export flows by 5 billion USD [3].

Internal threats:

Along with external ones, the Deputy Minister of Economy also highlights internal sources of economic threats. The high import intensity of GDP, which reached 57.9% in 2020, remains the number one structural problem for Belarus.

Naturally, in order to ensure stable operation of the manufacturing sector, it is now necessary to look for new suppliers of raw materials and components, since due to Western sanctions, previous business ties are being broken.

In these conditions, new options for solving problems related to the import of raw materials are being missed. The Ministry of Economy of Belarus recently reported that three packages of anti-crisis measures of customs and tariff regulation have been adopted at the level of the Eurasian Economic Commission, within the framework of reduced rates of import customs duties on critical import goods.

Another threat is the high-cost structure and relatively low efficiency of production. According to the Ministry of Economy, in terms of labor productivity, Belarus lags behind developed countries by 4‑5 times and behind the EAEU countries by almost 1.5 times.

Indeed, the situation in foreign trade this year looks quite good. According to the results for January‑September, the balance of foreign trade in goods and services was positive and amounted to almost 4 billion USD. Compared to the same period last year, the positive balance increased by more than 40%.

This means that the net inflow of currency into Belarus has increased significantly. This happened because imports fell by 8.3%, and exports by only 4.3%.

In October 2024, imports of goods and services to Belarus again exceeded exports.

At the same time, total exports reached 41.253 billion $, and imports ‑ 41.568 billion $. Thus, the foreign trade deficit increased.

Exports of goods and services grew by 4.9%, imports by 7.3%. It should be noted that a month ago (according to the latest information from the National Bank), export growth was 5.3%, and imports increased by the same 7.3%.

The balance for the month has worsened by 2.5 times. If a month ago the foreign trade deficit amounted, according to the regulator's updated data, to 126.6 million $, then based on the results of work on this contour for 10 months, the negative balance has already reached 314.7 million $. It has worsened by 2.5 times [1].

It should be noted that a year ago, foreign trade was in surplus – total exports exceeded imports by 567.6 million $. The reason for such a significant deterioration was, first of all, the slowdown in exports of goods.

In the previous quarter, the growth rate of the export of goods was 4.2% (in comparison with the same period of 2023), but now the rate has dropped to 3.5%. As a result, it amounted to 33.301 billion $. The situation with the export of services somewhat offsets the decline in the export of goods. If over three quarters it grew by 10.3%, then in January‑October 2024 ‑ already by 11.4% and amounted to 7.951 billion $.

It should be noted that, according to the plans of the Belarusian authorities, exports in 2024 should grow by 7.6%. Based on the results of 10 months, it can be assumed that this most important parameter of the development of the Belarusian economy will not be met [1].

The economy is currently operating at potential: we can say that all production capacities are overloaded. This happened due to high demand from the Russian Federation. Unfortunately, such growth should not be expected in the future; we will see a slowdown. This is due to the fact that the economy cannot produce more than it currently produces. The restrictions are related to the shortage of labor and lack of access to technology due to sanctions. Therefore, the growth bar in the foreseeable future is 1‑1.5% per year.

As a result of the analysis of current economic problems, a forecast of economic development for 2025‑2027 was compiled.

The Eurasian Development Bank has presented a macroeconomic forecast for the bank's countries of operations for 2025–2027. EDB experts expect that Belarus's GDP will grow by 4.3% in 2024 and slow down to 2.6% in 2025. In the next two years, the growth rate of the domestic economy will continue to slow down to 1.9% and 1.5%, respectively.

The bank predicts a gradual acceleration of inflation. This year it is estimated at 5.9%, next year it will accelerate to 6.6%. In 2026, price growth will reach 7.9%, and in 2027 it will slow down to 7.4%.

The average dollar to Belarusian ruble exchange rate next year is projected at Br3.38, in 2026 – Br3.57, and in 2027 – Br3.81.

The EDB expects that the National Bank of Belarus will keep the refinancing rate unchanged next year. It will be 9.5% per annum. The bank also believes that the rate will not change in 2026–2027 [3].

Next year, the growth of wages in the country will support domestic demand. A relatively soft monetary policy will also work for it. “The growth of domestic demand will contribute to an increase in imports, which, according to our estimates, will roughly correspond to the growth of exports. At the same time, exports in 2025 will maintain positive dynamics against the background of an expected increase in demand from Russia”, the review says.

Growth opportunities will be constrained by labor shortages and limited access to advanced technologies.

Nevertheless, despite the listed internal and external threats in the sphere of economic security, the economy of Belarus demonstrates stability and adaptability to the sanctions realities. This is ensured by increasing exports to the EAEU and foreign countries.

The decline in exports could have been even greater if it were not for the favorable price situation in the markets of metals, wood products, oil refining, and potash fertilizers, which contributed to an increase in revenue from the export of these goods. Accordingly, the negative impact of various threats on the Belarusian economy has been largely neutralized this year.

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В статье предлагается анализ экономической ситуации в Беларуси. Рассматриваются внешние и внутренние риски, которые могут представлять угрозу для роста и развития экономики страны. Однако указывается, что, в связи с санкциями, введенными странами Западной Европы, Беларусь переориентировала свою экономику на сотрудничество со странами Азии и тем самым нейтрализовала многие риски.

[**к содержанию**](#содержание)

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**FEATURES OF THE INNER SPEECH TRANSMISSION  
IN GEORGE R.R. MARTIN’S NOVEL “A GAME OF THRONES”**

Modern research in the field of literary studies and linguistics seeks to deepen the understanding of the mechanisms of creation and perception of literary texts. The most interesting thing in a work of art is the creation of images, their characters, behaviour, thoughts and feelings, so the topic of conveying the inner speech of a character in order to describe his inner world is very relevant.

The aim of this study was to identify the features of inner speech transmission to describe the inner world of characters using the example of George R.R. Martin’s novel “A Game of Thrones”.

The study was based on the text of the novel by George R.R. Martin “A Game of Thrones” in the volume of 864 pages. The database was obtained as a result of a continuous sample in the amount of 51 units (contexts). In identifying the types of inner speech, we relied on the classification proposed by L.N. Sinelnikova, who distinguishes such types of inner speech in fiction as internal dialogue, internal monologue, simple internal replication [1].

George R.R. Martin’s novel “A Game of Thrones” centres on three main storylines: the events leading up to the dynastic wars for power over the continent of Westeros; the looming threat of the wildling tribes and the demonic race of the Others (White walkers); and the journey of Daenerys, the daughter of the deposed king, in her attempts to reclaim the Iron Throne. The narration is in the third person, alternating between the points of view of nine different characters. In “A Game of Thrones”, inner speech plays an important role in creating deep and multifaceted images of the characters. Through it, the author, George R.R. Martin, allows readers to look inside the minds and hearts of the characters, revealing their hidden thoughts, emotions, and internal struggles. Language is used to express the intimate thoughts and experiences of the characters. The process of analysing inner speech in this novel allows us to understand the motivations and behavioural reactions of the characters, as well as their psychological growth and development throughout the plot.

Using contextual and semantic analysis methods, the sample contexts were divided into three categories: internal monologue, internal dialogue, and simple internal replication, based on the content and method of expressing the characters’ inner world in the text. The principle of dividing the examples into three groups (internal monologue, internal dialogue, and simple internal replication) is based on the nature and structure of the internal processes they reflect. The results of the sample distribution by types of internal speech are presented in Table 1.

Table 1 – Types of inner speech of characters in George R.R. Martin’s novel “A Game of Thrones”

|  |  |  |
| --- | --- | --- |
| **No** | **Types of inner speech** | **Quantity (%)** |
| 1 | Internal monologue | 58.00% |
| 2 | Internal dialogue | 10.00% |
| 3 | Simple internal replication | 32.00% |

Let us give some examples.

1. An internal monologue is characterized by deep understanding and expression of the character’s inner thoughts and feelings without the participation of other characters. It is like a monologue to oneself. For example, “He could think here, and he found himself thinking of Samwell Tarly . . . and, oddly, of Tyrion Lannister. He wondered what Tyrion would have made of the fat boy. Most men would rather deny a hard truth than face it, the dwarf had told him, grinning. The world was full of cravens who pretended to be heroes; it took a queer sort of courage to admit to cowardice as Samwell Tarly had.” [2]. Here, Jon Snow reflects on the actions of his friend, Samwell Tarly. The hero’s thoughts flow in one direction, revealing his inner reflections without the questions and answers characteristic of internal dialogue.

“He had thought on it long and hard, lying a bed at night while his brothers slept around him. Robb would someday inherit Winterfell, would command great armies as the Warden of the North. Bran and Rickon would be Robb’s bannermen and rule holdfasts in his name. His sisters Arya and Sansa would marry the heirs of other great houses and go south as mistress of castles of their own. But what place could a bastard hope to earn?” [2]. This example is an internal monologue, as Jon Snow ponders over the future of his family and his own place in it. The hero’s thoughts flow sequentially, without interruptions for internal questions and answers, only towards the end do we see a silent question as the result of a stream of consciousness. Another example is Daenerys’ internal monologue – “If I were not the blood of the dragon, she thought wistfully, this could be my home. She was khaleesi, she had a strong man and a swift horse, handmaids to serve her, warriors to keep her safe, an honored place in the dosh khaleen awaiting her when she grew old . . . and in her womb grew a son who would one day bestride the world. That should be enough for any woman . . . but not for the dragon. With Viserys gone, Daenerys was the last, the very last. She was the seed of kings and conquerors, and so too the child inside her. She must not forget.” [2]. We see Daenerys pondering over her place in the world and her future. Her thoughts flow continuously, moving from one idea to another, which is characteristic of a monologue, not an internal dialogue or simple replication.

2. Internal (or fictitious) dialogue involves the internal conversations a character has with themselves or other parts of their consciousness. This reflects internal conflicts or dialogues that occur within the character. For example, in “Catelyn knew what her sister feared. Not shadows, Lannisters, she thought to herself, glancing back to where the dwarf rode beside Bronn. The two of them had grown thick as thieves since Chiggen had died. The little man was more cunning than she liked. When they had entered the mountains, he had been her captive, bound and helpless. What was he now? Her captive still, yet he rode along with a dirk through his belt and an axe strapped to his saddle, wearing the shadowskin cloak he’d won dicing with the singer and the chainmail hauberk he’d taken off Chiggen’s corpse. Two score men flanked the dwarf and the rest of her ragged band, knights and men-at-arms in service to her sister Lysa and Jon Arryn’s young son, and yet Tyrion betrayed no hint of fear. Could I be wrong? Catelyn wondered, not for the first time. Could he be innocent after all, of Bran and Jon Arryn and all the rest? And if he was, what did that make her? Six men had died to bring him here.” [2] Catelyn has an internal conversation with herself, expressing her doubts and inner thoughts about Tyrion and his possible innocence, as well as her own feelings and moral convictions. In the fragment “She bathed her hands in the basin and wrapped them in clean linen. Her fingers were thick and awkward as she struggled to lace up her bodice and knot a drab brown cloak about her neck. How could Littlefinger have known she was here? Ser Rodrik would never have told him. Old he might be, but he was stubborn, and loyal to a fault. Were they too late, had the Lannisters reached King’s Landing before her? No, if that were true, Ned would be here too, and surely he would have come to her.” [2] Catelyn has an internal dialogue with herself, she doubts Ser Rodrik’s loyalty, then convinces herself of his loyalty and fidelity, after which she again asks questions about the possible actions of the Lannisters and Ned.

3. Simple internal replication is brief or repeated phrases, thoughts, or reactions that reflect a character’s immediate internal reactions or comments without deep thought or dialogue. For example, in “A princess, Dany thought. She had forgotten what that was like. Perhaps she had never really known.” [2] Daenerys Targaryen briefly remembers her status as a princess. It’s a brief internal comment that pops into her head, making this example an internal retort.

“Never show them you’re afraid, Tyrion reminded himself.” In this example, Tyrion repeats a certain phrase to himself: “Never show them you’re afraid” [2], which reflects his effort to maintain his composure. It is a brief thought that helps him concentrate on his actions.

“The gods are merciful,” Pycelle bowed his head. “Come to me as often as you like, Lord Eddard. I am here to serve.” Yes, Ned thought as the door swung shut, but whom?” [2]. Here, Ned’s thought is a direct reaction to Pycelle’s words and serves to express doubt, and there is no deep analysis or lengthy reflection, characteristic of an internal monologue. It is simply a short question that emphasises his distrust.

Thus, the analysis of the methods of conveying internal speech in the novel “A Game of Thrones” emphasises its key importance in creating deep and multifaceted images of characters, revealing their inner world, motivation and psychological development in the course of the plot. It should be noted that for the transmission of internal speech in artistic discourse, mainly an internal monologue is used, with the second position belonging to simple internal replication. Internal dialogue is represented by a relatively small number of examples.

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Статья посвящена особенностям передачи внутренней речи персонажей в романе Джорджа Р. Р. Мартина «Игра престолов» (George R.R. Martin “A Game of Thrones”). Различные виды внутренней речи (внутренний диалог, внутренний монолог, простое внутреннее реплицирование) используются автором в художественном произведении для анализа и передачи внутреннего мира персонажа, описания его интеллектуальных и эмоциональных способностей и состояния.

[**к содержанию**](#содержание)

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**DIGITALIZATION OF ELECTRO-OZONE TECHNOLOGIES TO INCREASE THE EFFICIENCY OF THEIR APPLICATION**

Agriculture began more than 10,000 years ago. It was extremely primitive then, and mankind has come a long way since then, from the simplest tools to modern technology, including the use of artificial intelligence. Today, agribusiness is an important sector of the economy, ensuring food security and creating new jobs. However, population growth and climate change pose new challenges that require innovative approaches to improve the efficiency and sustainability of agriculture. In recent years, there has been an active introduction of modern technologies in all areas of the agribusiness sector. And all this has been made possible by the latest agro-technologies.

One such application is ozonisation. Since ozone has strong oxidizing properties, it effectively destroys pathogens such as bacteria, viruses, and fungi. In addition, ozonisation is used to stimulate plant growth. Also, electro-ozone technologies are focused on the creation of environmentally friendly and comfortable conditions for work and human life.

Ozonisation is a promising technology with a wide range of applications in agriculture. Pre-sowing ozone treatment of seeds helps increase their resistance to disease. The use of ozone for soil treatment, both before sowing and after harvesting, effectively kills pests and prevents the development of plant diseases. In addition, ozonisation is used to ensure long-term storage of agricultural products in warehouses [3].

The use of electro-ozone technologies has a positive impact on various aspects of agricultural production:

* disinfecting and disinsecting crops;
* improving the soil structure in the closed ground;
* increasing the productivity of agricultural production;
* reducing the use of chemicals and fertilizers;
* improving the seed quality;
* reducing the risk of environmental pollution, and much more.

However, the use of ozone has a number of difficulties. For example, at too high concentration of ozone, there is a very high probability of damage to plants, and low concentration may stimulate the development of pathogenic microflora both on the surface of the plant and in the soil. Another example is the electro-ozone technology for storage of fruits and vegetables in an ozone environment [1]. At high ozone concentrations and long treatment time, fruits and vegetables stored for a long time lose a lot of weight due to shrinkage. If the concentration and treatment time are not technologically correct, the storage period will be significantly shortened due to the stimulation of fungal and mould development.

When applying electro-ozone technologies in agricultural production, it is necessary to strictly control compliance with technological norms of treatment time, ozone concentration, frequency of treatment and monitoring period, as they vary significantly for each technology using ozonisation (Fig.1).

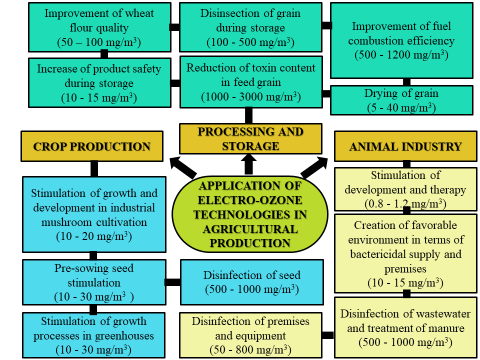


Figure 1. Application of electro-ozone technologies in agricultural production

One of the solutions to the above-mentioned complexities could be the application of neural networks in the use of electro-ozone technologies in agricultural production.

Artificial intelligence plays an important role in improving agriculture by facilitating the simplification of key processes such as animal husbandry, breeding, demand forecasting and planning. Automation of these operations reduces labour costs for farmers, enabling them to respond effectively to emerging issues and make informed decisions. The implementation of intelligent systems leads to increased efficiency in agricultural production [2]. With the ability to process significant amounts of data and identify complex correlations between variables, neural networks provide agricultural enterprises with the ability to make informed decisions based on a comprehensive analysis of large data sets.

Ozonisation and neural networks can be used together to optimize agricultural processes. Information about the ozonisation process and its efficiency can be applied to train a neural network capable of predicting the best conditions for a particular process. Neural networks can also be used to determine the optimal time and duration of ozonisation, taking into account the influence of factors such as temperature, humidity and degree of contamination.

The prospects for the development of this area are related to further improvement of technologies and development of new methods for ozone and neural network application in agriculture. It is also possible to integrate these technologies into other industries, such as the food industry or fertilizer production.

Thus, the use of ozonisation in combination with neural network technologies can become an important factor both in the development of agriculture and food security of the Russian Federation. Currently, experiments on the application of neural networks in agricultural electrical engineering are being conducted at the Department of Power Supply and Electrical Engineering named after Academician I.A. Budzko of the Russian State Agrarian University – Moscow Timiryazev Agricultural Academy.

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В статье рассмотрены вопросы активного внедрения нейронных сетей в различные сферы деятельности. Агропромышленный комплекс сталкивается с серьёзными сложностями в области мониторинга электроозонирования. Нейросети, благодаря своей способности обрабатывать большие объемы данных, могут стать эффективным инструментом для решения этой задачи. Применение нейросетевых технологий позволит оптимизировать процессы и обеспечит продовольственную безопасность в российской агропромышленности.

[**к содержанию**](#содержание)

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**The Future of Electric Vehicles: Opportunities and Challenges**

The relevance of electric vehicles (EVs) has grown due to their potential to mitigate environmental problems and reduce dependence on fossil fuels. However, questions remain regarding their convenience, charging infrastructure, and overall efficiency compared to conventional vehicles. This study aims to assess the demand for EVs and their practicality in everyday life.

The main objectives of this study are:

* to compare electric vehicles and conventional vehicles based on key performance metrics;
* to evaluate the demand for EVs in Russia.

The hypothesis states that daily use of electric vehicles as a means of transportation simplifies life, reduces costs, and improves environmental conditions.

Electric vehicles operate using electric traction, with power supplied by rechargeable batteries. The history of EVs dates back to the 1830s, and as of today, there are approximately 2 million EVs worldwide. Unlike conventional vehicles, EVs have a simplified mechanical structure, where the battery directly powers the motor, which in turn drives the wheels.

To better understand the key differences between electric and conventional vehicles, the following table presents a comparative analysis based on critical performance metrics.

Table 1. Comparison of Electric and Conventional Vehicles

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Conventional Vehicle** | **Electric Vehicle** |
| Range per full charge/tank | ~625 km (50L, 8L/100km) | 300-350 km |
| Refueling/Charging Time | ~5 minutes | 10+ hours (220V) or 30-40 min (fast charge) |
| Maximum Speed | ~200 km/h | ~167 km/h |
| Price Segment | ~3.89 million RUB | ~5.9 million RUB |

Despite their advantages, EVs have several drawbacks:

* Battery Disposal: EV batteries contain hazardous materials such as lithium, nickel, and cobalt, making disposal complex and environmentally harmful.
* Production Emissions: The production of an EV emits nearly twice as much CO2 as that of a diesel vehicle, mainly due to battery manufacturing.
* Charging Infrastructure: Charging stations are still insufficient in many regions, particularly for long-distance travel.
* Cold Climate Issues: Heating requirements in colder regions can significantly reduce battery efficiency.

Research from the Norwegian University of Science and Technology suggests that in regions where electricity is primarily generated from coal or oil, the environmental benefits of EVs are minimal. CO2 emissions per kilowatt-hour for EVs can reach up to 274 grams, compared to 180 grams for gasoline-powered vehicles.

A new law in Russia, effective from 2024, introduces a tax on electricity consumption for EVs while exempting them from transport tax. This policy could influence the adoption rate of EVs, making them less attractive for some consumers.

To gain a better understanding of the real-world experience of electric vehicle ownership, qualitative data was gathered from Tesla Model 3 users. The responses highlighted the following key aspects:

* Convenience: Many owners find EVs highly convenient for urban use, benefiting from free charging, parking, and toll exemptions.
* Cost Savings: Operational expenses are significantly lower compared to gasoline-powered vehicles, particularly in regions with well-developed EV infrastructure.
* Infrastructure Challenges: While major cities like Moscow have extensive charging networks, long-distance travel remains difficult due to inconsistent station availability.
* User Experience: EV drivers appreciate the modern, digital interfaces and advanced features, often preferring them over traditional gasoline-powered cars.

This study has demonstrated that EVs offer significant advantages in terms of cost savings and urban convenience. However, they also present serious challenges, such as battery disposal issues, high initial costs, and infrastructure limitations. While EVs contribute to reducing urban pollution, their overall environmental impact remains debatable due to production emissions and electricity generation sources. The hypothesis was partially confirmed – EVs can simplify daily life and reduce costs, but their environmental benefits depend on the energy mix and recycling capabilities.

The future of EVs will depend on technological advancements in battery efficiency, recycling methods, and the expansion of charging networks. Further studies should focus on the long-term environmental impact and the feasibility of EV adoption in regions with different energy sources.

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В статье рассматриваются практическое использование и востребованность электромобилей, а также проводится их сравнение с традиционными автомобилями на бензиновом топливе по таким параметрам, как эффективность, стоимость и воздействие на окружающую среду. Учтены мнения владельцев электромобилей, что позволило выделить ключевые преимущества и проблемы их эксплуатации. Несмотря на значительное снижение эксплуатационных расходов и уменьшение выбросов, электромобили сталкиваются с рядом вызовов, включая недостаточное количество зарядных станций, сложность утилизации аккумуляторов и высокие выбросы CO2 при их производстве. Полученные данные подчеркивают как перспективность, так и ограничения массового внедрения электромобилей.

[**к содержанию**](#содержание)

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**LEBENSMITTELVERSCHWENDUNG: URSACHEN UND FOLGEN**

Die Ernährung ist ein grundlegendes Bedürfnis des menschlichen Lebens und überdies ein Menschenrecht. Darüber hinaus stellen Lebensmittel eine Verbindung zwischen der Natur, Gesundheit, Kultur und Existenz dar. Doch nach Angaben der Ernährungs- und Landwirtschaftsorganisation der Vereinten Nationen (FAO) geht etwa ein Drittel aller weltweit erzeugten Lebensmittel entlang der Lebensmittelversorgungskette verloren oder wird verschwendet. 1,3 Milliarden Tonnen essbare Lebensmittel werden derzeit unnötigerweise weggeworfen. In der EU werden jedes Jahr nahezu 59 Mio. Tonnen Lebensmittel, also 131 kg pro Person, verschwendet [3]. Dies ist nicht nur ein ethisches, sondern auch ein ökologisches und ökonomisches Problem. Immerhin werden sowohl für die Erzeugung als auch für die Vernichtung von Waren Rohstoffe, Energie und Wasser benötigt. Mit jedem Lebensmittel, das weggeworfen wird, werden also wertvolle Ressourcen verschwendet. Daher ist das Problem der Lebensmittelverschwendung heute so relevant. Das Ziel dieser Arbeit besteht darin, das Wesen des Problems der Lebensmittelverschwendung in der Welt aufzuzeigen, die Ursachen und negativen Folgen der Verschwendung zu analysieren und Möglichkeiten zur Lösung dieses Problems vorzustellen.

Die Definition des Begriffs Lebensmittelverschwendung ist weltweit nicht einheitlich geregelt bzw. festgelegt. Grundsätzlich sind darunter jene Lebensmittel zu verstehen, welche aufgrund unterschiedlicher Beweggründe (z. B. kulturell, technologisch und wirtschaftlich) aus der Wertschöpfungskette entfernt worden sind. Diese Lebensmittel wurden für die menschliche Ernährung angebaut und produziert, aber nicht konsumiert. Sie dienen nicht mehr dem ursprünglichen Zweck der menschlichen Ernährung [1].

Die Ursachen für Lebensmittelverschwendung sind vielfältig. Der häufigste Grund dafür ist, dass Lebensmittel verdorben sind. Die zweithäufigste Ursache ist, dass zu viel gekocht und/oder zu viel auf den Teller geladen wurde. Hauptverursacher\*innen sind die Endverbraucher\*innen, die nach verschiedenen Studien für einen Anteil von 40 bis über 52 % aller weggeworfenen Lebensmittel verantwortlich sind (82 kg pro Person und Jahr in Deutschland). Im privaten Haushalt liegt es oft an der falschen Lagerung, der mangelhaften Einkaufsplanung oder daran, dass das Mindesthaltbarkeitsdatum als Wegwerfdatum gesehen wird.

Lebensmittel werden aber entlang der gesamten Wertschöpfung, vom Acker bis zum Teller, verschwendet. In der Landwirtschaft verderben Erzeugnisse durch falsche Lagerung, Schädlingsbefall, sie werden durch Unwetter zerstört oder müssen entsorgt werden, weil es nicht genügend Abnehmer\*innen am Markt gibt. Außerdem wird ein Teil der Ernte bereits auf dem Feld aussortiert aufgrund der strengen Handelsnormen und hohen Anforderungen der Supermärkte oder der weiterverarbeitenden Lebensmittelindustrie. In der Industrie entstehen die meisten Lebensmittelverluste durch Transportschäden, falsche Lagerung und technische Ursachen in der Produktion. In der Gastronomie ist vor allem die unkalkulierbare Nachfrage ein entscheidender Faktor, der zusammen mit falscher Lagerung, schlechter Planbarkeit, strengen Hygiene- und Produktvorschriften sowie schlecht definierten Portionsgrößen (Kantinen) für Speiseabfälle sorgt.

Wir haben uns daran gewöhnt, dass Lebensmittel im Überfluss verfügbar sind und das Bewusstsein dafür verloren, welche Leistung und welcher Ressourcen- bzw. Energieverbrauch eigentlich hinter den vollen Regalen steht. Schon heute bringt die globale Nahrungsmittelproduktion viele Nachteile für Ökosysteme und Klima mit sich. Lebensmittel, die nie in unseren Mägen landen, verursachen einen unnötigen Verbrauch von Landflächen, Wasser, Energie, Ressourcen sowie menschlicher Arbeitskraft. Durch Lebensmittelverschwendung verschwenden wir rund 25 %  der landwirtschaftlich genutzten Fläche. Und dafür werden immer wieder wertvolle Waldflächen – etwa im Regenwald – gerodet. Anbau, Transport und Verpackungen verursachen Umweltverschmutzungen und heizen das Klima an. Durch Lebensmittelverschwendung entstehen pro Kopf und Jahr knapp eine halbe Tonne Treibhausgase [2]. Besonders belastend ist der weltweit steigende Fleischkonsum, denn hier werden besonders viele Ressourcen verbraucht, Klimagase ausgestoßen und Umwelt verschmutzt.

Die Verschwendung von Lebensmitteln hat negative Auswirkungen auch auf die Wirtschaft: Bis zu 132 Mrd. € gehen jedes Jahr dadurch verloren. Es ist zu beachten, dass das verschwenderische Verhalten tendenziell auch zur Verknappung von Ressourcen und damit zur Steigerung der Lebensmittelpreise beiträgt. Die Lebensmittelverschwendung verschärft zudem den Konflikt zwischen Überproduktion und Unterernährung. Die Ursachen für Hunger sind vielschichtig und Lebensmittelverluste in den einen und Lebensmittelmangel in anderen Ländern können nicht einfach gegeneinander aufgerechnet werden. Dennoch kann weniger Lebensmittelverschwendung ein Hebel zur Bekämpfung des weltweiten Hungers sein: Lebensmittel, die exportiert und in den (wohlhabenden) Importregionen weggeworfen werden, sind Ressourcen, die für die Ernährungssicherheit in den (ärmeren) Exportregionen fehlen.

In den vergangenen Jahren ist das Bewusstsein für das Problem der Lebensmittelverschwendung gewachsen. Politische Initiativen, private Akteure und auch Unternehmen engagieren sich, um Verluste und Abfälle im Lebensmittelbereich zu verringern. Das wurde zu einer gesamtgesellschaftlichen Aufgabe. Alle Akteure der Zivilgesellschaft, Wirtschaft und Wissenschaft sind daher aufgefordert, sich in den Prozess einzubringen, um die Aufgabe zu lösen: bei der Primärproduktion, der Verarbeitung, im Handel, bei der Außer-Haus-Verpflegung sowie zum größten Teil in privaten Haushalten. Die EU-Kommission betrachtet die Bekämpfung der Lebensmittelverschwendung als Teil ihrer Bemühungen, Ressourcen effizienter zu nutzen und eine nachhaltige Entwicklung im Sinne der Vereinten Nationen zu erreichen. Die EU hat in Bezugnahme auf das globale UN-Nachhaltigkeitsziel, bis 2030 die Menge der Lebensmittelabfälle auf der Ebene des Handels und der Privathaushalte zu halbieren. Alle EU-Mitgliedsstaaten sind demnach verpflichtet, entsprechende Maßnahmen zur Vermeidung und Reduzierung von Lebensmittelabfällen zu treffen. Den 29. September hat die FAO zum International Day of Awareness of Food Loss and Waste ausgerufen. Regelmäßig veranstaltet das Bundesminis-terium für Ernährung und Landwirtschaft (Deutschland) unter dem Motto „Deutschland rettet Lebensmittel“ eine bundesweite Aktionswoche. Gemeinsam mit den Bundesländern und weiteren Partner\*innen bietet das BMEL eine Plattform für zahlreiche Vor-Ort-Aktionen und digitalen Formaten rund um das Thema Lebensmittelverschwendung. Seit mehreren Jahren lobt das BMEL den Bundespreis „Zu gut für die Tonne“ aus. Ausgezeichnet werden herausragende Projekte und ihre Initiatorinnen und Initiatoren, die mit konkreten Ideen, Pioniergeist und großem Engagement dazu beitragen, Lebensmittelver-schwendung zu reduzieren und somit die Wertschätzung der Lebensmittel zu fördern. 2017 wurde die App Too Good To Go mit dem Bundespreis „Ecodesign“ ausgezeichnet. Initiativen wie z. B. foodsharing.de oder United Against Waste engagieren sich auf verschiedenen Ebenen zur Verbesserung der Problematik und der Entwicklung von Gegenstrategien wie z. B. verbessertem Management entlang der Wertschöpfungskette, nachhaltigeren Marketingstrategien oder der Veränderung von Konsumgewohnheiten.

Beispiele aus anderen Ländern zeigen, dass bereits durch einfache Maßnahmen, z. B. durch die transparente Erfassung des Lebensmittelabfalls oder das Angebot verschiedener Portionsgrößen, die Lebensmittelabfälle bis zu 40 % reduziert werden konnten. Eine Möglichkeit, die Lebensmittelverschwendung in All-you-can-eat-Restaurants zu verringern, ist es, eine pauschale oder individuelle Gebühr nach dem Gewicht vom weggeworfenen Essen zu verlangen. So nutzen einige Restaurants die Methode, um beispielsweise pro 100 g verschwendetem Essen eine Gebühr von 3 € zu erheben. In China wird seit 2013 mit einer Leere-Teller-Kampagne gegen Lebensmittelverschwendung vorgegangen, die unter anderem daraus resultiert, dass es bei gemeinsamen Mahlzeiten üblich ist, einen Anstandsrest übrigzulassen. Auch 2022 war dieses Verhalten in Ostasien noch weit verbreitet, z. B. in Südkorea.

Jede und jeder von uns kann durch neue Gewohnheiten und viele kleine Schritte einen Beitrag dazu leisten, diese Lebensmittelverschwendung zu halbieren. Praktische Tipps deswegen sind im Trend. Manches ist banal und lässt sich kinderleicht umsetzen. Zum Beispiel: **Einkaufslisten schreiben** und ganz genau planen; nur das kaufen, was man braucht, und das möglichst regional, saisonal und biologisch sowie unverpackt oder in Mehrweg-Verpackungen; Vorräte regelmäßig prüfen und rechtzeitig verbrauchen; Reste kühl stellen oder einfrieren und später verzehren**;** tierische Lebensmittel nur in Maßen konsumieren. Zudem sollte das Mindesthaltbarkeitsdatum nicht als Stichtag zum Wegwerfen gesehen werden. Durch Riechen oder Probieren kann die **Verzehrbarkeit** geprüft werden. Anderes erfordert mehr Engagement wie das Mitmachen bei Foodsharing, wobei man kleine wie große Mengen Essen weitergeben, oder nicht mehr verkäufliche, aber noch einwandfreie Überschüsse bei Supermärkten, Bäckereien oder Restaurants abholen kann.

Selbst unvermeidbare Lebensmittelabfälle lassen sich zudem sinnvoll verwerten – darauf weist das Umweltbundesamt hin. Gemüseabfälle können auf dem eigenen Komposthaufen, in einer Wurmkiste oder einem Bokashi-Eimer in wertvollen Dünger umgewandelt werden. In der Biotonne werden neben Gemüse auch viele andere Lebensmittelabfälle gesammelt, zur Erzeugung von Biogas verwendet und/oder kompostiert.

Lebensmittel sind ein wertvolles und lebensnotweniges Gut. Lebens-mittelverschwendung ist aus ethischer, ökologischer und ökonomischer Sicht nicht akzeptabel. Ohne einen sorgsamen Umgang mit den Lebensmitteln entlang der gesamten Wertschöpfungskette und deren Wertschätzung wird es nicht möglich sein, die globalen Nachhaltigkeitsziele zu realisieren. Die Entsorgung einwandfreier Lebensmittel muss auf jeder Stufe kritisch betrachtet und dagegen mit verbindlichen Maßnahmen gehandelt werden. Es ist aber hervorzuheben, dass die Ziele zur Reduzierung der Lebensmittel-abfälle können nur erreicht werden, wenn sich alle Akteure entlang der Lebensmittelversorgungskette mit eigenen, möglichst konkreten Beiträgen beteiligen und insgesamt das gesellschaftliche Bewusstsein für den Wert der Lebensmittel steigt.

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Статья посвящена проблеме пищевых отходов. Приводятся причины и последствия данной проблемы. Представлены способы по предотвращению и решению сложившейся ситуации.

[**к содержанию**](#содержание)

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**PECULIARITIES OF TRANSLATING PHRASEOLOGICAL UNITS WITH THE “HEART” COMPONENT-SOMATISM**

Phraseology is one of the most interesting areas of linguistics. It helps better understand the culture and history of the country whose language is studied. Phraseologisms with a somatic component form an extensive stratum in the phraseological corpus of the English language, which requires additional study.

Somatisms are expressions that contain a component with the meaning of ‘body part’. Somatic phraseological units are metaphorical units of speech, which are based on observations of human behaviour. Somatic phraseological units require the translator to possess certain background knowledge and practical experience, know the cultural and historical traditions of the people speaking this language.

The object of our research is phraseological units with the ‘heart’ somatism component. The purpose is to study the lexico-semantic features of phraseological units with the ‘heart’ somatism component, compare somatic phraseologisms of the two languages and identify the degree of interlanguage equivalence. When performing the research, we used the continuous sampling method, the comparative method, and the method of statistical processing of the material.

Somatic phraseology carries certain difficulties in translation, because it forces the translator to look for additional knowledge so that the phraseological unit retains its semantic charge when translated into another language. The main factor that indicates whether or not a phraseological unit has been translated correctly is the degree of its adequacy to the original. The translation should convey the meaning of the original phraseological unit fully, accurately and objectively.

Somatic phraseological units in English are a significant group of phraseological units that are used both literally and figuratively. Metaphorical transfer is the basis for somatic phraseologisms. Their semantics is related to the emotional and mental life of a person. A comparative analysis of the lexemes ‘heart’ and ‘сердце’ shows that these lexemes have identical lexical meaning in both English and Russian languages, however, due to the difference in the language patterns of the world, the sensual aspect of the word ‘heart’ corresponds to the Russian ‘soul’.

The lexemes ‘heart’ and ‘сердце’ have several lexical meanings that coincide in both the Russian and the English languages:

1) the central organ of the circulatory system;

2) ‘emotional centre’ is an organ where people’s experiences, moods, feelings are concentrated;

3) the most important place, centre and basis of something.

Somatic phraseologisms most fully reveal the meaning of the lexeme ‘heart’ as the centre of a person’s emotions, feelings and moods, a mirror of his inner world. Based on this, phraseological units with the ‘heart’ component can be divided into the following groups:

1. displaying an emotional state (to bring smb’s heart into his mouth –

душа ушла в пятки);

1. reflecting the character of a person (a honey tongue, a heart of gall –

медовый язык, а сердце в желчи);

1. expressing attitude towards something/someone (to take (lay) smth (very

much) to heart – принимать что-то близко к сердцу);

1. mental and rational activity (by heart – наизусть);
2. psycho-emotional interaction (to have heart to heart talk – разговаривать по душам).

Our analysis showed that the somatic lexemes ‘heart’ and ‘сердце’ refer to the body part associated with feelings as sincerity, love and pain. Somatic phraseological units are often used to characterize a person’s inner world. The word ‘heart’ in the languages studied symbolizes feelings, kindness and love. Meanwhile, the Russian use the word ‘soul’ more often, while the British use ‘heart’.

Somatic phraseologisms are almost completely monoequivalent in their lexical content, but different in structural-grammatical organization. There is a distinction between full and partial monoequivalence. Fully equivalent phraseologisms are not difficult to translate. Russian monoequivalents of English phraseologisms coincide with them in meaning, lexical composition, imagery, stylistic orientation and grammatical structure.

There are lexical and lexical-grammatical partial monoequivalents. Russian equivalents with the imagery similar to English phraseologisms, but with different lexical composition, are considered lexical partial monoequivalents. Lexical-grammatical partial monoequivalents are Russian equivalents to English phraseological units, which coincide with them in meaning, stylistic colouring and imagery, but differ in number, shape, etc.

Thus, most of the English and Russian somatic phraseologisms with the ‘heart’ component coincide in meaning and imagery, since this layer of vocabulary is commonly used and is not associated with the national characteristics of peoples.

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В статье раскрываются особенности перевода соматических фразеологизмов со словом “heart” в русском и английском языках, анализируются их сходства и различия. Автор производит классификацию фразеологических единиц, приводит примеры сходства и различия лексических значений слов “heart” и “сердце” в них.

[**к содержанию**](#содержание)

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**THE IMPACT OF ENGLISH ON THE LEGAL SYSTEM: LANGUAGE AS AN INSTRUMENT OF LAW ENFORCEMENT**

English has become one of the most widely spoken languages in the world, especially in the legal field. Its influence on international law and the legal systems of countries that use English as an official language cannot be overemphasized. Legal language is a specialized form of communication with a number of unique characteristics that distinguish it from other types of language and communication. Thus, in this paper, we will analyse the influence of English on the legal system, as well as its role as an instrument of law enforcement, and find out the features of legal language and its significance for the interpretation of legal norms, as well as the problems arising from language barriers and translation difficulties in international law.

In general, legal language consists of two intersecting elements – language and law. According to A. Shepelev, each of them brings its own flavour, its own specific features, thus forming a unique legal phenomenon – legal language [2].

Legal language has, in turn, a number of important characteristics. First of all, the precision of legal language consists in the fact that every word and expression must be chosen with special care, otherwise any careless use of terms can lead to legal consequences and make it difficult to apply the law. Secondly, clarity is a critical function of legal language. Laws and regulations must be written in such a way that they can be understood not only by lawyers but also by ordinary citizens.

However, ambiguity plays a crucial role in preventing legal disputes. If a legal text allows for different interpretations, this can lead to conflicts between parties and make litigation more difficult. Therefore, lawyers and legislators strive to create documents that leave no room for ambiguity.

In recent decades, English has established itself as the primary language of international law, which has significantly changed the dynamics of law enforcement and interaction between states and international organizations.

One of the key factors contributing to the dominance of English in international law is its widespread use in international organizations such as the UN, the WTO and the EU. English dominates world politics, banking, the field of modern information technology, etc.

The advantages of using English in international law are obvious. First of all, it creates a uniform standard for law enforcement, allowing different jurisdictions to interpret and apply international norms more easily. Secondly, having a common language facilitates a better exchange of information and knowledge between lawyers and professionals around the world, which in turn strengthens international cooperation.

Nevertheless, there are certain risks associated with the dominance of English in international law. One of them is the possibility of errors in the interpretation of legal texts. The Anglo-American legal system, as F. Bunyatova believes, is different from the continental legal system, so the use of English for communication within the Romano-Germanic legal system is often difficult [1].

The use of English as a lingua franca can create barriers for countries where English is not the native language. It may limit their ability to participate in international negotiations and influence the formation of international law. Thus, despite the obvious advantages, the potential disadvantages associated with the dominance of English must also be taken into account.

Despite the fact that English has become the dominant language in international law, many countries continue to use their native languages in law enforcement, which creates many problems related to the translation and interpretation of legal norms. Experts highlight the following ones:

– Language barriers and their consequences. Legal language has a high degree of complexity and specialized terminology that may not have counterparts in other languages. This may lead to a situation where the translation loses its legal force or becomes unclear to the parties involved in legal processes.

– Legal errors and misapplication of norms. Legal errors caused by language barriers can have serious consequences. For example, if a contract has been mistranslated, this may result in one party failing to fulfil its obligations by relying on the misunderstood terms of the contract. In such cases, the affected party may find it difficult to prove their case due to the lack of clarity and accuracy in the translation.

– The need for quality translation. To solve these problems, it is essential to ensure high quality legal translation. We need to emphasize the need for professional translators who are not only proficient in the languages, but also have a deep understanding of legal terminology and context. This will minimize the risks of errors and misunderstandings.

Summarizing the above, it can be concluded that legal language is a specific form of communication with a number of unique characteristics, which requires caution when translating into other languages. In this context, the meaning of English is impossible to overestimate, as it dominates world politics, banking, the field of modern information technology, etc.

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Автор анализирует значение английского языка в современном правоприменении в контексте международных отношений. В статье раскрываются проблемы доминирования английского языка в правовой сфере, связанные с языковыми барьерами и переводом юридических текстов. Отмечается, что для эффективного функционирования правовой системы необходимо учитывать эти аспекты и развивать механизмы, способствующие более точному переводу и интерпретации норм права.

[**к содержанию**](#содержание)

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**PARALLELS BETWEEN THE 19TH CENTURY RUSSIAN AND BELARISIAN LITERATURES IN THE WORKS OF YANKA KUPALA AND EVGENY ZAMYATIN**

The 19th century in Russia was characterized by significant events in the country’s history. They were the invasion of Napoleon, the Decembrist uprising and the liberation of the serfs. Russian writers and artists were inspired by all these events to create what became known as the Golden Age of Russian Culture*.* At that time, in Belarus the main traditions of modern Belarusian culture were forming. An interest in folk culture began to appear. There were also many authors, thanks to whom Belarusian literature was included in the world historical and literary process. One of these authors was Yanka Kupala. The purpose of the article is to show the differences and similarities between the Belarusian and Russian literatures in the 19th century comparing the works of representatives of Belarusian and Russian literatures.

Yanka Kupala (Ivan Dominikovich Lutsevich) is a classic of Belarusian literature, a national poet of Belarus, a playwright, and a publicist. He was born in July 1882 in the village of Vyazynka, Molodechno district, Minsk region. Yanka Kupala began his creative career with works in Polish. The first works of the novice author were published in the “Corn” magazine. In July 1904 the poet’s debut work in the Belarusian language, called “My Destiny”, was published. After the publication of the poem “A Peasant” in the edition of the “Northwestern Borderland”, poetry lovers from Belarus and neighbouring countries became interested in the author’s work. In 1912, the author presented the comedy “Pavlinka”, which became a real gem of the playwright’s work. A year later, Kupala began working on his autobiographical play “The Ruined Nest”, which was released in 1913. Kupala introduced the reader to the tragedy of one family. Thus, he showed the grief of the Belarusian peasantry. The author skilfully managed to convey the problems of landlessness and the impoverished position of the common people. The title “The Ruined Nest” perfectly illustrates the picture of those days. The focus is on the Zyabliks family. The father of the family, a peasant, loses a court case on land ownership. For Levon, the land is not only a place to live, but also the legacy of the ancestors who lived and worked here. With the loss of the land plot, an internal split begins in the Zyabliks family. Family members begin to quarrel. Each of them is trying to find their own happiness. Zosia plunges in love passions. Danilka is facing difficulties due to his father’s rejection of his passion for music. The mother is forced to beg. The eldest son, Simon, takes the path of fighting oppression. The playwright describes the desire for a new happy life and the people’s will. Levon’s strong character is freedom-loving and does not accept humiliation.

Evgeny Ivanovich Zamyatin is a Russian and Soviet writer, a publicist and a literary critic, a screenwriter and a teacher, born on January 20, 1884, in Lebedyan, into the family of an Orthodox priest. Evgeny studied in local gymnasium. When he was twelve years old, his parents sent him to Voronezh for further education. In 1902, Zamyatin graduated from the gymnasium, receiving a gold medal. E. Zamyatin began writing his first novels while still studying at the institute. The first significant work of the writer was the novel “The Islanders”, written and published in 1917. According to some critics, this work is the forerunner of the famous novel “We”. An example of his earlier work is the story “In the Middle of Nowhere”. It provides a description of the life of officers of the army of the Russian Empire, through which all those troubles and diseases of the society of that time are shown. The story shows a provincial military garrison in the Far East. Life in this place is dreary and meaningless. The main character is a romantically minded officer from Tambov, Andrey Ivanovich Polovets, who chose himself to serve in distant and wild lands. Not the best representatives of the officers serve in the represented military unit. Many of them are losers, psychologically broken personalities.

Rudeness, petty intrigues, gossip instead of honour, drunkenness, love affairs and cruel entertainment – that’s their noble life. The book is written in a good, rich language in the recognizable style of E. Zamyatin. The image of the main character is interesting to the reader. Andrey Ivanovich, a good man, getting into inhumane conditions and being a weak-willed person, gradually became like those people who surrounded him.

Comparing these two works, created at the same time, we can draw a number of parallels, for example, between the female images of Zosia and Maria Schmit. Zosia in “The Ruined Nest” is shown as a sensitive, sentimental, trusting character. She fell in love with an owner of the farm for his beauty. However, all her bright views on life are shattered by the betrayal of her lover, after which she tries to commit suicide. After a love tragedy, her views change dramatically and she perceives the family tragedy (the fire and the loss of her home) in completely different way. She and her brother go to a large gathering thinking about God, mercy and kindness. The large gathering also symbolizes the uprising of the people at that time and their desire for freedom. The character of Maria Schmit is also closely connected with love. She loves her husband so much that decides to sacrifice herself for the love of him. But her husband cannot accept this sacrifice and this situation leads to tragedy that forced Maria Schmit to leave the garrison.

We can also compare Danilka Zyablik and Andrey Ivanovich, who react differently to the loss of important things in their lives. For example, Danilka loved playing the violin very much and wanted to go around the world with it, but his father broke the violin, after which Danilka almost lost himself in this world and his only way out was to go with Zosia to a large gathering. Andrey Ivanovich loved Maria Schmit very much, always wanted to help her and supported her, but when she left, he had fun at her husband’s funeral. In these similar situations, both authors show different facets of people’s attitudes to the loss.

If we consider these works based on the views and social status of their creators, Kupala in the “The Ruined Nest” shows a picture of the life of ordinary villagers, people close to him in social status, whose destinies and problems are very close and familiar to him. E. Zamyatin in his work “In the Middle of Nowhere” addresses the fate of people from a different social background – officers, whose position in society is more understandable to him. Despite the fact that at the beginning of the 19th century writers turned to depicting the lives of various segments of the population, they are united by the way they show their characters, their social struggle and the difficult life choices that both peasants and officers have to make.

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В статье рассматривается начало творческого пути Я. Купалы и Е.Замятина и отражение мировоззрения авторов в их творчетстве. Автор статьи сравнивает такие произведения белорусского и русского классиков как “Разоренное гнездо” и “На куличах”. Раскрывается основная тематика произведений, показаны различие и сходство в изображении персонажей и глубина, с которой авторы анализируют положение людей разных социальных сословий того периода.

[**к содержанию**](#содержание)

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**EFFET DE LA DATE DU DERNIER DRAINAGE AVANT LA RECOLTE SUR LE RENDEMENT ET LA QUALITE DU GRAIN DE RIZ (ORYZA SATIVA) DANS LE COMPLEXE HYDRAULIQUE DE DIORO - CAS DU SECTEUR DE SOKE EN ZONE OFFICE RIZ SEGOU**

L’économie malienne repose essentiellement sur l’agriculture. Elle emploie environ 60% de la population active et contribue pour 30 % à cette croissance économique [1]. Au Mali l’augmentation de la consommation de riz s’est faite de manière spectaculaire. La consommation moyenne annuelle par habitant est de 74kg/an/hbt [2]. Il contribue à lui seul pour environ 5% du PIB du pays [3]. Au Mali le riz a un rôle central dans la sécurité alimentaire, qui reste un problème crucial pour le pays. Il contribue également de manière substantielle à la croissance économique du pays. Mais les importantes potentialités rizicoles avec des superficies jugées aptes à l’irrigation évaluées à près de 2.200.000 ha ne sont valorisées qu’à hauteur de 20% [4].

La forte croissance démographique (3,6% en moyenne/an) et le changement des habitudes alimentaires influencent fortement la consommation de riz qui augmente en moyenne de 7,5 % par an depuis 1995. Ainsi, les besoins en riz sont estimés à 2,6 millions de tonnes de paddy à l’horizon 2025 [2]. Malgré cette production, le Mali est obligé de faire recours à des importations pour couvrir la totalité de ses besoins en riz qui croissent à cause de la conjugaison de plusieurs facteurs (changement d’habitudes alimentaires, urbanisation…etc. Ainsi, 45 % du riz commercialisé sur le marché national provient des importations à partir de l’Inde, la Thaïlande, le Vietnam, le Pakistan et la Chine [3].

Au Mali, la région de Ségou contribue fortement dans la production nationale du riz. L’Office Riz Ségou dispose aujourd’hui de grands aménagements hydroagricoles rizicoles et contribue fortement à la sécurité alimentaire du pays. Depuis plusieurs années, la riziculture est pratiquée en zone Office Riz Ségou. Mais au fil du temps, certains paysans ne parviennent pas à améliorer les rendements et la qualité de leurs productions. Ils attribuent ce problème à la mauvaise qualité des aménagements qui, avec le rythme de dégradation ne favorise pas les meilleures conditions de travail. Le drainage est une technique d’[aménagement](https://lorexplor.istex.fr/Wicri/Europe/France/InraMotsAgro/fr/index.php?title=Am%C3%A9nagement&action=edit&redlink=1) hydro-agricole destinée à réduire ou supprimer l’[excès d’eau](https://lorexplor.istex.fr/Wicri/Europe/France/InraMotsAgro/fr/index.php/Exc%C3%A8s_d%E2%80%99eau) sur des [parcelles](https://lorexplor.istex.fr/Wicri/Europe/France/InraMotsAgro/fr/index.php/Champ%2C_pi%C3%A8ce%2C_parcelle) qui en sont affectées. Il apporte des avantages certains en termes de régularité des rendements et facilité d’intervention sur les parcelles [1].

Avec l’état actuel des aménagements, beaucoup de paysans ne pratiquent pas le dernier drainage avant la récolte. Ceux qui occupent les parties les moins dégradées parviennent à drainer mais récoltent dans les conditions un peu humides. Certains, qui ont les moyens utilisent des motopompes pour faire l’assec avant la récolte. Mais beaucoup estiment n’avoir pas les moyens de se procurer une motopompe; ils récoltent donc dans l’eau et se contentent juste de ce qu’ils trouvent. Il est donc important d’aider les producteurs à améliorer le rendement et la qualité de leurs productions.

C’est dans cette optique que l’étude portant sur le thème : effet de la date du dernier drainage avant la récolte sur le rendement et la qualité du grain de riz (oryza sativa) dans le complexe hydraulique de Dioro ‑ cas du secteur de Soke en zone Office Riz Ségou a été initié dans le cadre de mon stage de fin d’étude par le projet PDIR PD2, à travers un partenariat entre l’Université de Ségou et l’ORS.

Elle a pour objectif général de contribuer à la production du riz en quantité et en qualité dans de meilleures conditions d’économie d’eau. Les objectifs spécifiques sont : évaluer l’effet du nombre de jour de mise à sec avant la récolte sur le rendement grain et biomasse, évaluer l’effet du nombre de jour de mise à sec avant la récolte sur la qualité du grain et déterminer le nombre de jour optimal de mise à sec avant la récolte pour assurer un bon rendement du Riz avec une meilleure qualité des grains.

Au cours de l’expérimentation, deux types de matériels ont été utilisés. Il s’agit du matériel végétal, le riz de variété Adeny 11 et des matériels techniques (une tarière, une balance de précision, un tamis de triage de brisures, une étuve, un humidimètre, un carré de sondage de rendement, une motopompe, une échelle limnimétrique, un décamètre, une corde graduée et une charrue).

Le drainage est une opération agricole qui consiste à réduire ou évacuer l’excès d’eau sur des parcelles qui en sont affectées. La récolte commence par reconnaître le champ en maturité, réaliser la fauche des plants de riz mature et se termine par préparer les plants fauchés au battage. Cette opération est une des étapes les plus importantes de la culture du riz où le producteur peut éventuellement perdre une partie de sa production soit en quantité soit en qualité [5]. Cependant, même si on remplit les autres conditions (respect des itinéraires techniques, respect du calendrier agricole etc……), tant qu’on ne pratique pas le dernier drainage avant la récolte, le risque d’avoir un mauvais rendement et une production de piètre qualité demeure. La récolte dans l’eau ou dans les conditions humides rend pénible les opérations de récolte. Certains épis seront trempés, ce qui peut jouer sur la qualité du riz et son rendement au décorticage.

Les résultats obtenus au cours de cette étude ont montré que les dates de drainage avant la récolte n'ont pas d’effet significatif sur le rendement grain de riz paddy. Par contre, elles influencent de façon très significative la qualité du grain de riz. Le rendement maximal grain de riz paddy et la meilleure qualité du grain de riz ont été obtenus à la date D10 correspondant au drainage à 10 jours avant la récolte. Les traitements D0 et D25 donnent de moins bons résultats.

Nos résultats vont en concordance avec Salvignol (1993) qui rapporte qu’une dizaine de jours avant la récolte, la parcelle doit être drainée afin de faciliter les opérations de récolte. Ouattara et al., [6] signalent qu’il faut assécher la parcelle 10 jours à 2 semaines avant la récolte. Shamie., et al. [4] estiment que depuis le repiquage jusqu’à l’initiation paniculaire, il faut maintenir une profondeur de 2-3 cm d’eau après l’initiation paniculaire de 5-7 cm, puis drainer le champ 7-14 jours avant la récolte.

La faiblesse du rendement et la mauvaise qualité des grains au niveau des extrêmes (D0 et D25) pourraient s’expliquer par l’excès d’eau d’une part et de déficit hydrique d’autre part qui peuvent être source de nuisance pour les plantes de riz.

La présente étude a évalué l’effet de la date du dernier drainage avant la récolte sur le rendement et la qualité du grain de riz dans le complexe hydraulique de Dioro (secteur de Sokè) afin de susciter un intérêt chez les producteurs à améliorer le rendement et la qualité du riz qu’ils amènent sur le marché.

Les résultats obtenus indiquent que les différentes dates de drainage choisies avant la récolte n'ont pas d’effet significatif sur le rendement des grains de riz paddy, le rendement biomasse sèche et le rendement des racines fraîche et sèche. Par contre, elles influencent de façon significative le rendement en biomasse fraîche et de façon très significative la qualité du grain de riz et le taux d’humidité du paddy. Sur la base des résultats de l’expérimentation faite dans le cadre du présent stage de fin d’études, il ressort un rendement maximum de 8,55 t/ha en grain de riz paddy. Ce rendement est obtenu avec la date D10 qui correspond au drainage de la parcelle à 10 jours avant la récolte. Les rendements maximums en biomasse et racine sont respectivement de 5,92 et 10,82 t/ha, obtenus avec la date D0 correspondant aux traitements récoltés sans drainage. La meilleure qualité du grain de riz paddy déterminée par l’estimation du taux de brisures a été obtenu avec la date D10 (36,75%) correspondant à un drainage de la parcelle 10 jours avant la récolte.

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Настоящее исследование направлено на выявление влияния даты последнего дренажа на урожайность и качество рисовых зерен в гидротехническом комплексе в республике Мали. Результаты показали, что сроки дренажа перед сбором урожая не оказывают существенного влияния на урожайность рисовых зерен, урожайность сухой биомассы и урожайность свежих и сухих корней. Однако они оказывают существенное влияние на урожайность свежей биомассы, на качество рисовых зерен и их влажность.

[**к содержанию**](#содержание)

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**AI-DRIVEN TERMINOLOGY EVOLUTION**

Terminology work is undergoing a profound transformation as AI-driven tools enhance term extraction efficiency, improve resource accessibility, and streamline management processes. Innovations in artificial intelligence (AI), natural language processing (NLP), machine learning and other technologies collectively “address evolving terminology needs and facilitate significant methodological developments” [7].

In the late 20th century, text manual mining relying on statistical methods and rule-based systems to extract useful information from large text corpora laid the groundwork for more sophisticated approaches by demonstrating the potential of automated term extraction and pattern recognition.

Automatic Term Extraction (ATE) systems emerged in the early 21st century as a powerful computer driven tool using statistical measures. These systems were effective but limited by their reliance on predefined rules and datasets. Over time, ATE systems began incorporating machine-learning techniques, marking the first significant integration of AI into terminology work.

Recent advancements in ATE rely on neural methods, particularly, pre-trained Transformer-based models, which greatly improved the accuracy and efficiency of term extraction. Nazar and Lindemann stated that the use of text mining tools significantly reduces the manual analysis time and effort required for term extraction and allows researchers to uncover terminological units and their contexts efficiently [5].

While these models are promising, Nunzio et al. (2023) note that their accuracy in term recognition still requires domain experts to ensure high-quality multilingual terminology [6].

Neural Machine Translation (NMT) advances cross-lingual terminology management by enabling linguistically and conceptually precise translations. As Hanh et al. (2023) state, “neural models generally outperform machine learning models based on feature engineering by a large margin and Transformer-based cross-domain and cross-lingual models tend to perform exceptionally well, establishing new state-of-the-art methods” [8].

However, NMT struggles with context and cultural sensitivities and nuances, necessitating complementary tools like Semantic Analysis to improve accuracy and to bring a deeper level of understanding to terminology work by focusing on the meaning and relationships between terms. In their 2023 study, Enhancing Neural Machine Translation with Semantic Units, Langlin Huang et al. demonstrate how semantic analysis can significantly improve the accuracy and efficiency of machine translation (MT), outperforming traditional NMT approaches by addressing common challenges in translation, such as ambiguity and context-dependent meaning [1].

The advent of Natural Language Processing (NLP) marked the next turning point, as AI-driven methods became central to terminology management. NLP leverages machine learning and deep learning algorithms to process and analyze human language, enabling tasks such as semantic analysis, sentiment analysis and machine translation. Tools like Sketch Engine and AntConc, which use corpus linguistics to analyze term frequency and collocations, with the integration of AI allow terminologists to identify relevant terms in specialized texts with greater accuracy.

The most recent wave of innovation has been driven by large language models (LLMs) and Transformer-based architectures, which have revolutionized terminology work. These AI-powered tools, such as custom GPT models, can automate the extraction of terms, their relationships and contextual information, even in novel domains. Nahod and Nahod (2024) noted that LLMs generate "raw definitions" for terminological units, which serve as a foundation for further processing, reducing reliance on domain experts and accelerating the terminological process. This is particularly valuable in resource-constrained scenarios, which was for instance, clearly demonstrated by the Croatian national term base Struna [4].

AI-powered ontologies and knowledge graphs now represent the cutting edge of terminology work, mapping term-concept-domain relationships to enable semantic interoperability and data harmonization (Fouzia et al., 2024) [3].

Complementing digital resources are collaborative platforms, which have emerged to provide a reliable and sharable framework for interaction among terminologists, translators and domain experts to facilitate collective knowledge-building by allowing users to discuss, validate and refine terminological entries. When integrated with digital databases, they create a seamless workflow in which terminological data is not only stored and accessed efficiently but also continuously improved through community input, with experts contributing their knowledge from different fields and languages to build a shared resource. Platforms like TermWiki, ProZ.com, TAUS and IATE are perfect examples of this collaborative work.

Despite AI-driven terminology tools challenges - such as bias, privacy, and contextual gaps - they remain indispensable for managing multilingual, evolving terminologies. As Akhand et al. (2024) stress, maximizing AI’s potential requires collaboration, ethical oversight, and targeted training. “To maximize AI's benefits, fostering collaboration, emphasizing ethical considerations and investing in AI education and training are crucial. By navigating these challenges and leveraging opportunities, AI tools can significantly contribute to societal growth and well-being, ensuring a positive future shaped by artificial intelligence” [2].

AI integration into terminological work offers powerful tools to address the challenges of rapid term evolution, multilingualism and cultural adaptation and highlights the need for further scrupulous human oversight and continuous AI-skills training.

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Статья анализирует, как искусственный интеллект (ИИ) трансформирует терминологическую работу. Рассматриваются ключевые технологии с использованием ИИ: автоматическое извлечение терминов (ATE), нейронный машинный перевод (NMT), семантический анализ и языковые модели (LLM). Подчёркивается роль коллаборативных платформ, цифровых баз данных и онтологий в управлении терминологией. Делается вывод: для гармоничного развития терминологии критически важно сочетание непрерывного обучения специалистов и продуманного взаимодействия с ИИ технологиями.

[**к содержанию**](#содержание)

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**THE ROLE OF ARTIFICIAL INTELLIGENCE IN ENSURING**

**ECONOMIC SECURITY OF ORGANIZATIONS**

The relevance of studying the role of artificial intelligence in ensuring the economic security of organizations is associated with the need to assess the prospects for further digitalization of management practices aimed at improving the management of economic, financial and production processes. Thanks to the spread of innovations and the development of the information technology sector, there are new opportunities in improving the efficiency of the main activities of enterprises. Among the priority solutions is the introduction of artificial intelligence technologies to improve the results in the management of economic security of organizations.

The purpose of the article is to analyse the role of artificial intelligence technologies in ensuring the economic security of organizations in the modern Russian economy.

The strategy of introducing artificial intelligence in the economic security management system of the organization involves the creation of information-automated systems and algorithms capable of structuring and analysing information to the user under the conditions of a larger amount of data, automating routine tasks and processes, forecasting threats and risks to make subsequent management decisions.

According to the data from the Higher School of Economics, the current practice of organizations in Russia is using artificial intelligence technologies more and more rapidly. If in 2022 there were 5.7% of such entities, in 2023 – 6.6%. At the same time, the data of the National Centre for Artificial Intelligence Development give a more positive assessment, highlighting 31.5% of organizations using these technologies. The value of this indicator varies from industry to industry, where the leaders are the spheres of finance and IT – 55.3% and 54.3%, respectively [3].

Thus, the use of these technologies in improving the management processes of enterprises is increasing. However, compared to other innovations, artificial intelligence does not have such an active spread among entities, which is due to the difficulties of its integration. There is a list of various problems that create barriers in digitalization and intellectualization of economic security management system of organizations.

One of the reasons cited is the information risks associated with the cyberactivity of attackers against those organizations that use information technology with unprotected internal corporate systems. Artificial intelligence can improve the information security of the enterprise. However, at the same moment, it is necessary to apply additional measures that allow improving internal information policy, ensuring the proper use of technology in work [1].

Among the difficulties associated with the application of artificial intelligence technologies are the following aspects [2]:

* insufficient development of digital infrastructure, which is explained by significant costs for the creation, maintenance and management of data centres, requiring large capital investments;
* poor digital competence of the personnel, caused by the lack of necessary skills, which require specialized educational programs for their development;
* lack of specialists qualified to work with artificial intelligence due to the outflow of talent abroad and high salary expectations for such professionals, which makes their recruitment financially burdensome for many companies.

Modern conditions contribute to the emergence of new risks that pose threats to the economic security of organizations. High volatility of the external environment forces managers to develop new approaches to business sustainability. One of the key areas of improvement for the economic security management system is the introduction of artificial intelligence. This allows formation of a modern mechanism of information and analytical support, including software, equipment, technical solutions, and data centres, as well as tools for modelling, forecasting and protection against cyber threats. This approach ensures the development of specific measures to reduce risks and eliminate threats.

The use of artificial intelligence as a tool to ensure the economic security of an organization can bring significant benefits: increased efficiency, better prediction and fraud detection. However, there are also negative aspects to consider, such as high costs, implementation difficulties and lack of process transparency.

Thus, the role of artificial intelligence in ensuring the economic security of organizations is to develop an algorithm for information and analytical support of the business management system, generating management decisions aimed at identifying and eliminating threats and risks that negatively affect the economic performance indicators of the main activity of the enterprise. It can be argued that artificial intelligence plays a key role in the detection and prevention of cyberattacks, analysing potential threats and creating more secure systems. In order to improve the results of their integration into the organization, it is necessary to attract specialists with the necessary competencies to configure the developed algorithm based on artificial intelligence technologies.

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В статье рассматривается практическая роль технологий искусственного интеллекта при обеспечении экономической безопасности организаций. Выявлены области, в которых данные технологии позволяют совершенствовать управленческие процессы. Определены перспективы и риски использования искусственного интеллекта в практике российских организаций.

[**к содержанию**](#содержание)

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**NAPOLEON IN ART: FROM YOUTH TO DEMISE**

The Napoleonic era gifted the world with great culture thanks to one man –Napoleon I Bonaparte. Napoleon’s persona inspired artists, sculptors, writers, and craftsmen both in France and abroad, in Britain, Russia and Germany. Five key periods of Napoleon’s life are reflected in art: childhood, army, consulate, empire, and his time on the island of Saint Helena. The aim of this article is to show how Napoleon Bonaparte’s life and political career inspired the art of the era, transformed into heroization, propaganda, criticism, and the romanticization of his defeats.

Paintings dedicated to the emperor’s childhood were not created when he was a child. For example, the lithograph by D. Raffaelli, “The Favourite of the Bonaparte Family” was created between 1769 and 1793. It depicts the living room of the old Bonaparte house in Ajaccio, where the main members of the family are beautifully grouped. “They are attentively listening to Lucien, their uncle and archdeacon, who predicts a glorious future for young Napoleon and holds him up as an example to his brothers” [1, p. 29].

The military period of Napoleon’s life spans from 1788 to 1799. It includes his service in the army, the Italian campaign (1796-1797), the Egyptian campaign (1798-1799), and the coup of 18 Brumaire (1799). During this time, significant events like the Sardinian expedition took place. D. Raffaelli’s lithograph “Napoleon’s First Battle on Sardinia” is full of drama, with soldiers depicted in active motion, emphasizing the tension of the battle. Smoke and dust in the background enhance the sense of a battle in full swing. Napoleon is depicted in the centre of the painting, his gaze showing confidence and determination.

Many artists dedicated works to Napoleon’s Italian campaign. The heroic figure of the young Bonaparte inspired the artist A.-J. Gros, who devoted much of his life to painting Napoleon’s portraits. One of these works, “Napoleon at the Battle of Arcole”, depicts the Battle of Arcole. In this portrait, A.-J. Gros portrays Napoleon as a figure of “extraordinary beauty and strength… a living embodiment of the fiery youth of the Italian campaign” [1, p. 52].

The swift conquest of Egypt and the campaign in Syria, where the French forces emerged victorious after enduring various trials, also inspired artists. Numerous paintings and engravings were created, depicting Napoleon in various situations. Different heroic scenes from the Egyptian campaign found their place in the works of talented artists such as A.-J. Gros, J.-F. Schwab, P.-N. Guerin, T. Gericault, D.-V. Denon, J. Sh. Langlois and others. A striking example is J.‑L. Gerome’s painting “Napoleon Before the Sphinx”. In it, young Napoleon is sitting on a horse, his right hand placed on his hip, and gazing in contemplation at the immense, weathered face of the Sphinx.

Another significant moment in Napoleon’s military career was the coup of 18 Brumaire. Artists also depicted the events related to the meeting of the “Council of Five Hundred”. A notable example is F. Boucher’s painting “General Bonaparte at the Council of Five Hundred in Saint-Cloud, November 10, 1799”. The artist effectively conveys the emotions of the event. Napoleon is shown standing in the centre of the painting, dressed in military uniform, with a confident expression, emphasizing his determination to seize power.

After 11 years of military service, Napoleon Bonaparte gained power in the First French Republic as one of the three consuls. The period of Napoleon’s consulate (1799–1804) was a key moment in French history. It was a time when the political situation in the country and the philosophical ideals of the Revolution met Napoleon’s new ambitions and grand goals. In this context, art took on a new propagandistic character, serving both aesthetic and political purposes. Significant events associated with the first consul were reflected in the works of the prominent figures of the Napoleonic era: J.-L. David and A.-J. Gros. The imperial painter J.-L. David saw the newly risen Napoleon as an ideal model. His “Napoleon at the St. Bernard Pass” (1801) opens the gallery of his “Bonapartist” works, depicting Napoleon as a Byronic hero, pointing the way forward for the nation. “There is a sharp contrast between the calm appearance of Napoleon and the rearing horse, the national colours of the general’s uniform are carefully depicted, as well as the interplay of light and shadow” [2]. During the Empire David was awarded the order the Legion of Honour and the title of a court painter.

A.-J. Gros is considered the first artist who became famous for his battle paintings of Napoleon. He created several well-known works, such as “The Plague at Jaffa”, “The Battle of Aboukir” and “Napoleon on the Field of Eylau”. In these works, he depicts both Napoleon’s victories and the harsh realities of war, contrasting the brutal scenes of battle with the grandeur and calm of the commander, who appears as a symbol of his time.

During the consulate, foreign artists’ works in the genre of caricature began to emerge. Most caricatures were created by the British. England spread negative pamphlets and caricatures throughout Europe in an attempt to halt the rise of the consul’s popularity. One of the most notable caricaturists was the Englishman J. Gillray, who created the caricature titled “The Departure of Liberty, French Style: Napoleon pulls a curtain over the face of the Allegory of Equality at Saint-Cloud on November 10, 1799”. One of Gillray’s most famous caricatures “The Writing on the Wall” is based on the Biblical story of the “Feast of Belshazzar”. This caricature, created in 1803, greatly offended and enraged Napoleon. In France, caricature only began to develop during the early days of the consulate and continued to grow until the end of the empire. Napoleon did not support this genre and any references to his rule in caricature form were banned.

Napoleon’s rise to Emperor of France in 1804 had a profound impact on art. During this period, styles, forms and symbols not only reflected cultural changes but also served as tools of state propaganda. Art became subordinated to politics, with grand works created and a completely new visual language emerging, symbolizing the emperor’s power and grandeur. During this time, the Empire style became a dominant feature in art. In the works from this era, we see not only depictions of great battles and triumphs, but also idealized images of the emperor. In his portraits, J.-L. David painted Napoleon in noble poses, resembling a demi-god or the saviour of the nation. His 1807 painting “The Coronation of Napoleon” is one of the most vivid examples of this period. It not only highlights the monumental nature of the event but also gives it a sacred dimension, transforming Napoleon into a mythical figure who could claim the role of the founder of a new era. Another majestic painting from this period is J.-L. Gerome’s “Napoleon the Great”, created between 1805 and 1815, which portrays Napoleon in his coronation robes.

During this time, battle paintings emerged as well. During the war between France and the Third Anti-French Coalition, Napoleon Bonaparte demonstrated his mastery of warfare, which did not go unnoticed by artists. One example is Ch. Tevenin’s painting “The Capitulation of Ulm”, created after Napoleon’s empire in 1815. Following the formation of the Fourth Anti-French Coalition, a wave of paintings emerged depicting Napoleon’s victories, such as Ch. Menie’s “Napoleon’s Entry into Berlin” where Napoleon, the victor, is shown entering Berlin and saluting the monument to Frederick the Great.

In 1812, a new wave of battle paintings began. Napoleon with his army waged war against the Russian Empire. The start of the Russian campaign is depicted in an unknown artist’s painting “The Crossing of the Neman by Napoleon’s Army”, showing Napoleon leading a vast army. The painting by L.-F. Legion, a participant of the Battle of Borodino, depicts this key battle from the Russian campaign. In the foreground, General Laribuzier mourns the death of his son, a carabinier officer. To the left and higher is Marshal Murat in a traditional Polish costume with his staff. The allied countries forced Napoleon Bonaparte to abdicate the throne. This tragic event was depicted by artists such as P. Delaroche, who portrayed Napoleon on his last day in Fontainebleau, and F. Boucher in his painting “Napoleon’s Abdication”. One of the most memorable and poignant paintings is O. Vernet’s “Farewell at Fontainebleau”, showing the members of the coalition deciding to exile Napoleon from France. Napoleon’s exile to the island of Elba became a significant event for foreign caricaturists. No one hesitated to glorify Napoleon’s defeat.

Napoleon’s final battle – the Battle of Waterloo – was the result of his attempt to regain power in France. It became the last battle of the “Hundred Days” period. Many artists depicted this event: W. Sadler in “The Battle of Waterloo”, D. Raffaelli in the lithograph “The Retreat of the Guard at Waterloo”, and W. Turner in his painting “After Waterloo”. Napoleon lost the battle and abdicated the throne for the second time. His exile to the island of Saint Helena became a subject for O. Vernet’s painting “Napoleon on Saint Helena” and for caricaturists who began creating new works about Napoleon. After Napoleon’s death on Saint Helena on May 5, 1821, artists began depicting the soul of the emperor ascending to the heavens, as seen in the engraving “Alexander the Great and Caesar Greet Napoleon in Heaven” by an unknown artist.

The conclusion can be drawn that the Napoleonic era left a deep mark on art, turning Napoleon’s life into a source of inspiration and propaganda. From the heroization in monumental works by J.-L. David and A.-J. Gros to the satire of British caricatures, his image reflected triumphs, ambitions, and tragedies. The Empire style, battle scenes, and allegories emphasized grandeur, while his defeat and exile added romantic drama to his figure. Napoleon became not only a historical figure but also a cultural symbol, embodying the connection between power, art and myth.

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В статье рассматриваются некоторые примеры отражения жизненного пути Наполеона Бонапарта в искусстве XVIII–XIX вв. Проанализированы механизмы героизации, пропаганды и критики образа Наполеона в работах Ж.-Л. Давида, А.-Ж. Гро, Дж. Гилрея. Автор показывает, как искусство трансформировало политические амбиции Наполеона в культурный символ, объединивший власть, миф и художественную выразительность. Подчеркивается взаимосвязь исторических событий и их интерпретации в живописи и карикатуре.

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**FAKE INFORMATION: IMPACT ON SOCIETY**

The 21st century marked the era of information accessibility, where any content spreads globally within seconds. However, the same speed and availability triggered the proliferation of fake information – intentionally false or misleading content aimed at manipulating the audience. Fake news influences political campaigns, causes economic turbulence, and endangers public health. The term ‘infodemic’ reflects the massive scale of misinformation, especially during crises like the COVID-19 pandemic. This article analyses the mechanisms of fake information spread, psychological factors driving belief in fakes, historic parallels, and strategies to combat this global challenge.

The objectives of this study are to explore the key channels through which fake information spreads; evaluate its influence on politics, health, and economy; analyse psychological mechanisms reinforcing fake news belief; investigate historical usage of misinformation; and propose effective countermeasures including education, technology, and legislation.

Misinformation propagates through diverse channels – social media platforms, blogs, messengers, traditional media, and even academic publications. Social media algorithms prioritize emotional and viral content, amplifying fakes. Politically motivated groups exploit these systems to influence elections, destabilize societies, and fuel social unrest. Notably, the 2016 US elections demonstrated how misinformation campaigns shape voter behaviour.

Health misinformation poses significant risks. During the COVID-19 pandemic, conspiracy theories about vaccines, treatments, and the virus origin spread rapidly, undermining public trust in science and healthcare systems. WHO identified misinformation as a top global health threat. Fake medical advice on social media caused real-world harm, including deaths from self-medication and vaccine refusal.

Economically, misinformation impacts financial markets. False rumours about bankruptcies or policy changes trigger investor panic and stock market crashes. According to MIT research, fake financial news spreads faster and broader than factual reporting, threatening economic stability.

Psychologically, people are vulnerable to misinformation due to cognitive biases like confirmation bias, where individuals favour content aligning with their beliefs. The illusory truth effect makes repeated falsehoods seem true. Social media echo chambers further polarize users, reinforcing pre-existing views and limiting exposure to opposing perspectives. This deepens societal divisions and increases hostility among groups.

Historically, misinformation shaped world events long before digital technologies. In the 19th century, yellow journalism exaggerated and fabricated stories to sell newspapers. During World War II, propaganda manipulated public sentiment. The difference today lies in the scale, speed, and technological sophistication – AI-generated deepfakes blur the line between reality and fabrication.

Combating fake information requires a multi-faceted approach. Media literacy education is essential to develop critical thinking skills and source evaluation abilities. Schools and universities must integrate these programs to prepare students for the digital world. Technological tools like AI-powered fact-checking systems detect and flag misinformation in real-time. Independent fact-checkers play a crucial role in verifying viral content.

Governmental regulation varies globally – some countries impose penalties for deliberate misinformation, raising debates about freedom of speech. International cooperation is necessary to address cross-border fake news campaigns. Organizations like the WHO, the European Union, and UN bodies promote joint efforts to tackle infodemics.

Future challenges include the evolution of deepfake technology and AI-driven misinformation tailored to specific demographics. These campaigns can manipulate emotions, beliefs, and even memories, complicating detection and response. Continuous innovation in detection tools and international collaboration are vital.

Fake information undermines democratic institutions, endangers public health, destabilizes economies, and exacerbates social divisions. Addressing this challenge requires combined efforts: media literacy, technological innovations, legislative frameworks, and global partnerships. Only through systemic action, can society protect itself from the destructive influence of misinformation and safeguard objective truth.

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В статье рассматривается влияние фейковой информации на политику, экономику, здоровье и социальные связи. Рассматриваются психологические механизмы восприятия ложных сведений и исторические примеры дезинформации. Предложены меры борьбы – от медиаграмотности до технологий и международного сотрудничества.

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**PERSONNEL SECURITY AS AN INSTRUMENT OF ECONOMIC SECURITY OF THE ENTERPRISE**

In today's rapidly changing business environment, staff safety has become an essential component of the company's overall economic security strategy. As organizations increasingly rely on human capital to drive innovation and growth, staff protection is becoming necessary not only to protect confidential information, but also to ensure the continuity and sustainability of operations. By prioritizing the state of personnel security, companies can reduce risks through a system of indicators.

Examples of these indicators include, firstly, the staff turnover rate, which shows the movement of the workforce by the frequency of hiring and firing employees. Secondly, the educational composition of the staff, i.e. compliance with job requirements and responsibilities of the enterprise's personnel. Thirdly, the degree of satisfaction with wages - the motivational system of the enterprise. Fourthly, the level of automation of labor - the share of people engaged in manual labor. Fifthly, the likelihood of maintaining a commercial secret, for example, the presence of a personnel security strategy and employee loyalty to the company. And finally, the presence of occupational diseases that arise with responsibilities in the workplace [2].

Thus, human resources are one of the most valuable assets of any enterprise, it is extremely important to realize the importance of ensuring the safety of personnel as an active measure to achieve long-term economic stability and security of the enterprise.

Personnel security is focused on working with personnel who protect the interests of organizations. Therefore, in any enterprise, the issue of the personnel aspect is very acute and is developing in such areas as employee recruitment; adaptation program; creation of conditions for incentives and benefits; development of measures to introduce confidential office work. At the moment, staff turnover is one of the most important aspects, since the transfer of information from one counterparty to another causes irreparable damage to product quality. Productivity also decreases.

Personnel security is understood as «a set of measures aimed at preventing and eliminating threats and risks, as well as negative consequences for the economic condition of the company related to the work and behavior of personnel, their intellectual potential, and labor relations in general» [1, P. 19].

First of all, a reliable HR security strategy helps prevent data leaks, protect confidential company information, and maintain customer trust. Effective adaptation and training programs minimize staff turnover and the associated costs of recruiting new specialists. Ultimately, by integrating staff safety into the overall economic security system, enterprises can better cope with potential challenges and achieve sustainable growth.

Along with this, there are various methods used to ensure the personnel security of an economic entity, which in one way or another counteract threats or reduce the likelihood of personnel risks and damages in the event of their occurrence. Next, we will consider the main threats in this area and measures to neutralize them.

First, confidential information leakage. Implementation of information security policies, including rules for access to data and handling of confidential information. Regular training of employees on data protection and cybersecurity. Second, improper selection of personnel requires careful selection of personnel. Use of structured interviews and assessment centers to identify competencies. Third, insider threats require the implementation of a system for monitoring employee activity and regular audits of access to critical information. Fourth, violation of labor laws must be mitigated through regular training on labor law. Implementation of job procedures for handling complaints. Fifth, psychological threats. Creating a safe and open corporate culture where employees can report problems. Implementation of conflict management training programs. Finally, lack of training and development requires continuous training and professional development programs. Regular assessments for career growth.

Thus, the subject and source of threats to personnel security can simultaneously be personnel the organization. Among the main measures are the careful selection and verification of candidates' qualifications; internal control of corporate culture; regular trainings and training. Only the work in combination gives a positive effect, but also prevents the dissemination of confidential information of the enterprise [3].

In addition to social factors, there are also technological factors that staff need to adapt to. Technology and digitalization have significantly changed the personnel security system. For example, by implementing advanced monitoring tools, tracking systems, and mobile applications for reporting, data management, and communication. However, these achievements also raise a number of concerns. First, the use of digital systems to manage employee data can lead to vulnerabilities such as data leaks or unauthorized access to confidential information. For example, cyber threats (phishing attacks) can compromise personal data, compromising both the confidentiality of employees and the integrity of the organization.

Moreover, the use of biometric systems and video surveillance technologies, while increasing security, often raises ethical concerns about employee confidentiality and consent. Employees may feel uncomfortable due to constant monitoring, which leads to a decrease in morale and trust. In addition, the lack of proper training in new technologies can hinder effective use and expose organizations to risks associated with human error, such as incorrect equipment settings during temperature conditions; erroneous data entry.; ignoring security protocols. Therefore, the organization needs to use balanced approaches.

In conclusion, it should be noted that personnel security, being an element of the economic security of an enterprise, is focused on working with personnel, improving methods and procedures through a system of indicators. Social dynamics such as employee engagement and organizational culture significantly affect the effectiveness of security measures; employees who prioritize security issues are necessary to reduce risks. Similarly, rapid technological progress creates both opportunities and vulnerabilities, which requires constant adaptation of security protocols to eliminate emerging threats. By integrating employee safety into their broader economic security strategies, businesses can increase their resilience to potential operational disruptions, ultimately preserving their assets and ensuring sustainable growth in a challenging and ever-changing environment.

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В статье рассматривается роль безопасности персонала как стратегического инструмента повышения экономической безопасности предприятий. Даны угрозы и список мер по обеспечению безопасности персонала. Описаны вызовы, с которыми сталкивается кадровая безопасность.

[**к содержанию**](#содержание)

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**РОЛЬ МЕЖКУЛЬТУРНОЙ КОММУНИКАЦИИ В УКРЕПЛЕНИИ МЕЖДУНАРОДНОГО СОТРУДНИЧЕСТВА**

Межкультурная коммуникация – это способность общаться с людьми из разных культур, которая возникает среди культурно-различных групп. Она направлена на понимание того, как ведут себя люди из разных культурных слоев, способствуя двустороннему общению, которое, в свою очередь, позволяет достичь взаимопонимания между людьми из разных слоев [2].

Цели: изучить, как люди, говорящие на разных языках, могут прийти к взаимопониманию и взаимодействовать друг с другом.

Будучи иностранным студентом, человек должен полностью осознать важность не только академической успеваемости, но и создания среды, в которой он может преуспевать. Это означает, что успеваемость напрямую связана с предоставлением подходящей среды, к чему люди стремятся естественным образом, чтобы иметь возможность успешно функционировать в данных условиях, то есть речь идет об адаптации. Однако, когда существует разница в средствах общения, то есть в языках, на которых говорят, могут возникнуть сложности в общении с другим человеком (преподавателями, сокурсниками), не говоря уже о возможности участвовать во внеклассных или общественных мероприятиях, которые также весьма важны для разносторонней жизни, поскольку пословица ‘All work and no play makes Jack a dull boy’ гласит, что «только работа и никаких развлечений делают Джека скучным мальчиком».

Большинство иностранных студентов, живущих в Беларуси, узнали о возможности учиться в этой стране через академические агентства. Их заранее информировали, что они будут обучаться на английском языке, в то время как основным языком, используемым в повседневной жизни, будет русский, отсюда и включение изучения русского языка в расписание. Базовое понимание языка занимает в среднем три месяца, чтобы иметь возможность понимать носителей языка во время их общения. Адаптация в течение этих первых месяцев и преодоление языкового барьера была достигнута с помощью использования навигатора системы географического позиционирования (GPS) с использованием мобильного телефона для перемещения в разные места и переводчика на мобильном телефоне, когда возникала необходимость вступить в диалог. Мобильный телефон внес большой вклад в преодоление языкового барьера, однако некоторые ситуации требуют для взаимодействия знания и умения говорить на языке носителей. Отсюда вытекает важность знания самого русского языка и возможность его постепенного изучения. Также большое значение имеет наличие носителя языка для постоянного общения, чтобы иметь возможность постоянно совершенствовать уровень знания и понимания языка.

Согласно официальному сайту Республики Беларусь, в настоящее время более тридцати тысяч иностранных граждан из почти ста двадцати стран обучаются в сорока семи высших учебных заведениях Беларуси [1]. Это достаточное доказательство того, что даже без начальных знаний русского языка можно жить комфортно и достичь приемлемого уровня понимания языка посредством постоянной практики. Знания, полученные на уроках русского языка, можно использовать сразу за пределами класса, так как русский язык является основным языком общения. Это означает, что русский язык можно практиковать везде, кроме занятий по предметам, которые преподаются на английском языке. Приведенная выше статистика подтверждает, что большинство обучающихся закончили обучение и получили дипломы, то есть можно прожить много лет в иноязычной среде, в противном случае студенты бросили бы учебу в первые месяцы из-за трудностей с пониманием и адаптацией.

В заключение следует отметить, что необходимо уметь понимать язык окружающих людей, чтобы иметь возможность взаимодействовать друг с другом, и основной способ – говорить на одном языке. Белорусский государственный медицинский университет обеспечивает такую возможность, включив русский язык в расписание занятий в качестве обязательного предмета. В результате его изучения иностранные учащиеся могут комфортно взаимодействовать с местными жителями, а также легко ориентироваться в повседневной жизни. Важным является тот факт, что на уроках языка изучается не только грамматика, но и общественная жизнь страны, чтобы иметь возможность понимать различные жесты, способствовать практике культурно приемлемого поведения, а также избегать конфликтов из-за незнания более подходящих моделей поведения.

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[**к содержанию**](#содержание)

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**DEVELOPMENT OF AUXILIARY INTERCHANGEABLE IMPLEMENTS FOR THE “PARTNER” TRACKED MINI-EXCAVATOR**

The prototypes of the domestic mini-excavator were manufactured at the Partner plant in Chelyabinsk. Its main implement is a backhoe installed on a crawler chassis. It consists of a bucket, a handle, a boom, a turning mechanism. The implement can be rotated 360 degrees. In addition, the excavator is equipped with a small bulldozer blade to ensure stability during operation and to carry out work on moving ground. The elements of the implement are hydraulically operated [2].

The hydraulic drive of the bulldozer equipment consists of the following elements: a hydraulic pump, which is driven by the basic engine through a mechanical transmission, high-pressure hoses, hydraulic cylinders for lifting and turning the bulldozer blade, a hydraulic distributor with levers for controlling the hydraulic cylinders, a tank with working fluid, a check valve for draining the fluid into the tank [1]. In the developed project of the mini-excavator all parts and elements are designed in the Inventor Pro graphics editor. In addition, the assembly of all parts into a single unit was carried out in this program. This program also allows to perform strength calculations of parts, structures and assemblies.

The proposed accessory for the implement is a toothed gripper, which can be mechanically or hydraulically driven. The auxiliary gripper is designed to hold lumpy loads (logs, pieces of reinforced concrete, small concrete panels, etc.) in the bucket during loading, unloading and debris removal operations. Without additional gripping, the bucket is not able to hold oversized lumpy loads [3]. The design of new elements, parts and structures requires strength calculations. In educational projects, strength calculations are carried out using computer programs such as Compass, Inventor Pro by the finite element method. In general, the strength calculation is performed for all new parts, but this work presents the calculation of only one of the most loaded parts, that is, the structure of the toothed gripper.

The essence of the development of the implement is to create a structure that is attached to the handle with screw connections. This allows easy assembly and disassembly of the structure. In general, the design includes two braces, a toothed grip and a telescopic element for extending the teeth or transferring them to the transport position. In general, strength calculations for new structures can be carried out according to the rules adopted in the discipline “Resistance of Materials”. There are no difficulties for elements made on the basis of the use of standard profiles (such as channels, I-beams, angle bars or tubes), because the parameters necessary for the study of the stress state (mass-inertia characteristics) of the listed profiles are known and given in the reference literature.

The situation is different when the structure has an irregular shape, i.e. the cross-section may vary along the length of the part. In such cases, various graphics packages can be used to create three-dimensional solid models for which strength calculations can be performed using the finite element method. The essence of this method is to divide the part or structure into finite elements (tetrahedra) for which the program performs calculations separately, then the results are integrated and presented in the form of tables and histograms. The most important characteristic in the study of the stress state is the safety margin. For parts and structures made of steel in educational projects, the safety margin value is taken within the range from 1.5 to 2 units, for cast iron products from 2 to 2.5 units. It should also be taken into account that for some machines, for example, for lifting (cargo and passenger elevators, etc.), which are used in responsible work, the safety margin can reach from 10 to 13 units. In this paper, the strength calculation is carried out for the most loaded gripping element. The sequence of the calculation includes the following steps:

1. Three-dimensional designing in the Inventor Pro system;
2. Specifying the construction material (in this case, steel is accepted);
3. Defining the support surfaces;
4. Setting loads of a certain value at specified points;
5. Dividing the part into finite elements (tetrahedra);
6. Carrying out the calculation;
7. Obtaining a report with the results of the study;
8. Drawing conclusions about the feasibility of the part based on the safety margin.

The design of the auxiliary gripper is shown in Figure 1.

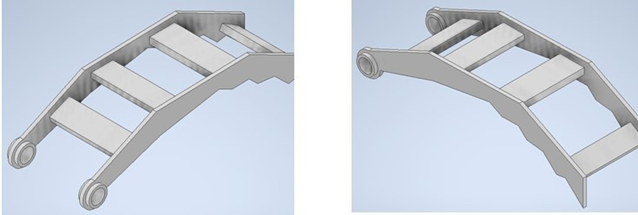


Figure 1. Gripper design created in the Graphics Package

The three-dimensional design of the part was created in Inventor Pro using the Sketch Extrusion method. The thickness of the structure is determined by the extrusion height. The construction material is selected from the material library of the program. The structure is made of steel. Interfaces are created in places of angular joints in the structure to reduce the resulting stresses. The loads on the three-dimensional design of the gripper are determined based on the mass of the transported piece loads. Table 1 shows the results of the calculation.

Table 1 – Strength and moment of reaction in dependencies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dependency name** | **Strength of reaction** | | **Moment of reaction** | |
| **Value** | **Component (X,Y,Z)** | **Value** | **Component (X,Y,Z)** |
| Fixation dependence: 1 | 3500 N | 0 N | 809.964 Nm | 0 Nm |
| 3500 N | 0 Nm |
| 0 N | 809.964 Nm |

Table 2 – Results of strength calculation

|  |  |  |
| --- | --- | --- |
| **Name** | **Minimum** | **Maximum** |
| Volume | 1689060 mm^3 | |
| Weight | 13.2591 kg | |
| von Mises stress | 0.0215234 MPa | 116.499 MPa |
| 1st main stress | -19.461 MPa | 83.1691 MPa |
| 3rd main stress | -130.878 MPa | 6.68784 MPa |
| Offset | 0 mm | 1.06804 mm |
| Safety margin factor | 1.77684 | 15 |

The histogram in Figure 2 shows the areas of maximum stress. In general, the highest stresses occur in the angular sections.

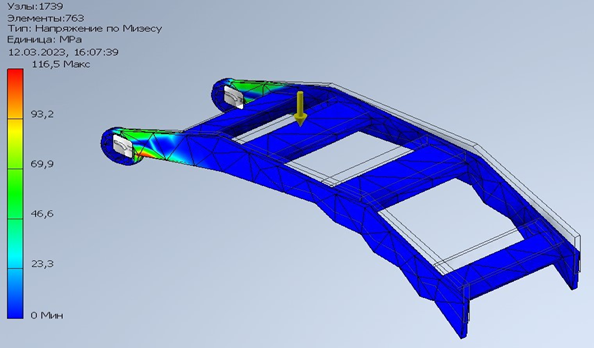


Figure 2. Strength calculation of the auxiliary gripper

At loads of 3500 N, the safety margin is 1.77 units, which is quite acceptable for steel structures. In cases where the safety margin is close to the lower permissible values, it makes sense to carry out refined strength calculations, the essence of which is to reduce the size of the finite elements, which gives a more accurate result. In this case there is no such need.

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Статья посвящена проведению прочностных расчетов для элементов дополнительного рабочего оборудования к мини-экскаватору «Партнер». Новое дополнительное оборудование крепится с помощью болтовых соединений к рукояти мини-экскаватора. Мини-экскаватор «Партнер» предназначен для разработки и перемещения легких грунтов и песка при проведении дорожно-строительных и ремонтных работ в условиях городского хозяйства. Кроме того, машину можно использовать для рытья небольших траншей в труднодоступных участках при городском строительстве. Рабочее оборудование является универсальным, т.е. существует возможность применения нескольких видов сменных рабочих органов. Новое дополнительное оборудование, включающее в себя конструкцию захвата для перемещения штучных грузов, требует проведения прочностных расчетов.

[**к содержанию**](#содержание)

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**THE IMPACT OF INFORMATION TECHNOLOGIES ON MODERN**

**SOCIETY**

Information Technology (IT) has become an integral part of everyday life in today's fast-paced world. The continuous evolution of information technologies is shaping the future in ways we could not have imagined just a few decades ago. From smartphones to cloud computing technology are transforming while people communicate, work and solve a lot of complex problems [1]. The IT advancements that are reshaping various sectors and driving innovation globally are shown in the article

The key of them are the following :

1. The Rise of Artificial Intelligence (AI).

Artificial Intelligence (AI) is considered the most revolutionary development in IT. AI is enabling machines to perform tasks that traditionally required human intelligence such as speech recognition, decision-making and data analysis. In industries like healthcare AI algorithms are being used for predictive analytics, improving patient outcomes and even assisting in the diagnosis of diseases. In business AI enhances customer service through chatbots and automates tasks to boost efficiency.

1. Cloud Computing.

Cloud computing has transformed the way organizations store and manage data. Instead of relying on expensive physical servers companies can now use remote servers hosted on the cloud, offering scalability, cost-efficiency and easy access to data from anywhere in the world. Cloud platforms like Amazon Web Services (AWS), Microsoft Azure and Google Cloud have become vital tools for businesses enabling them to scale rapidly, collaborate seamlessly and innovate faster [2].

1. Cybersecurity in the Digital World

With the explosive growth of digital technologies and the increasing reliance on online platforms for storing and transmitting sensitive information cybersecurity has become paramount. As vast amount of personal, financial, and corporate data are stored and processed online the risk of cyberattacks has escalated significantly. These attacks can range from simple phishing scams designed to steal login credentials to sophisticated ransomware attacks that cripple entire organizations. The potential consequences of these breaches include financial losses, reputational damage and the compromise of sensitive personal information [3].

1. The Internet of Things (IoT)

The Internet of Things (IoT) represents a vast network of interconnected physical devices embedded with sensors, software and other technologies that enable them to collect and exchange data over the internet. This network encompasses a wide range of devices from simple household appliances like smart thermostats and light bulbs to sophisticated industrial tools and machinery. Smart home devices, wearables like fitness trackers and smartwatches, and even connected cars are prominent examples of IoT in action, showcasing its pervasive presence in our daily lives.

1. Blockchain technology

Blockchain technology is revolutionizing the way transactions are conducted by providing a secure, transparent and decentralized system. Originally developed for cryptocurrency like Bitcoin blockchain is now being used in various sectors including finance, supply chain management and healthcare. It ensures data integrity and can reduce fraud by providing an immutable record of transactions.

As advancements in AI, cloud computing, cybersecurity, IoT and blockchain continue to accelerate they offer both opportunities and challenges for businesses, governments and individuals. The most important will be to harness these technologies responsibly ensuring they contribute to a more efficient, secure and interconnected world.

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В статье описывается эволюция информационных технологий, их трансформация и влияние на жизнь в современном мире в связи с тем, что цифровой прогресс меняет реальность, открывая новые возможности и ставя новые вызовы. Раскрывается, как основные из них: облачные технологии, кибербезопасность, блокчейн, искусственный интеллект и др. предлагают инновационные решения для бизнеса и общества.

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# THE VIDEO GAMES AND MASS MEDIA INFLUENCE ON THE YOUTH PSYCHOLOGICAL AND THE PHYSIOLOGICAL STATE

In the modern world, video games and mass media have become the young people lives integral part. With the digital technologies development and the Internet global availability, their impact on the young people mental and physical health has become the researchers’ close attention object.

The study purpose is to analyze the video games and mass media impact on the young people’s psychological and physiological state.

To achieve this goal, it is necessary to consider both positive and negative aspects of their impact, including the impact on mental health, the social skills and physical activity levels development, as well as factors contributing to the media content critical perception formation among young people.

Video games and mass media can have a positive impact on the young people’s mental health by developing cognitive skills and helping them cope with stress. However, these resources excessive use can lead to anxiety and depression, which are associated with the physical activity lack and social isolation. Unrealistic expectations from the media can negatively affect self-esteem. The link between panic reactions is decreased.

GABA production has been scientifically proven. All this highlights the comprehensive approach importance to these issues.

Modern media, including social media and advertising, promote idealized images, creating the appearance and lifestyle unattainable standards. This has a particular effect on young people, reducing their self-esteem. The American Psychological Association study has showed that 53% of teenagers believe social media to affect negatively their self-esteem, causing the inferiority feelings when compared with idealized characters. At the same time, video games provide young people with the opportunity to explore identity and social roles. In multiplayer games such as World of Warcraft, teenagers interact with other players, which contributes to the belonging sense development. The University of Iowa study has showed that 70% of teenagers see games as a platform for self-expression and identity formation. Virtual worlds allow you to experiment with roles and develop communication and collaboration skills, as well as help children learn the skills needed.

Emotional regulation is important for the mental health of the young people facing stress. Video games and media help in managing emotions, allowing teenagers to distract themselves from problems and reduce stress levels. Media also helps to build stress tolerance, but excessive fascination with them can lead to addiction and emotional exhaustion. Moderate media use is important for maintaining mental health and stress tolerance.

The virtual environment allows the young people to develop social skills, express themselves freely, and experiment with social activities. The Pew Research Center study (2018) has found that 57% of teenagers believe that video games strengthen friendships, as many of them require cooperation and communication. It helps to improve teamwork and conflict resolution. However, excessive media use can cause problems. Excessive time on social media is associated with the loneliness feelings increase, as virtual interactions replace real ones. That leads to dependence on online communication and makes it difficult to establish interpersonal relationships. It should be remembered that for the social skills harmonious development, it is important to find a balance between virtual and real interactions.

Excessive interest in media content can lead to the young people’s psychological isolation. Time spent in the virtual environment reduces real-world communication skills and makes it difficult to establish social connections. More than 15% of teenagers experience the social isolation signs. In 2019, the WHO recognized gambling addiction as a disorder. Young people suffering from this addiction lose interest in real life. Modern teenagers, striving to succeed in their studies and work, can further delve into the virtual world, exacerbating the addiction problem.

Multiplayer games promote collaboration and teamwork. Online games develop interpersonal skills that are useful in real life. The 2020th study has figured out that 70% of teenagers who play such games have improved their teamwork skills due to the need for coordination and communication. According to the Pew Research Center in 2018, 81% of teenagers use social media to maintain and create new connections. Unlike games, social media interaction is less structured, which helps young people adapt to different social situations.

The video games impact on youth physical activity is being actively studied in the active games context such as dance and sports simulations. The 'Games for Health Journal' study has found out that they increase the physical activity level and partially compensate for the sedentary lifestyle. According to the WHO, in 2019, more than 80% of adolescents did not achieve the physical activity recommended level due to increased screen time. Active video games help improve the situation by stimulating movement, as it is very important to integrate physical activity into the young people’s daily lives.

Sedentary lifestyle especially affects young people spending a lot of time behind screens. According to the WHO, more than 80% of adolescents do not reach the recommended activity level. The physical activity lack can lead to obesity, cardiovascular diseases and poor posture, as well as negatively affect mental health, causing stress and depression. Video games and mass media contribute to this lifestyle. To solve this problem, strategies are needed to minimize the technology negative effects on young people.

The integration physical exercise into video games is the promising area combining entertainment and health. The prime example is the Pokémon GO game, released in 2016, which uses augmented reality and geolocation, encouraging players to move in the real world. This has contributed to the millions of people increased physical activity. Modern technologies improve the young people’s health. Proper time management and physical activity help esports players get the most out of games.

Modern mass media and video games contain many violent scenes, affecting young people negatively. Regular consumption of such content increases tolerance to aggression and perceives violence as an acceptable way to resolve conflicts. This option is especially important for teenagers, whose psyche is shaped and exposed to the external influences. In high stress conditions, parents should be attentive to their children’s emotional state and support them in developing resistance to stress.

Similarly, modern mass media and video games create idealized images that influence young people by forming unrealistic expectations about appearance and abilities. The majority (68%) of teenagers feel pressure due to idealized images in the media, leading to the decrease in confidence and psychological problems. It is important to strengthen the critical approach to the media content in order to minimize the negative impact.

In modern society, media literacy is an important skill for young people. It develops critical thinking, allowing you to analyze media content and avoid manipulation. All that is especially true in the distorted data context in the media. Games with cultural and historical themes can not only expand knowledge, but also have a positive effect on socialization. Thus, integrating media literacy with educational games can improve young people’s critical thinking and socialization. From the above material, we can conclude that our study of the video games and mass media impact on the young people has revealed their impact on mental health, social skills, and physical activity. The positive aspects are: the cognitive abilities development, the improvement emotional regulation and the new social connections creation. The excessive media engagement may lead to negative consequences such as anxiety, depression, social isolation, and decreased physical activity. The study significance lies in understanding the modern media complex impact on the young people and the need to develop strategies aimed at minimizing negative effects and enhancing positive ones. It is necessary to continue research in this area in order to form positive recommendations in this area.

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В статье анализируется влияние видеоигр и масс-медиа на психологическое и физиологическое состояние молодежи. Особого внимания заслуживает факт необходимости разработки стратегий, направленных на минимизацию негативных и усиление положительных эффектов. Все это указывает на значимость, востребованность и дальнейшее проведение исследований в этой области.

[**к содержанию**](#содержание)

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**DIGITAL ASSETS AS AN OBJECT OF CIVIL LAW: LEGAL NATURE AND PROSPECTS OF REGULATION**

In the modern world, digital assets such as cryptocurrencies, tokens and NFTs are becoming an important part of economic and legal relations. However, their legal status remains uncertain, which raises many questions for law enforcement practice. States are developing various approaches to the regulation of digital assets, but there are still no unified international standards. This article aims to discuss the legal nature of digital assets, the specifics of their regulation in different countries and the issues of protecting the rights of their owners.

Digital assets represent a wide range of objects, including cryptocurrencies, tokens and NFTs. Cryptocurrencies, such as Bitcoin and Ethereum, are used as a medium of exchange and an investment asset. Tokens can act as utility tokens, which provide access to services, or security tokens, which are analogous to securities [1]. NFTs, or non-fungible tokens, confirm ownership of digital objects. Digital financial assets are regulated individually in each country, with jurisdictions developing regulations based on their unique goals and objectives [2].

Legal doctrine categorizes digital assets in different ways. They can be considered as property and be an object of civil turnover, as it is fixed in a number of decisions of the courts of the USA and Great Britain [3]. Some tokens may be regulated as securities, falling under the scope of financial laws. NFTs may constitute intellectual property, and in several countries cryptocurrencies are partially equated to means of payment. However, the lack of a unified approach creates difficulties for businesses and users, complicates litigation and limits investor protection.

Approaches to the regulation of digital assets vary significantly from country to country. Belarus was one of the first countries to introduce regulation, adopting Decree № 8 “On the Development of the Digital Economy” in 2017 [4]. This document legalized the activities of crypto exchanges and mining, established a special legal regime in the High Technology Park, but did not recognize cryptocurrencies as a means of payment.

In the European Union, the MiCA (Markets in Crypto-Assets) regulation was adopted in 2023 to regulate the issuance and trading of digital assets. It introduced requirements for cryptocurrency exchanges and issuers of stablecoins, but decentralized finance (DeFi) is still underregulated. In the US, the situation is more complex, as different agencies take conflicting approaches: the SEC considers cryptocurrencies to be securities, while the CFTC considers them to be commodity assets. There are numerous ongoing lawsuits, such as SEC vs. Ripple, Coinbase and Binance, which could affect regulation. However, there is currently no unified federal law on crypto assets in the US.

Russia passed a law on Digital Financial Assets in 2021, which restricted the use of cryptocurrencies by banning them as a means of payment but is developing a digital ruble project as an alternative to cryptocurrencies [5].

Difficulties in the legal regulation of digital assets directly affect the protection of the rights of their owners. The main risks are related to high levels of fraud, including hacking of exchanges, phishing attacks and “rug pull” schemes. Owners of digital assets face difficulties in recovering stolen funds due to the decentralized nature of the blockchain, and existing mechanisms for judicial protection are often insufficient. The jurisprudence in this area is still emerging. In the UK, the 2023 Tulip Trading case considered the possibility of holding blockchain developers liable for lost funds. In the US, the SEC case against Ripple became a landmark case in determining the status of tokens as securities [6]. Several countries have set precedents for recognizing cryptocurrencies as property, which allows traditional property rights protection mechanisms to be applied to them.

International organizations are also developing measures to regulate digital assets. The Financial Action Task Force (FATF) has implemented a “Travel Rule” to monitor cryptocurrency transactions. The UN and WTO are considering the creation of common international standards that could close legal gaps and help protect users.

Currently, digital assets remain subject to legal uncertainty. Different countries have developed their own approaches to regulation, making international trade and investment difficult. The issue of protecting digital assets owners remains unresolved and jurisprudence is only beginning to emerge. In the future, it is possible to develop international regulatory standards, strengthen control over the cryptocurrency market and create effective mechanisms for the legal protection of users. Thus, the legal regulation of digital assets continues to evolve, and further changes may significantly affect their legal status and application in civil turnover.

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Цифровые активы, включая криптовалюты, токены и NFT, становятся важным элементом современной экономики, однако их правовой статус остается неопределенным. В статье показаны различные подходы к регулированию цифровых активов в разных странах, включая ЕС, США, Беларусь и Россию, а также ключевые правовые риски, такие как мошенничество и недостаточная защита владельцев. Особое внимание уделяется судебной практике и возможным международным стандартам регулирования.

[**к содержанию**](#содержание)

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**CHILDREN AND GADGETS: OPINIONS OF PSYCHOLOGISTS AND PARENTS**

In recent years, the use of mobile devices among preschool children has become the subject of active discussions. On the one hand, technology opens new horizons for learning and entertainment, on the other hand, it raises concerns among parents and experts. This article aims to discuss the opinions surveyed of psychologists and parents about how much time children actually spend and should spend on their phones.

According to the survey [1], the majority of parents are against preschool children using any gadgets: 78% have a negative attitude towards the use of smartphones by a child under the age of 3, and 58% – between the ages of 3 and 6. As for older children, the situation looks different. Thus, the use of smartphones, tablets and other devices by schoolchildren aged 7–12 years is perceived positively by 42%, neutrally – by one third (34%), while 23% do not support this idea at all. As for teenagers 13–17 years old, 62% of the parents surveyed are reported to have a positive attitude, 27% – a neutral attitude, and only 10% – a negative attitude.

When the respondents were asked whether they allow their children to use devices, only 12% said “no”. In general, among the respondents with children under 3, 40% allow them to spend time with gadgets. Among the parents of a child 3–6 years old this indicator is 71%, schoolchildren 7–9 years old – 91%, 10–13 years old – 95%, and teenagers 14–17 years old – 98%.

The respondents were asked for what purposes they give gadgets to their preschool children. The majority answered that it is a way to entertain the child (60%). 41% offer a device to “pass the time” and for general development. 32% do it to find a free minute for themselves and for the child to communicate with relatives, 29% – for learning, and 28% – to switch their attention or to calm them down.

Moreover, 98% of parents of children under 6 see positive aspects in their use of gadgets. According to 62%, this allows them to gain experience in handling modern devices. Half (51%) consider the possibility of interactive learning as a benefit, 42% – the opportunity to communicate with relatives, 41% – the development of fine motor skills, and 39% – access to a large amount of information. [1]

However, at the same time the absolute majority (97%) do not deny the disadvantages of the use of gadgets by children. Many (70%) think that devices cause addiction, two-thirds (66%) – worsen vision, 48% – negatively affect the psyche. In addition, according to 42%, the child loses interest in real life. [1]

Scientists have found out how the time of using gadgets affects children’s ability to control their emotions and behaviour. These skills are vital for the adaptation to learning and for success in general. The highest level of self-regulation in children aged 7–10 is observed among those who use gadgets one or two hours a day, and not at all in those who, as expected, spend less than an hour using them. Children who use devices for one or two hours a day demonstrate a stronger degree of self-regulation than those who, predictably, use them for less than an hour.

It is not recommended to keep children away from gadgets. In contemporary world, a child’s development can be negatively impacted by total isolation from the digital world. The thing is that children’s communication is now largely determined by digital content, without mastering it, children won’t be able to discuss common topics with their peers.

Peculiarly children aged 6–7 who use phones and smartphones only a couple of times a week have a much higher level of self-control and mental flexibility than those who sit “in gadgets” every day.

The average screen time of a child aged 2–4 years old is about 2.5 hours a day, and for children aged 5–8 – more than three hours a day. As for children under the age of two, scientists do not recommend allowing them to access gadgets at all because of the possible negative impact on their emotional development.

With age, the screen time of preschoolers increases. Today, 88 % of six- to seven-year-olds use digital devices on their own and parents are often not even aware of what their children do.

Researchers argue that it is important for parents to participate in the choice of cartoons, apps and video games for children and carefully monitor what information the kid encounters on the Internet [2]. The features of the content play a crucial role in a child’s development. The fact that today it is not the parents, but the child who initiates the viewing of this or that content cannot be ignored.

Thus, we can conclude that the amount of time children can spend with phones should depend on their age. The younger the child, the less time they should spend starring at the screen of the phone or tablet. According to paediatricians, children under 3 should not interact with gadgets because the child’s brain at this time is not developing and the sensitive period of the child is wasted.

Children aged 3–5 should not spend more than twenty minutes a day in front of a screen. You can play or communicate on a phone with a large screen for no more than two hours per day if you’re between the ages of six and eighteen. Otherwise, you can encounter a violation of the psycho-emotional development of the child and even a slowdown in the development of higher mental functions. Otherwise, a child’s psycho-emotional development may be violated, and the development of a person’s higher cerebral processes may even be slowed down. A child who spends a lot of time on the phone, for instance, struggles with attention and memory, has trouble focusing and adjusting to society, is fraught with weakened eyesight, posture and spinal problems, etc.

All things considered, it is crucial to monitor a child’s phone usage. Setting an example is the best way to show children what they can and cannot do.

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В статье показано влияние гаджетов на развитие детей, подчеркивается важность родительского контроля за контентом и временем использования устройств. Авторы призывают родителей быть более внимательными и давать личный пример ответственного отношения к технологиям.

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**VLADIMIR HEAVY DRAFT HORSE: HISTORY, CHARACTERISTICS, AND SIGNIFICANCE OF THE BREED**

## The Vladimir Heavy Draft Horse is one of the most renowned Russian horse breeds, known for its strength, endurance, and versatility. The relevance of this study lies in the changing role of draft horse breeds due to agricultural mechanization. This research aims to explore the breed history, breeding characteristics, and modern significance. The methodology is based on analysing literary sources and empirical data. The study identifies the key features of the breed, its impact on equestrian development, and the prospects for its conservation.

Horses have been an integral part of human activity for centuries. As agriculture and industry evolved, the need arose for strong and enduring animals capable of carrying heavy loads and working in farming. One such breed is the Vladimir Heavy Draft, a remarkable representative of Russian draft horses.

Relevance of the Research. Despite agricultural mechanization, the Vladimir Heavy Draft continues to be used in farming, logging, and tourism. With the decline in draft horse populations, it is crucial to study their significance, potential, and conservation methods.

Objective and Methodology of the Study. The objective of this study is to examine the characteristics, history, and prospects of the Vladimir Heavy Draft. The research is based on an analysis of historical documents, scientific publications, and modern studies.

Main Body. History of the Breed. The development of the Vladimir Heavy Draft began in the late 19th and early 20th centuries in Vladimir and Ivanovo regions of Russia. At the time, local farmers and merchants relied on native Russian working horses for transportation and agricultural tasks. However, these horses, while hardy and adaptable, lacked the size and strength needed for pulling heavy loads over long distances.

Recognizing the need for a more powerful draft horse, Russian breeders started crossbreeding local mares with larger, imported draft breeds, primarily Clydesdales from Scotland and Percherons from France. These foreign breeds were known for their strength, endurance, and impressive statue. The goal was to create a horse that combined the size and pulling power of European heavy breeds with the resilience and adaptability of Russian horses.

Breeding efforts were concentrated at the Gavrilovo-Posadskiy Stud Farm, established as a key centre for selective breeding. By the 1920s and 1930s, systematic selection work had begun, focusing on developing a horse that could thrive in the Russian climate while maintaining high working efficiency. The breed was officially recognized in 1946, after decades of refinement and controlled breeding. Since then, the Vladimir Heavy Draft has played a vital role in Russian agriculture and industry, providing reliable labour for farming, logging, and transport.

### Key Characteristics. The Vladimir Heavy Draft is a large horse with a massive body, muscular neck, and strong legs. It is known for its distinctive appearance and impressive working capabilities.

* Height: 165–180 cm at the withers
* Weight: Up to 1,000 kg
* Coat Colours: Mostly bay, chestnut, or black
* Temperament: Calm, intelligent, and easy to train
* Strength: Exceptional pulling power and endurance

The breed is well-adapted to the harsh Russian climate and can work in difficult terrain. Its calm disposition and high trainability make it a preferred choice for farmers and horse breeders.

Significance of the Breed. Even with the decline in draft horse usage, the Vladimir Heavy Draft remains in demand in several fields:

* Agriculture – still used in traditional farming and private farms where mechanization is not practical.
* Forestry – employed in logging operations in remote areas where machines cannot access.
* Tourism and Cultural Events – frequently used for carriage rides, historical reenactments, and festive processions.
* Breeding Programs – plays a role in improving other Russian heavy draft breeds through crossbreeding.

### Current Status and Future Prospects. Today, the number of Vladimir Heavy Draft horses is decreasing due to reduced demand for draft animals. However, efforts are being made to preserve the breed, including:

* Government Support: subsidies for horse breeding and conservation programs.
* Promotion in Agrotourism: encouraging the use of draft horses in rural tourism and eco-farms.
* Selective Breeding Programs: maintaining genetic diversity and improving breed characteristics.

## Conclusion. The Vladimir Heavy Draft is a unique breed that combines strength, endurance, and adaptability. Despite modern challenges, it remains valuable for agriculture, forestry, and cultural heritage. To ensure its survival, it is necessary to continue breeding programs, promote its role in tourism, and develop strategies for sustainable draft horse conservation.

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Статья посвящена Владимирскому тяжеловозу - одной из крупнейших и самых выносливых российских пород. Описывается история её выведения. Рассматриваются основные характеристики породы, её роль в сельском хозяйстве, лесозаготовке и туризме. Анализируются и отмечаются меры по сохранению и развитию породы. Подчеркивается её значимость в культурном и экономическом аспектах. Делается вывод о необходимости поддержки селекционных программ.

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**UNIVERSAL BULLDOZER EQUIPMENT FOR A CRAWLER TRACTOR TO NAVIGATE IN THE GLONASS SYSTEM**

Bulldozers, as well as graders, having the main working tool in the form of a curved blade, can perform the profiling and planning of construction sites. Here arises the question: which of these machines with identical working tools are more suitable for the specific soil surface? The answer depends on the design of the chassis and the location of the working tool. The main working tool of the grader – its blade – is located inside the wheelbase; such an arrangement reduces the magnitude of the oscillation amplitude when driving on an uneven surface. In a bulldozer, the working tool is located in the front part, which is responsible for relatively high amplitude values [1].

According to the mode of operation, bulldozers belong to periodic machines. When developing the site, they form a drawing prism in front of the machine blade.

The cycle of operation of the bulldozer consists of the following operations:

1. Development of the soil by a dump tool.

2. Moving the soil by dragging it to the dumping site.

3. Reverse movement of the machine to the face.

The work cycle duration depends on the amount of time spent on each operation. Excavation usually requires the first gear, transportation – the first or second gear, and reverse travel – the third gear. Based on this, the duration of each operation is determined as the ratio of the section lengths to the corresponding speeds. Knowing the cycle duration and the volume of the drawing prism, we can determine the technical and operational productivity in m3/h or m2/h. The first case is suitable for digging pits, channels, etc., while the second case applies when leveling the soil surface [2].

The domestic bulldozer of a simple design based on the DT-75 tractor has the DZ-42 indexation (Fig. 1). The simple design means that the working tool can perform two working movements – lifting and lowering. The rotation of the working tool in the plan is possible only on universal structures.

The paper proposes a design of a rotary blade for the DZ-42 bulldozer with a hydraulic drive. There are universal bulldozers based on heavier base tractors, the working tool of which is rotated mechanically by rearranging the pushing elements into the corresponding eyelets on the left and right sides of the turning bars. This method of turning the blade is laborious and requires additional time, conditions and the availability of special tools [3].

For the DZ-42 bulldozer, we propose using a rotary blade with a hydraulic drive. This solution will reduce the blade turning time and increase the machine efficiency.

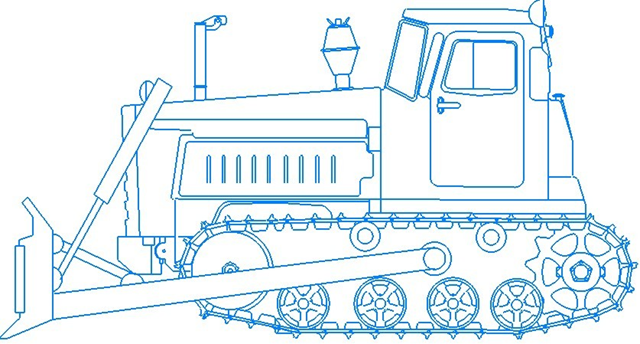


Fig. 1. Bulldozer DZ-42 based on the initial model of the DT- 75 tractor.

The main element of the developed design of the bulldozer blade is a U-shaped main frame with a ball joint in the middle of the front part. A rotary blade is attached to the ball heel. The rotation is produced by a two-way hydraulic cylinder. The rotation angle ranges between 0 and 30 [2]. Double-acting hydraulic cylinders are responsible for lifting and lowering of the blade.

In general, the hydraulic drive of the working equipment includes a hydraulic pump driven by a base internal combustion engine, a tank with working fluid, distributors, a check valve, throttles, hydraulic cylinders, and high-pressure hoses. The pressure of the working fluid in the hydraulic system of modern bulldozers can reach 25–30 MPa [3].

The ability to rotate the blade in the plan significantly increases the efficiency of its application. For example, the production of backfilling of a trench with a bulldozer of simple design, requires moving the machine with constant maneuvering and changing the direction of travel, whereas for a bulldozer with universal equipment it is enough to install the working tool at a certain angle and move in one direction along the trench.

When operating a universal bulldozer on large construction sites, it is advisable to use the GLONASS system (Global Navigation Satellite System) – a domestic satellite navigation system. The system broadcasts civilian signals available anywhere on Earth, provides navigation services free of charge and without restrictions, as well as an encrypted high-precision signal for special applications.

The system operation depends on 24 satellites moving above the Earth’s surface in three orbital planes with an inclination of 64.8 ° and an orbital height of 19,100 km [1].

The use of the GLONASS system during profiling, planning works with a universal bulldozer, as well as operations on leveling the ground surface, will ensure more site-specific operation of the machine and reduce the number of idle crossings, which, in turn, reduces fuel consumption.

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В статье рассматривается разработка бульдозерного оборудования к гусеничному трактору третьего тягового класса. Универсальность бульдозерного оборудования заключается в возможности его поворота в плане. Для разработки и расчета конструкции бульдозера используются такие графические пакеты как Компас и Inventor Pro. Базовой машиной рассматривается гусеничный трактор ДТ-75 или ВТ-100. Бульдозер применяется для выполнения профилировочных и планировочных работ. При использовании машины для выравнивания больших площадей целесообразно применять систему ГЛОНАСС.

[**к содержанию**](#содержание)

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**MEDIENSPRACHE ALS INSTRUMENT DER ÖFFENTLICHEN MEINUNGSBILDUNG: WORTSCHATZ UND RHETORIK DEUTSCHER MEDIEN**

Die modernen Massenmedien spielen eine äußerst wichtige Rolle bei der Bildung der öffentlichen Meinung und kultureller Normen. In den deutschsprachigen Ländern sowie in anderen Regionen der Welt wird die Mediensprache nicht nur zu einem Mittel der Informationsübermittlung, sondern auch zu einem mächtigen Instrument zur Beeinflussung des Massenbewusst-seins. Die deutsche Medienlinguistik deckt ein breites Spektrum an Themen ab, von Sprache und Stil bis hin zur Analyse von Inhalten und deren Auswirkungen auf die Gesellschaft.

Die Mediensprache hat spezifische Merkmale, die sie von der normalen gesprochenen Sprache unterscheiden. Zunächst einmal hängt sie mit der Notwendigkeit zusammen, Informationen an die breite Öffentlichkeit zu vermitteln, wobei verschiedene Faktoren wie Bildungsniveau, kultureller Kontext und soziale Bedingungen berücksichtigt werden. Elemente wie z. B. Wortschatz, Syntax, stilistische Techniken und rhetorische Strategien spielen dabei eine entscheidende Rolle. Untersuchungen zeigen, dass es in der Mediensprache häufig vereinfachte Konstruktionen und hochfrequente Wörter verwendet werden, um Informationen für die breite Öffentlichkeit zugänglicher zu machen. M. A. Al-Daini stellt wiederum fest, dass ein wichtiger Aspekt des Informationsaustauschs die Fähigkeit des Einzelnen ist, Botschaften auf sinnvolle Art und Weise wahrzunehmen. In diesem Zusammenhang liegt der Hauptmechanismus der politischen und ideologischen Manipulation, da jeder Mensch Informationen auf seine eigene Weise wahrnimmt und interpretiert [1, S. 110]. Ziel des vorliegenden Artikels ist es daher, den Einfluss der in den deutschen Medien verwendeten lexikalischen und rhetorischen Mittel auf die öffentliche Meinung zu analysieren.

Die deutsche Boulevardzeitung „Bild“ titelt häufig bspw. mit „Schock! So teuer wird das Leben!“. So wird mit emotional gefärbten Worten Aufmerksamkeit erregt. Andere Beispiele für Schlagzeilen sind „Krieg in Europa: Was jetzt?“ oder „Wetterchaos: So schlimm wird es!“. Diese Schlagzeilen nicht nur informieren, sondern lösen beim Leser auch eine emotionale Reaktion aus.

Eines der wichtigsten Merkmale der deutschen Mediensprache ist die Verwendung von spezifischem Wortschatz und Begriffen im Zusammenhang mit aktuellen Ereignissen und gesellschaftlichen Phänomenen. In den letzten Jahren haben bspw. Begriffe im Zusammenhang mit der Digitalisierung und der Internetkultur wie „Fake News“, „Social Media“ und „Influencer“ an Popularität gewonnen. Diese Begriffe bereichern nicht nur die Sprache, sondern spiegeln auch Veränderungen im öffentlichen Bewusstsein wider. Laut A. E. Sabegalina ist einer der wichtigsten Aspekte des sprachlichen Einflusses von Medientexten die metaphorische Verwendung von Wörtern [2]. Im Rahmen der modernen kognitiven Linguistik wird die Metapher als eine spezifische Denkweise betrachtet, die eine Art Schema darstellt, nach dem der Denkprozess abläuft. Indem sie ein bestimmtes Modell der Situationswahrnehmung im Kopf bildet, vereinfacht die Metapher das Verständnis komplexer Phänomene und abstrakter Konzepte und ermöglicht es, intellektuelle Anstrengungen zu sparen.

Darüber hinaus entlehnen die Medien aktiv Wörter und Ausdrücke aus anderen Sprachen, was ebenfalls von der Globalisierung des Informationsraums zeugt. In diesem Zusammenhang tauchen Lehnwörter wie „Selfie“ und „Hashtag“ im Deutschen auf und werden Teil der Alltagskommunikation und des Medienkontexts. Dies unterstreicht auch die Dynamik der Sprache und ihre Anpassungsfähigkeit.

Auch die Struktur der deutschen Medien, seien es Printmedien oder elektronische Plattformen, wird aus sprachwissenschaftlicher Perspektive analysiert. Viele Studien zeigen z. B., dass Schlagzeilen oft Wortspiele und Metaphern verwenden, um die Aufmerksamkeit der Leser zu erregen. Dadurch werden sie einprägsamer und tragen zu einem größeren Interesse an den Inhalten bei. Gleichzeitig variiert der Stil der Präsentation je nach Zielpublikum. So wird in wissenschaftlichen Publikationen eine formellere Sprache verwendet, während sich Unterhaltungsmedien einen informelleren Ansatz leisten können.

Beispiele für Schlagzeilen, die dies verdeutlichen, sind „Die besten Filme des Jahres: Unsere Top 10!“ aus dem „Spiegel“, der in einem fröhlichen und positiven Ton auf kulturelle Ereignisse aufmerksam macht. Gleichzeitig zeigen Schlagzeilen wie „Politik unter Druck: Was die Wahlen für uns bedeuten“ von der „Frankfurter Allgemeinen Zeitung“ einen ernsthaften und analytischen Ansatz in der politischen Berichterstattung.

Die deutschen Medien spielen auch eine bedeutende Rolle bei der Bildung der öffentlichen Meinung zu verschiedenen sozialen, politischen und kulturellen Themen. Die in den Medien verwendete Sprache kann zur Bildung von Stereotypen und Vorurteilen beitragen, was die besondere Aufmerksamkeit der Forscher erfordert. Darüber hinaus kann Sprachmanipulation zu einer Verzerrung der Realität und zur Bildung falscher Wahrnehmungen beim Publikum führen. Dies unterstreicht die Notwendigkeit einer kritischen Analyse der Materialien, die die Gesellschaft konsumiert.

Im Zusammenhang mit Migrationskrisen können die Medien auch eine Sprache verwenden, die bestimmte Stereotypen über Migranten erzeugt. Schlagzeilen wie „Flüchtlingskrise: Gefahr für unsere Kultur?“ aus „Die Welt“ können zu einer negativen öffentlichen Meinung über Migranten und ihre Auswirkungen auf die deutsche Gesellschaft beitragen. Dies unterstreicht die Notwendigkeit der Verantwortung von Journalisten und Redakteuren.

Fragen der Ethik und Manipulation nehmen auch in der deutschen Medienlinguistik eine erhebliche Stellung ein. Vor dem Hintergrund der Globalisierung und der Digitalisierung ist es notwendig, Standards für den Sprachgebrauch in den Medien zu entwickeln. Ethische Standards sollten den Einfluss der Sprache auf das öffentliche Bewusstsein berücksichtigen und Objektivität anstreben. Es ist wichtig, dass Journalisten ihre Verantwortung erkennen und sich bemühen, Informationen ehrlich zu präsentieren und manipulative Strategien zu vermeiden.

Insbesondere die Verwendung von emotional gefärbten Worten und manipulativen Techniken kann eine verzerrte Wahrnehmung der Realität hervorrufen. Beispiele für solche Techniken finden sich in Schlagzeilen wie „Massenproteste: Wird unsere Freiheit bedroht?“ der „Süddeutschen Zeitung“, die beim Leser Angst und Schrecken auslösen können.

Die deutsche Medienlinguistik ist also ein vielschichtiges Fachgebiet, das verschiedene Aspekte von Sprache, Stil und Inhalt umfasst. Unter den Bedingungen eines sich rasch verändernden Informationsraums gewinnt die Untersuchung der Mediensprache immer mehr an Bedeutung. Dennoch stellt S. W. Haustowa fest, es gäbe viele Methoden der Textanalyse, darunter journalistische, semiotische, mythopoetische, diskursanalytische und andere. Fast alle diese Ansätze betonen eine bestimmte Struktur des Textes, die es dem Autor ermöglicht, die gewünschte Wirkung zu erzielen [3]. Die strukturelle syntagmatische Analyse erweist sich in diesem Zusammenhang als sehr ergiebig, obwohl sie nur sporadisch in Texten der Massenkommunikation verwendet wird und nicht umfassend untersucht wurde. Auf der Grundlage der obigen Ausführungen trägt die Forschung im Bereich der Linguistik nicht nur zur Entwicklung wissenschaftlicher Erkenntnisse bei, sondern hilft auch bei der Bildung von mündigen Informationskonsumenten, was im Zeitalter der digitalen Technologien besonders wichtig ist.

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В статье рассматривается роль СМИ в формировании общественного мнения и культурных норм в немецкоговорящих странах. Анализируются особенности языка СМИ, подчеркиваются его отличия от разговорного языка. Автор акцентирует внимание на использовании упрощенных конструкций и высокочастотных слов для повышения доступности информации.

[**к содержанию**](#содержание)

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**Centres culturels et événements culturels en tant qu'instruments de communication interculturelle dans les relations internationales**

Dans les relations internationales modernes, le concept de «soft power» est considéré comme l'un des moyens d'établir un dialogue entre les pays [1]. Un certain nombre d'événements mondiaux survenus durant la seconde moitié du XXe siècle ont incité les politicien, principalement aux États-Unis d'Amérique et en Europe occidentale, à rechercher de nouvelles possibilités d'interaction et d'influence sur les peuples de différents pays en utilisant non pas des leviers politiques, militaires et économiques, mais des leviers socioculturels. L'auteur et développeur du terme «soft power» l'a interprété comme «la capacité d'obtenir ce que l'on souhaite sur la base de la participation volontaire, de la sympathie et de l'attraction, plutôt que par la coercition ou les paiements» [1].

Un des outils courants et souvent utilisés dans la pratique internationale du « soft power » sont les centres culturels, ouverts dans des pays amis pour mener des communications interculturelles avec des représentants du pays d'accueil. Les événements culturels sont également souvent utilisés comme un moyen efficace de communication interculturelle internationale. L'utilisation du concept « soft power » nous permet de considérer les centres culturels et les événements culturels comme des outils complémentaires pour influencer les masses afin de former une image positive du pays, du peuple, de la culture, du style de vie social de l'État qui finance le centre culturel et les événements culturels.

Objectif

Compte tenu de la pratique des centres culturels de différents pays et de l'organisation d'événements culturels dans ces centres culturels, nous pensons que cette forme de coopération bilatérale en matière de communication interculturelle est efficace et contribue à former et à renforcer une image positive du pays et de son peuple. À cet égard, nous aimerions utiliser l'exemple de la diplomatie culturelle française pour montrer le rôle des centres culturels et des événements culturels dans la construction et le développement d'une communication interculturelle efficace entre les pays.

L'Afrique a été historiquement dans le halo des intérêts politiques et économiques français. Un certain nombre de pays africains ont été des colonies françaises jusqu'au milieu du 20e siècle. Aujourd'hui, ces États africains font partie de l’organisation internationale de la Francophonie. Au Cameroun, en République démocratique du Congo, en République centrafricaine, au Sénégal et dans d'autres pays, le français est soit la langue officielle de l'État, soit une seconde langue utilisée dans les communications sociales; l'enseignement est souvent dispensé en français ; la culture et les traditions françaises, ainsi que celles des pays susmentionnés, jouent un rôle essentiel dans le développement de la société et de la culture modernes. En même temps, chacun de ces pays se souvient du passé colonial, y compris des épisodes négatifs de cette période par rapport à la population locale [2]. Bien entendu, la francophonie est plus qu'une union linguistique de peuples différents. Notre objectif n'est pas d'examiner le rôle de la langue et de la culture françaises dans la formation d'une «civilisation de l'universel» (selon Senghor), qui intègre différents principes culturels. Nous voudrions nous concentrer sur l'utilisation d'un outil qui maintient l'intérêt et l'attitude positive à l'égard de la France des peuples qui habitent les anciennes colonies françaises. On pourrait penser que l'expérience coloniale devrait laisser une empreinte négative indélébile sur la perception de la France, de la culture française et des valeurs sociales. Pourtant, chaque année, dans le cadre des programmes éducatifs des centres culturels français à l'étranger, de nombreux jeunes africains partent étudier en France. De nombreux Congolais, Sénégalais, Camerounais viennent voir des films français, des pièces de théâtre françaises, des dégustations de plats français lors de la semaine de la cuisine française à l'étranger et d'autres manifestations culturelles organisées par les ambassades de France en coopération avec les centres culturels français.

Depuis 2011, les Centres culturels français ont été transformés en Instituts français. Leur action est soutenue par la législation (Loi de la République française n° 2010-873 du 27 juillet 2010 «Sur le détail extérieur de l'État») [3]. En France également, un conseil d'orientation stratégique a été mis en place, réunissant les différentes institutions concernées, comme le Ministère des Affaires étrangères, le Ministère de l'Education nationale, le Ministère de l'Enseignement supérieur et de la Recherche, Ministère de la culture, institution culturelle et un certain nombre d'autres organisations. Les institutions françaises et étrangères réalisent des axes de coopération culturelle, éducative et, dans certains cas, scientifique.

Le travail des centres culturels français ou des instituts français comprend : la mise en œuvre de projets de coopération culturelle (festivals, projections de films, concerts, pièces de théâtre, expositions, tables rondes, séminaires, débats culturels, spectacles de danse et de musique et autres événements) ; l'échange de représentants des milieux créatifs français de pays étrangers, la mobilité des intellectuels et creatifs ; la publication d'œuvres d'auteurs français en langues étrangères, la publication d'œuvres d'auteurs des pays d'accueil en français, et la publication d'œuvres d'auteurs français en français.

Grâce à ces efforts, une communauté nationale locale se forme dans le pays où se trouve l'Institut français, avec une attitude positive et captivée à l'égard de la France, de sa culture, de ses traditions et de son histoire. Les représentants de cette communauté deviennent par essence des canaux de communication interculturelle, délivrant des informations positives, grâce auxquelles une image positive de la France et des Français se forme. Il est également important que certains représentants de cette communauté travaillent dans des établissements d'enseignement, des institutions culturelles, des institutions publiques et que leur attitude positive à l'égard du «monde francophone» contribue au développement des relations bilatérales, tout d'abord dans le domaine de la culture et de l'éducation, mais aussi dans la sphère politique. Ces communautés francophones et leurs représentants individuels sont un exemple clair de l'utilisation du «soft power» en action.

En conclusion, nous voudrions noter que les institutions que sonts les «centres culturels» existe dans de nombreux pays. Aujourd'hui, le complexe commercial et culturel de l'ambassade de la République du Belarus dans la Fédération de Russie fonctionne à Moscou et la Maison de la Russie à Minsk. La pratique de ces organisations est un exemple de l'utilisation efficace du «soft power», qui permet de développer la coopération et l'interaction interculturelles et de développer les communications interculturelles entre les peuples de ces deux pays.

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В статье рассматривается практика работы культурных центров (на примере Французских институтов) как инструмента межкультурных коммуникации в международных отношениях.

[**к содержанию**](#содержание)

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**POTENCIAL TURÍSTICO DE LA CIUDAD DE BREST EN INTERNET: ANÁLISIS DE LA INFORMACIÓN Y NECESIDAD DE CREAR UNA GUÍA INFORMATIVA**

Cada año el turismo adquiere más importancia no sólo para la economía, sino también para la cultura global y el intercambio intercultural. La ciudad de Brest gana popularidad entre los turistas día a día, por lo que éstos desean obtener la información más completa sobre las oportunidades turísticas del destino a través de la industria del turismo y la hostelería. Sin embargo, a pesar del desarrollo de la tecnología y la disponibilidad de información, los turistas a menudo se enfrentan a dificultades durante el viaje, lo que puede estropear significativamente las impresiones del viaje. Por ello, crear una guía de información completa para los turistas se convierte en una tarea urgente para mejorar su experiencia y simplificar la navegación.

En las condiciones actuales, los viajeros tienen acceso a muchos recursos en línea, aplicaciones para móviles y reseñas con información sobre ciudades bielorrusas, incluida Brest (por ejemplo, sitios como tripadvisor, belarus.by, planetabelarus.by, etc.), pero muchos de ellos no contienen información actualizada, hablan solo de lugares obvios o no tienen en cuenta las necesidades de los usuarios. Los turistas suelen tener dificultades para encontrar información fiable sobre las atracciones locales, los actos culturales y la gastronomía local. Además, muchos lugares menos conocidos pero no por ello menos interesantes pasan desapercibidos debido a la falta de cobertura en fuentes populares. Por ejemplo, algunos lugares de interés de Brest (un monumento a un enamorado y un lugar para besarse, un cementerio católico famoso por sus insólitas esculturas, una ruta ciclista ecológica «Camino de la vida», murales, poemas en las paredes de las casas, etc.) no son fáciles de encontrar en Internet, porque para hallarlos hay que saber exactamente qué buscar. Esto hace que los turistas a veces visiten los mismos lugares conocidos, mientras que rincones potencialmente fascinantes permanecen fuera de su vista. Crear una guía detallada y actualizada como puente entre los turistas y la cultura local sería una gran solución para popularizar Brest como destino turístico.

Una guía de este tipo debería ser una única fuente de información que no sólo combinara todos los aspectos necesarios para viajar cómodamente, sino que también brindara la oportunidad de conocer lugares menos conocidos, pero no por ello menos interesantes. No sólo evitaría las trampas para turistas, sino que también visitaría lugares únicos poco conocidos, lo que podría ayudar a fomentar el turismo a nivel local. Según las investigaciones, la diversidad de rutas no sólo contribuye a aumentar el flujo de turistas, sino también al desarrollo de las empresas locales, lo que crea un efecto económico positivo para toda la región.

En cuanto al contenido de la guía, conviene pensar en su estructura. Puede dividirse en capítulos como lugares de visita obligada, sitios históricos, acontecimientos culturales, atracciones insólitas poco conocidas, los mejores cafés y restaurantes, restaurantes con cocina local, entretenimiento, zonas verdes, zonas fotográficas urbanas, lugares interesantes cerca de la ciudad, así como información práctica sobre transporte, compras y seguridad. Es importante complementar la descripción de los lugares con mapas, fotos y reseñas de viajeros para que la planificación del itinerario de los turistas resulte visualmente más cómoda e intuitiva.

El formato de una guía informativa puede adoptar diferentes formas y adaptarse en función de las necesidades tanto de los viajeros como de las empresas locales.

Uno de los enfoques más cómodos y modernos consiste en implantar la guía en los sitios web de reservas hoteleras. Esto permitirá a cada hotel adaptar el contenido de la información a su estilo y público objetivo. Los hoteles pueden añadir información sobre atracciones locales, restaurantes y eventos únicos que permitirán a los viajeros sumergirse en el ambiente de la ciudad. Este formato no sólo mejorará la experiencia de alojamiento, sino que también contribuirá a aumentar el interés por alojarse en un hotel determinado.

La impresión de guías tradicionales también tiene su importancia, sobre todo para los turistas que prefieren tener la información al alcance de la mano en un formato físico. Estas publicaciones impresas pueden venderse en puntos de venta de estaciones de tren, aeropuertos, centros turísticos o tiendas de recuerdos. En particular, estos productos pueden editarse en forma de libro con un diseño artístico, ilustraciones en color y descripciones detalladas, lo que lo convierte en un atractivo complemento de viaje.

Crear una página especial en el sitio web del Comité Ejecutivo Municipal es otra forma de popularizar la información sobre las atracciones de la ciudad. Servirá no sólo como plataforma publicitaria, sino como recurso centralizado donde los turistas puedan obtener información actualizada sobre eventos culturales, actos públicos y otros acontecimientos significativos de la ciudad. Estas páginas podrían incluir mapas, recorridos en vídeo y reseñas de residentes locales, lo que añadiría interactividad.

El desarrollo de una aplicación móvil abrirá nuevos horizontes de interacción con los usuarios. La aplicación no sólo puede proporcionar información sobre la ciudad, sino también incluir funciones para crear rutas óptimas teniendo en cuenta los intereses del usuario. Por ejemplo, un turista puede seleccionar categorías de interés -monumentos históricos, restaurantes, galerías de arte, etc.-, tras lo cual la aplicación generará una ruta individual con cálculos de tiempo y distancia, e incluso ofrecerá opciones de transporte público. También merece la pena ofrecer la posibilidad de dejar reseñas y compartir impresiones, lo que será una motivación adicional para los usuarios.

En conclusión, crear una guía de viaje informativa es un paso necesario para mejorar la calidad de la experiencia turística y la interacción con el entorno. No se trata sólo de un conjunto de datos, sino de una herramienta que ayuda a conectar los intereses de los turistas con el patrimonio cultural de la ciudad. Implicar a todas las partes interesadas -autoridades locales, empresas locales y los propios viajeros- puede enriquecer enormemente el entorno turístico y hacerlo más accesible y atractivo para las generaciones futuras. Este enfoque no sólo mejora la experiencia turística, sino que también ayuda a preservar la cultura local y a aumentar su promoción a nivel mundial.

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В статье осуществляется анализ текущего состояния туристической представленности города Бреста в сети Интернет, рассматриваются существующие недостатки в доступной информации о городе. Основная мысль работы заключается в том, что Брест нуждается в создании всеобъемлющего информационного путеводителя, чтобы обеспечить доступность необходимой информации для потенциальных туристов. Рассматриваются вопросы наполнения путеводителя, возможные варианты его формата, а также способы его использования и реализации.

[**к содержанию**](#содержание)

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**WIRKUNG VON MUSIK AUF DIE KINDLICHE ENTWICKLUNG**

Musik ist seit jeher ein zentraler Bestandteil der menschlichen Kultur und begleitet uns in allen Lebensphasen. Es ist schon länger bekannt, dass Musik eine starke und sogar vereinende Wirkung auf Menschen haben kann. Besonders für die kindliche Entwicklung spielt sie eine herausragende Rolle. Bereits im Mutterleib nehmen Babys Geräusche und Rhythmen wahr und später, sobald sie auf der Welt sind, reagieren sie auf verschiedene Musikklänge. Melodien von Schlafliedern, fröhliche Kinderlieder, rhythmische Tanzeinlagen – die Musik begleitet das Kind auf jeder Etappe seiner Entwicklung. Ist sie nur eine angenehme Hintergrundbeschallung oder ein mächtiges Werkzeug, das Intellekt, Emotionen und soziale Fähigkeiten formt? In diesem Artikel werden wir uns mit wissenschaftlichen Studien auseinandersetzen, um diese Fragen zu beantworten. Der Schwerpunkt liegt auf der Wirkung der Musik auf das Gehirn, die kognitiven Funktionen, den emotionalen Zustand, die sozialen Fähigkeiten und die Motorik eines Kindes.

Schon als Babys reagieren wir Menschen auf Musik. Babys beginnen damit, sich hin- und herzuwiegen oder mit den Beinen zu zappeln, etwas ältere Kinder springen vielleicht auf und tanzen selbstvergessen. Die positiven Auswirkungen von Musik auf die kindliche Entwicklung sind vielfältig und umfassend. Studien zeigen, dass das Hören von Musik durch Kinder oft eine signifikante Verbesserung ihres kognitiven, emotionalen und sozialen Wachstums bewirkt.

Während das Kind wächst, kann die kontinuierliche Interaktion mit Musik dazu beitragen, die Teile seines Gehirns zu stimulieren und zu entwickeln. Die Hirnforschung hat in den letzten Jahrzehnten durchaus musikspezifische Veränderungen der neuronalen Struktur des Gehirns festgestellt. Die effektivere Gehirnleistung ist darauf zurückzuführen, dass beim aktiven Musizieren die beiden Gehirnhälften besser miteinander kommunizieren. Somit wird die neuronale Vernetzung innerhalb des kindlichen Gehirns unterstützt und die Verarbeitung von Informationen verbessert. Die rechte Region des Gehirns ist für die emotionale Intelligenz, Vorstellungskraft und den Ausdruck verantwortlich. Auf der linken Hemisphäre kommen die kognitiven Fähigkeiten, das Gedächtnis und die Logik ins Spiel. Musik aktiviert sowohl die linke als auch die rechte Gehirnhälfte, was zu einer verbesserten Vernetzung der Hirnzellen führt. Dies fördert alle Funktionen der beiden Hemisphären, insbesondere die Sprachent-wicklung, das logische Denken und das räumliche Vorstellungsvermögen. Das Singen und Tanzen der Kinder zu ihren Lieblingssongs ist eine unterhaltsame Möglichkeit, neue Dinge wie Zahlen, Buchstaben und andere pädagogisch-wertvolle Informationen zu lernen [1]. So verbessert die Musik die Lernfähig-keiten der Kinder.

Die Beschäftigung mit Musik von frühester Kindheit stärkt das Gedächtnis. Das Auswendiglernen von Liedtexten, das Erlernen von Noten und das Erinnern an Rhythmen tragen zur Gedächtnisverbesserung bei. Zahlreiche Studien belegen auch, dass Kinder, die schon frühzeitig häufig mit Musik in Kontakt kommen und selbst musizieren, außerdem eine verbesserte Konzentration, Aufmerksam-keitsspanne und Problemlösungsfähigkeit aufweisen [2].

Musik und Sprache sind eng miteinander verknüpft, da musikalische Prozesse und die Struktur der Sprache in ähnlichen Bereichen des Gehirns verarbeitet werden. Der Einsatz von Liedern im Kindergarten erweitert den Wortschatz, fördert das Sprachverständnis und trägt somit zur Sprachentwicklung bei. Rhythmus, Melodie und Reime fördern zudem das phonologische Bewusstsein, das eine entscheidende Rolle beim Erlernen der Sprache spielt. Durch das Singen lassen sich Sprachmelodie und Sprachrhythmus besser erlernen, und gleichzeitig verbessert sich das Verständnis für Wortbedeutungen und den Satzbau. So wird Musik zu einem ganzheitlichen Erlebnis, das die Entwicklung auf vielen Ebenen unterstützt.

Musik spielt eine wesentliche Rolle bei der Entwicklung sozialer Fähigkeiten der Kinder. Die Teilnahme an musikalischen Aktivitäten erfordert das harmonische Zusammenarbeiten mit anderen und trägt zur Sozialisierung bei. Die Kinder entwickeln dabei Kooperations- und Kommunikationsfähigkeiten. Beim Musizieren lernen Kinder auch, Initiative zu ergreifen und die Führung zu übernehmen. Sie erfahren, wie es ist, Teil einer Gemeinschaft zu sein und dass das gemeinsame Erreichen eines Ziels Freude bereiten kann. So wächst das Zusammengehörigkeitsgefühl schon bei kleineren Kindern. Dies fördert nicht nur das Sozialverhalten, sondern auch das Selbstbewusstsein und die Selbstdisziplin. Zudem bekommen die Kinder auch die Gelegenheit zu beobachten, dass jeder unterschiedliche Talente und Töne hat. Alle diesen Erfahrungen unterstützen die Bildung sozialer Bindungen, fördern Empathie und schaffen ein Umfeld, in dem Kinder ihre Kreativität und Ausdruckskraft innerhalb einer Gruppe teilen können.

Musik ist eine kraftvolle Ausdrucksform für Gefühle und Emotionen. Somit beeinflusst sie die emotionale Entwicklung der Kinder. Durch Liedtexte, Melodien und Rhythmen lernen die Kinder, ihre Gefühle auszudrücken und sie besser zu verstehen. Musikalische Aktivitäten schaffen eine positive emotionale Umgebung, verbessern das emotionale Bewusstsein und helfen den Kindern, ihre Emotionen besser zu managen [3].

Die Musik wirkt beruhigend und hilft, Stress abzubauen und emotionale Regulation zu fördern. Die Verwendung von Musik kann uns helfen, uns von Sorgen, Problemen, Ängsten und Schwierigkeiten zu lösen und Entspannung zu erreichen. Das Gleiche gilt für Kinder. Ruhige und sanfte Klänge wirken meditativ und lassen viele Kinder leichter in einen entspannten Zustand und in den Schlaf finden. Das kann auch ein hervorragendes Mittel zur Verbesserung der Stimmung in Zeiten des Wartens sein. Wenn Kinder ihre Lieblingsmelodien hören, können sie sich von langweiligem Warten ablenken, was ihnen auch hilft, emotionale Stabilität zu entwickeln.

Musikalische Aktivitäten wie Tanzen und das Spielen von Instrumenten verbessern die motorische Koordination und Flexibilität der Kinder und stärken ihre Muskulatur. Dies hilft Kindern, Kontrolle über ihre Bewegungen zu erlangen und ihre körperlichen Fähigkeiten zu verbessern. Interaktive musikalische Spiele, bei denen die Kinder klatschen, stampfen oder verschiedene Instrumente ausprobieren, bieten eine hervorragende Möglichkeit, den Rhythmus spielerisch zu üben. Das Spielen von Musikinstrumenten erfordert präzise Hand- und Fingerkoordination, was entscheidend zur Entwicklung der Feinmotorik beiträgt. Diese Fähigkeiten sind nicht nur für die Musik wichtig, sondern haben auch positive Auswirkungen auf andere Bereiche wie z. B. das Erlernen des Schreibens.

Musik ist in jeder Kultur einzigartig und spiegelt die Identität und Traditionen einer Gesellschaft wider. Durch das Erlernen von Musik aus verschiedenen Kulturen entwickeln Kinder ein breiteres kulturelles Bewusstsein und eine Wertschätzung für kulturelle Vielfalt. Das ist ein wichtiger Schritt, wenn es um das Thema Toleranz, Integration und Inklusion geht.

Zusammenfassend lässt sich sagen, dass Musik weit mehr ist als nur eine unterhaltsame Beschäftigung. Sie ist ein essentielles Element, das die kindliche Entwicklung fördert. Von der Förderung der kognitiven Fähigkeiten über die Unterstützung der emotionalen und sozialen Entwicklung bis hin zur Stärkung der Persönlichkeit – die Vorteile der musikalischen Bildung sind vielfältig und langfristig. Daher sollte der Einfluss der Musik in unserem Alltag und insbesondere in der Erziehung verstärkt berücksichtigt werden, um das Potenzial dieser einzigartigen Kunstform zur Entfaltung von Kreativität und Intelligenz in unseren Kindern zu nutzen.

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В статье рассматривается влияние музыки на развитие детей. Анализируется, как музыкальные занятия способствуют улучшению когнитивных функций, эмоционального интеллекта и социальных навыков, а также подчеркивается роль музыки в формировании гармоничной личности ребенка.

[**к содержанию**](#содержание)

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**USE OF ACTIVE IMITATION METHODS IN ENGLISH LANGUAGE LESSONS AS A WAY TO INCREASE STUDENTS’ COGNITIVE ACTIVITY**

The emergence and development of active methods of teaching is conditioned by new tasks facing the educational process: in addition to the transfer of knowledge, it is also important to form and develop cognitive interests and abilities, skills of independent mental activity, as well as creative and communicative qualities of a personality. Active teaching methods encourage students to think and be active participants in the process of learning the educational material. These methods involve the use of a system oriented not on memorisation and reproduction of ready-made information provided by the teacher, but on the students’ independent acquisition of knowledge and skills in the course of active thinking and practical work. Active methods are divided into imitation and non-imitation ones. The former create conditions for modelling real-life situations, allowing students to interact with each other and apply the acquired knowledge in practice. These methods are becoming an important tool in the modern educational process in English language classes. Business games, mock situations, game design and imitation in training allow students not only to learn language material, but also to develop key skills necessary for successful communication and learning activities [1].

One of the most effective imitation methods is a business game, which allows students to immerse themselves in a professional environment and practice practical skills of interaction. In English lessons, a business game can be organised in the form of mock business processes where students take on the roles of different participants: managers, customers, employees, etc. This approach helps to develop communication skills, the ability to argue one’s point of view, as well as teamwork skills.

Staging situations and tasks, or role-playing, is another effective imitative method that allows learners to practise language in the context of real-life situations. This method involves creating various communicative scenarios that reflect everyday situations such as communicating in a shop, at a railway station or in a restaurant. Students can work in pairs or groups to act out different situations, which contributes not only to the development of language skills, but also to the formation of self-confidence in the use of language.

Game design is a method that allows students to create their own communicative games based on the studied material [1]. This approach not only promotes active learning, but also develops critical thinking skills and creativity. Students can independently develop the rules of the game, create cards with tasks, and determine the evaluation criteria. In English lessons, game design can be used to create quizzes, board games or even digital applications. This approach allows students not only to actively participate in the learning process, but also to apply their knowledge in practice, which significantly increases their motivation and interest in learning a foreign language.

Imitation training allows students to develop the skills necessary for successful communication in various communication situations. In this type of training, students can practise negotiation, presentation and teamwork skills. Imitation training can include various exercises that simulate real-life situations requiring the use of English [1]. This method contributes not only to the development of language skills, but also to the formation of important personal qualities such as self-confidence, teamwork and conflict resolution. In practice, which significantly increases their motivation and interest in learning a foreign language.

Thus, the introduction of active imitation teaching methods in English lessons opens new horizons for teachers and students. These methods make learning more interactive and engaging, and promote the development of skills necessary for successful communication and co-operation.

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Статья посвящена проблеме использования активных имитационных методов обучения на уроках английского языка в школе с целью повышения познавательной активности учащихся в образовательном процессе. Автор дает характеристику активным методам обучения в целом и имитационным в частности, при этом особый акцент делается на имитационные методы, которые создают условия для моделирования реальных жизненных ситуаций. Автор показывает, что деловые игры, инсценирование и игровое проектирование помогают учащимся не только усваивать языковой материал, но и развивать ключевые навыки, необходимые для успешной коммуникации. Внедрение данных методов делает обучение более интерактивным и увлекательным, повышая мотивацию учащихся и их интерес к изучению иностранного языка.

[**к содержанию**](#содержание)

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**STRETCHING**

Sedentary lifestyle has always been one of the reasons for the development of many diseases such as obesity, frequent headaches, all sorts of diseases of the cardiovascular system and musculoskeletal apparatus, body disharmony, and depressed state [1, p. 3]. On average, about 30-40% of young people (aged 18–24) lead a sedentary lifestyle. This is due to increased time spent in front of a screen (study, work, entertainment, driving) and decreased physical activity.

The aim of the research is to investigate the influence of stretching as a form of physical exercise, which helps improve blood supply to the muscles and regulation of the nervous system.

To start with, stretching is a set of physical exercises, or rather poses, aimed at improving flexibility and developing joint mobility, with alternating tension and relaxation of various muscle groups [2, p. 3].

It is believed that the predecessors of modern stretching are the postures of yoga and other ancient eastern systems. The history of stretching shows that at first it was used only in conjunction with some other sport, but due to the rapid growth of popularity among athletes, the technique won the right to be singled out as a separate type of exercise. These classes were aimed not only at developing all muscle groups and preparing them for loads, but also at rehabilitating ligaments and tendons after injuries and traumas [1, p. 3].

Definitely, organizing muscle activity, stretching increases motor activity, improves joint mobility, quickly restores the ability to move in case of injuries and diseases. Stretching acquires the skill of deep relaxation and makes it possible not only to get rid of excessive neuropsychic tension for a while, but even reduces physical pain. Transition from relaxation to muscle tension and again to relaxation – a kind of gymnastics, regulating the nerve centres. In other words, when muscles are relaxed, nerves rest, negative emotions disappear, and well-being quickly improves [2, p. 3].

However, stretching can have its challenges and drawbacks:

1. Injuries: improper technique in performing stretching exercises can lead to muscle or ligament strains. This is especially true if the movements are abrupt or sloppy.

2. Overdoing it: excessive stretching can cause micro-injuries to muscles and ligaments. It is important to know your limits and not try to stretch too much.

3. Insufficient preparation: stretching without initial warming up can be ineffective and even dangerous. Muscles should be warmed up before performing stretching.

4. Individual differences: everyone has different anatomy and flexibility levels, so one-size-fits-all recommendations may not work for everyone.

5. Recovery time: muscles may be tight after an intense workout, and stretching during this period may cause additional discomfort.

However, if you follow the safety guidelines, stretching can solve a number of problems. It aims at improving the physical condition of the exercisers, the metabolism of the muscles being stretched, increasing blood circulation in the stretched muscles, strengthening of cardiovascular, nervous and respiratory systems, promoting more productive activity of digestive organs and cerebral cortex.

Stretching exercises cause both immediate and delayed effects.

The immediate effect is understood as the reactions of the organism that occur in the process of exercise or immediately after its completion [1, p. 19]. The immediate effects include the following indicators:

1. Activation of metabolic processes in stretched muscles.

2. Increasing muscle temperature.

3. Improvement of trophic and regulatory processes in the muscles.

This effect is used in exercises to warm up muscles and in the treatment of injuries and diseases of the human musculotendinous apparatus.

The delayed effect is characterized by long-term changes and restructuring of the organism which appears as a result of a series of training.

The following types of stretching are distinguished:

1. Passive static stretching. Muscles are stretched by an external force (body weight, partner, etc.) until pain is felt and remain in the stretched position for 30– 40 seconds, after which either the stretching method or the muscle is changed.

2. Active static stretching. A muscle group is stretched due to arbitrary tension of other muscle groups. This method is also a type of strength training that uses static muscle tension.

3. Passive dynamic stretching. The muscle is stretched and this state is subjected to additional stretches of small amplitude. Smooth stretches avoid excessive pain response and associated muscle microtrauma. Such stretching combines high physiological efficiency with the greatest psychological comfort, as it allows the practitioner to achieve a greater depth of voluntary relaxation.

4. Active dynamic stretching. It is the same as passive dynamic stretching, but the muscle is stretched due to the voluntary activity of other muscles together with the activity of antagonist muscles.

5. Antagonistic stretching. At the beginning of the set, the muscle is stretched in the same way as in passive static stretching, after which arbitrary tension of the antagonist muscles is performed. Antagonist tension lasts 3–5 seconds, relaxation pause – 10–15 seconds, total duration of the set is also 30–40 seconds.

6. Agonistic stretching. At the beginning of the set, a muscle is passively stretched, and then arbitrary tension of the same muscles is performed for 3–5 seconds. This is followed by a quick relaxation with simultaneous stretching of the muscle passively or actively [1, p. 21].

7. PNF method (PNF – proprioreceptive neuromuscular facilitation). The meaning is the same as in agonistic stretching. However, during a set lasting 30–40 seconds, several (3–5) active tensions of the stretched muscle are performed without shortening it (often with the help of a partner). It is considered to be the most effective method of stretching, allowing to improve both elasticity and strength of muscles [1, p. 20].

Another important component of stretching is the musical accompaniment during training, which people usually neglect or just use music only for background. However, this is wrong [1, p. 28].

Music can do a lot of things. Invigorating, active, rhythmic music gives strength, accumulates the energy of action, helps to fight the worst vice of mankind – laziness, and also copes with negative factors. Calm music relaxes, helps feel peace, creates harmony of mind and body. In sports, this or that melody sets the tone, the right pace and rhythm for movements, distracts from extraneous thoughts, concentrates our attention.

The peculiarity of music for stretching is that it is calmer and not divided into such stages as in fitness: for warm-up, intensification, and completion. Since stretching itself is used as a warm-up or the final stage of other workouts, or as an independent activity, the structure of the tunes should be different. The type of stretching is also taken into account [1, p. 29].

Musical accompaniment in stretching exercises is an important factor because:

1. Music sets the rhythm appropriate to the movements and loads, which in turn helps you move at a given pace.

2. Music sets a great background and mood, creating a response at the emotional and psychological levels.

3. Constant use of the same tracks gets you in the mood for practicing immediately after turning on the music, thus forming a good habit.

4. Music allows you to distract yourself from extraneous thoughts and worries and focus solely on the exercise [1, p. 30].

Stretching is very popular among young people because it is available to everyone and can be practiced by absolutely anyone, despite the level of physical fitness, and without any additional skills [1, p. 50]. It occupies an important place in the life of modern youth, contributing to the maintenance of physical condition and psycho-emotional state. Integrating stretching into everyday practice not only promotes development, but also helps cope with everyday stresses, which makes it an integral part of a healthy lifestyle. In other words, stretching is an excellent means of unlocking the potentials of our bodies.

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В статье рассматривается роль стретчинга как одного из самых эффективных видов физической активности, необходимых в современном динамичном мире. Подчеркивается важность понимания видов растяжки, их воздействие на организм, а также выбора музыкального сопровождения во время упражнений. Автор делает вывод о том, что этот вид спорта доступен каждому, независимо от уровня физической подготовки, и помогает поддерживать психоэмоциональное равновесие, тем самым снижая уровень стресса и повышая качество жизни.

[**к содержанию**](#содержание)

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