

Міністерство освіти і науки України
Харківський національний автомобільно-дорожній університет
Кафедра філософії та педагогіки професійної підготовки
Секція іншомовної комунікації

ЗБІРНИК НАУКОВИХ СТАТЕЙ

Частина I

ПИТАННЯ СУЧАСНОЇ МОДЕРНІЗАЦІЇ НАУКИ ТА ОСВІТИ



Харків – 2022

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ТРАНСПОРТНІ ТЕХНОЛОГІЇ ТА ОБЛАДНАННЯ;
ДОСЯГНЕННЯ, ПЕРСПЕКТИВИ ТА ПРОБЛЕМИ ДОРОЖНЬОГО
БУДІВНИЦТВА ТА МАШИНОБУДУВАННЯ.

**FEATURES OF FUNCTIONING OF SUPPLY CHAINS OF CONSUMER
GOODS DURING A PANDEMIC**

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Since the beginning of the pandemic in the world, the problem of buying HPS through closed stores has become relevant. One way to overcome this issue is to use e-commerce. In connection with the transfer of trade from a stationary store to an online store there was a question about the organization and implementation of address delivery to the customer

Under COVID-19, analysts have noted an active increase in online sales, as more and more people are forced to buy online. E-commerce is projected to grow to 22% of total retail sales in 2023.

Address home delivery is a phase of supply chains that includes the activity by which goods are physically moved to the customer. There are a number of potential benefits because home delivery services are convenient, becoming more popular, but have their drawbacks.

Today, sellers often deliver goods by mail, third-party courier service or their own courier service. Also, the customer must be at home at this time to be able to pick it up. Therefore, they choose the time of receipt of the order when it is convenient for them. There are various methods of charging for delivery, but all existing approaches to determining the cost of delivery are unreasonable and intuitively determined by logisticians.

Significant factors in determining the cost of delivery are the weight of the purchase, bulk density and distance of delivery. Analysis of methods for calculating the cost of delivery in different companies showed that the most convenient is an automated tariff calculator.

Factors that reduce shipping costs include volume of purchase, type of delivery, urgency of delivery, and location of recipients. There are also external factors influencing delivery costs.

The following known software products are used to plan the address delivery system:

- Ant Logistics is the most common program in use. With which you can form the optimal route.

- In the updated program for automation of courier delivery. Delans the optimization of a route on distance or time is realized.

- MobiDel allows you to keep track of customers, warehouses, points of sale of goods and couriers, distribute orders among couriers.

- Courier Service 2008 is a system for complex automation of courier delivery service.

- Fast Operator includes call center operation, cooking, courier and logistics services, provides detailed marketing and customer analysis.

- Run CRM allows you to quickly distribute tasks among couriers, choosing the optimal routes, control couriers, delivery process and even financial transactions.

Thus, in the context of modern globalization, which has been exacerbated by the spread of SARS-CoV-2 coronavirus and the resulting global financial crisis in 2020, the importance of developing, practicing, and supporting such economic activities as e-commerce has become clear. And so it becomes a question of scientific substantiation of the cost of address delivery and under what conditions it is possible to organize free delivery in general.

DEVELOPMENT OF AUTOMOBILE INDUSTRY

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The automotive industry is crucial for Europe's prosperity. The automotive sector provides direct and indirect jobs to 13.8 million Europeans, representing 6.1% of total EU employment. 2.6 million people work in direct manufacturing of motor vehicles, representing 8.5 % of EU employment in manufacturing. The EU is among the world's biggest producers of motor vehicles and the sector represents the largest private investor in research and development (R&D). To strengthen the competitiveness of the EU automotive industry and preserve its global technological leadership, the European Commission supports global technological harmonisation and provides funding for R&D.

The history of the automobile industry, though brief compared with that of many other industries, has exceptional interest because of its effects on history from the 20th century. Although the automobile originated in Europe in the late 19th century, the United States completely dominated the world industry for the first half of the 20th century through the invention of mass production techniques. In the second half of the century the situation altered sharply as western European countries and Japan became major producers and exporters.

Although steam-powered road vehicles were produced earlier, the origins of the automotive industry are rooted in the development of the gasoline engine in the 1860s and '70s, principally in France and Germany. By the beginning of the 20th century, German and French manufacturers had been joined by British, Italian, and American makers.

Most early automobile companies were small shops, hundreds of which each produced a few handmade cars, and nearly all of which abandoned the business soon after going into it. The handful that survived into the era of large-scale production

had certain characteristics in common. First, they fell into one of three well-defined categories: they were makers of bicycles, such as Opel in Germany and Morris in Great Britain; builders of horse-drawn vehicles, such as Durant and Studebaker in the United States; or, most frequently, machinery manufacturers. The kinds of machinery included stationary gas engines (Daimler of Germany, Lanchester of Britain, Olds of the United States), marine engines (Vauxhall of Britain), machine tools (Leland of the United States), sheep-shearing machinery (Wolseley of Britain), washing machines (Peerless of the United States), sewing machines (White of the United States), and woodworking and milling machinery (Panhard and Levassor of France). One American company, Pierce, made birdcages, and another, Buick, made plumbing fixtures, including the first enameled cast-iron bathtub. Two notable exceptions to the general pattern were Rolls-Royce in Britain and Ford in the United States, both of which were founded as carmakers by partners who combined engineering talent and business skill.

During the first few years of the twentieth century, automobiles had a fairly limited audience. Because they were expensive and time consuming to produce, most cars were too costly for the general public. However, between 1904 and 1908, 241 different firms began producing cars aimed at the American consumer. In 1908, Ford Motor Company created the Model T, the first car aggressively marketed to the average family. By widening the sales base for the automobile, Ford did a great deal to create an industry for cars and car products.

The 20s were a time of great growth for the auto industry, as more and more consumers bought their first cars. The Chrysler Corporation was started in 1925, and many other small car companies began during this decade. By 1929, the year of the stock market crash that began the Great Depression, car companies were producing and selling 5.3 million vehicles a year.

World War II helped the American economy emerge from the Great Depression, and prompted growth in the auto industry. The government shut down all the major car factories in 1942 and converted existing stock for use by the armed services.

After World War II there was a striking expansion of motor vehicle production. During a 35-year period the total world output increased almost 10-fold. The most significant feature of this increase was that most of it occurred outside the United States. Although American production continued to grow, its share of world automotive production fell from about 80 percent of the total to 20 percent. Among individual countries the United States was the leading producer until the recession of the early 1980s. In 1980 Japan, which had had little automotive manufacturing before the war, became the leading producer, with the European Economic Community (EEC) ranking second. The United States regained the lead in vehicle production in 1994, since by that time Japanese manufacturers were building more of their products in factories in their major overseas markets, such as the United States, in response to economic and political pressures in those markets. However, in the early 21st century, China became the leading manufacturer of cars.

In the 1960s, the auto industry focused on making safer vehicles. In 1964, Studebaker-Packard was the first company to introduce seat belts as standard equipment on all of its vehicles. In addition to safety, car buyers of this era expected vehicles to be powerful and spacious, and fuel economy was not a major concern.

During this decade Sport Utility Vehicles (SUV) became incredibly popular. Stable gas prices in from the 1980s led consumers to worry less about the use of resources for these larger, four-wheel-drive vehicles. While customers weren't overly concerned with environmental concerns, governments were. In the late 1990s the first hybrid cars were manufactured with both a small gas engine and an electric motor.

By 2005, 80 percent of global production came from 11 countries, representing a widening of the playing field and a significant growth in global competition. During the first few years of the new millennium, car companies catered to consumers who expected powerful vehicles. The sport utility vehicle (SUV) was king, and it was easy for consumers to obtain credit to purchase one of these expensive automobiles.

The modern automotive industry is huge. In the United States it is the largest single manufacturing enterprise in terms of total value of products, value added by manufacture, and number of wage earners employed. One of every six American businesses is dependent on the manufacture, distribution, servicing, or use of motor vehicles; sales and receipts of automotive firms represent more than one-fifth of the country's wholesale business and more than one-fourth of its retail trade. For other countries these proportions are somewhat smaller, but Japan, South Korea, and the countries of western Europe have been rapidly approaching the level in the United States.

Since 2010 the auto industry has been recovering from its past losses after a major economic downturn quickly. The industry saw its best year since 2007 in 2013 with more sales and jobs each year. Drivers now have more options on types of vehicles and add-on luxuries than ever before. Fuel-efficient and sustainable automobiles are popular, and self-directed vehicles and those with internet connected services are rising in popularity. You can expect to see exponential growth in the global market for high-tech vehicle components in the coming years.

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ROAD TRAFFIC ACCIDENTS AND WAYS TO PREVENT THEM

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Every year the lives of approximately 1.3 million people are cut short as a result of road traffic crashes. Between 20 and 50 million more people suffer non-fatal injuries, with many incurring a disability as a result of their injuries. Road traffic

injuries cause considerable economic losses to individuals, their families, and to nations as a whole. These losses arise from the cost of treatment as well as lost productivity for those killed or disabled by their injuries, and for family members who need to take time off work or school to care for the injured. Road traffic crashes cost most countries 3% of their gross domestic product.

The young are particularly vulnerable on the world's roads and road traffic injuries are the leading cause of death for children and young adults aged 5–29. Young males under 25 years are more likely to be involved in road traffic crashes than females, with 73% of all road traffic deaths occurring among young males in that age [1]. As authorities report a higher proportion of vulnerable road users die in low-income countries than in high-income countries [2].

Road accidents have been a major cause for concern across the Indian subcontinent. In 2019 alone, the country reported over 151 thousand fatalities due to road accidents. Each year, about three to five percent of the country's GDP was invested in road accidents [3].

In Ukraine, according to official statistics, traffic collisions with fatalities occur fifth times more than in Europe. Every year because of car crashes die more than 3000 humans and more 300 000 result in injuries, \$5 mill is lost. The highest burden of injuries and fatalities is borne disproportionately by poor people, as they are mostly pedestrians and passengers of buses and minibuses.

According to mass media, every day on Ukrainian roads nearly 500 road accidents occurred by which people are injured. From beginning of 2021 in the country 29 545 accidents happened, that on 19,5% higher, than by a year before. From them 3696 injured and 415 persons perished. In Kharkiv

1974 road accidents happened, that on 7.2% higher than in the previous year. Despite of that, the number of injuries and deaths have reduced on 35.6% and 14.8% accordingly that counts 203 injured and 177 perished. In the majority, accidents arise up through drivers' violation of traffic codes, prohibitive signal of traffic-light, reckless driving (aggressive manoeuvring and passing) [4].

Therefore countries and international communities are paying increasing attention to road safety policy in order to provide road traffic safety, that include actions to inform and guide the building of a safe road system to prevent crashes, and if crashes occur, to ensure that impact forces are not sufficient to result in serious accidents (injury or death), that those injured are rescued and that they receive adequate trauma care.

Road deaths and injuries are preventable. A wide range of effective road safety interventions exist. One of them is the Save LIVES technical package has been developed by World Health Organization (WHO) to support road safety decision-makers and practitioners in their efforts to decrease significantly the number of road traffic deaths in their countries. A technical package is defined as a selected group of related interventions that, together, will achieve and sustain substantial and sometimes synergistic improvements in a specific risk factor or disease outcome. A technical package distils a broad set of potential interventions into a manageable and

limited high-value set, thereby providing policymakers with specific interventions known to be effective.

“Save LIVES“ provides an evidence-based inventory of priority interventions for road safety decision-makers and practitioners. The momentum generated by those targets challenges countries to create safer roads and scale up the implementation of priority interventions around the world in order to halve deaths and injuries caused by road traffic crashes, as well as to improve road safety through access to safe, affordable, accessible and sustainable transport systems for all by 2030.

If the problem of road safety is effectively addressed, the gains resulting from the reduction in costs, both in economic and human terms, can be channeled, for example, into development projects and other areas of concern. If no significant action is taken, however, road traffic fatalities are predicted to become the seventh leading contributor to the global burden of disease by 2030 [1].

To draw attention of world society to road traffic victims the World Day of Remembrance for Road Traffic Victims (WDoR) was founded by RoadPeace in 1993. In 2005, the United Nations endorsed it as a global day to be observed every third Sunday in November each year, as the “appropriate acknowledgement for victims of road traffic injuries and their families”. Since then the World Day of Remembrance has been observed and promoted worldwide by many governments, international agencies and groups [5].

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DRY SHRINKAGE PROPERTIES OF CEMENT STABILIZED MACADAM

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Cement stabilized macadam (CSM) as a semi-rigid base mix has been widely used in the construction of high-grade highway base, which has the advantages of high strength, stability, anti-scouring ability and low engineering cost. At the same time, it also has its own defects: the pavement paved with semi-rigid base mixes such as CSM will have cracks in the surface layer one after another after several years or even months of use. The main causes of semi-rigid base material cracking make the vehicle load and the dry shrinkage and temperature shrinkage of CSM. Among them, the drying shrinkage of CSM has the greatest effect on the shrinkage cracks in semi-rigid sub-grade [1,2].

This paper analyzes the factors affecting the drying shrinkage performance of CSM and puts forward effective measures to prevent drying shrinkage of CSM.

The drying shrinkage of CSM is the volume contraction due to the change in its internal water content. This is due to the capillary tension effect, adsorption of water and inter-molecular forces and inter-layer water action caused with the decrease of water content.

Moisture content With the loss of water, the diameter of capillary pores becomes smaller, the radius of curvature of bending liquid surface decreases gradually, the capillary tension becomes larger and larger, and the drying shrinkage force becomes larger and larger. At the late stage of capillary tension, the influence of adsorbed water and intermolecular force on water begins to increase gradually. There is also a repulsive force between the particles due to osmotic pressure due to the higher concentration of ions in the bonded water at the particle center than in the normal aqueous solution far from the particle surface. Therefore, the adsorbed water and intermolecular forces reach the maximum value and gradually decrease with the further decrease of particle spacing. Interlayer water plays an important role in the process of water adsorption and intermolecular force weakening, but with the decrease of the distance between crystal layers, interlayer water decreases, and interparticle repulsion increases gradually. Therefore, the effect on macroscopic volume contraction is weaker and weaker.

Age The dry shrinkage coefficient of CSM decreases rapidly at the initial stage, and then the rate of decrease slows down gradually. The dry shrinkage coefficient of CSM is inversely proportional to the stiffness of the material, while it is directly proportional to its moisture content. With the growth of the age, the material internal crystallization and condensation continuously generated, so that the inter-particle connectivity and integrity is stronger and stronger, and the material stiffness increases, so the material dry shrinkage value decreases with the growth of the age.

Conclusions In order to solve the effect of drying shrinkage on CSM, the following measures can be taken:

(1) The water content has a greater impact on the drying shrinkage, and the water content of the material must be strictly controlled during construction.

(2) The destructive effect of drying shrinkage occurs mainly in the early stage, so good and timely nourishment after the completion of construction can reduce the occurrence of dry shrinkage.

(3) Try to schedule the construction in the wet and cool season.

(4) The method of sawing joints, setting expansion joints and using geotextiles for treatment can be used.

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WAREHOUSE LOGISTICS PROCESSES AT THE ENTERPRISE

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Introductions. The article considers the essence of warehousing logistics and defines this concept. The main problems of warehousing logistics processes at a modern enterprise are analyzed and measures for their optimization are identified.

Aim. The purpose of the article is to analyze the main problems of warehousing logistics in a modern enterprise and the formation of a set of measures to improve it. The main objectives of the article are the analysis and systematization of the main components of the logistics process in the warehouse, identifying the shortcomings of warehousing logistics, as well as finding ways to improve it.

Currently, the effective functioning of the enterprise directly depends on the quality of the warehouse and logistics processes on it. Thus, the search for solutions to optimize warehousing logistics processes at the enterprise is relevant at the present stage.

Material and methods. Warehouses are the main divisions of warehousing. They are designed for the accumulation and storage of inventories, acquisition of trade range of goods and constitute the main complex of buildings of wholesale trade, as well as a significant part of the material and technical base of retail trade. In addition, warehouses can function as independent structures (organizations) that perform the full range of trade and technological operations related to the receipt, storage and release of goods to wholesale buyers.

Modern large warehouse is a complex technical structure, which consists of numerous interdependent elements, has a structure and performs a number of functions for the conversion of material flows, as well as the accumulation, processing and distribution of goods between consumers, ie is a system. At the same time, due to the variety of parameters, technological solutions, equipment designs and characteristics of various nomenclature, processed cargoes are classified as complex systems. That is, on the other hand, the warehouse is only an element of the logistics chain (higher level system), which forms the basic and technical requirements for the warehouse system, sets goals and criteria for its optimal functioning, dictates the conditions of cargo processing. Therefore, the warehouse should not be considered in isolation, but as an integrated part of the logistics chain.

Results and dicsuccion. Warehouse management is often seen as routine work, which consists in the daily repetition of the same operations. However, the role of the warehouse must be taken into account when making strategic business decisions. Only in this case, warehousing will be able to fully participate in the management of supply chains. The main functions of the composition include the following:

- transformation of the product range into consumer in accordance with demand creating the necessary range to fulfill customer orders. This function acquires special value in distributive logistics where the trade range includes the huge list of the goods of various manufacturers differing functionally, on constructiveness, the

size, color, etc. Creating the right range in the warehouse contributes to the effective execution of consumer orders and more frequent deliveries and to the extent required by the customer;

- warehousing and storage allows to equalize the temporary difference between production and consumption and makes it possible to carry out continuous production and supply on the basis of inventories. Storage of goods in the distribution system is also necessary in connection with the seasonal consumption of some goods;

- unitization and transportation of goods. Many consumers order from warehouses "less than a car" or "less than a trailer", which significantly increases the costs Associate with the delivery of such goods. To reduce transport costs, the warehouse can perform the function of combining (uniting) small consignments for several customers until the vehicle is fully loaded.

Conclusion. Thus, we can conclude that a high result can be achieved by solving only a few tasks performed step by step: determining the number of required warehouses, choosing a company to rent and organizing their own storage, selecting the optimal location, organizing an efficient warehousing system, business analysis.

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INFORMATION TECHNOLOGIES IN TRANSPORT SYSTEMS

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Of all the e-logistic areas developed by GS1, coding, which provides automatic cargo identification, is the most widely used. According to the method of coding, there are bar and radio frequency.

The strategic goal of coding is to minimize human participation in supply chains. This will be achieved by replacing all transactions with codes (shipment, invoice, return of goods, etc.). Coding means provide marking, which means the

application of special signs, inscriptions on vehicles, cargo or containers. The choice of means for marking depends on its purpose, place of application and means of reading. Marking comes in several types:

- commodity (affixed by the manufacturer to indicate the type of product and the name of the manufacturer);
- freight (which indicates the name of the points of departure and destination, sender and consignee. The weight or volume of the load can be specified);
- transport (which indicates the number of seats in the consignment and the number of the goods transport document);
- special marking (where special instructions are given regarding the requirements for transportation, storage of goods using international symbols) [1].

The most common bar coding consists of a series of parallel strokes of different thickness and with different intervals between them. This provides encoding of data in digital characters. The electronic scanning device performs automatic or semi-automatic scanning, in the process of which the encoded data is decoded in a format that is perceived by the computer system. Bar coding provides high speed processing of documents on the cargo. The use of barcodes is a mandatory element of logistics and reflects modern methods and technologies of delivery of goods. The integration of supply and production-distribution systems, storage on the basis of computerized accounting systems and management of information on material flows. All these information tools and technologies increase the efficiency of transport process management at all technological stages. On transport for wide introduction of the specified information technologies it is required:

- to build a database of regulatory and operational and operational information needed to solve problems of automation of cargo and commercial operations, tracking and tracing of goods;
- to develop common standards for on-board monitoring and telecommunications; - to introduce a unified system of coding of goods, all types of transport, shippers and consignees and apply them to the transport unit in a readable way;
- to introduce technical means of removing information from rolling stock and its automated entry into databases [2].

At the same time, the development of information technology opens the possibility of transition to a new, more technological means of coding - radio frequency. With this technology, the coding is performed on a microchip (chip), which is attached to the product, container or vehicle. Recording and reading of information from microprocessors of the microchip is contactless at a considerable distance and at high speed, automated. The capabilities of the microchip are much wider in terms of the volume and content of the information encoded in it compared to bar coding. Modern flash methods of reprogramming microprocessors allow you to repeatedly overwrite part of the information when moving and processing products, while maintaining a constant [3].

The current trend of transition to digital methods of creating, transmitting, processing and storing information leads to the widespread introduction of static and

dynamic databases, the organization of telecommunications for access to information through terrestrial and satellite information channels. Accordingly, in logistics systems there is a transition to digital technology in all areas of document management, including the replacement of paper transport documents with electronic ones. The integration of information flows and communication support in the transportation of goods has received a general name – telematics.

As a result of the introduction of these technologies we will have the ability to interact with different types of technical and software components of information systems, elimination of intermediate links through integration of information flows, globalization of logistics systems, gradual merging of different flow processes within the global system of material, energy, financial and information flows.

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EFFECT OF POPULATION STRUCTURAL CHANGES ON TRAFFIC TRAVEL NEEDS

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The transportation industry and the national economy are in a difficult transition period. Analysis of which factors are affecting the changes in traffic demand, grasp the trend of change, helping to build a transportation system that meets the development needs of the times. As the most important object in the transportation service system - people, with the changes in population, age structures, and family structure, it is bound to produce a series of new traffic travel needs. Therefore, analyzing the characteristics of demographic structural changes is very practical for developing transportation development strategies and improving the satisfaction of the masses.

The seventh national census results show that 2020 Chinese households separated by 492.76 million, of which the human households were separated by 116.94 million, with a floating population of 375.82 million, of which cross-provincial flows, the population is 124.84 million. Compared with 2010, the human households have increased by 88.52%, and the population of people in the city's jurisdiction increased by 192.66%, and the floating population increased by 69.73%. Our country's economic and social development has created conditions for the migration flow of population.

Now China's urbanization rate reaches 60%, as well as approximately 20 percentage of rising space. The growth of large population and urban agglomeration is the most important structural potential in our country's economy in the next five to ten years.

At the same time as economic development and general medical levels increase, the life quality of the elderly has improved and their life is growing. According to the seventh demographic results, the population greater than or equal to 60 is 2.64 billion, accounting for 18.70%. Compared with 2010, the population of 60-year-old and over rose by 5.44 percentage points.

The size of the family is smaller, the structure is more diverse. In the 1950s, the average number of households was generally maintained at 5.3 per household. It was reduced to 3.96 per household in 1990. The average size of household in 2020 was 2.62. With the development and progress of social development, and the implementation of "one-child" policy, the size of the family is gradually smaller, and the family composition is also more single.

The change direction of the traffic demand in the future. The travel distance of residents becomes longer in the big city. Double influenced by the population to big cities and continuous expansion of the city, the travel distance between cities has long, the commuter distance is growing, and even expanded to cross-city's urban circle travel range.

The floating population has brought a lot of demand for the city transport and aggravated urban traffic load. The future population flows roughly three flows: First, continue to gather in big cities; second, gather around the surrounding radiation area of large cities in urban agglomeration; third is to the mid-west area that competition is less intense. [1]

When riding a public transport, the vulnerable groups such as elder, infant, and the disabled will often be treated differently. They are deeply limited by physical conditions and have higher travel requirements. After analyzing the travelers of the elderly, it was found that the older people had a short distance, time consuming, and a small range from other ages.

Starting from the characteristics of the population structure of China's megacities, this paper studies the changes in traffic travel demand, and brings followed suggestions. First, provide quick direct services for long distance travel. Long distance travelers, especially commuter people, is concerned about the rapidity and directness of travel. Second, provide a comfortable travel environment for the elderly. This includes non-barrier-free transportation facilities, smooth travel and travel environments, and requires government, enterprises, communities, and families to complete their goals. Third, responding to the problem of labor shortage in the transportation service industry caused by aging. The aging of society is not only reflected in travelers, but also affects workers in the transportation industry. Forth, improve the travel environment. Taking safety as the primary goal, in addition, it also needs to meet the conditions of shading and rain protection in a slow-moving environment, and relaxing experience.

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THE CHALLENGES OF ORGANISING INTERNATIONAL TRANSPORT

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Life in Ukraine currently continues under martial law. The military action taken by Russia on the territory of Ukraine affects the functioning of all spheres of the Ukrainian economy and the life of every Ukrainian. Ukraine's transport sector as an economic activity has changed dramatically in the face of Russian aggression. Logistical supply chains, which have been developed and improved over decades, have been completely destroyed [2].

The functioning of Ukrainian sea ports for international transport has been suspended, some ports operate only for handling and transshipment of grain crops by rail and road transport, and only three river ports operate, in terms of export operations, which are the ports on the Danube: Izmail, Ust-Dunaisky and Reniisky. Air transport is blocked and railways operate in crisis conditions with a lack of rolling stock, fuel and damage to infrastructure facilities. The functioning of road transport is characterized by the critical condition of roads, the abundance of destroyed bridges, the shortage of rolling stock and drivers, the crisis in fuel supply, the low capacity of customs infrastructure at the borders and poor transportation safety. For international road transport, the critical link is the Ukrainian state border. At present, the customs infrastructure does not allow efficient passage of road transport in both directions. The largest queues are observed at the Polish and Romanian borders, which amount to 10-17 km on average, due to the considerable time required for inspection of vehicles in the absence of the necessary number of service areas, automatic queue fixing systems, insufficient number of customs officers on both sides of the border.

Significant vehicle delays are observed when fuel sales are restricted or unavailable at petrol stations in Ukraine [1]. Also the constant change in road conditions due to fighting and shelling of road infrastructure requires drivers to be constantly informed in order to choose a vehicle route. Developing and implementing automated driver information systems and equipping vehicles with modern information systems will increase the efficiency of cargo delivery. Ukraine's transport infrastructure and existing approaches to the definition of systems for the delivery of goods in international traffic in a state of war need a radical restructuring in the operational and technological functioning, as well as a new approach to the definition of technical and technological schemes on the conditions of digitalization. For the purpose of increasing the efficiency of international freight traffic and for further development of transport and infrastructure complex of Ukraine, taking into account the adopted innovative way of their development, taking into account the need to

digitalize the technological process management of international cargo delivery and increase the competitiveness of domestic transport enterprises, the following model of goods, information and financial flows on the basis of digitalization and informatization and using.

Modern requirements for the planning and organization of the processes of delivery of goods in international traffic determine the main directions of formation of management measures to improve the efficiency of international transportation.

Economic and organizational environment:

- development and implementation of simplified documentation and clearance procedures at the crossing point;
- improving the efficiency of transport performance monitoring;
- information support for participants in the transport process;

Transport infrastructure:

- introduction of modern controls at crossing point;
- optimization of transport throughput capacity;
- rationalization of waiting times at the crossing point;

Transport companies:

- choice of rolling stock;
- route definition;
- choice of mode of operation;
- elaboration of transport-technological schemes.

When analyzing international transport operations, it is necessary to consider the characteristics that are critical to maintaining the desired level of sustainability and service and that more fully characterize the results of the work done from the customer's point of view. The most important factors in this respect are transport time and productivity. Information interoperability plays a significant role in increasing the efficiency of international transport. Interoperability refers to the ability of two or more systems or system components to exchange and use information. The property interoperability, along with portability and interoperability, is one of the most important attributes of open systems. The trend in information and communication technologies is to create an environment in which information is exchanged. These features are directly related to solving the tasks of formation and development of the components of the information society, first of all, the information system of relations between participants of the transport process. In this regard, more and more attention is now being paid to interoperability issues for systems of different scales and different purposes.

Rational assessment of the efficiency of the system of cargo delivery in international traffic allows us to identify the best ways to improve it and strengthen the company's competitive advantage. Of particular importance in this environment is the development and implementation of innovative digitalized delivery systems.

Ensuring interoperability is the fundamental basis for the creation and development of the development of automated information and analytical systems of various especially for the interoperability of international freight transport working in

the context of operational information exchange between subsystems of different components of the delivery system.

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HISTORY OF THE DEVELOPMENT OF LOGISTICS

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The history of the emergence of the logistics direction. The concept of logistics has a long history. The word "Logistics" is Greek in origin. In Ancient Athens, there was a special position - "logistician", to which they were appointed annually by lot and their duties included checking the reports of other officials. In ancient Rome, officials performing administrative and religious functions were called logisticians. During the time of the Byzantine emperor Leo VI (866-912), logistics was defined as the art of supplying an army and managing its movements. German researcher Professor G. Pavel noted that the purpose of logistics in the Byzantine Empire was "to pay the salaries of the army, properly arm and distribute it, take care of its needs in a timely manner and in full measure, that is, to direct the movement and distribution of the armed forces. The word "logistics" exists in all major European languages, but has different meanings. The term "logistics" was used by famous scientists, philosophers, military leaders. So the outstanding German mathematician G.V. Leibniz (1646-1716) used this term in the meaning of "mathematical logic". In the XIX century. This term was used in his works by Antoine-Henri Jomini - a military theorist and historian, Swiss by origin (1779-1869), he worked in Russia since 1813, was in the headquarters of Alexander I. He was a military adviser to Nicholas and was one of the founders of the military academy in St. Petersburg (1828). Jomini defined logistics as the practical art of command and control, including a wide range of issues related to planning, command and control, supply, determination of troop deployment locations, army transport services, etc.

In 1884, the American Institute of the Navy introduced the concept of "logistics" for the needs of navigation. In 1904, at the Philosophical Congress in Geneva, the definition of logistics as mathematical logic was approved. The principles of logistics were widely developed during the Second World War in the field of logistics for the American army. The clear interaction of the military industry, rear and front supply bases, transport made it possible to provide the army with weapons, fuel and lubricants and food in a timely manner and in the required quantities, as well as in the supply and marketing activities of civilian enterprises. Therefore, in many Western countries, logistics gradually began to move from the military field to the sphere of economic practice. Initially, it took shape as a new direction on the

management of material flows, first in the sphere of circulation, and then in production. Thus, the ideas that emerged in countries with market economies on the eve and during the economic crisis of the 1930s in the United States, the ideas of integrating supply-production-distribution systems, in which the functions of supplying materials and raw materials, production, storage and distribution would be transformed in independent scientific directions. Logistics received great development in the 60s and 70s in Japan, where its methods were used in the development and implementation of complex production systems, and by 1980. methods of physical distribution of material flows began to be optimized. At the end of the 20th century, logistics science acts as an economic direction, including purchasing, production, sales, transport, information logistics, etc. Each of the areas of human activity has been sufficiently studied, however, the novelty of the logistic approach lies in the integration of the listed areas of activity to achieve the desired result with a minimum investment of time, material resources and financial resources by forming the most optimal end-to-end management of all types of flows. Thus, logistics is designed to satisfy the needs of consumers as much as possible.

In 1992, at the International Symposium of the European Logistics Association in Stockholm, it was noted that there is no generally accepted definition of the term logistics.

Since logistics unites such spheres of economic activity as: logistics of supply, production, sales, transport, etc., in this regard, under logistics we will consider: the science of planning, control and management of transportation, warehousing and other material and intangible operations performed in the process of bringing raw materials and materials to the production enterprise, in-house processing of raw materials, materials and semi-finished products and bringing finished products to the consumer in accordance with the interests and requirements of the latter, as well as the transfer, storage and processing of relevant information.

Stages of development of logistics. Logistics is a relatively young and developing science, and therefore many questions related to its conceptual apparatus and terminology are constantly refined and changed. Logistics considers the management of material and related information and financial flows, that is, it covers the whole range of issues related to the processes of handling raw materials, materials and finished products, bringing them from suppliers to manufacturing enterprises and to end consumers in accordance with their requirements. There are several approaches to identifying the historical stages in the development of logistics in the twentieth century, we will consider two main ones.

ANALYSIS OF FUNCTIONING OF TECHNICAL PERIPHERAL MEANS OF AUTOMATED TRAFFIC CONTROL SYSTEMS

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Taking into consideration the constant increase of motorization rates and high intensity of movement the question of adaptive traffic control requires special attention. An essential element for the implementation of this control is the availability of transport detectors (TD), which belong to the technical peripherals of the Industrial traffic control system ((ITCS). TD are intended to identify types of vehicles and determine their movement characteristics in the controlled street and road network area[1].

Five main types of detectors have been widely used to record traffic: radar, ultrasonic, infrared, video detector, and inductive loop detector.

Sensors based on inductive loops are relatively inexpensive, very accurate, insensitive to weather conditions, and expensive and difficult to install and repair because it requires paving. Pair-mounted inductive loops allow a fairly accurate classification. To connect your own adapters, the output data is presented in pulse form: there is / no vehicle. Unfortunately, weather conditions and the average quality of the road surface in Ukraine make such detectors practically unsuitable [2].

Different types of sensors that are installed above the road, such as ultrasonic are of medium accuracy, have a small coverage area, however, due to the low cost, can be effectively used for certain tasks. The information issued is similar to inductive loops. There are specialized sensors for highways, but their cost does not allow them to be considered as a possible alternative. Infrared, sound sensors, etc. at the moment, do not show acceptable accuracy and are replaced by more advanced devices. Laser sensors provide very high accuracy (more than required), but are still too expensive.

Video detectors are one of the fastest growing areas, in many cases providing the best value for money. They were developed to replace induction loops, so they have a similar algorithm - determine the presence or absence of machines in specified areas - the so-called virtual loops. The information is issued similarly to inductive loops in the pulse mode, there are / no vehicles in the corresponding zone. At the same time one camera can control up to 3-4 strips at a distance of up to 70 m, up to 16 zones, depending on the selected optics and installation height. Independent studies show an accuracy of 95% of the inductive loops. The latest models of cameras are almost not inferior to inductive loops in terms of accuracy, can work around the

clock - at night working on headlights. In conditions of poor visibility, heavy rainfall will reduce accuracy.

In addition, many manufacturers supply cameras with different functionality on the same hardware implementation: to detect the presence of machines; to detect incidents, accidents, dangerous situations; to collect statistics on elementary classification; to calculate the length of the queue and other additional features.

Some camera models allow you to output video streams, but often its quality is lower than in conventional CCTV cameras, because this feature in such detectors is essentially indirect.

Radar sensors provide high accuracy of detection and tracking of vehicles, have the longest detection range and can provide related information - speed, type and more. Structurally cannot track objects that have stopped, which in advanced models is compensated algorithmically. For mobile machines, the accuracy is quite high, slightly deteriorates with removal from the detectors, does not depend on precipitation and light. Have a dead zone near the detectors, which size depends on the height of the installation and the pattern. Can issue both a pulse signal on virtual loops, and the full information on each accompanied object (speed and a direction of movement, the sizes of the vehicle), depending on the connection interface. Moreover, it is possible to visualize the road situation in real time, including overlaying video.

Modern surveillance camera models allow you to output a picture with a resolution of two megapixels and above, at a frequency of 25 frames per second. In most cases, the greatest investment is required not by the cameras themselves, but by the corresponding communication channel, because for one camera the flow is from 0.5 to 8 Mbps, depending on the resolution. In practice, an effective and stable video surveillance system can be implemented only on the basis of fiber-optic communication lines. Furthermore, with the help of special software it is possible to analyze the recorded video to determine the intensity of movement. If there are sufficient computing capabilities, the video surveillance system can determine the parameters of traffic flows, acting as detectors.

However the constant increase in the number of modern technical peripheral traffic controls, which have more functions and accuracy, leads to the problem of choosing the best: price - quality.

Therefore, in the existing variety of automated traffic control systems there is a problem of choosing the most optimal, which would ensure the accuracy of information about the availability and parameters of traffic in controlled areas.

Comparative analysis of modern transport detectors showed that:

1. Ultrasonic sensors are used at single- and two-lane exits, on the sensor on the strip, if it is possible to place the sensor directly above the control point. A typical situation - leaving the store / gas station with a small flow of cars, in which case the green signal to leave is given only by the signal from the sensor.

2. Surveillance cameras, if possible, are placed on all intersections, which are equipped with fiber-optic communication - so, it is possible to visually monitor the situation at intersections. In addition, when considering conflict situations, it is difficult to overestimate the importance of the video archive. In this case, you need to think about the appropriate recording equipment with sufficient disk space. The same videos can be analyzed using special software, receiving traffic statistics. Such data, of course, are not suitable for use by the road controller, because they come out with a significant delay, but are very useful when updating / creating a traffic organization, or to account for global changes in traffic flows. If you only need traffic statistics, you can do without fiber - a mobile kit with a camera and DVR will allow you to quickly remove traffic statistics at moderate costs.

3. Cameras - detectors, perhaps the most versatile and optimal in terms of "price-quality" version of the detector. Easy to install and configure, cope well with most tasks - stop-line control, detection of machine queues (requires a separate camera).

4. Radar detectors - the latest models are almost an uncompromising solution. They compensate for their high price with a long range, up to 160 m, wide grip, the ability not just to control certain areas, but to fully accompany the car, controlling the condition and speed. The detector is insensitive to weather and light, does not require maintenance. Setting up is a little trickier than in the camera, but the amount of modern power plants in transport and technology and equipment to service them 114 issued data is much more. The best option for important intersections, major highways.

5. Bluetooth - detectors detect all enabled Bluetooth devices within a radius of 150 m and determine the unique code (MAC address) of each of them. Comparing the codes of devices from different detectors, you can estimate the time spent traveling from one intersection to another - thus it is possible to instrumentally assess the effectiveness of adaptive control [2].

Appropriate software and a powerful server are required for the complete operation of the entire system and obtaining maximum information from video cameras. As traffic management is now on the agenda, smart video technologies have high hopes. As a result of research the problem of necessity of a choice of optimum technical peripheral means in the form of which the comparative analysis of modern detectors of transport is carried out is marked. This allows you to further solve a

number of tasks, including the implementation of adaptive and dynamic management, statistical data collection, accident detection and more.

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PECULIARITIES OF LOGISTICS INTERMEDIARY SELECTION CRITERIA

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The choice of logistics intermediaries, including logistics operators, can be considered as a private task of supplier selection. The peculiarity of this task consists in the formation of such a set of indicators (criteria) that would correspond as much as possible to the specifics of the specific functions or processes that are transferred to the "third party".

The choice of a logistics intermediary as a service provider depends directly on the list of logistics functions transferred to the intermediary and the scale of cargo flows under given constraints, which are determined by the objectives of the firm's logistics strategy or factors in the surrounding macroeconomic and microeconomic environment. A considerable number of indicators for evaluating the performance of possible suppliers must also be taken into account. Each company, when transferring logistics functions to an intermediary, considers it best to contract only one intermediary providing the whole range of services, including warehousing, which will ensure the best coordination and management of cargo flows and reduce transaction costs. However, as domestic practice shows, the choice of logistics intermediaries depends on the quality of provision of a number of services. In fact, all services must be at the highest level. Naturally, the set of indicators in this case will be different. In order to determine the maximum set of indicators for the selection of an intermediary with a full range of services, it makes sense to consider the set of all indicators of the services provided by specialized intermediaries. This will create a more comprehensive set of indicators and thus provide a more accurate assessment of potential options.

The greatest experience in evaluation and selection of service providers is gained in the transport services market, as it has a longer history (both in foreign and domestic practice) than the warehousing services market. The choice of a freight forwarding service provider is made on the basis of one or a system of criteria, taking into account the constraints set by the company selecting the provider. Restrictions are closely related to the type of company's activity and external business environment. For example, in the distribution system such constraints may be the

time of delivery of finished products, transportation costs, cargo safety, dislocation of chain links where storage or transshipment of cargo to another mode of transport is performed, etc.

Some experts (Johnson, Wood, Wardlow, Murphy, 2004; Corporate Logistics, 2004) identify 22 key indicators when selecting a carrier. Nine of them are considered the most important:

- Rates or costs of door-to-door delivery;
- statistics of losses and damages during cargo transportation;
- claims statistics;
- compliance with delivery deadlines;
- experience in negotiating changes in tariff rates;
- monitoring of cargo movement;
- door-to-door delivery time;
- quality of service when delivering small consignments;
- unified service chain and proper equipment.

When selecting a carrier, the customer of the service is (almost always) the shipper, but the key quality indicators should meet the requirements of the consignee.

To the list of main indicators and criteria for carrier selection, various authors (Johnson, Wood, Wardlow, Murphy, 2004; Bauer-Sox, Kloss, 2001; Firon Lindere, 1999) consider it necessary to add transportation costs, delivery time, reliability, technical and service capabilities, availability and safety. Here, for example, are the criteria for selecting road carriers:

- qualification of the dispatching personnel;
- Timeliness of pickup;
- timeliness of delivery;
- competitiveness of tariffs;
- the accuracy of the invoices;
- assistance of the carrier in claims handling;
- Prompt action on claims;
- drivers' qualifications;
- stability (reliability) of cargo delivery;
- Stability in meeting delivery times.

As practice shows, when choosing a logistics intermediary, the most difficult task is to choose intermediaries that provide warehousing and warehousing services.

When the number of criteria is small (two or three), the task of comparing two options is simple enough. With a large number of criteria, the efficiency of the solution increases, but the task sometimes becomes very complicated and requires more resources, including time. That is why with a large number of criteria it makes sense to systematize indicators. Indicators that have similar value can be combined into groups.

In a nutshell, all indicators that influence the choice of a contractor can be reduced to three main positions: price, quality and level of service (reliability). Practically it is possible to stop on these three evaluation criteria (often it is enough),

but for more reliable result it is necessary to take into account a number of other factors, which depend on the adopted logistics strategy of the company.

THE HISTORY OF THE DEVELOPMENT OF TRANSPORT LOGISTICS

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In general, logistics refers to coordinating the movement of a large, complex group of people, supplies, operations, facilities, equipment, etc. While today we may equate logistics with delivery services like UPS and FedEx, historically logistics was most applicable to the movement of armies.

Transport logistics is a system for organizing delivery, namely, for moving any material objects, substances, etc. from one point to another along the optimal route. One of the fundamental areas of science about the management of information and material flows in the process of movement of goods.

It is considered both the delivery of the product to customers by private vehicles, and cooperation with a large logistics company that transports around the world.

The main goal of transport logistics is to transport any cargo from point A to point B with the best value for money. The most suitable modes of transport, routes, speed of transportation should be chosen, as well as damage to the cargo should be minimized. Sometimes it is better to choose a more expensive and longer option to avoid damage to the goods.

The concept of logistics has a long history. In ancient Athens, there was a special position - "logistician", his responsibilities included checking the reports of officials. In ancient Rome, logisticians were officials who performed administrative and religious functions. During the reign of the Byzantine emperor Leo VI (866-912 gg.) Logistics was defined as the supply of the army and the management of its movements. German researcher Professor G. Pawellek noted that the purpose of logistics in the Byzantine Empire was "to pay the army, properly arm and distribute it, timely and fully take care of its needs, that is, to control the movement and distribution of its own armed forces."

In 1884, the American Naval Institute introduced the concept of "logistics" for navigation.

In 1904, at the Philosophical Congress in Geneva, the definition of logistics as mathematical logic was approved.

The principles of logistics were widely developed during the Second World War in the field of logistics of the army. Clear interaction of the military industry, rear and front supply bases, transport allowed in a timely manner and in the necessary quantities to provide the army with weapons, fuel and lubricants and food, as well as in the supply and marketing activities of civilian enterprises.

Therefore, in many Western countries, logistics has gradually begun to move from the military to the sphere of economic practice. Initially, it took shape as a new

direction in the management of material flows, first in the field of circulation, and then in production.

Great development of logistics was in the 60-70's in Japan, where its methods were used in the development and implementation of complex production systems, and until 1980 methods of physical distribution of material flows began to be optimized.

At the end of the 20th century, logistics science acts as an economic direction, which includes procurement, production, sales, transport, information logistics, etc.

Some scientists identify four periods of logistics development:

1. The period of "fragmentation" (1920-1950), characterized by the formation of the principles of logistics in the field of material flow management and reduction of total costs. However, these principles were not fully demanded, and only some logistics functions were used to reduce only some components of costs, such as production, transportation or warehousing.

2. The period of formation of the concept of physical distribution as an integral part of marketing (1950-1970), characterized by the formation of theory and practice of logistics, finding new ways to reduce costs in production and distribution, the development of computer information technology.

3. The period of development (1970-1980) is characterized by the search for new ways to reduce costs in production and distribution. A distinctive feature of the 1970s was the intensification of competition, and therefore, the main task of most companies was to reduce production costs and rational use of raw materials, semi-finished products and components. By the end of the 1970s, the production of transport and storage equipment, new types of containers and packaging had developed greatly in the West. Modern automated warehouse complexes began to be formed, and container transportation of goods began to be actively introduced. Significant economic effect was given by the use of standardization of packaging and packaging standardization logistics systems.

4. The period of integration (1980-1990), characterized by a combination of logistics functions of the company and its partners in the so-called logistics chain (purchase - production - distribution and sale).

Transport logistics is a very important element of any business, whether it is delivery around the city or to another continent. And its optimization and automation are a priority for increasing profits.

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CYBERSECURITY ISSUES IN TRAFFIC MANAGEMENT

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Transportation Control Centers (TMCs) are more resilient to cyberattacks, so you need to know the basics of how to prepare for and respond to an incident. A breach occurs when an attacker can gain access to a secure TMC network. Once an attacker has infiltrated the network, he must find out what is in it in order to attack deeper. Using the same analogy, an intruder is now walking around your house, trying to figure out the layout and finding out where the valuables are hidden. What is important to an operator may be useless to an attacker, and operational support systems can be very attractive. Exit can be an important element of a successful attack.

If an attacker wants to remotely control the operator's workstation, he must establish a data connection outside the TMC. Each agency must have an IT and information security policy that is understood and followed by TMC operators. TMC staff and management must be trained to identify and defend against social engineering attempts. Restoring TMC systems from a backup is a quick way to get back up and running in the event of a catastrophic loss.

The transport industry of our country quickly, safely and reliably transports people and goods across the country and abroad. This sector includes aviation, automobiles and motor transport, maritime transport and railways. As this critical industry becomes increasingly dependent on interconnected digital systems, the risk of cyberattacks increases. Historically, the industry has been more concerned with protecting passengers and cargo from physical threats, but the industry is now facing an alarming rise in cyberattacks.

Educational institutions and cybersecurity professionals must work together to advance security concepts in vehicle manufacturing, product distribution, communications and entertainment systems, and a trusted supplier ecosystem.

According to statistics, between 2020 and 2021, the number of weekly ransomware attacks increased by 186 percent in the transportation industry. Ransomware attacks are on the rise across all sectors, but the brunt of this trend appears to be in the transport industry. Because transport companies have not historically built large security teams to protect their digital assets, they are more acutely affected by the global cybersecurity skill gap than other businesses.

In various experiments to test the reliability of vehicle cybersecurity systems, "white hat hackers" - i.e. computer security experts who deliberately hack into systems to test and assess their security have shown that it is entirely possible to drive cars remotely. For example, back in 2015, such hackers demonstrated that they could take control of the braking and acceleration systems of a jeep, its dashboard, and much more. The mere thought of such a thing is terrifying.

In another experiment on a Tesla car, computer security experts managed to fool the autopilot program and force the car to swerve into oncoming traffic. "Other

incidents, such as those not involving white hat hackers, will also need to be treated with due care and attention," says Dr Gido Scharfenberger-Fabian, project leader on the expert working group. ISO WP 11 dealing with cybersecurity of electrical and electronic components of road vehicles.

Therefore, cybersecurity is big business, especially when it comes to vehicles. According to various estimates, the value of the global automotive cybersecurity market will grow from \$2.4 billion in 2019 to about \$6 billion by 2025. But, despite the prosperity of this sector, the war against crackers is just beginning.

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TRANSPORT LOGISTICS

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One of the most important functional sections of general logistics science, directly related to the organization and management of the movement of material flows, is transport logistics. In modern market conditions, transport logistics plays a very important role, since any enterprise interacts with the external environment. In the process of such interaction, objects are moved: raw materials and materials from suppliers to the manufacturer, finished goods from the manufacturer to intermediaries and from them to end consumers. There is a need to ensure the physical movement of such goods in space along the optimal route at the lowest cost. This is exactly what transport logistics is doing.

Transport logistics is a section of logistics dealing with the organization of delivery, that is, the transportation of any material objects (products, substances) from one point to another along the optimal route.

The purpose of transport logistics is to deliver the right goods of the required quality and quantity at a given time and place with minimal costs (i.e., in fact, it is the fulfillment of 6 rules of logistics).

The main tasks of transport logistics are: choosing the type of transport (automobile, railway, air, etc.); choosing the method of transportation (type of transportation); choosing the carrier and other logistics partners; determining rational delivery routes; ensuring the technological unity of the transport and warehouse process; optimizing the parameters of the transport process (increasing the speed of transportation, reducing fuel costs, etc.).

Among all modes of transport, I would like to single out the most popular mode of transport in the world - automobile!

Road transport - carries out the transportation of goods and passengers on trackless roads, motor vehicles with at least 3 wheels (buses, trucks, cars, armored personnel carriers; but not motorcycles or tractors).

Characteristics of motor transport: Vehicles: all kinds of types of cars (trucks, cars, trolleybuses, buses); Communication routes: highways, tunnels, bridges and overpasses; Alarm and control: traffic lights, traffic signs, traffic police, traffic rules; Transport hubs: bus stations, bus stops, parking lots, etc.; Energy supply: contact network, gas stations; Technical support: road services, service stations, bus fleets.

Advantages of road transport:

- high availability;
- the possibility of delivering cargo "door to door";
- high flexibility and maneuverability;
- high speed of delivery;
- the ability to use different routes;
- the ability to send cargo in small batches;
- opportunities to choose a suitable carrier.

Disadvantages of road transport:

- low efficiency (the volume of cargo transported by one car is relatively small);
- dependence on weather and road conditions;
- high cost of transportation over long distances;
- the impossibility of a long wait for unloading;
- danger of cargo theft and vehicle theft.

Transportation can be carried out both by the company itself and by a third-party organization: a carrier or a freight forwarder. The company decides to create its own fleet or use the services of a carrier based on the costs in both variants, the reliability of carriers, etc. Carriers - carry out only the physical movement of cargo in space, transportation. Freight forwarders - in addition to the transportation itself, provide a number of additional services, such as: paperwork for cargo, customs formalities, loading/ unloading, storage, picking and monitoring the condition of cargo, insurance, etc. In addition, auxiliary logistics partners - customs brokers, insurance, security and information companies, cargo processing and packaging enterprises, cargo terminals - also play an important role in the transportation process. Types of transportation: unimodal (single-type) - carried out by one type of transport, for example, by automobile. Applies when you set the start and end points of transportation without intermediate operations of warehousing and materials handling; mixed (balanced, intermodal, multimodal) - is usually carried out by two types of transport and more (for example: the rail - road, river - road, sea - rail, etc.).

Conclusion

In conclusion, I would like to say that the most profitable, convenient and important means of transport in Ukraine and around the world is considered to be motor transport. It is this type of transport that provides the whole world with its transportation. And it doesn't matter that the car pollutes the environment in which we live. If we used, for example, the sea mode of transport as the main one, then the global level of the economy would fall. Firstly, it is expensive, and secondly, it is

long, and thirdly, there are many invulnerable places for sea transport rather than for cars. Therefore, I give my vote exclusively to CARS!

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LOGISTICS AS ONE OF THE MOST IMPORTANT PROFESSIONS IN THE ECONOMY

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Delivering products and services at the right time, right place, right cost, and at the right quantity and quality is at the heart of logistics and supply chain management and in the retail sector, perfect order deliveries, customer responsiveness and cost efficiency are key competitive priorities [1].

The logistic industry can be defined as the science of obtaining, producing and distributing material and products to the correct place and in the correct quantities. In a military sense, where it has a greater use, its meaning also includes the movement of personnel. Logistics includes the process of planning, implementing and controlling procedures for the efficient and effective transportation and storage of goods. This includes services and related information from the point of source to the point of consumption for the purpose of fulfilling and conforming to customer requirements [2].

Given the boom in online shopping last year, logistics is, in many ways, most important category. Logistic firms face an ever-present talent shortage. From 2019 to 2020, there were a staggering 14.7M unique job postings for truck drivers alone: e.g., long-distance CDL truck drivers, regional truck drivers, and company truck drivers. As for warehouse jobs, warehousing was one of the few sectors in which employment shot up during COVID, with 46,000 more jobs in September than in February.

People with inquisitiveness and a desire to understand patterns and trends within data are particularly employable. Simulation, modelling, forecasting, problem

solving and negotiation skills are extremely useful, as the ability to think on your feet when under pressure. Being able to respond to new situations in a calm and considered way is also important.

Upon graduation, logistic jobs and supply chain jobs are plentiful. It is likely to gain an overview of the profession before specializing and then progressing to more senior positions. [3]

Employers include third party logistics companies, organizations that sell directly to consumers (retailers and supermarkets) and logistics consultancies. Graduates can also pursue a career in:

- supply chain design and planning;
- procurement and supply management;
- freight transportation;
- warehouse design and management;
- distribution network design and planning;
- inventory management and control

Logistics is generally the detailed organization and implementation of a complex operation. In a general business sense, logistics is the management of the flow of things between the point of origin and the point of consumption to meet the requirements of customers or corporations. The resources managed in logistics may include tangible goods such as materials, equipment, and supplies, as well as food and other consumable items.

Logistics management is the part of supply chain management and supply chain engineering that plans, implements, and controls the efficient, effective forward, and reverse flow and storage of goods, services, and related information between the point of origin and point of consumption to meet customers' requirements. The complexity of logistics can be modeled, analyzed, visualized, and optimized by dedicated simulation software. The minimization of resources use is a common motivation in all logistic fields. [2]

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URBAN TRANSPORT OF LONDON
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London has continually adapted and changed throughout history, and its transport system has always played a central role in this. Nowadays its transport is one of the richest and most extensive in the world. London transport system

combines: buses, London underground, Docklands Light Railway, river bus services, local trains, trams, London cycle hire scheme.

The easiest way to get to the down town is by Underground. It is the oldest underground metro network in the world and it covers 270 stations. It is very easy to recognize the Underground stations with its iconic red and blue logo outside the venue. There can be purchased tickets for one or two trips, but if to use the Tube a lot, it is necessary to buy cards and it will be very convenient. These can be cards for one day, for a week, or for a month, and they give an unlimited pass to the Tube, bus and train to the areas to have been chosen [1].

Docklands Light Railway is an automated rail system that specifically covers the Dockland areas of London. This type of transport is mainly useful if to go towards Stratford Airport or travel to certain outskirts of London.

There are Rail Services in London. There's a direct train connection to the airports of London such as Heathrow, Gatwick and Stansted, there are also trains going outside of London which are not in the transport system of "London umbrella". For these, it is needed to book tickets from the station ticket window or machines.

The Red Bus of London (Double deckers) is the most popular type of transport and ferries over two billion passengers every year! There are many bus routes around London, and it is a very convenient way of travel. London's bus services run 24/7.

Trams are also popular in London. There are four lines of tram services, they all are frequent and easily accessible. The standard fare is £1. Trams in London function between 5am in the morning up to 1am in the night.

London's River Boats, or 'clippers' constitute an important part of its public transport network. River boats in London are greatly preferred and they cover five routes along with its.

The London taxi is available for hire at any given time of the day. Carrying people to and from ever since, today this mode of transport is synonymous with convenience, but Londoners still prefer the traditional cycles that steadily gained popularity across the city. Available at a bike bay on almost every street, this is an affordable and friendly-environmental way to travel around the city. There are more than 750 docking stations and 11,500 bikes to hire around London

London has 32 districts and it is very easy to travel around the city with its excellent public transport system. Hiring private vehicles is definitely an expensive proposition, so the city hosts a large span of transport options that are easy on the pocket and help you discover the city as a local.

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PROSPECTS OF THE DEVELOPMENT OF RAILWAY TRANSPORT IN UKRAINE

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The transport system of Ukraine provides connections between industries, enterprises, regions of the country, foreign countries. Modern transport is characterized by a great variety of species, each of which has its own specific production features.

Ukraine has one of the most developed railway networks in Europe, its operational length is 22.05 thousand km, of which 9.3 thousand km are electrified (42% of the total length). Ukrainian railways interact with the railways of 6 neighboring countries through 56 border crossings and with 13 major seaports of the Black and Azov Seas and the Danube [1].

Among all modes of transport in Ukraine, as in many countries, the leading place is occupied by rail transport, due to its versatility: the ability to serve all sectors of the economy and meet the needs of the population in transportation in almost all climatic zones and at any time.

Railway transport in Ukraine is one of the basic sectors of the economy. These are public railway transport, subordinated to the State Administration of Railway Transport of Ukraine, and railway access tracks of various forms of ownership, which do not belong to public railway transport. The main function of railway transport is the transportation of mass industrial and agricultural goods (coal, steel, grain, etc.) over long distances. A distinctive feature is the regularity of movement regardless of the weather and season.

Ukraine's railway transport today has many problems, most of which are related to the need to attract large sums of money to upgrade the railways and the vehicles themselves. Railways are the basic branch of Ukraine's economy and the most important, core element of the transport system. They account for 85.1% of freight turnover (excluding pipeline transport) and 54.5% of passenger turnover [2].

Priority for Ukrzaliznytsia is the development of a network of international transport corridors on the territory of Ukraine, which is based on the following principles:

- modernization of infrastructure;
- improvement of transport and customs technologies;
- development of combined and piggyback transportation; application of uniform tariffs;
- organization of accelerated promotion of cargo flows of foreign trade and transit cargo due to concentration and routing;
- improving the interaction of different modes of transport in transport hubs, the development of intermodal systems of international transport;
- creation of a single information field for carriers, shippers and consignees, freight forwarders, state control bodies at borders.

Today, the realities of Ukrzaliznytsia are as follows: the desire to increase the pace of economic development of the industry from an abstract category to a concrete real perspective.

The problems that need to be addressed to ensure the further development of rail transport include:

- imperfection of normative legal acts regulating the activity of railway transport, and inconsistency of its organizational structure with the conditions of development of the market economy of the country;
- cross-subsidization of unprofitable passenger traffic at the expense of freight;
- insufficient transparency of financial activities of the industry;
- low level of competition in the railway market;
- high level of depreciation of fixed assets

It seems appropriate to rank the tracks and stations according to the degree of profitability and make decisions on the gradual elimination of unprofitable roads. This will free up the funds that went to support these parts of the railway in working order. The further development of the transport complex is Associate with the reform of other industries, as the volumes of industry, agriculture, construction and trade mainly determine the congestion of the transport system.

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FREIGHT TRANSPORT

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Transport is one of the most important infrastructural branches of production. Because it has an important impact on the economic system and forms the foreign economic relations of Ukraine.

Road transport has the greatest importance in the overall transport system of the country's economy.

The production process on the road transport, which consists in the movement of goods and passengers by rolling stock, is called road transport.

Road freight transport is one of the most convenient and economical types of cargo delivery. The advantages of such delivery are speed, efficiency and possibility to control the cargo during the whole way of its transportation.

A characteristic feature of the development of transport complex of Ukraine is increasing the share of road transport in freight turnover, and in volumes of transportation. This is due to the fact that road transport is more efficient for short-distance transportation, which reduces the number of transshipments.

Road transport is a set of means of communication, means of transportation, technical devices, mechanisms and controls. The means of transportation (rolling stock) are automobiles, haulers, trailers and semi-trailers for transportation of cargo

and passengers. The means of communication are roads and highways. Technical devices in facilities include garages, repair plants, service stations and others.

Cargo transportation is distinguished according to the following characteristics:

1. According to the branch principle of cargo transportation of industry, agriculture, construction, trade and public catering. postal transportation, cargo transportation and public utilities.

2. Carriage by the size of the cargo of mass transportation. Party-size transportation of cargo, non-mass transportation.

3. By territorial feature - technological, urban, suburban, intercity, international transport;

a) Technological - transportations within the territory of construction sites or company premises;

b) Urban - transportations for short distances with different structure of transportation;

c) The same conditions apply to suburban transportation. Which are carried out outside the city at a distance up to 50 km inclusive;

d) Intercity - transportation over 50 km between different cities, regions and economic areas on roads with a long distance, the distance can be more than 1000 km;

e) International - transportations outside the country.

4. According to the mode of performance - local transportation and transportation of direct and mixed:

a) Local transportation is called all transportation, regardless of its distance, carried out by one road transport company;

b) For direct transport, several road transport enterprises are involved in the movement of goods;

c) Combined transport is transported using two or more modes of transport. They can be: road-rail, road-water, road-rail-water, etc.

5. According to the time of performance - permanent and seasonal:

a) Permanent - transportation throughout the year;

b) Seasonal - periodically recurring at the right time of the year.

6. According to the organizational principle - centralized and decentralized.

Cargo road transport is currently the most massive in Ukraine. Currently, more than 20 thousand small and medium-sized enterprises are engaged in road transport, plays an important role in solving the problems of full and timely satisfaction of the needs of the public economy and population in transportation, increasing the efficiency and quality of the transport system of the country. [1]

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PROBLEMS OF CARGO DELIVERY FROM CHINA TO EUROPE

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When delivering goods from China, four traditional logistics routes are used: sea route (the cheapest, but usually the longest), air delivery (the most expensive and fastest), land route - rail and road transportation. Which one to choose?

Most cargo from China is transported by sea. There are about 20 large and more than 100 small ports in China. Five of the ten largest world ports are located in China: Shanghai, Shenzhen, Ningbo, Guangzhou, Qingdao. Shanghai port is the largest in the world.

In general, logistics is non-linear. If one of the links in the chain is at least one day late, then the total delay of goods can be up to a month.

How is the logistics

As soon as the goods in the warehouse in China are ready for shipment, the customs clearance procedure begins. The container with the goods must arrive at the port 2-3 days before the arrival of the ship, after which it automatically gets on the ship. The ship goes to Europe on average about 30 days.

The second link in the logistics chain is overland, your cargo either ends up on a train or a truck.

The problem of choosing the "right", reliable vessel is not for the owner of the goods. Vessels from China depart regularly in all directions. They go to Europe every day.

Transportation is carried out by large companies that can be trusted. These are, for example, MAERSKLINE, MSC (Mediterranean Shipping Company) or Hyundai. By the way, few people know that Hyundai's main business is not cars, but ships and containers.

Typically, an ocean liner can carry from 10,000 to 20,000 TU (twenty-foot equivalent unit) - a conventional designation for one 20-foot container in logistics.

If you have a large company, you can charter the entire liner from the carrier company. And if the cargo flow is small, then you can act through agents who will "lead" you to a large company.

The maritime logistics market has long been established and operates according to fairly transparent rules. But there are also nuances. For example, you should check the free term of the container in advance.

When your cargo arrives at the port, you will need time to deliver the goods to your own warehouses. Then already empty containers will have to be returned to the carrier company. Make sure to meet as soon as possible and not overpay for a container. It is also necessary to take into account the differences in other free "storage periods" provided by the company, because it happens that the goods are not cleared through customs immediately and are in a container in the port. All companies have different parameters, so you need to agree on them in advance.

Goods with high turnover and limited shelf life are transported by air. But it's not just about food. For example, almost all electronic devices (especially small electronics) are classified as goods with a limited shelf life. If you bring an iPhone to Russia by sea, then it will not be in demand. The average air delivery time, taking into account customs clearance, is 5 days: on Monday the goods are at the airport of China, on Tuesday-Wednesday the plane flies, on Wednesday-Thursday the goods are cleared through customs, on Friday the goods are already in the warehouse. True, you will have to pay several times more for this.

The railway is usually used as a link in multimodal transportation: when the cargo first sails to the Far East, and then it is delivered by train to countries. Perhaps this is the most popular of the existing types of delivery. "Pure" rail transportation from China to Europe is also used. But here the problem is in the dimensions of the railway track, which do not match in Europe and China, so the goods after crossing the border have to be rearranged from one train to another. This is a rather long process, which seriously increases the cost of some types of cargo.

The choice of a logistics chain ultimately depends on three components: timing, price and quality of delivery. If you are bringing 10,000 newly released iPhones to Moscow, then most likely they will be sold out the next day. Here turnover is important for business, so it is better to choose the fastest one - air delivery. And if you deliver, for example, cheap chemicals, 20 tons of which cost \$7,000, then it is profitable to transport them by the cheapest way - by sea. Auto-delivery is faster than sea delivery, but it is dangerous: the goods tend to hit the road, robberies are not excluded. Need it fast - use air transportation. If the timing is not important and the business has the opportunity to freeze money for a while while the cargo is sailing, choose the sea route

RAIL TRANSPORTATION

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Without transportation, it is impossible to imagine the daily, full provision of various human needs(2).

Legal support(3) of economic activity in the field of transport is very important. And this, unfortunately, begins to be understood only when the cargo is damaged or lost, obligations are not fulfilled, there are problems with the tax authorities, etc.

Transportation includes(4):

- Trucking (passengers, cargo);
- Water transportation (by sea, river);
- Air transportation;
- Rail Transportation;
- Piggybacking.

- Transportation of special cargo: dangerous, oversized cargo, perishable goods.

When choosing a carrier, first of all it is necessary to pay attention to the tax system of the potential partner. For example, the legal entity on the general system of the taxation cannot carry out economic activity together with simplifiers of 2 groups.

In addition, the road carrier must operate within the selected economic activities(5). According to the legislation, road transport of hazardous goods, hazardous waste, as well as international transportation of passengers and goods are subject to licensing.

Transport from the carrier must be own or leased. That is, the carrier must have documents confirming(6) the ownership or right to use the vehicle. If carriers provide services involving a driver, they must also formalize their relationship with the driver in the manner prescribed by law.

Documenting freight is very important in carrying out this economic activity. So, in the course of movement of inventory in space, the following types of contracts(7) are used.

- contract of carriage (luggage, cargo, mail);
- charter agreement (chartering);
- vehicle rental (lease) agreement);
- freight forwarding agreement.

Of course, this is not an exhaustive list of documents required for transportation. Using this or that type of transportation, it is necessary to find out which documents need to be prepared. This article outlines only the basics of transportation. The state has an influence on the relations that arise between the carriers and the customer through state control, which is carried out by Ukrtransbezpeka and its territorial bodies.

HISTORY OF DEVELOPMENT OF TRANSPORT ROUTES

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The development of transport routes began long before our era.

But I will only talk about some of them.

Such as:

1. The Incense Trade route
2. The Silk road
3. Triangular trade
4. New Silk route— that is European Land Bridge

1.The Incense Trade route.

It was discovered around the 3rd century BC. For transporting spices from the Indian subcontinent and incense from the Arabian Peninsula to the Mediterranean

Basin. Because of this, the city of Alexandria (Egypt) became a major trade hub between India and Europe.

2. The Silk road.

A grandiose trade route that connected East and West. Its length was 12,000 (twelve thousand) km (kilometers). The road was laid around the 2nd century BC. First of all, for the export of silk from China. There were also many deliveries from different countries. Spices from India; horses and camels from Central Asia; art objects from Europe and much more. Unfortunately, after the collapse of the Mongol Empire, the great Silk Road came to be less profitable. Their commander Tamerlane destroyed the trading cities from which the northern route began.

3. Triangular trade

The road has such a name because it carried out an exchange between 3 parts of the world (Africa, America and Europe). Weapons were sent from Western Europe to the Gulf of Guinea. In the Gulf of Guinea, weapons were exchanged for slaves. Slaves were brought to America to work on plantations. And ships with gemstones were sent to Europe. This trade quickly became very profitable. But due to the fact that slavery was abolished in the 19th century, triangular trade ceased.

Today there are many different transport routes. Furthermore, the search for new trade routes never stops. For example, China is going to launch the New Silk Road. It will be a railroad that will connect China and Europe. It will be the world's longest freight rail route. Trains on this route will take fifteen days from China to Germany. This is 2 times faster than the sea route through the Suez Canal.

Now, due to climate change, the polar ice caps are melting. Therefore, it may be possible to open new trade routes that will be shorter and more efficient.

INTERNATIONAL TRANSPORT ORGANIZATIONS

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International Transport Organizations play an important role in trade facilitation, as they represent their members in trade facilitation negotiations and are often instrumental in promoting trade facilitation measures and in implementing trade facilitation tools and solutions amongst their communities.

The main international transport organizations involved in trade facilitation include:

1. FIATA, the International Freight Forwarders Association, represents the freight forwarding industry, and is a non-governmental organization with members covering approximately 40,000 forwarding and logistics firms, and employing around 8 - 10 million people in 150 countries.

FIATA has created standard documents and their electronic equivalents for use by freight forwarders worldwide:

- Forwarders Certificate of Receipt
- Forwarders Certificate of Transport

- FIATA Warehouse Receipt
- negotiable FIATA Multimodal Transport Bill of Lading
- non-negotiable FIATA Multimodal Transport Waybill
- Shippers Declaration for the Transport of Dangerous Goods
- Shippers Intermodal Weight Certificate
- FIATA Forwarding Instructions

2. IATA, the International Air Transport Association, is a non-governmental organization representing the airline industry, with members covering some 240 airlines comprising 84% of total air traffic. IATA provides a standard approach for cargo facilitation to comply with government regulations requiring the provision of cargo information.

IATA has developed Dangerous Goods Regulations (DGR) to prepare and document dangerous shipments.

IATA's Live Animals Regulations (LAR) is a standard for transporting live animals. The Convention on International Trade in Endangered Species (CITES), recommends in its Resolution for Transport of Live Specimens (Conf. 10.21) that all parties dealing with the preparation and transport of live animal specimens follow the instructions provided by the LAR and incorporate them in their national legislation.

IATA's Perishable Cargo Regulations (PCR) is a reference guide for all parties involved in the packaging and handling of perishables for air transportation. CITES recommends that all parties dealing with the preparation and transport of live plant specimens follow the instructions of the PCR and incorporate them in their national legislation.

For electronic communication, IATA has developed solutions through e-freight, which aims to remove paper from the air cargo supply chain and replace it with cheaper, more accurate and more reliable electronic messaging. Both traditional EDI messages through IATA's CARGO-IMP standards and XML messages are used

3. ICS, the International Chamber of Shipping and the International Shipping Federation (ISF) are the principal international trade association and employers' organization for merchant ship operators, representing all sectors and trades and about 80% of the world merchant fleet.

They represent the industry on trade facilitation issues, such as:

- maritime safety
- shipbuilding standards
- cargo liability
- shipping policy and free trade

4. IRU, the International Road Transport Union, is the world road transport organization representing the interests of truck operators (as well as the interests of bus, coach and taxi operators) for the mobility of people and goods by road.

IRU is active in trade facilitation for road transport and aims to harmonize, as far as possible, all legislation currently governing road transport, in order to ensure inter-operability, avoid duplication and unnecessary confusion leading to costly delays, law infringements and fines.

5. UIC, the International Union of Railways, is a non-governmental organization representing the railway industry. UIC sets and publishes standards for railway sectors, such as for wagons, railway equipment and railway stations.

UIC holds responsibility for the railway consignment note (the CIM).

UIC has developed standards for the exchange of information between railway companies and railway infrastructure operators, called TSI (Technical Specifications for Interoperability).

6. SMDG is a user group for shipping lines, container terminals and port authorities, and has developed standards for the maritime container industry, for the exchange of information of stowage plans and of individual movements of sea containers to, within, and from ports. SMDG e.V. is a registered non-profit association, run by and on behalf of companies and

organizations working in the maritime industry, like container terminals, ocean carriers and related companies and organizations.

The name SMDG originates from the late 1980-ies when a group of IT experts got together for the design of the EDIFACT message BAPLIE. The group named itself “Ship Message Design Group”, abbreviated SMDG. In 1990-ies already the scope of this group widened to definition of more EDIFACT messages for the maritime business, but due to the fact that SMDG had been established as a brand in the maritime community it was decided to continue under this name. After more than 30 years of working in standardization of EDI SMDG has been recognized as official UN/CEFACT User Group for the maritime business.

Since its inception in 1987 SMDG arranged for a multitude of international meetings and workshops all over the world. Topics include, but are not limited to standard messages. Review of business procedures and new technologies are subject of discussion. We take care that discussions remain strictly technical and pre-competitive, avoiding to become in conflict with anti-trust regulations.

DEVELOPMENT OF URBAN TRANSPORT

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Whether by land or by sea, people have always sought to cross the earth and move to new places. It is impossible to imagine modern cities without public transport. Now I will tell you how public transport has developed.

The first regular vehicle was a boat. It is not by chance that Charon appears in Greek mythology — a boatman who ferries passengers across the river for money. Popular since the second half of the 19th century, the omnibus is considered the first regular public transport. It was a large horse-drawn carriage designed for 10-20 people. Some omnibuses had a second floor, the "Imperial", and travel on it was cheaper. Riding on such transport began in the middle of the XVII century: the predecessor of the modern bus appeared in Paris in 1662.

The official successor of the omnibus is the horse-drawn railway. The cars could accommodate up to 40 passengers. By the end of the nineteenth century, horsedrawn railways covered thousands of kilometers of tracks around the world. The Douglas Horse Tram is the last line of horse tram used as a public transport. There are 45 horses working there and 23 cars are serviced. In 1821, the first monorail was launched in Great Britain. The principle of operation of the monorail was the same everywhere - one rail either above the car or under it in the form of a track. Compared to the metro, monorail transport is simpler and cheaper to build, it is silent and at the same time moves faster than a tram. There are countries that still use monorails. The idea to move transport underground appeared in the XIX century, when the congestion of the streets of large cities increased. By the second half of the XIX century, a network of underground tunnels had already been created in London, through which steam trains ran. In Kiev, the construction of the metro began only by 1949. Simultaneously with the metro, a prototype of a modern tram was born. At the end of the XIX century, transport began to be massively converted to electric traction. At the beginning of the twentieth century, the first trolleybuses and electric trains appeared, trams and subways appeared. The world's first bus was powered by a steam engine and could accommodate only 8 passengers. Its creator was the British inventor Richard Trevithick. His bus resembled an ordinary carriage. In 1886, the first electric bus was created in London.

Today it is the most common type of urban transport. The first trolleybuses were considered an amazing mixture of tram and bus. In Ukraine, the first trolleybus appeared in 1935. This transport does not pollute the atmosphere. It is roomy, more maneuverable than a tram, although not as energy efficient.

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LOGISTICS MANAGEMENT SYSTEMS

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As such a pivotal function in day-to-day operations of many businesses, logistics is still noticeably slow to change. While retail and eCommerce face disruption and keep coming out on top, 50 percent of trucks travel empty on their return journey and warehouses are either overfilled or standing idle.

Digitalization will allow warehousing and transportation operations to elevate customer experience, deliver more value to partners, and consequently –

create an effective ecosystem of supply chain providers: manufacturers, carriers, freight forwarders, and more.

Typically, logistics works in two directions – forward and reverse. When we talk about logistics, we usually mean forward direction, which includes such operations as receiving and processing an order, checking and preparing inventory, packing and picking an item, dispatching it and selecting a transportation route that will deliver the product to a customer as quickly and efficiently as possible. Reverse direction means any operations with managing incorrect or damaged shipments, repairing items, and reusing or recycling.

In a digital world, to manage these processes in both ways, businesses use logistics management systems – a combination of software tools that optimize all processes from making an order and delivering it to a customer's door.

Main modules of a Logistics Management System: Order management
Receiving and processing an order online usually includes operations of creating and editing inventory, managing customer service, accepting payments, checking for fraud, and handling documentation between manufacturers, suppliers, warehousing, and transportation companies.

Inventory management Inventory management is a vital part of the supply chain responsible for controlling and documenting the amount of product for sale. Receiving, storing, and tracking inventory, while dealing with its rapid and constant changes, requires highly accurate product information management.

Warehouse management Warehouse management is a set of processes maintaining, controlling, and automating warehouse operations. This includes receiving items, moving them, maintaining safe work conditions, and using software and hardware to locate and track items.

Strategic transport planning After the order is assembled and wrapped, the last thing left before it leaves the warehouse is optimizing its shipment., namely:

- choosing a shipping method
- connecting to the carrier network
- defining customs fees and documentation for global fulfillment

Transport management The main software suite addressing freight transportation needs and managing all shipping details is transportation management software (TMS). Implementing TMS solutions, companies are looking for the following capabilities:

- delivery management and scheduling.
- cross-docking.
- last mile logistics.
- order tracking.
- transportation accounting.

To sum up, opting a logistics solution in one step to simplifying the entire cycle of logistical and supply chain operations. Effective management of each process from procurement to delivery requires a custom logistics management solution that can accommodate each provider's demands.

ROAD SAFETY
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Several thousand people die on the road every year. Hundreds of thousands of people are injured every year. These people are killed and injured in traffic accidents.

Accidents are often caused by carelessness of people. There are rules that help ensure road safety, but people do not follow them.

In our country, as in most other countries, traffic is kept on the right, but in the United Kingdom it is driven on the left. You may run into problems while driving. The data suggest that in accidents, passengers who use different types of seat belts suffer less impacts than passengers who do not. Seat belts have been shown to reduce the risk of serious injuries.

Accidents can be divided into three types as follows:

1. head-on collisions between cars;
2. Side impacts caused by accidents at junctions;
3. Rear impacts in which a car (often standing behind) is hit by another car. The most common are frontal accidents in which the driver and front passenger suffer head injuries. Therefore, the most important function of seat belts is to protect the driver and front passenger from head injuries.

Modern cars use different types of safety cushions to protect the lives of those sitting in the car. But the golden rule is to be careful on the road while driving. As for pedestrians, they should follow these rules: stop and look both ways before crossing the road. Look to the right, to the left, and then to the right again. If the road is clear, it is safe to cross it.

Road safety is very important; affects the lives of most people. Whether they know it or not. Police officers play a key role in promoting improved road user behavior. The general deterrent provided by the police will support the public's perception that "always and always" compliance is the best way to avoid sanctions and improve security. Road safety is the result of interactions between the driver, the road and vehicles. Advances in design have improved driver performance and road improvements, all of which have contributed to the level of safety we currently enjoy. Many dual carriageways were built before the current safety guidelines were drawn up and face problems arising from traffic levels that far exceed expectations. Especially on the outskirts of urban areas. The risk of death in a road accident is more than 3 times higher in low-income countries than in high-income countries. Well-enforced road safety laws on speeding, drinking and driving, and using seat belts, child restraint systems and motorcycle helmets can save millions of lives and prevent injuries. Road design, improved vehicle standards and better emergency care also save many lives.

The old road safety paradigm of the net risk of an accident is a much more complex matter. Factors contributing to motorway accidents may be related to the driver (eg driver error, illness or fatigue), the vehicle (failure of the brakes, steering

or throttle) or the road itself (lack of visibility, weak free zones on the road). , etc.). Interventions may seek to reduce or compensate for these factors or reduce the severity of accidents. A comprehensive outline of areas of intervention can be seen in road safety management systems. Driving under the influence of alcohol Although alcohol-related rates have fallen dramatically over the last three decades, around 200 people are still killed each year in alcohol-related accidents. Not only the drivers who drank suffer, but often also their passengers, people in other vehicles, pedestrians, cyclists or motorcyclists and the families of all involved. In 2018, under the influence of alcohol, 110 pedestrians and 380 car passengers were killed or seriously injured. Drivers under the influence of alcohol killed or seriously injured 40 children (0-15) that year.

Obviously, there is still work to be done to prevent alcohol-related accidents, deaths and injuries. Driver distraction Much attention is being paid to driver distraction due to the use of mobile phones in vehicles, but research is also increasingly revealing the dangers of other forms of driver multitasking and its role in road accidents.

Although our driver distraction fact sheet mainly talks about driver distraction, other road users, including riders, cyclists and even pedestrians, may be distracted when using the road.

Speeding Drivers and drivers traveling at excessive speeds - exceeding the speed limit or driving too fast depending on the conditions - are more likely to have an accident and a higher speed means that the collision will cause more serious injuries to themselves and / or other road users. Best practices in a modern road safety strategy:

The basic strategy for a safe system approach is to ensure that, in the event of an accident, the energy of the impact remains below the threshold likely to cause death or serious injury. This threshold will vary depending on the accident scenario, depending on the level of protection offered to the road user. For example, the chances of survival of an unprotected pedestrian being hit by a vehicle are rapidly reduced at speeds above 30 km / h, while for a properly restrained occupant in a motor vehicle, the critical impact speeds are 50 km / h (in side impacts) and 70 km / h. (for frontal impacts).

Here are some things we can do to avoid accidents. However, there is no guarantee that we will never get involved. It is important to be constantly on the lookout when using roads. We need to know what's going on around us. In this way, we can take the necessary steps to avoid danger whenever we see one. Road safety depends to a large extent on how we use the roads. Use them carefully and we may be able to use them for a long time. Use them carelessly and we may never be able to use them again. cripple to injure a person so seriously that a part of his body will no longer function as it should, move quickly, tear to move irregularly, especially by sudden movements backwards or forwards or from side to side.

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CARGO INSURANCE FOR ROAD TRANSPORT
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Transport is a vital branch of the economy, ensuring the economic security and integrity of the state. Foreign trade is closely related to transport. Transport carries out the delivery of goods from the exporter to the importer. Its normal functioning ensures the fulfillment of obligations by the parties to buy and sell, the commercial effect of a foreign trade transaction. Of great importance is the correct choice by the parties of the optimal method of transportation, the route of movement of goods.

Cargo insurance during transportation protects the interests of the owner of the goods and allows you to compensate for damage in situations related to financial losses due to damage or theft. In this case, the insured can be both the carrier himself and the forwarder who is responsible for transportation.

Route selection criteria are primarily determined by the customer's requirements, that is the priority of two components is determined: the time of transportation or the cost of its implementation. The route is selected based on various criteria: the duration of transportation, the number of transshipments (which affects the safety of the cargo), the existence of traditional routes. Automobile transportation has the following features:

- the ability to deliver goods from the consignor to the consignee without reloading;
- ensuring high safety of cargo;
- great mobility and speed of transportation;
- cost-effectiveness in the transportation of unit cargo over short distances (up to 200 km);
- the rhythm of the transportation of goods without the need to accumulate them;
- limited use over long distances when transporting large consignments of goods;
- dependence on the road network;
- an expensive form of transport for long-distance transportation.

The cargo is accepted for insurance in the amount declared by the insured, but not higher than the value indicated in the shipping documents. The liability of the insurance organization begins from the moment when the cargo is taken from the warehouse at the point of departure and continues throughout the entire transportation

until the cargo is delivered to the consignee's warehouse or other final destination specified in the insurance certificate. The insurance contract can be concluded both at the location of the shipped cargo, and at the place of its receipt. The following information must be indicated in the application for concluding a contract: the exact name, type of packaging, the number of pieces and the weight of the cargo; number and dates of shipping documents, kind of transport.

According to the decision of the insurance organization, the contract may be concluded with an inspection of the property and drawing up its inventory, which, depending on the type of goods, indicates: name and inventory number, quantity, price, brand, year of issue, technical passport number and total cost. The policyholder is obliged, as soon as he becomes aware, to inform the insurance company about all significant changes in the degree of risk: a significant delay in the flight, deviation from the route specified in the insurance contract or the usual route, change of the point of transshipment, unloading or destination of the cargo.

Insurance is carried out on the following conditions:

- "with responsibility for all risks";
- "with responsibility for a private accident";
- "only from the complete destruction of all or part of the cargo".

Cargo insurance for delivery by any means of transport is necessary for everyone who sends their goods to the customer and, depending on the applicable terms of delivery of Incoterms, is to varying degrees responsible for the complete delivery of the goods. The list of such persons includes:

- commercial and industrial enterprises;
- trading companies;
- small and medium enterprises, multinational companies and all exporters and importers in general;
- infrastructure projects (project cargo);
- forwarders and carriers.

The nature of the cargo affects the cost of insurance. For example, usually the lowest rate corresponds to goods that are practically impossible to damage during transportation - stones, metals. If we are talking about perishable goods, or goods of increased value, then their insurance will cost more.

There are no restrictions on which cargo can be insured and which cannot be insured. The only difference is that insurance of certain categories of cargo requires prior approval. For example, they may include precious stones and precious metals, products from them, works of art, goods with excise stamps. Also, a special procedure for consideration is determined for the military arsenal (ammunition, weapons, ammunition), pets, houseplants.

All of the above suggests that in modern foreign trade, insurance acts as a financial stabilizer, allowing a merchant to compensate for losses that he suffers as a result of unforeseen random events that damage business, to receive protection from accidental (but not from inevitable) damage arising from transportation cargo. The technogenic environment in which we live today, environmental and social conditions multiply the risks that threaten business, and generate huge, unprecedented

in previous times, losses. Modern foreign trade cannot do without insurance, and in most cases an insurance contract is an integral part of a trade transaction.

MODES OF TRANSPORTATION IN LOGISTICS

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Logistics refers to the transportation of merchandise – raw materials or finished products – from the point of production to the point of final consumption. Different modes of transportation – road, rail, water and air – can be used for the effective management of merchandise. Every mode of transportation requires a different set of infrastructure, type of vehicles, technological solutions and regulations. All modes of transportation have different costs, service and transit times. There are the following types of cargo (freight): a) general cargo (goods packed in boxes); b) bulk cargo (large quantities of cargo, e.g. sand); c) bulky cargo (large individual items, e.g. cars). A consigner (someone who ships goods) chooses how to send the consignment (these goods) to the consignee (someone who receives these goods) by water, road, railway, air.

1) Road

Road transportation is one of the most basic and historical means of transportation. Road transport is the principal means of transport in the European Union for both passengers and goods. Today, the European Union has almost one vehicle for every two residents, and road freight traffic represents more than two thirds of the total tonnage. There are many different types of vehicles, although trucks are typically used for carrying or delivering freight. Road transportation offers a relatively lower cost compared to other logistic forms and has a widely recognizable and flexible route. However, transportation by road takes a relatively longer period of time than other means of transportation. Besides, it offers a limited capacity. Road transport is most often used for comparatively inexpensive, non-perishable items or for shorter distances.

2) Rail

Rail transport is a means of conveyance of passengers and goods by way of wheeled vehicles running on rails. It is also commonly referred to as train transport. Rail transport uses freight trains for the delivery of merchandise. Freight trains are usually powered by diesel, electricity and steam. A freight train hauls cargo using freight cars specialized for the type of goods. Freight trains are very efficient, with economy of scale and high energy efficiency. However, their use can be reduced by lack of flexibility, if there is need of trans-shipment at both ends of the trip due to lack of tracks to the points of pick-up and delivery. Container trains have become the dominant type in the US for non-bulk haulage. Containers can easily be trans-shipped to other modes, such as ships and trucks, using cranes. Passenger trains are part of

public transport; they can perform a variety of functions including long distance intercity travel and local urban transit services.

3) Water (maritime transportation)

Sea transport has been the largest carrier of freight throughout recorded history. Main maritime routes include oceans, coasts, seas, lakes, rivers and channels. Water transport uses ships and large commercial vessels that carry billions of tons of cargo every year. Sea, lake or river transport is particularly effective for significantly large quantities of goods that are non-perishable in nature and for cities or states that have water access. Moreover, transport via water is considerably less expensive than other logistics methods, which makes it one of the most widely used choices of transport for merchandise.

4) Air transportation

An airline is a company that provides air transport services for travelling passengers and freight. Airlines vary from those with a single aircraft carrying mail or cargo, to full-service international airlines operating hundreds of aircraft. Airline services can be categorized as being intercontinental, intra-continental, domestic, regional, or international, and may be operated as scheduled services or charters. Air routes are practically unlimited. Merchandise is carried in cargo compartments on passenger airplanes, or by means of aircraft designed to carry freight. Although air transport is more expensive than all other means of transportation, it is definitely most time-efficient. Perishable merchandise like fruits and vegetables are generally sent by air. More recently, air transportation has been accommodating growing quantities of high value freight and is playing a growing role in global (international) logistics.

5) Pipelines

Pipeline transport is the transportation of goods (liquids, gases, chemically stable substances) through a pipe. Pipeline routes are also practically unlimited as they can be laid on land or under water. The longest gas pipeline links Alberta to Sarnia (Canada); it is 2,911 km in length. The longest oil pipeline is the Trans-Siberian, extending over 9,344 km from the Russian arctic oilfields in eastern Siberia to Western Europe. Pipeline construction costs differ according to the diameter, and increase proportionally with the distance and with the viscosity of fluids. Pipeline terminals are very important, since they correspond to refineries and harbours.

6) Intermodal and multimodal transportation

Intermodal transportation concerns a variety of modes used in combination so that the respective advantages of each mode are better exploited. It involves the movements of passengers or freight from one mode of transport to another.

Multimodal transportation (also known as combined transport) is the transportation of goods under a single contract, but performed with at least two different means of transport; the carrier is liable for the entire carriage, even though it is performed by several different modes of transport (by rail, sea and road, for example). The carrier does not have to possess all the means of transport; the carriage is often performed by sub-carriers (actual carriers). The carrier responsible for the entire carriage is referred to as a multimodal transport operator, or MTO.

MERCEDES BENZ CAR ADVERTISEMENT
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Advertising communication is a one-way process where the encoded message is transmitted through social stereotypes, values and standards to potential consumers in order not only to acquaint with the advertising offer, but also to influence choices, motivate a person to action. My aim was to study the advertising history of the car brand "Mercedes-Benz", because for motorists from around the world it is not only one of the most recognizable and important among the world's car manufacturers, but was originally Associate with the concept of "car". And today's innovations of the automaker are based on the same image things and values as hundreds of years ago: safety, comfort, efficiency and belief in success, thanks to them the most famous German brand demonstrates the dynamic growth of global sales.

Mercedes-Benz advertising has also always stood out for its branded performance and creativity - the brand has never spared money on marketing. For example, interesting advertising of the BlueEFFICIENCY system (the system is a technical solution for optimizing fuel consumption and emissions). A billboard was placed at Johannesburg Airport, which was originally just a white surface and the Mercedes-Benz logo. However, after a while, air pollutants accumulated on the billboard, and on a white background the message was clearly visible: "If more cars had BlueEFFICIENCY, you would not be able to read it."

The real work of art was a video created in October 2001 by Gerard de Thame's Mill Film studio. The video was based on a biblical story about Noah's ark. In the gloomy desert, under the black sky, stands a huge ship; it is entered first by animals and then by humans. People carry Mozart's notes, a Macintosh computer, a Steenway & Sons piano, Miles Davis' Birth of the Cool, and Hemingway's A farewell to arms. The last to enter the ship are two silver E-Class Mercedes. The speaker's soft voice asks, "If the flood happened today, what would you take with you?" All these marketing techniques are used not so much to increase sales of a particular brand, but to add attractiveness to the car brand "Mercedes-Benz".

The slogan "The best or nothing" of the Mercedes-Benz brand has replaced the current slogan "Unlike Any Other". The new slogan is part of Mercedes-Benz's new marketing strategy, which reflects the brand's desire to be the best in the market, as well as the brand's values - impeccability, attractiveness and responsibility. The slogan "The best or nothing" was the motto of Gottlieb Daimler, the founder of the Daimler concern, which owns the Mercedes-Benz brand.

For comparison, here are examples of branded image slogans of another German carmaker, Europe's largest carmaker BMW: "A car designed to control fate, not to tempt it", "BMW: the highest type of controlled car", "BMW - the norm of superiority", "BMW - it's a quality for life ", " BMW - with pleasure behind the wheel.

" The lexical units "fate", "temptation", "superiority" are emotional components of slogans.

From all the presented slogans in the article we can conclude that the vocabulary of slogans of the German car manufacturer "Mercedes-Benz" is an expression of the essence of the automotive business, conveys visual and emotional information about the company not only through the appearance and technical characteristics of cars. -characters that help visualize a positive image of the company.

RESEARCH OF THE MARKET OF CARGO TRANSPORTATION BY ROAD TRANSPORT IN THE INTERCITY CONNECTION BY SINGLE ORDERS

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Fixed and single orders are presented on the freight market. In contrast to fixed orders for the carriage of goods, which have a clearly regulated procedure and are carried out under pre-agreed terms of a long-term contract, single orders are random.

The segment of single orders accounts for almost half of the intercity trucking market. Therefore, it is interesting to study.

Considering the development of information technology, the main source of information about single orders are specialized logistics sites. In Ukraine, the most famous are three servers: lardi-trans.com, della.ua and ati.com.ua. These sites are presented online databases with information about the order. The current study looked at statistics from lardi-trans.com. Since it is the most popular in Ukraine and, accordingly, has the largest target audience in the field of road transport.

The study focuses on goods that don't require special transportation conditions, have a volume of 20 tons and are transported in intercity traffic. Statistical information was collected within 5 working days, weekends are not taken into account, because the number of single orders on these days is very small.

In order to create a single file that would display a common array of data, we build the appropriate tables in Microsoft Office Excel.

A large number of orders for the carriage of goods is duplicated several times. After clearing the data set, we can objectively assess the demand of the market segment of single orders. One of the best ways to reflect the demand for long-distance freight is a matrix of single orders for their execution. The headings of rows and columns are the names of the regions of the country.

Due to socio-political and economic changes in Ukraine, the Autonomous Republic of Crimea is not taken into account when building a matrix.

As a result of building a matrix based on visual analysis, we note that the largest number of orders comes from and to Kyiv region, as well as Dnipropetrovsk region. The smallest number of orders comes for transportation from Luhansk and Chernivtsi regions.

The study and analysis of the single order market is a complex process due to the presence of a large number of random factors. For the same reason, the process of servicing such orders is a significant difficulty. This study is useful for finding a rational strategy for the carrier's behavior, because it reflects which areas of transportation are attractive, ordinary and unattractive.

THE UNIFIED SYSTEM OF THE FARE PAYMENT IN ISTANBUL

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The world is developing quite rashly. Every year it moves to a new level of improvement. Now our life can't be imagined without technologies e.g. bank cards. Everyone can leave home with the bank card and solve any problem without cash on you.

Every single day the world economy means to withdraw cash from everyday life. It helps to stabilize economic processes in countries. Paying by card allows excepting the height of the informal economy. It is also true for transport. The unified system of the fare payment has been introduced in Ukraine recently. It allows taking into account everyday passenger traffic and filling the local budget. Using card people can pay for all means of public transport: tram, trolley, underground, bus. The government of the other cities also includes cable car and local train. While such type of system was launched in Ukraine only in 2017 and keeps developing, in Istanbul it has been working since 2009.

Istanbul public transport is highly developed. It covers an area of more than 5700 square kilometers. The public transport includes buses, trams, dolmuş minibuses, underground, local trains, ropeway, cable cars and ferries.

As I mentioned before the unified system of the fare payment works in Istanbul very well. The public transport is part of the IETT - Istanbul Electric Tram and Tunnel Operations. This is an organization, which provides public transport services in Istanbul and is run by Istanbul municipality.

In Istanbul the public transport payment is made with a once-only e-ticket or a special card – Istanbulkart. Paying in cash is only allowed on dolmuşes, taxi, buses Havaist (the new airport of Istanbul) and Havabus (Sabiha Gokcen International Airport) and the ferries of the private companies.

There are four types of Istanbulkart:

- ANONIM Istanbulkart – You must pay for full rate. This card is mostly used by tourists;
- MAVI Istanbulkart - monthly subscription;
- INDIRIMLI Istanbulkart – special reduced fares on public transport for students, teachers, pensioners who are over 60 years old;
- UCRETSIZ Istanbulkart - for disabled people, pensioners who are over 65 years old, civil servants.

The main advantage of the Istanbulkart is the fare payment by this card is lower than by the once-only e-ticket, because there are special reduced fares for Istanbulkart users. For example, one transport trips on tram, underground, bus, cablecar, state ferry costs 3,5 lira or 9,69 hryvnias. When you transfer to other transport in two hours, you will pay less. By the way, the transfer to the other line of the underground is transfer too.

- one transfer – 6,92 hryvnias;
- two transfers – 5,26 hryvnias;
- three – five transfers – 3,32 hryvnias.

It is quite comfortable. For instance, you take a bus to get to Rumeli Fortress and pay for full rate. You need one hour to go around the sight. Then you take a return bus and pay less, because you have had a transfer. This system reduces the fare payment substantially.

Considering that Istanbul public transport transitioned to the electronic fare payment system completely, Istanbulkarts' spread is a well working process. Special machines and terminals are used for buying the cards and located at every turn. There are two types of the machines – a yellow terminal, which is called “Biletmatik” and a blue terminal, which is called “Istanbulkart”. I would like to explain how to buy the card using the yellow terminal. Firstly, you should choose language.

Then you need to push “Istanbulkart-13 TL” in the menu (since September 2021 the price of the Istanbulart is 13 lira – 34, 09 hryvnias). Confirm your actions. Now you can take away your card. It should be pointed out the yellow terminal doesn't give change unlike the blue terminal. If you insert large bills into validator, the change will be transferred on the card.

Because of the last events related to spreading Covid-19, HES-code is used all over Turkey. This is a personal code is introduced by Istanbul Ministry of Health to keep track of infected people. This is necessary to connect the code with the Istanbulkart since January 15, 2021. Otherwise all cards won't work.

The Istanbulkart stopped being a simple travel ticket for a long time. The technical capabilities of the card allow using it for making contactless payment in different spheres of life: in stores and malls, to enter museums and entertaining centers, in restaurants, online stores, parking, beaches etc. This is pretty small investment with unlimited serviceable life. Even creditcards are changed more often than Istanbulkarts.

The unified system of the fare payment creates comfort conditions for the citizens of Istanbul. It helps to save money and move with the times. Ukraine is also moving in this direction and rather quickly. I think in Ukraine this system will be developed at this level eventually.

INTRODUCTION OF ELECTRONIC BILL OF LADING IN UKRAINE

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The bill of lading or waybill is the main document for the cargo, which must be issued in the course of cargo transportation, both for domestic and international. This document contains information about the product, its quantity, route, details of the sender and recipient, as well as information about the transport company and the rolling stock that carries out the transportation.

According to the draft law No. 6534, from the first August 2021, Ukraine introduces the mandatory use of electronic waybills for all types of freight transportation throughout Ukraine. This innovation will entail a number of significant changes in the logistics industry.

The history of attempts to introduce electronic consignment notes into the freight transportation system have started in 2013, which ended in failure. In July 2019, an order of the Ministry of Infrastructure came into force that allowed carriers to use electronic waybills at the level of paper forms. However, in the two years since the beginning of the existence of this project, only a few entrepreneurs have managed to introduce it into their business.

As indicated in the draft law, electronic waybills were developed to stimulate the development of the digital economy in Ukraine, the introduction of modern technical solutions in the field of transportation, and also as a tool to reduce the shadow economy of Ukrainian.

The main advantage of the electronic bill of lading will allow entrepreneurs to get rid of a bunch of papers, archives and simplify the process of exchanging documents between the parties in the process of freight transportation. There is a human factor in the current system of transport operation. Bills of lading are often filled with errors, they are confused and lost.

The change to a new form of bills of lading will simplify the process of cargo clearance and interaction between participants in transportation. It helps save time and resources. The entrepreneur creates only one bill of lading, which will be automatically sent to the tax office for signatures, seals, etc.; customer and sender for confirmation. No longer we have to spend resources on a courier to deliver copies to all parties to the contract. It will reduce the number of corruption schemes and increase the transparency of tax payments. Not a small part of business in Ukraine conducts the so-called "shadow" business, which fears that data on its transportation will become available to the Ministry of Infrastructure and regulatory authorities as a result of this innovation. It will have a positive impact on the environment, help reduce the cutting down of trees for the manufacture of paper products.

Carriers often faced non-payment by the customer for the services provided, explaining this by simply not receiving the bill of lading. All this entailed a long process of restoring documents with a further delay in payment. In the new system, all

documents including the bill of lading will be located in the "cloud" and will be able to be presented to the client at anytime to pay for the transport service.

There are some famous companies in Ukraine that are using actively this technology, they are: Prostor, Socar, Watsons, Novus, Eldorado, Okko, Metro, Silpo, Foxtrot and Sushiya. As for the shortcomings, they are minimized. At the first time of using electronic consignment notes, due to the inevitability of insufficient knowledge and experience, mistakes will be made in their design and filling. You also need to remember that everything that is in the "cloud" is subject to a cyber attack in order to distribute confidential information to the public. Based on the foregoing, we can state the inevitability of introducing an electronic waybill. This will definitely have a positive impact on the process of organizing freight traffic. All entrepreneurs now need to start the process of preparing the transition to the electronic format of the bill of lading.

THE PROBLEM OF INCREASING ROAD SAFETY FROM THE POINT OF VIEW OF A FOREIGN EXPERT

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Abstract. The analysis of the main causes of road accidents with victims and dead, from the point of view of a forensic expert. It is proposed to focus on measures aimed at ensuring compliance with traffic rules by drivers in the development of the State Program to improve road safety in Ukraine for the period after 2020. **Keywords:** Road safety, road accident, traffic rules, causes of road accidents.

Formulation of the problem. According to the statistics of the Patrol Police Department for 2018, there were 150,120 traffic accidents on the roads of Ukraine, in which 30,884 people were injured and 3,350 people died; in 2019 - 160,675 road accidents in which 32,736 people were injured and 3,454 people died; for 7 months of 2020 - 86,890 road accidents in which 17,068 people were injured and 1,771 people died.

Ukraine is among the top five European countries in terms of road deaths. Ukraine among European countries, according to the website "WORLD ROAD TRAFFIC ACCIDENT REPORT", is in fourth place in this ranking - every year on the roads of Ukraine in road accidents kill 8.87 people per 100 thousand population.

The above data indicate that a significant number of road accidents occur on the roads of Ukraine, in which people are injured and killed, as well as significant material damage. At the same time, the death rate in road accidents in Ukraine is one of the highest in Europe. Thus, improving road safety on the roads of Ukraine, in order to reduce the number of accidents and reduce their negative consequences, is an urgent task.

Analysis of research and publications. As of 2020, the State Program for Improving Road Safety in Ukraine for the period up to 2020, approved by the resolution of the Cabinet of Ministers of Ukraine of April 25, 2018 № 435.

The problem of improving the level of road safety, according to the State Program for improving the level of road safety in Ukraine until 2020 is solved by:

1. improving public administration in the field of road safety;
2. improving the accounting and analysis of data on road accidents;
3. increasing the level of road safety and road infrastructure;
4. increasing the level of vehicle safety;
5. improving medical care in the field of road safety and driver training;
6. increasing the level of safety of transportation of passengers and goods by commercial road transport;
7. improving the safe behavior of road users;
8. improving the implementation of measures to respond to and manage the consequences of road accidents;
9. ensuring compliance with traffic rules.

The purpose of the article. To analyze the main causes of road accidents with victims and dead, from the point of view of a forensic expert. Propose to focus on measures aimed at ensuring compliance with traffic rules by drivers in the development of the State Program to improve road safety in Ukraine for the period after 2020.

Presenting main material. The vast majority of road accident examinations performed by forensic experts of the Expert Service of the Ministry of Internal Affairs of Ukraine are appointed within the framework of criminal proceedings. At the same time, according to the current legislation, the condition for initiating criminal proceedings in an accident is the receipt by its participants of moderate and (or) severe injuries, as well as the death of participants in the accident.

Thus, forensic experts of the Expert Service of the Ministry of Internal Affairs of Ukraine, when conducting examinations in connection with road accidents, mainly deal with road accidents in which people were injured and killed.

Based on modern expert practice, in the vast majority of cases, from a technical point of view, the cause of the accident is the inconsistency of drivers' actions with the requirements of the Rules of the Road of Ukraine.

The main sections of the Rules of the Road of Ukraine, compliance with the requirements of which drivers significantly affect road safety and the occurrence of accidents with serious consequences are:

Section 8 "Traffic Regulation".

Chapter 10 "The beginning of the movement and change its direction."

Chapter 12 "Speed of movement".

Section 16 "Crossroads".

Section 18 "Passage of pedestrian crossings and vehicle stops".

According to expert practice, inconsistencies in the actions of drivers to the requirements of Section 8 "Traffic Regulation" of traffic rules lead to accidents with serious consequences. Because, for example, when driving at a red traffic light that

prohibits traffic, there is a cross-collision of vehicles - or, in other words, a side impact that poses the greatest danger to the driver and passengers. Adjusting pedestrian crossings at a red traffic light will result in pedestrians being hit with serious or fatal consequences for the life and health of pedestrians.

Also, according to expert practice, inconsistencies in the actions of drivers to the requirements of Section 10 "Start and change of direction" of the traffic rules lead to accidents with serious consequences. Because, for example, in road accidents that occur when turning on the roadway or leaving the surrounding area, there is also a cross-collision of vehicles - or, in other words, a side impact that poses the greatest danger to the driver and passengers. Reversing, without safety, can result in a pedestrian being hit with serious or fatal consequences for the life and health of pedestrians.

Non-compliance with the requirements of Section 12 "Speed of traffic" of drivers also leads to accidents with serious consequences. Because, a common phenomenon is the situation when the driver, moving in excess of the maximum allowable speed can not stop at the place of impact on a pedestrian or the place of collision. However, under the same conditions, but when driving at an acceptable speed, he has the opportunity to stop at the place of collision with a pedestrian or the place of collision. One of the most common points of the Rules of the Road, which is used in the technical assessment of the possibility to warn the driver of an accident - is paragraph 12.3 of the Traffic Code. This paragraph states: "12.3. If there is a danger to traffic or an obstacle that the driver is objectively able to detect, he must immediately take measures to reduce speed until the vehicle stops or a safe obstacle bypass for other road users. " At the same time, according to expert practice, it is known that untimely measures to reduce speed in the event of danger to traffic are often the cause of accidents with serious consequences. Non-compliance of the driver's actions with the requirements of paragraph 12.3 of the Traffic Code has serious consequences, both in collisions with pedestrians and in collisions.

According to expert practice, inconsistencies in the actions of drivers to the requirements of Section 16 "Crossroads" of the traffic rules lead to accidents with serious consequences. Because, for example, when leaving the secondary road on the main road, without giving preference to traffic, there is a cross-collision of vehicles - or, in other words, a side impact, which, in turn, poses the greatest danger to the driver and passengers. Also, the above applies to the passage of regulated intersections, for example, when turning left at a green traffic light, without giving preference to oncoming vehicles.

Inconsistencies in the actions of drivers to the requirements of Section 18 "Passage of pedestrian crossings and stops of vehicles" traffic rules very often lead to accidents with serious consequences. Because drivers do not give preference to pedestrians at unregulated pedestrian crossings, which leads to collisions with pedestrians with serious or fatal consequences for the life and health of pedestrians. According to the above, based on modern expert practice, from a technical point of view, the main cause of accidents with victims and dead are non-compliance of drivers with the requirements of the Traffic Rules of Ukraine. It is determined that

non-compliance of drivers' actions with the requirements of sections 8, 10, 12, 16, 18 of the Rules of the Road of Ukraine leads to accidents with the most serious consequences for the life and health of road users.

Thus, when developing the State Program for Improving Road Safety in Ukraine for the period after 2020, it is first necessary to focus on measures aimed at ensuring compliance with traffic rules by drivers. Namely, to ensure that drivers comply with the requirements of paragraphs 8, 10, 12, 16, 18 of the Rules of the Road of Ukraine.

Conclusions and suggestions. From the point of view of a forensic expert, the main causes of road accidents with victims and dead were analyzed. It was also suggested to focus on measures aimed at ensuring compliance with traffic rules (requirements of paragraphs 8, 10, 12, 16, 18) by drivers, in developing the State Program to improve road safety in Ukraine for the period after 2020.

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MARITIME TRANSPORT MANAGEMENT

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Maritime transport is an important factor of economic development of every maritime country. Its basic task is providing shipping services, meaning that they may as well be considered as the product of the shipping economic activity.

Regarding the current marine shipping crisis, the key to success of every shipping organization, region and maritime country lies in efficiency and safety of its maritime shipping services. These are determined by the high-quality management of maritime shipping as one of the subsystem of transport as a whole.

Nowadays, severe competition between shipping companies in the world shipping market makes shipping services a key to their existence and future development. Special emphasis should be placed on service safety and safe navigation in general and good management of the same, resulting in considerable reduction of the number of maritime accidents in recent years, protection of human lives and preservation of marine natural resources.

1 SYSTEMATIC ASPECTS OF MARITIME TRANSPORTATIONS

Maritime transport involves transport of passengers or goods by sea, which is often called shipping trade (seaborne), which can be passenger and cargo shipping. Theoretically speaking, cargo shipping is a very broad term assuming various modes of employment of cargo ships. There are several types of cargo shipping:

1. tramp
2. liner
3. specialized shipping.

Each of these types of cargo shipping operates in accordance with their operational processes and control procedures, which are managed and controlled by quality management of shipping companies, and supervised by the competent state institutions and international organizations for control of maritime navigation.

Maritime transport involves the physical transport of cargoes from an area of supply to an area of demand for certain types of goods, together with all the activities required to support and facilitate such transport.

However, the realization of shipping services involves a number of commercial activities, the existence of appropriate infrastructure, procedures for shipping operations, organizational management systems such as enterprise resource planning or information system which integrates all operations and applications within a shipping company or organization. The efficiency of shipping services is determined by the ratio of supply and demand on the shipping market and managerial maritime transport uses market mechanisms in the regulations of supply and demand relationship.

2 EFFICIENCY AND QUALITY OF SHIPPING SERVICES

Maritime transport naturally represents service industry which should be able to provide quality service to passengers and goods, and moreover, it should stand for the basis of every shipping company on a competitive and variable shipping market. Therefore, the quality, efficiency and safety are the most important factors in terms of maritime transport.

Quality shipping services can be viewed through several dimensions:

1. Reliability
2. Frequency
3. Speed
4. Price
5. Confidence
6. Perceptibility
7. Affability
8. Identification

CONCLUSION Maritime transport is an economic activity exposed to strong competition, which is constantly forcing shipping companies to improve their services, and develop and modernize their fleet. In doing so, a clear strategy within the shipping company system and a system of a maritime country, based on the functional management and logistic concept should give the best results as regards

the efficiency and safety of its services. In other words, the quality and safety are fundamental requirements maritime shipping users.

WARTIME LOGISTICS: PROBLEMS OF UKRAINIAN EXPORTS REMAIN UNRESOLVED

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Ports blockade leads to systemic and long-term problems for Ukrainian goods exports. In peacetime, about 75% of Ukraine's foreign trade was shipped via ports. Under the blockade (and unclear prospect of unblocking) of seaports, Ukrainian companies start developing new logistics routes. A number of companies can transport products by road, but they face the challenges to buy fuel and cross the border. Such cargoes as grain, iron ore and some metal products cannot be transported only by road, although grain producers actively use road transport.

The main thing is the price for the country. Ukraine loses \$170 million daily due to the blockade of ports. According to the Dragon Capital investment company, in 2022 Ukraine's GDP will collapse by 30% if the war continues until the end of the year, and by 22-25% if a truce achieved and ports opened. What is the way out of this situation, and how can Ukraine save at least part of its exports?

Ports situation The situation in Ukraine's ports is depressing. Seaports "Mariupol", "Berdyansk", "Skadovsk" and "Kherson", which are located in the temporarily occupied territory, are closed. Also, Ukraine cannot use the Dnipro river logistics, since the Kakhovka reservoir has been captured. Other ports, although not occupied, are completely blocked by the Russian Navy and mine danger.

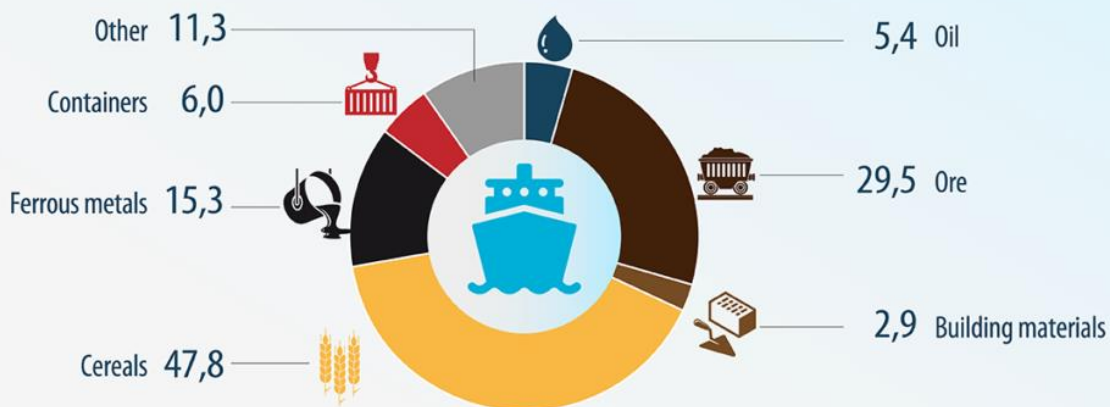
Even the full load of the working Danube ports – Ust-Danubsky, Izmail and Reni – cannot be considered a way out of this situation. In April these ports almost quadrupled their cargo transshipment compared to February, to 850,000 tons, but their capacities are small (they can provide exports or imports of no more than 10% of the peacetime turnover). Transshipment is limited on the European side, and the railway infrastructure is under constant missile threat from the Russian Federation, while only Reni and Izmail ports have railway connections. The Ministry of Infrastructure believes Danube ports transshipment can rise up to 1 million tons per month.


Earlier, the International Maritime Organization (IMO) and Ukrainian business proposed creating safe corridors to unblock ports, which would require the involvement of the UN and the countries of the Black Sea basin. However, the situation has not changed in any way. Everything depends on the security situation and the will of the Russian Federation. According to UN estimates, if the blockade of Ukrainian seaports continues, some poor countries will inevitably face food shortages.

The key logistical artery of Ukraine remains the railway, but it will not be able to immediately take out everything that passed through the ports. According to the GMK Center, the average share of exports in Ukrainian seaports is 77.1%. For

example, for grain – 95.6%, ferrous metals – 94.7%, oil (mainly vegetable) – 90.2%. In particular, 49.8 million tons of grain (+2%), 29.5 million tons of ore (-13.8%) and 15.3 million tons of ferrous metals (+1.8%) were exported via seaports in 2021.

The structure of export transshipment of goods in the seaports of Ukraine in 2021, million tons



Source: AMPU 

The level of problems in the industry, including due to logistics, can be understood from the current figures. Ukrainian mining and metals companies in January-April 2022 reduced the export of pig iron by 52.7% compared to the same period in 2021, to 451.1 thousand tons, and iron ore by 8.6%, to 13 million tons. Steelmakers now name logistics as the main problem in their work, which is why many enterprises are forced to operate at 40% of their capacity.

“Iron” difficulties The ability of Ukrzaliznytsia to export products is limited both by the lack of border infrastructure now, and by military operations, in particular, by rocket attacks on the railway infrastructure. Therefore, now the average daily loading of Ukrzaliznytsia is 40% of the pre-war level. In April, 9.15 million tons of cargo were transported by rail, of which only 3.9 million tons were exported. At the same time, today Ukrzaliznytsia does not control 10% of its infrastructure.

The main difficulty for exporting exports by rail is the different gauges. In Europe the railway gauge is 1435 mm, while in Ukraine it is 1520 mm. According to industry sources, the total daily capacity of Ukrzaliznytsia and companies from neighboring countries to changing cars chassis from 1520 mm gauge chassis to 1435 mm gauge chassis is 175 cars. In fact, these are only three full-fledged trains with cargo.

According to Ukrzaliznytsia, more cars can be taken on the border of Ukraine with Hungary (75 cars per day), including at the Chop-Zahony crossing (54 cars). There is also a high potential at the Ukrainian-Romanian border (70 cars). Three border crossings between Ukraine and Poland allow changing chassis on 61 cars daily. In total, there are four locations for the changing chassis of cars from the wide to the standard European track.

Logistic options One of the options for resolving the issue could be the transshipment of Ukrainian export products through the ports of the Baltic countries. However, railway delivery through Poland is complicated there. In the Baltic countries, the gauge is 1520 mm, in Poland the railway has a European gauge, which means double transshipment of goods from wagon to wagon along the way, for example, to Estonia. Delivery of bulk exports through Belarus (which is already being discussed for the export of grain) does not yet look like a realistic option.

If we consider the Romanian option, then the port of Constanta is already operating at almost full capacity (imports to Ukraine go through it), congestion occurs there, logistics costs increase, and there is insufficient railway infrastructure in the port.

At the same time, Romania is trying to transfer part of the cargo turnover to the port of Galati. To this end, the repair of the railway line with a gauge of 1520 mm between the village of Giurgiulesti (Moldova) and the port of Galati for the transportation of goods from Ukraine and to the country begins. Due to this route, Ukraine will be able to ship and receive goods through Moldova and the port of Galati.

Of course, Ukraine mainly relies on Poland. Ukraine can count on the capacities of the ports of Gdansk (transshipment capacity more than 50 million tons), Szczecin-Swinoujscie (more than 30 million tons) and Gdynia (more than 20 million tons). All ports of Poland handled 113 million tons of cargo in 2021.

In the case of the delivery of Ukrainian exports to Polish ports, the main problem is the different railway gauge. Currently, Poland is working on the creation of a “dry port” on the border with Ukraine in order to increase the throughput for the export of Ukrainian agricultural products. But there are many such “ports”.

In other words, at the official level, mainly the export of grain is being discussed, while the range of Ukrainian exports is much wider, and it is still not clear what exporters of other products should do. So far, exporters of other products are largely solving their problems themselves.

A partial solution for exporters may be to reduce the export of raw materials with an increase in the share of processing in Ukraine, but this also takes time and considerable investment.

So far, the issue of replacing blocked port facilities for the export of Ukrainian export products is still far from being resolved. In the current conditions, the liberalization of road transportation with all neighboring countries will become more important and give a faster result. Although both the EU and Ukraine were not ready for such amount (kilometer-long queues of trucks confirm this) of Ukrainian vehicles, and only four checkpoints are capable of passing large trucks.

TRANSPORT MOBILITY IN THE WORLD DURING QUARANTINE RESTRICTIONS

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On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic. The pandemic has severely affected a number of different sectors of the economy, including transport, tourism and mobility. The state of emergency has forced governments to ban unnecessary movements and adapt the mobility of key workers and goods to protect health and curb the spread of the virus. Authorities and operators around the world had to act quickly and find quick and effective solutions to ensure safe mobility. All these measures have had a significant impact, disrupting traditional mobility opportunities (roads, sidewalks, public transport and shared transport services) and setting new trends.

Researchers after processing data from 130 countries (1,100 cities) found that travel on individual transport, public transport and on foot in all regions of the world decreased compared to baseline (January 13, 2020) by 60 - 80% (slide 2) . The decline began on March 8, 2020, and the largest decline was achieved in early April.

The largest decrease was in the use of public transport, reaching a 76% reduction in April 2020. Walking and individual transport have been less affected, and it appears that these two mobility modes already tend to return to pre-COVID-19 levels.

Public transport is the type of transport that has suffered the most from the crisis, given the physical proximity of its users and, consequently, the risk of infection that it entails. However, epidemiological studies in Austria, France and Japan, and data from New York and Singapore suggest that preventive measures are very low in public transport and that public transport is potentially safer than other enclosed spaces. In France, for example, data show that only 1% of COVID-19 diseases are related to transport, ie land, air and sea.

Shared mobility systems also faced challenges. High risk of sharing vehicles with other people has forced many companies to stop providing services such as Uber and Lyft

As for the distribution of urban cargo - the movement of goods does not stop. The main recommendations of the companies were: contactless interaction between operators and drivers during loading and unloading operations, contactless deliveries. In Zaragoza, the authorities allowed the loading and unloading of goods 24/7 (24 hours a day, 7 days a week).

US INRIX researchers assess mobility trends based on the average baseline level for January-February in terms of Vehicle-miles traveled (VMT) and compare the results between selected European countries. According to these data, Italy was the first country to experience a reduction in vehicle mileage due to early quarantine.

Spain suffered the biggest drop, reaching only 12% of mileage compared to COVID-19.

Although delivery companies reported lower activity (about 75% in Paris), e-commerce growth, particularly in the food sector, ranged from 10% to 40% compared to pre-crisis levels. Bpost, the Belgian company responsible for postal services, recorded a sharp increase in parcel delivery (+ 60% in all types of sectors combined). The largest increase in revenues was recorded in food, personal prevention and medicine. In China, Carrefour reported an increase of up to + 600%, and the Chinese online store JD.com - up to + 215% of revenue in January-February, while in France, electronic products grew by 38% in the week after March 12.

Passenger traffic in public transport fell sharply during the first wave of the pandemic, with a reduction of 60-90% of baseline levels before the pandemic, which then stabilized by about 30-40% of reductions (see slide). According to the survey, only 7% of people perceive public transport as a safe mode of transport.

According to the Boston Consulting Group (BCG, 2020), respondents in Europe, the United States and China report less likely to buy a ticket. This is reflected in their uncertainty about the total number of trips they have made in a month and the mode of transport they have chosen.

Globally, demand for shared mobility services has fallen to 70% (movmi, 2020).

Distinguishing between different variants of joint mobility, two main trends can be seen (Corwin, Zarif, Berdichevskiy, &Pankrat, 2020):

1. Bicycle and scooter exchange systems support (or increase) the number of users in cities where governments are creating new infrastructure conducive to bicycles and e-scooters.

2. Transport companies continue to change their business model to good delivery.

In the first periods after the lockdown phase, cities had to face problems with partial recovery of mobility. The recovery posed a high risk of congestion on public transport. Overcrowding of vehicles and stops can lead to a re-increase in the level of infection. Cities like Beijing have begun testing digital booking solutions to control flows and avoid over-demand. In addition, Catalonia has accelerated the deployment of the Autocorb program, which provides users with real-time bus occupancy, allowing them to balance supply and demand without overcrowding. Other cities, such as Hamburg, have taken a flexible approach, providing more travel on the busiest routes and reducing the number of services with less demand. The city of Rotterdam, along with some micromobility partners, provided 1,500 shared bicycles and 1,500 shared electric scooters available at 25 transportation hubs to prevent crowds on public transportation.

In different countries, cities such as Berlin, Leeds, Paris, Brussels, etc., have created temporary pop-up ("emerging") bike paths. Paris has created 650 km of new bike paths, including "pop-up" options. In Milan, 22 miles of officially used roads have been converted into pedestrian and bicycle routes. In Bogota, the capital of Colombia, officials have made 75 miles of streets free of motorized vehicles. In Italy,

the city of Bologna has accelerated work on an additional 348 km of cycle paths, the construction of which is already planned as part of their Sustainable Urban Mobility Plan (SUMP), and completed 60% of them by the end of 2020.

Bicyclesales have increased everywhere: in the UK, for example, annual sales have increased by + 677%.

The use of cargo bicycles, i.e. bicycles used for cargo delivery, also increased in 2020 by 53% compared to 2019. Many countries, such as Denmark and Germany, have made public recommendations to avoid the use of private cars and public transport in favor of cycling or walking. Italy is offering a 60% cash refund of up to € 500 on the purchase of a bicycle or electronic bicycle to stimulate the event; in France, the government has allocated 50 euros for bicycle repairs. In Amsterdam, the municipality provided 1,600 bicycles to students to ensure a safe ride and limit the use of public transport.

The pandemic has also facilitated contactless deliveries, thus reducing the risk of transmitting the virus. In Wuhan (China), drones were used to deliver goods to neighboring villages. The emergency strengthens the drone delivery market: kiwi bot, a robot delivery, has increased its fleet from 20 to 50 and serves two cities in California and two in Colombia and Taiwan, and another 500 units in production. Japan is conducting tests to launch drones, and France has conducted tests in Montpellier, testing drones to deliver mail. Wing, Google's drone delivery service, saw an impressive peak of interest during the coronavirus pandemic, when worldwide demand increased by + 350% from February to April, while diversifying more types of goods suitable for delivery. In Ohio, a robotic food delivery initiative helped students carry supplies to campus and helped enforce the "rule of home."

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LOGISTICS SERVICES TO NON-RESIDENT: VAT OBJECT/OBJECT AND RETURN OF GOODS TO NON-RESIDENT

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The company provides the non-resident with transport logistics services (operators on the Internet accompany the transport of goods on the territory of the United States). Should VAT be levied on such services?

It is a well-known fact that the object of VAT taxation are operations on the supply of services, the place of delivery of which is located on the customs territory of Ukraine (pp. «b» p. 185.1 NPISH). Accordingly, services, the place of delivery of which is outside Ukraine, under the VAT taxation do not fall.

The rules for determining the place of delivery depending on the type of services provided are set out in paras. 186.2 - 186.4 NPISH. So to answer your question, it is enough to analyze these rules and figure out how to determine the place of delivery of your logistics services.

In our opinion, in your case, when determining the place of delivery of services, you need to consider:

— p.p. «f» n.a. 186.3 of the NPO - if you provide freight forwarding services under a freight forwarding contract. Let us recall that freight forwarding services include, in particular, services that optimize the movement of material flows from the shipper to the consignee in order to achieve a minimum level of costs

— p.p. «f» n.a. 186.3 of the NPO - if you provide freight forwarding services under a freight forwarding contract. Let us recall that freight forwarding services include, in particular, services that optimize the movement of material flows from the shipper to the consignee in order to achieve a minimum level of costs (Article 8 of the Law of Ukraine "On Freight Forwarding Activities" dated July 1, 2004 No. 1955-IV);

- pp. «v» para. 186.3 NPO - if the services provided by you are advisory.

That is, VAT accounting for logistics services depends on the resident status of the customer:

- if the customer of such services is a resident - their cost is subject to VAT at a rate of 20%;

- if the customer is a non-resident - the cost of services is not subject to VAT.

In your case, the company provides transport logistics services - cargo escort across the USA by operators via the Internet - to the non-resident customer. And that means:

(a) The cost of such services is not subject to VAT;

(b) VAT-obligations based on the cost of «non-object» services are not charged and the tax bill is not issued;

(c) The amount of services provided is shown in line 5 of the VAT declaration as well as its annex D6.

The fact that transport forwarders do not charge VAT to non-residents has been emphasized by the tax authorities in the General Tax Consultation on the procedure for charging VAT on freight forwarding activities approved by the IGSO Order of 06.07.2012. 610,0 as well as in later clarifications, for example, letters dated 04.01.2019 g. 54/6/99-99-15-03-02-15/IPC,

And the last thing I would like to focus on: the described tax rules relate exclusively to the logistics (freight forwarding services). If your company not only accompanies the cargo in the territory of a foreign country, but you are engaged in the international transportation of this cargo, then remember that.

Return of goods to non-resident.

*Customs duty*The customs regime for re-export may be used to return previously imported goods to a non-resident (art. 86, para. 5. 1). Goods placed under customs re-export are exempt from export duty (art. 283 TC, para. 2, 1). In addition, in the case of re-export return and the amount of import duty,

*VAT*VAT on re-export is charged in accordance with the requirements of the NPI (art. 89 TC). And according to p.p. «b» p. 195.1.1 NPISH and para. 206.5 NPISH operations to export goods outside the customs territory of Ukraine in the customs mode of re-export, if the goods are placed in such a regime in accordance with para. 5.1 art. 86 TK, charge VAT at 0%.

*Income Tax*In case of purchase of goods from low-tax non-residents* high-income (and low-income volunteers) increase the financial result by 30% of the value of such assets (pp. 140.5.4 NPISH). And this adjustment should be made already in the period of acquisition of assets (recognition and crediting), without waiting for their value to be included in the composition of expenses (see letters of the SFSU dated December 17, 2015 No. 27017/6/99-99-19-02-02-15 and dated January 4, 2017 No. 29/6/99-99-15-02-02 -fifteen).

*Accounting*When goods are received from a non-resident, monetary payables arise in the accounting, on which exchange differences are calculated according to the rules of pp. 7 - 8 P(C)BU 21 until the transfer of payment or the termination of the FEA-contract. A positive exchange rate difference falls into Kt 714, and a negative count by Dt 945. Once a decision has been made to return goods, the debt to the non-resident is converted into non-monetary and exchange differences at the maturity date (i.e. at the date of return of the goods) are not recalculated.

ELECTRIC CARS AND DRONES

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The public is interested in projects that are aimed at creating electric vehicles and drones.

Electric cars are the creation of the future, which makes it possible to charge yourself from the outlet and shift the generation of the gasoline and diesel era. But a

century ago, this technology flourished: electric cars drove along the roads of New York. For 175 years, batteries have not been able to achieve an energy density comparable to combustible fuel. The mileage of electric vehicles is still small, and it takes a long time to charge them.

The most important advantage is environmental friendliness: electricity is not taken from the air. Each kilometer Tesla covered costs 222 grams of carbon dioxide, while the usual average small car is 100-150 grams. This disadvantage, together with the high cost, limits the scope of electric cars. Let these cars smoke along with gasoline cars, but they do it indirectly, but cars with an internal combustion engine pollute the air where they drive: in large cities, transport accounts for up to 80 percent of harmful emissions.

The incentive for the purchase of electric cars will be the development of paid parking areas: parking for them will be free. Thus, the car pays off in about five years of ownership — without taking into account gasoline savings. Electric cars may not become the main mode of transport in the near future, but they are suitable for personal use and environmental zones.

The disadvantage of an electric car can be a long time of "charging". Although new electric cars can be charged for the most part up to 80% in 40

minutes, this is still not the 5 minutes required to fill fuel at a gas station. In addition, the world has a very small number of charging stations that allow you to charge the car relatively quickly. In most cases, owners charge them from household outlets, and this can take from 8 hours or more.

Despite all the pros and cons, we can come to the conclusion that the electric car will be in demand among people who have the opportunity to charge the car near the house. Also, these electric cars will be of interest to people aimed at the economic and environmental operation of vehicles, as well as corporate customers as vehicles for courier, correspondent delivery.

As for drones, the service sector risks changing dramatically. On the one hand, drones will replace drivers, and the number of jobs will be greatly reduced. On the other hand, the average fare for passengers will decrease by 80%. If a trip in an unmanned taxi turns out to be cheaper than a metro ticket, this may be bad news for the public transport system. However, competition between companies will increase, and those taxi services that are losing today can start to win.

According to a recent study, the widespread use of unmanned vehicles can reduce the number of road crashes by 90%. It can save thousands of people.

The transition to unmanned vehicles will have a positive effect on the environment, since they operate on electric traction and do not emit harmful gases into the atmosphere.

There is one problem that the world of the future will have to face. The transition to drones threatens to reduce employment in the transportation market. Already there is a forecast according to which millions of people will be left without work. Truckers, taxi drivers and public transport will be out of work. Moreover, there is a possibility that people will in principle refuse private cars and switch to rental services.

As for the benefits, car bodies, security systems, materials — everything will be much simpler and several times cheaper than a regular car. Service to such machines will be required much less often, and will be made with minimal human involvement, that is, very cheap. The cost of insurance due to the vanishingly small number of accidents will be constantly reduced.

The disadvantages of the drone include the human factor. An unmanned car does not require a driver, but people who are capable of making a mistake are still engaged in its development. Software can hack hackers, in the end they can hijack a car. Another drawback may be the lack of privacy. That is, the owner of the car will not be able to go and hide somewhere, because at least one person will still watch his movement.

Unmanned vehicles are considered the vehicle of the future. They have huge advantages, because the number of accidents on the roads is reduced. Many people suffer from road accidents: money is spent on repairing a car, on treating health, and in the most difficult situations, it ends in death. Drones minimize their likelihood of occurrence. People may not immediately accept such a novelty in their life, and it is unlikely that such cars will completely replace ordinary cars.

If an unmanned vehicle will be massively distributed, you should carefully weigh all the pros and cons before purchasing it. A person who is unable to accept that he will be under the control of others, it is better to refuse the purchase. And if he wants to calmly move along the road and not depend on the driver, then it is better to purchase it.

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ORIGIN AND DEVELOPMENT OF TRAMS

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Tram is the quietest and most practical public transport. Because this is a unique type of transport, which originated in the 19th century and still works now. This is a rail land public transport, mostly street, which is designed to transport people within the city. Trams originated in the first half of the 19th century. The world's first horse tram was opened in eighteen twenty eight (1827) in Baltimore (USA). Horses were not comfortable to pull, so they began to replace them to cable traction. It's still used as a monument in San Francisco today. Because it was a lucrative business, electric trams quickly gained popularity. there was a tram boom.

After the First World War, the tram was perceived as an outdated way to moving. Cars and buses became more modern. because of this In many cities around the world, tram lines have begun to close. As early as the 1970s, it began to be understood that mass motorization brought great problems to the city - smog, congestion and lack of space were acute in urban management. At this time, transport policy was gradually revised in favor of public transport. New tram systems have been opened in Canadian cities, Paris, London, and so on. what are the advantages of a modern tram? 1.convenient for passengers You do not need to get up somewhere, cross, just stop on the sidewalk, wait for the tram and get on. 2.Cities with the right transport infrastructure fast to move around the city. 3.Comfortable for the disabled and ordinary citizens 4.led to a reduction in air emissions to 80%, makes the street tram-pedestrian. It has a positive meaning because when we clean the roads, the number of traffic jams in the city is reduced. Thirdly, cleaning cars from the city roads saves a lot of city land used effectively.

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СЕКЦІЯ
ЕКОНОМІЧНІ ПРОБЛЕМИ СУСПІЛЬСТВА ТА ШЛЯХИ ЇХ ВИРІШЕННЯ;
ІНФОРМАЦІЙНІ ТЕХНОЛОГІЇ.

**ACCOUNTING AND ANALYTICAL SUPPORT IN MANAGING THE
FINANCIAL STATUS OF THE ENTERPRISE**

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The financial condition of the enterprise is the ability of the enterprise to finance its activities. It is characterized by the provision of financial resources necessary for the proper functioning of the enterprise, the need for their location and efficiency, financial relationships with other legal entities, solvency and financial stability [1, p. 55].

Financial condition management allows management to forecast, plan work in such a way as to achieve the best results in the enterprise. Assessment and analysis, forecasting the financial condition are its main components. The accounting system is the basis of all information support of the management system of the business unit. Along with accounting, there is also economic analysis. In combination, they can be called a system of accounting and analytical support of enterprise management. Accounting and analytical support is present at any company that maintains accounting in accordance with the legislation of Ukraine, but often the level of such support is not sufficient for full information support of business management. Accounting information is formed at the following stages: detection, measurement, registration, accumulation, generalization. It contains information about the assets of the organization, the state of property, sources of its formation, liabilities, relationships with counterparties, the formation of financial results, profits and its use for a certain period. Analytical information is a type of economic information obtained from accounting information as a result of management functions: analysis and synthesis [2, p. 22–39].

In general, scientists consider management as a process of certain activities, the highest type of information interaction or as a system of principles and methods in the flow of the managed system. Thus, Borisov A.B. argues that management is a conscious purposeful influence of the state, economic actors on people and economic objects, which is carried out in order to direct their actions in the necessary direction to obtain the desired results [3, p.776].

L.B. Goncharov, O.B. Zabelina and G.L. Tolkachenko defines management as "the process of development and implementation of management influences" [4, p.19, 5, p.9]. These definitions should be agreed with, because the managerial influence is exerted on the object to achieve the objectives.

The definition of "management of the financial condition of the enterprise" should be based on consideration of such key components as "management" and "financial management". In the definitions of the essence of management can be

traced two main approaches: Ivakhnenkov S.V. considered management is considered as a process of certain management activities [6], Tereshchenko O.O. complemented his words by the fact that management is a system of principles and methods [7]. Obushchak T.A. wrote that Financial Management is defined as a system of rational management of financing processes of economic activity of the enterprise [8]; Kovalev V.V. wrote that management is a system of effective management of financial resources [9], personally Tereshchenko O.O. talked about financial management as a process of managing the formation, distribution and use of financial resources of the entity and optimize the circulation of its funds [7]. Thus, the essence of financial management is characterized only as a management system of processes and resources of the enterprise. Some authors emphasize the importance of targeted impact on the object in the process of financial management.

The process of managing the financial condition of the enterprise should be carried out in the following stages:

- 1) determining the main purpose of management;
- 2) formation of management information support system;
- 3) study of financial condition indicators; formation of a system of goals and targets;
- 4) forecasting financial indicators for the long term;
- 5) current planning of financial condition indicators;
- 6) development of a system of measures for the implementation of current plans;
- 7) monitoring the implementation of planned indicators of financial condition;
- 8) control of indicators of financial condition of the enterprise.

Management of the financial condition of the enterprise has several goals:

- 1) determination of financial position;
 - 2) detection of changes in financial condition in space-time;
 - 3) identification of the main factors that cause changes in financial condition;
- forecast of the main trends of the financial condition [10, p. 550].

Changes taking place in the market environment, which characterizes itself quite negatively: the constant intensification of internal and external competition, the aggravation of the economic situation, the unstable situation in the political sphere in the country. The emergence of this problem creates certain difficulties for companies operating in the market. An important step at this time is a well-thought-out management of the financial condition of the enterprise. Due to the mismanagement of the financial portfolio, the entity does not have a clear vision of its financial condition and therefore is unable to control it, in addition, there are management problems that result in the possibility of bankruptcy.

In order to avoid all of the above, there is a full-fledged management system of financial resources of the enterprise, which depends on: distribution of funding sources, transformation of financial resources into capital, transformation of money capital into material and productive form, realization of cost equivalent.

Thus, accounting and analytical support in the management of the financial condition of the enterprise is a set of principles, methods and tools for making and

implementing management decisions to ensure the interests of higher education and increase the welfare of owners.

In order to prevent crises and improve the company's performance, it is important to keep everything under control (timely assess their condition) and use a comprehensive analysis of financial condition in accordance with certain methods in enterprises using a system of key indicators.

And if the company will continue to follow these management steps, it will allow the company to develop in today's economic market.

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WAYS OF SOLVING MODERN PROBLEMS OF ACCOUNTING AUTOMATION

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Computer technology is developing rapidly in modern business conditions. Almost no accountant can imagine the process of accounting without the use of automation. Accounting automation has many advantages over the traditional means of accounting. Accounting information systems allow to increase the productivity of accounting staff, reduce the impact of the "human factor", increase the speed of reporting and record keeping, provide the opportunity for parallel accounting in some standards [1, p. 127].

That is why the ways to solve modern problems of accounting automation are quite relevant. The following domestic and foreign specialists were engaged in research on accounting automation: Bilukha M.T., Golov S.F., Ivakhnenkov S.V., Kozak M.I., Kropivka M.F., Paliy V.F., Sopko V.V., Tatura S.K., Foster J. etc.

However, further research is needed to study modern problems of accounting automation, which determined the purpose of the study. Given the importance and value of the research of the above scientists, it should be noted that modern problems of accounting automation are not yet fully resolved, their coverage is only in some aspects.

The main priority areas for solving modern problems are:

- streamlining and optimizing the practical accounting in Ukraine. In our opinion, it is the minimization of time for processing accounting data that is the key point in improving accounting;

- optimization of the amount of information in automated accounting systems without losing its quality. In this regard, in the Law of Ukraine "On Accounting and Financial Reporting in Ukraine" of 16.07.1999 №XIV [1], it is stated that primary documents compiled in electronic form are used in accounting subject to compliance with the legislation on electronic documents and electronic document management. In the case of compilation and storage of primary documents and registers of accounting using electronic means of information processing, the company is obliged to make their own copies on paper at the request of other participants in business transactions, as well as law enforcement agencies and relevant authorities within their powers, laws. That is why we propose to pay much attention to the number of analytical features, the information on which is recorded in the system. After all, the speed of processing of accounting data will depend on the quality of management decisions for the future prospects of each enterprise;

- reducing the number of errors in accounting using built-in algorithms for internal automated control of accounting data. In our opinion, there are no perfect algorithms built into accounting automation programs;

- ensuring the reliability of data storage, as information becomes one of the strategic resources of the enterprise. We found in the course of the study that in Ukraine there are virtually no special regulations, as well as technologies that would guarantee 100% confidentiality of data. Therefore, we do not recommend storing the most valuable accounting data for the company in cloud technologies;

- overcoming methodological and methodical problems that exist in the theory and methodology of accounting. After all, automated accounting systems are the consequences of existing processes in accounting, the purpose of which is to facilitate and standardize the operations of the accountant through the use of modern information technology. It is the inability to resolve inconsistencies in the regulatory framework of accounting, lack of understanding between government and non-government regulators contribute to the problems, the need for professional judgment in solving a wide range of issues - all this complicates automation. As a result, acting accountants in their practice act on an intuitive level, trying to resolve these contradictions at the enterprise level, which, in turn, does not allow to formalize approaches. In our opinion, in a single complex of automated accounting system is quite difficult, but it is necessary to combine maximum flexibility for the end user, great functionality of the program and a unified approach to the process of accounting and reporting;

- interaction of information systems of different business entities with each other;

- advanced training of users of automated systems. An important role is played by the level of training of an accountant who performs accounting in automated systems, who sends reports through electronic telecommunications channels, as interaction with security certificates, electronic digital signature, authorization, requires an understanding of modern information technology. It is important to note that the development of modern software automation of accounting methods (trial and error) is hardly a decent option. Not always authorized dealers - developers of accounting automation programs themselves take advanced training courses and are very confident in the correctness of their actions. It is quite clear that companies themselves must competently approach the choice of information systems for accounting automation. The choice of accounting automation program usually depends on the size of the enterprise and its financial capabilities. Hence the complexity of the process of compatibility of one software with another, frequent problems of compatibility of versions, as well as differences in the method of working with a program. In our opinion, the most appropriate solution would be the competent design and selection of software at the initial stage, based on the current objectives of the enterprise and its future needs. We offer channels for mutual understanding among the developers themselves, which will allow to develop a single standardized approach to ERP - systems, which until now did not exist at all. In the course of research, we found that Ukrainian developers are working fruitfully in this direction, they are improving their own automation tools, so that in the future they meet all modern challenges of today, especially in terms of regulatory framework for accounting;

- an important problem in the implementation of automated accounting programs in modern enterprises is the constant changes in legislation. To solve the problem, we offer software developers to customize their software product immediately after its entry into the market, for appropriate changes and timely updates. Thus, we have come to understand that the problems we have considered may further hinder the increase in costs for the implementation of automated accounting programs, as well as reduce their efficiency. It is known that an important element of economic development is to attract additional investment; therefore, automated accounting programs are important for all enterprises and organizations, despite their specific activities. Therefore, only the introduction of the best automated accounting system will ensure the efficiency of the accounting and reporting system and its further development.

If the problems of accounting automation are overcome correctly and correctly in modern conditions, the prospects of automation for the future activities of each enterprise will be quite obvious through transparent management of the enterprise as a whole and making economically sound decisions on plans and forecasts. The solution of these problems should be the subject of some fundamental research.

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EFFICIENCY OF PERSONNEL MANAGEMENT IN THE HOTEL BUSINESS

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In our time of tough market relations and competition in the hotel industry, only hotels that can provide customers with quality services can withstand a fierce struggle, and without professionally trained staff it is impossible. Today, the practical use of advanced forms of hotel staff management can increase its socio-economic efficiency, which is of particular importance.

The main potential of the hotel is the staff. Hospitality, diligence and competence of the hotel staff is the basis of high quality customer service, which depends on the quality of work. The task of each employee and hotel manager is to comprehensively master professional skills, constantly expand scientific and technological horizons, skillfully use the acquired knowledge and skills in practice to achieve high efficiency.

Personnel is a set of employees united by the goals of economic activity, technology, means of production. This is the personal composition of the organization, which includes all employees, as well as working owners and co-owners. [1]

Without people there is no organization, and without qualified staff no hotel will be able to achieve its goals. Hotel staff management is related to the people in the team and their relationships.

Generally speaking, personnel management is a process of systematic, systematically organized through interdependent organizational, economic and socio-psychological mechanisms of impact management on employees in the organization in order to ensure the effective functioning of the organization as a whole and meet the needs of each employee in his professional and personal development. [2]

Personnel management uses scientifically developed methods. In the theory and practice of management, three groups of methods are used: administrative, economic and socio-psychological. [3]

Administrative methods are based on power, discipline and punishment. These methods focus on behavioral motives, such as a conscious need for work discipline, a

sense of responsibility, a person's desire to work in a particular organization, and a work culture. They operate through the following mechanisms:

- Legal norms and acts;
- Instructions, organizational charts, rationing;
- Orders, instructions used in the process of operational management.

The main functions of administrative methods are to ensure a stable legal environment for the organization, protection of specific environments, protection of rights and freedoms.

Economic methods are based on the use of economic incentives. With their help the material stimulation of workers is carried out. In the enterprise - this is the economic standards of activity, the system of material incentives, participation in profits and capital, bonuses, etc.

Socio-psychological methods are based on the use of moral incentives to work and influence employees through psychological mechanisms in order to translate the administrative task into a conscious duty.

This can be achieved in the following ways:

- Team building, creating a normal psychological and creative atmosphere;
- Personal example of meeting the cultural and spiritual needs of employees;
- Establishing a social code of conduct and social incentive for team development;
- Establishment of moral sanctions and encouragement, social protection.

To date, personnel management has come to the fore socio-psychological methods. The application of these management methods involves reviewing the role of man in the development of science and technology at this stage, when he from a mechanical performer becomes an important factor in the enterprise, its capital, and labor costs, favorable conditions, training, retraining and retraining - as a special type of investment.

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BUSINESS COMMUNICATION

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Today English is the most influential language of academia and the business world, occupying the top in the field of languages and spoken by over three-quarters of the world's population. It is used in 94 countries by 339 million native speakers,

and it is the de facto language of the United States and an official language of Australia, the United Kingdom, South Africa, and several other countries, making it an essential language for business owners. Along with this, the English language also retains the number one spot as the most commonly used language by 53% of websites and internet users with 949 million users. Hence, there is no denying the fact that English is the language of globalization, and crucial for those entrepreneurs who want to thrive on the global stage. Business communication encompasses topics such as marketing, brand management, customer relations, consumer behavior, advertising, public relations, corporate communication, community engagement, reputation management, interpersonal communication, employee engagement, and event management. It is closely related to the fields of professional communication and technical communication. Media channels for business communication include the Internet, print media, radio, television, ambient media, and word of mouth. Business communication can also be said to be the way employees, management and administration communicate in order to reach to their organizational goals. Business communication is a common topic included in the curricular of Undergraduate and Master's degree programs at many colleges and universities. Methods of business communication include: 1. Web-based communication; 2. Video conferencing – allows people in different locations to hold interactive meetings; 3. Reports – important in documenting the activities of any department; 4. Presentations – popular method of communication in all types of organizations, usually involving audiovisual material, like copies of reports, or material prepared in Microsoft PowerPoint or Adobe Flash; 5. Telephone meetings – which allow for long distance speech; 6. Forum boards – which allow people to instantly post information at a centralized location; 7. Face-to-face meetings – which are personal and should have a written follow up; 8. Suggestion box – primarily for upward communication, because some people may hesitate to communicate with management directly, so they can give suggestions by drafting one and putting it in the suggestion box.

English grammar is as useful for business as your favorite suit. Just like that suit, your grammar should be perfectly tailored to your message. After all, using good English grammar when talking or writing always creates a positive impression. One of the ways to get there is to be more accurate. When you use accurate language, this means that you say exactly what you want to say by using the correct grammar structures.

The basic functions of management (Planning, Organizing, Staffing, Directing and Controlling) cannot be performed well without effective communication. Business communication involves constant flow of information. Feedback is integral part of business communication.

The most common types of business communication are:

- Verbal. This is the oldest form of business communication, but it still remains popular. This interaction method includes live meetings, face-to-face interviews, personal task assignments, and some other related methods. There are some people who consider verbal communication as the best form of business communication, because of its simplicity and its direct interaction between the participants. The

human interaction allows the manager to observe its team and to examine any form of nonverbal communication. On a negative note, verbal communication is highly dependent on the physical presence of all participants, and sometimes, this can be hard to achieve. Verbal communication often leads to misunderstandings, and the participants tend to forget or misinterpret some of the debated issues. That's why, when it comes to sensitive topics, many team-leaders use another form of business communication.

- Written. Written communication is considered to be more concise and more explanatory. It consists of formal letters, official memos, posters, flyers, and everything that comes written on a paper. Written business communication is also used for more complicated assignments, where some additional instructions are necessary. The technical departments are often using this form of interaction, to exchange clear information, with no room for error. Also, it is used for any legal situation, like formal notices and labor contracts. Still, written business communication is considered by many entrepreneurs an obsolete method, and it's mostly being used for legal situations. The technological progress granted us a new communication method, which seems to stand above all.

- Electronic (Online Communication). Electronic communication is no longer at its experimental status, and it's soon expected to become a standard when it comes to business interaction. Despite other forms of business communication, online business communication manages to offer all the advantages of the previously mentioned methods, and even more. With electronic communication, the information will be delivered faster, in a more accurate manner and it will not be dependent on the location of the interlocutor.

Lack of communication has lost wars. This old saying applies in the business environment as well, and without a proper interaction between the team, a whole business strategy might get ruined. In this context, communication can ensure a better development of the ongoing projects, keep the employees engaged and allow them to understand their tasks. Still, an effective message means nothing if it's not delivered in time. That's why, many enterprises switch to business communication online, because of its accuracy and processing speed. Having an effective business communication with the exterior partners will grant you a fruitful partnership and a better collaboration. Business communication might be a complicated concept, but it can bring many satisfactions for any enterprise. When a company chooses the most suitable communication form, it will benefit from better inter-departmental relations, faster execution and more clarity, inside the team.

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MARKET OF PUBLIC ACCOUNTANT SERVICES OF UKRAINE: THE STATE AND PROSPECTS IN THE CONDITIONS OF EUROINTEGRATION

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In recent years, the issue of creating paperless accounting at the enterprise has become more and more urgent. Influence on digitalization of the pandemic Covid-19 and the ideas of sustainable development, contribute to its deepening. The influence of digitalization on accounting is accompanied by a change in its organizational and methodological foundations. However, the creation of paperless accounting is accompanied by certain obstacles that hinder the development of accounting policy in the enterprise. The problems of introducing electronic document management and creating paperless accounting in their activities were covered by such Ukrainian and foreign scientists: Aseev H.H. [1], Kudrytska Zh.V. [2], Matviienko O. [3], Ohrimenko H.V. [4], Tsyvin M. [3]. In our opinion, the problems of paperless accounting should be divided into three groups: the first group - related to software and technical equipment, protection and preservation of information, the second group - organizational problems related to the human factor, the third group - legislative regulation. The expediency of merging the first group is due to the fact that the protection and preservation of information is ensured using certain technical and software equipment. The first and second groups are directly related, because legislative regulations regulate aspects of information processing. First, the first group includes problems related to the preservation of information. According to the law, electronic documents must be stored not less than time of their paper forms.

The question arises where exactly to store them. Electronic document management entities shall store electronic documents on electronic media in a form that verifies their integrity on these media [5]. It is advisable to store electronic documents in electronic document management systems (EDMS) (for example, M.E.Doc), electronic archives, cloud technologies (using Google Drive, OneDrive) or external media (flash drives and other servers), if storage in them is in accordance with the law. To solve the problem of storing information, it is worth noting that it is also necessary to ensure its protection. To address the issue of information protection, at the enterprise level, the level of access of a person to particular information should be indicated in the Job Descriptions. Information is protected by regulations, as well as using archives programs (WinRar), software (M.E.Doc program), as well as using special encoder programs. When selecting collateral, you must be guided by certain conditions that will correspond to the specifics of the enterprise. To protect information, we consider it mandatory to use multifactor identification, for example, using a password and biometric data.

A maintenance problem occurs when you set up electronic workflow functions. If the company wants to digitize paper documents, then the presence of scanners of various types is mandatory.

Software at the enterprise is chosen depending on which stages of accounting it wants to digitalize. For example, the M.E.Doc program allows you to exchange documents with counterparties, accrue excise tax and wages, and submit reports to regulatory authorities. The second group of paperless accounting problems is related to the human factor.

Conservative management and employees can slow down the process of creating paperless accounting. In this case, management needs to persuade those who support electronic document management. To receive employee support, it is necessary to have an individual approach to each and take into account age and experience. At the organizational stage, young motivated people should be involved, which will be an example in the future. Also, for the organization of automated jobs, there may be a need to attract new personnel. At the regulatory level, there is a problem of insufficient legislative framework, which is solved only by creating new laws and improving existing ones, as well as by approving electronic document management at the enterprise level. We believe that in order to avoid problems when creating paperless accounting, it is important to first introduce pilot projects, use demo versions of programs, and also draw up a consistent transition plan. Therefore, from the above information, it can be concluded that there are certain problems when creating paperless accounting. To prevent most of them, it is important to choose the right software and attract employees of the enterprise. To minimize them, it is also important to create pilots, use demo versions of programs, plan stages of the transition to paperless accounting, as well as legal support at the enterprise level.

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ECONOMIC EFFICIENCY OF USING CURRENT ASSETS

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Current assets management is a very complex process, which is determined by such tasks as: increasing the turnover of current assets; formation of a sufficient amount of working capital used in the operating process; improving the efficiency of current assets structure; increase the liquidity, competitiveness and solvency of the enterprise. The current assets management system should be aware of a set of separate but interconnected elements that provide targeted impact on the object of management, through the implementation of management functions through a set of management methods to ensure adequate financial stability, solvency and liquidity. [1, c. 32-36].

Therefore, we believe that the system of current assets management can be defined as a system of purposeful and consistent relationships between the subject and the object of management by implementing management functions using existing methods, tools, mechanisms and financial and economic tools of analysis, research, transformation related processes of distribution, formation, use, control of current assets and sources of their financing by volume, structure and composition, taking into account internal and external threats and in order to increase the level of financial stability. The object of management at different times in different proportions are inventories in the process of formation, sale and storage, loans, cash balances, receivables, as well as economic relations. With the development of the financial market and the further stabilization of the economy there is a possibility of rational use of temporarily free funds of enterprises, in particular: their investment in profitable instruments of the financial market. The subjects of current assets management in enterprises are the general meeting of founders, the board, financial and commercial departments, as well as the staff of business entities that use specific methods of targeted impact on current assets.

Their stages and functions play an important role in the management of current assets. Management of current assets of the enterprise in modern business conditions is carried out at the following stages: 1) analysis of current assets of the enterprise in the previous period; 2) the choice of policy for the formation of current assets of the enterprise; 3) optimization of current assets; 4) optimization of the ratio of fixed and variable parts of current assets; 5) ensuring the necessary liquidity of current assets; 6) ensuring the necessary return on current assets; 7) the choice of forms and sources of financing of current assets.

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GO AS A CROSSPLATFORM PROGRAMMING LANGUAGE

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GO is a relatively new programming language developed by Google Corporation. It is often called “Golang” which is an abbreviation for “Google Language”. Ken Thompson and Rob Pike were the key figures who participated in the creation of GO as an attempt to take the best sides of languages such as C++ and Java. On November 10, 2009, the language was announced and in March 2012 the version 1.0 was released. But language improvement is still in progress.

GO was developed as a programming language to create high quality efficient programs run on modern distributed systems and multi-core processors. It can be considered as a way to substitute C and C++ languages taking into account current advances in ICT and the experience gained in the development of large systems. According to Rob Pike: GO was designed to solve real-life problems that arise in the course of developing software on Google [4].

Slow programs assembly, application of different subsets of language by programmers, difficulty in understanding programs caused by poorly read code, projects duplication, high cost of updates and complexity of tools development are considered the main problems.

GO was developed with the view that programs are translated into an object code and executed directly without requiring a virtual machine, so one of the criteria for choosing architectural solutions was the ability to provide rapid compilation into an effective object code and the absence of excessive requirements as to dynamic support [6].

Golang represents a compiled statically typed programming language designed to create various programs, mostly web services and client-server applications. It provides an opportunity work with other technologies such as Docker, InfluxDB and Kubernetes. In fact, the application of GO language encompasses three main areas: network software, console utilities and back-end [1].

Some of the distinctive features of the GO language are the original system of types: there is no inheritance in the language (one of the principles of OOP) [2], maintaining multitasking and parallel programming as well as reduced syntax of variables and syntax of anonymous functions.

GO evolves as an Open Source, that is, represents a project with an open source code, and all its codes and a compiler can be found at the official site [5] and used for free.

In order to work with GO it is necessary to use a text editor for code entering and a compiler for converting a code into a file. It is also possible to apply special Integrated Development Environments (IDEs) that support GO, such as GoLand from

JetBrains. There are GO plugins for others IDEs, including IntelliJ Idea and NetBeans.

GO is a cross platform programming language that allows creating programs for various operating systems such as Windows, Mac OS, Linux, FreeBSD. The code is portable: programs written for one of the above mentioned operating systems can be easily recompiled and transferred to the other OS.

At present time quite a number of successful projects use this language, namely, Google, Dropbox, Netflix, Twitch, Uber, Cloudflare. GO language specialists are in demand at the Ukrainian IT market today, that makes a good incentive to learn this language.

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CERTIFICATION

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Certification is a form of confirmation of objects compliance with established requirements, carried out by a certification body. The overall goal of certification is to give confidence to all interested parties producing, processing and giving services, meeting specified requirements. As a result of certification, it is expected to obtain a certificate of conformity, which is not a guaranteed result: the certification body is authorized to refuse both certification and the issuance of a certificate of conformity in a number of cases [1].

The objects of certification are different, the determining factor is the nature of certification:

- products;
- processes;
- work;
- objects

Requirements for objects of certification, compliance with which is assessed during their certification, are established by various sources:

- technical regulations;

- standardization of documents;
- terms of contracts;
- voluntary certification systems
- Certification by types of objects
- Product certification

Certification of products is carried out as a part of mandatory. It should be carried out by certification bodies accredited in the national accreditation system for compliance. This requirement is understandable and logical, however, in relation to voluntary certification, we see a difficulty in resolving this issue.

Management systems certification Certification of management systems is carried out to assess the compliance of management systems with the requirements of standards for certain management systems [2].

Personnel certification Personnel certification is a way to ensure that certified individuals meet the requirements for a specific job or task. Certification of personnel is carried out by certification bodies accredited for compliance. One of the characteristic functions of personnel certification bodies is to conduct examinations that use objective criteria for determining competence and a scoring system.

Certification can be mandatory or voluntary. Mandatory certification is carried out by the certification body. Voluntary certification of products is subjected to mandatory certification and does not cancel its mandatory, it can be performed and in excess of it to assess compliance with its requirements that are different from the mandatory ones, which means the minimum, obviously, upwards.

Certification results As a result of certification it is expected to obtain a certificate of conformity, which doesn't guarantee any result: confirmation or refusal. Certification is carried out at the initiative of the applicant under the terms of the agreement between the applicant and the certification body [3].

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DEVELOPMENT OF DIGITALIZATION OF THE EDUCATIONAL PROCESS IN MODERN CONDITIONS

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In modern conditions, educational communications are becoming an important element in the formation of the information society of the world. Today this process is directly related to global informatization, the emergence of a wide range of computer communication technologies[1]. Knowledge, intelligence and the latest technologies have become the main objects of the information society in Ukraine. Due to the rapid development of Internet resources, access to scientific sources is

becoming easier and more accessible. Ukraine is effectively implementing global trends of expanding and facilitating scientific cooperation. Cooperation with foreign scientific communities is developing. In this regard, as well as other important social phenomena, including the COVID-19 pandemic, the digitalization of the educational process in higher education institutions is becoming relevant for research. At the legislative level, the need for the development of e-learning and the formation of digital competence of participants in the educational process is defined in the order of the Ministry of Education and Science of Ukraine "On approval of the National Educational Electronic Platform" (2018) [2].

Consider the interpretation of the concept of digitalization, which is proposed by the Ukrainian Institute of the Future. So, digitalization is the introduction of digital technologies in all spheres of life: from interaction between people to industrial production, from household items to children's toys, clothes and more. This is the transition of biological and physical systems in cyberbiological and cyberphysical (combination of physical and computing components), the transition of activities from the real world to the virtual world (online) [3].

Scientist S. Karpolyuk notes that digitalization helps to simplify the educational process. This makes it more flexible and adapted to modern requirements, which in turn contributes to the education of highly qualified competitive professionals [4]. It is determined that in education digitalization is aimed at ensuring the continuity of the educational process, that is life-long-learning, as well as its individualization on the basis of advanced-learning-technologies.

Due to its digitalization, education becomes more accessible and convenient, which is expressed in lower costs of material, time and human resources. For modern youth, the optimal opportunity for self-realization is created on the basis of individual characteristics of each person. As noted by scientist I. Kucherak digitalization provides a transition from "education for all to education for everyone" [5]. This leads to the development of a modern educational space, which creates all the conditions for mastering professional and supra-professional competencies.

Considering the research question from the student's point of view, it should be noted that in recent years, circumstances have accelerated the process of digitalization of education in the Free Economic Zone. There is an active use of platforms that provide remote video conferencing such as Zoom, Google Meet, as well as messengers (Viber, Telegram, etc.), online research libraries, systems for monitoring student academic performance (Moodle system at our university) and others. Thus, students have favorable conditions for:

- better mastery of digital skills and growth of digital literacy;
- development of skills of independent learning and selection of the most important material for self-development;
- growth of motivation for self-education and promoting self-organization;
- construction of individual educational trajectory;
- globalization and integration of education;
- the most convenient studying, at a comfortable pace with the possibility of optimal use of time.

As a result, we note that the digitalization of educational space unites all participants in the pedagogical system with electronic resources and content within a single educational process that ensures effective achievement of educational outcomes.

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СЕКЦІЯ
ЗАХИСТ НАВКОЛИШНЬОГО СЕРЕДОВИЩА;
ПРОБЛЕМИ ТА ТЕХНОЛОГІЇ

CLEAN ENERGY SOURCES

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Energy is the most needed resource in the world. Without it, almost all modern appliances stop working. Fortunately, we generate enough energy to power the whole world. But most of the ways to extract energy pollute the environment. There are also environmentally friendly sources of energy, such as solar energy; wind energy; water energy and geothermal energy. These energy sources are the cleanest in the world and almost do not pollute the environment.

The sun is an almost inexhaustible source of energy that is available to us on an almost unlimited scale - pure and free energy. Sun radiates 960 billion kilowatt-hours to Earth every day. This amount of energy could theoretically satisfy the world's energy needs for 180 years. Electricity itself is produced using solar panels. The main advantages of solar energy are:

- sun is inexhaustible source of energy;
- solar energy is free;
- no problem with CO₂ emission;
- can be integrated into existing installations

Using just 1 kg of silicon, it can get as much energy as a thermal power plant with 75 tons of oil produced [1]. The amount of electricity consumed is much less than the amount generated by the panels, so their payback in some cases occurs within a year. The disadvantages of solar energy are the following:

- there is no way to get energy at night;
- great cost;
- need a big place to extract a lot of energy

Wind mass flows can be successfully converted into any energy: mechanical, thermal, electrical, using it in various industries. Wind energy is converted by means of wind generators - installations with vertical / horizontal axis, equipped with two, three or more blades, on which it is mounted. One such design with a capacity of 1 MW allows saving about 30 thousand tons of coal, about 12.5 thousand tons of oil over 20 years of operation. There are certain advantages this type of energy, namely:

- use of safe raw materials - natural wind masses;
- relatively fast payback when used on an industrial scale - 1-2 years;
- no harmful emissions

Wind farms produce 25-30 times more energy in the same period of time than they consume in the same period. But there can be mentioned a number of disadvantages:

- volatility of produced resources due to the variability of wind strength;
- need to provide infrastructure for the transmission of the received electricity to the consumer due to the remoteness of windmills;
- use of expensive equipment (battery, inverter) when using small wind farms at home;
- significant noise interference

The most powerful kind of energy is considered to be geothermal energy. It is a type of renewable energy based on the use of heat that exists in the bowels of our planet. That is, to use the heat of the inner layers of the Earth and generate energy with it [2]. This is precisely the disadvantage, because the places where geothermal stations can be installed are limited. And the geothermal power plants themselves are installed near sources of hot water. This type of energy certainly has both advantages and disadvantages.

Most countries are already striving to completely switch to clean energy sources in order to reduce harm to the world around us. After all, in the end, our descendants will live in it, so they strive to preserve it in the best possible way.

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HISTORY OF UNCONVENTIONAL ENERGY SOURCES

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Good day, dear colleagues and teachers! I hope, that you are fine today and you are glad to listen to my report. Let me introduce myself. My name is Natalie, I'm second year student at National Technical University “Kharkiv Polytechnic Institute”. I am studying non-traditional energy sources and high voltage electrophysics. The second part is difficult for me even talking about it in Ukrainian. So, as you can see on the screen, our topic today is history of untraditional energy sources. Many people know and use them, but few know how it all began. I chose the two most popular and famous sun and wind to tell about them. If you have any questions, feel free to interrupt me at any time.

First of all, I'd like to give you an overview of solar energy. Besides heating the palace with heated water; many examples of useful applications of this power were used to. For example, Archimedes used a system of "incendiary" mirrors, which burned the entire enemy fleet at Syracuse.

Solar energy began to develop rapidly in the 18th century. Then in France, insolation was used to quickly light a large fire. Let me explain more about insolation. This is concave mirrors focused reflected sun rays at a single point. This allows you to collect the energy of the sun.

The first water heater appeared around the same time in Sweden: water placed inside a wooden box with a glass lid was heated by the sun to 88 degrees.

Next step thanks to several discoveries was at the end of the 19 century, when an insulator was demonstrated to society. Let me explain, insulator is a special apparatus that, with the help of a mirror, focused the rays on a steam boiler, which set in motion a printing press.

Moving further in time, in 1954, the first silicon solar cell appeared. After only 4 years, it has become the main source of electricity for spacecraft.

In the USSR, the first industrial SPP appeared in Crimea in 1985.

Before I move on, I'd like to recap the main points. In just two centuries, people have moved from heating water in a wooden box to the first solar power plants. Next, I'll focus on history of wind energy.

One of the first stable sources of energy mastered by man was wind. Energy "from the mouth of Aeolus" was used for the first time on sailing ships.

For 200 years BC in Persia, simple windmills with a vertical axis of rotation were used to grind grain, and even earlier they were used in China.

The representative of the improved design in this direction is the Bock-type windmill with a horizontal axis of rotation.

The first wind farm, the Blyth mill with a diameter of 9 meters, was built in 1887 at Blyth's dacha in Marykirk (Great Britain). Blyth offered surplus electricity from his "mill" to the residents of Marykirk to light the main street, but was refused because they believed that electricity was "the work of the devil."

In the early 1980s, wind power began to develop in California, thanks to government policies that encouraged the use of renewable energy sources.

Let's summarize briefly what we have looked at. People have used wind power for almost their entire existence. The only thing has changed is that now wind energy is converted into electricity.

Well, this brings me to the end of my presentation. Let me just run through the key points again. Initially, solar energy was used only for heating. The emergence of a method of converting solar energy into electricity opened the way for the creation of solar stations. Speaking of wind energy first it was used to move something and now wind caused motion that is used to generate electricity. Who knows maybe our generation will be the turning point when unconventional energy sources become the main source of energy!

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ELECTROMAGNETIC PULSE AND WEAPONS

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The fact that a nuclear explosion would necessarily be accompanied by electromagnetic radiation was clear to theoretical physicists even before the first test of a nuclear device in 1945. During the nuclear explosions in the atmosphere and outer space, carried out in the late 50s - early 60s, the presence of EMP was recorded experimentally.

However, the quantitative characteristics of the pulse were insufficiently measured, firstly, because there was no control and measuring equipment capable of registering extremely powerful electromagnetic radiation that exists for an extremely short time (millionths of a second), and secondly, because in those years in radio electronic equipment only electrovacuum devices were used, which are little affected by EMP, which reduced interest in its study. The creation of semiconductor devices, and then of integrated circuits, especially digital technology devices based on them, and the widespread introduction of funds into military electronic equipment, forced military specialists to assess the EMP threat in a different way.

Electromagnetic pulse and weapons

The EMR generation mechanism is as follows. In a nuclear explosion, gamma and X-rays are generated and a neutron flux is formed. Gamma radiation, interacting with molecules of atmospheric gases, knocks out the so-called Compton electrons from them. If the explosion is carried out at an altitude of 20-40 km, then these electrons are captured by the Earth's magnetic field and, rotating relative to the lines of force of this field, create currents that generate EMP. In this case, the EMP field is coherently summed towards the earth's surface, i.e. Earth's magnetic field plays a role similar to a phased array antenna. As a result, the field strength sharply increases, and, consequently, the EMP amplitude in the regions south and north of the epicenter of the explosion. The duration of this process from the moment of explosion is from 1 - 3 to 100 ns.

At the next stage, lasting from about 1 μ s to 1 s, EMP is created by Compton electrons knocked out of molecules by multiple reflected gamma radiation and due to the inelastic collision of these electrons with the flux of neutrons emitted during the explosion. In this case, the intensity of EMR turns out to be about three orders of magnitude lower than at the first stage.

At the final stage, which takes a period of time after the explosion from 1 s to several minutes, EMP is generated by the magnetohydrodynamic effect generated by disturbances of the Earth's magnetic field by the conductive fireball of the explosion. The EMR intensity at this stage is very low and amounts to several tens of volts per kilometer.

Sources of EMP (non-lethal weapon). EMP weapons can be created both in the form of stationary and mobile electronic complexes of directed radiation, and in the form of electromagnetic ammunition (EMB) delivered to the target using artillery shells, mines, guided missiles (Fig. 2), aerial bombs, etc.

The stationary generator allows you to reproduce EMP with horizontal polarization of the electric field. It includes a high-voltage electrical pulse generator (4 MV), a symmetrical dipole radiating antenna on two masts, and an open concrete test site. The installation provides for the formation of an EMP over the test site (at heights of 3 and 10 m) with a field strength equal to 35 and 50 kV / m, respectively.

Mobile (Transportable) generator HPDII is designed to simulate horizontally polarized EMP. It includes a high-voltage pulse generator and dipole antenna mounted on the trailer platform, as well as data collection and processing equipment housed in a separate van.

The current state of the EMP problem can be assessed as follows. The mechanisms of EMP generation and the parameters of its damaging effect have been sufficiently well studied theoretically and experimentally confirmed. Equipment security standards have been developed and effective protection means are known. However, to achieve sufficient confidence in the reliability of protection of systems and facilities from EMP, it is necessary to carry out tests using a simulator. As for the full-scale testing of communication and control systems, this task is unlikely to be solved in the foreseeable future.

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BOND TYPE AND CHEMICAL PROPERTIES

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A chemical bond is a set of forces acting between atoms that bind them into stable structures, the electron-nuclear interaction of atoms Associate with the restructuring of their electronic structures and the release of energy.

Valence electrons - electrons participating in the formation of a chemical bond.

Types of chemical bond:

1. Covalent bond (Covalent non-polar and polar bond)
2. Ionic bond
3. Metallic bond
4. Hydrogen bond

1. Covalent bond - a chemical bond formed by the overlap of a pair of valence electron clouds.

If there is one common electron pair between two atoms, then such a bond is called single (ordinary), if two - double, if three - triple. There are two mechanisms for the formation of a covalent bond: the exchange mechanism and the donor-acceptor mechanism:

- Exchange mechanism

In the exchange mechanism for the formation of a common electron pair, two bonding atoms provide one unpaired electron each. This is exactly what happens, for example, when a hydrogen molecule is formed.

- Donor-acceptor mechanism

In the donor-acceptor mechanism, a common electron pair is represented by one of the bonding atoms, the one that is more electronegative. The second atom represents a free orbital for the common electron pair, thus forming the ammonium ion NH_4^+ . This positively charged ion (cation) is formed when ammonia gas interacts with any acid. In an acid solution, there are hydrogen cations (protons), which in a hydrogen medium form the hydronium cation H_3O^+ . A covalent bond can be non-polar-between two atoms with the same electronegativity, that is, in simple substances, and polar - between atoms whose electronegativity is different, that is, in complex substances.

2. Ionic bond-a chemical bond between unlike ions, due to their electrostatic attraction. Ions are particles with a charge, into which atoms turn in the process of giving or receiving electrons. Moreover it can be considered the limiting case of a covalent bond, when the difference in the electronegativities of the bonded atoms is so great that a complete separation of charges occurs.

3. Metallic bond-chemical bond, between atoms in a metal crystal. Metallic bond is described with regard by many physical properties of metals, such as strength, plasticity, thermal conductivity, electrical resistivity and conductivity, opacity and gloss.

4. Hydrogen bond-bond, formed between a hydrogen atom that is already bonded to an atom with high electronegativity and another electronegative atom. According to the hydrogen atom, being bound to one electronegative atom, lacks electron density and is attracted to the second electronegative atom, which is rich in electrons. Usually the hydrogen bond is denoted as follows: $\text{D} - \text{H} \cdots \text{A}$. The atom "D" bonded to hydrogen by a covalent chemical bond is called the donor of the hydrogen bond, and the atom "A" is called the acceptor of the hydrogen bond.

It can be concluded that chemical bonds have different characteristics and properties.

WHAT IS GENETIC ENGINEERING

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Genetic engineering refers to the direct manipulation of DNA to alter an organism's characteristics (phenotype) in a particular way.

What is genetic engineering? Genetic engineering, sometimes called genetic modification, is the process of altering the DNA in an organism's genome.

This may mean changing one base pair (A-T or C-G), deleting a whole region of DNA, or introducing an additional copy of a gene. It may also mean extracting

DNA from another organism's genome and combining it with the DNA of that individual. Genetic engineering is used by scientists to enhance or modify the characteristics of an individual organism. Genetic engineering can be applied to any organism, from a virus to a sheep. For example, genetic engineering can be used to produce plants that have a higher nutritional value or can tolerate exposure to herbicides.

How does genetic engineering work? To help explain the process of genetic engineering we may take the example of insulin, a protein that helps regulate the sugar levels in our blood. Normally insulin is produced in the pancreas, but in people with type 1 diabetes there is a problem with insulin production. People with diabetes therefore have to inject insulin to control their blood sugar levels. Genetic engineering has been used to produce a type of insulin, very similar to our own, from yeast and bacteria like *E. coli*. This genetically modified insulin, 'Humulin' was licensed for human use in 1982.

The genetic engineering process A small piece of circular DNA called a plasmid is extracted from the bacteria or yeast cell. A small section is then cut out of the circular plasmid by restriction enzymes, 'molecular scissors'. The gene for human insulin is inserted into the gap in the plasmid. This plasmid is now genetically modified.

The genetically modified plasmid is introduced into a new bacteria or yeast cell. This cell then divides rapidly and starts making insulin. To create large amounts of the cells, the genetically modified bacteria or yeast are grown in large fermentation vessels that contain all the nutrients they need. The more the cells divide, the more insulin is produced.

When fermentation is complete, the mixture is filtered to release the insulin. The insulin is then purified and packaged into bottles and insulin pens for distribution to patients with diabetes.

What else is genetic engineering used for? Plant-based Engineering Genetic Examples. Rapeseed is a flowering plant used to make certain types of vegetable oil. Genetic engineering has allowed these plants to be resistant to certain pesticides so that when the fields are treated to remove pests, the plants will remain unscathed.

Plants that fight pollutants. Poplar trees developed by scientists at the University of Washington can absorb polluted water through their roots and clean it before the water is released back into the air. The plants were many times more efficient at cleaning certain pollutants than regular poplars.

Golden Rice. Genetic modification is often used to make healthier foods, such as golden rice, which contains beta-carotene the very same vitamin that makes carrots orange. The result is that people without access to many vitamins will get a healthy dose of vitamin A when the rice is consumed. Genetic Engineer *Examples with Animals* One of the most controversial uses of genetic engineering has been cloning, or producing a genetically identical copy of an organism. While the ethics of cloning are hotly debated, the first-ever sheep (named Dolly) was cloned in 1996 by scientists. In 2020, scientists cloned the endangered black-footed ferret.

COVID Vaccine Amid the COVID-19 pandemic, the COVID-19 vaccine used genetic engineering to achieve immunity. The Pfizer and Moderna vaccines use mRNA genetic sequencing to help a person's body recognize the COVID virus.

Genetic engineering history The first genetically modified organism to be created was a bacterium, in 1973. In 1974, the same techniques were applied to mice. In 1994 the first genetically modified foods were made available.

Genetic engineering has a number of useful applications, including scientific research, agriculture and technology. In plants, genetic engineering has been applied to improve the resilience, nutritional value and growth rate of crops such as potatoes, tomatoes and rice.

In animals it has been used to develop sheep that produce a therapeutic protein in their milk that can be used to treat cystic fibrosis, or worms that glow in the dark to allow scientists to learn more about diseases.

BIOTECHNOLOGY – A MODERN SCIENCE OR A NEW NAME FOR AN OLD SCIENCE?

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Biotechnology is a technology that utilizes biological systems, living organisms or parts of them to develop or create different products. It is an interdisciplinary field that emerged at the intersection of biological, chemical and technical sciences. Biotechnology follows the principle of using biological processes to develop products, processes, and systems that improve our lives. In this context, biotechnology is one of the key technologies that can help us overcome challenges of our time. This results in breakthrough products and technologies that fight diseases, minimize the ecological footprint, improve food production and create more efficient manufacturing processes.

Brewing and baking bread are examples of processes that fall within the concept of biotechnology (use of yeast (living organisms) to produce the desired product). Such traditional processes usually utilize the living organisms in their natural form (or further developed by breeding), while the more modern form of biotechnology will generally involve a more advanced modification of the biological system or organism.

Study of Biotechnology involves studies of molecules, cells, and organisms aiming to understand how biological processes work. Nowadays biotechnologist

plays an essential role in creating and developing methods of production for biomolecules such as vaccines, antibiotics, enzymes, bio-interfaces, biopolymers, biofuels, and many others. New and advanced methods of analysis are always being created.



Research in the field of bio-interfaces is characterized by interdisciplinary cooperation between the disciplines of biotechnology, chemistry, physics, medicine as well as engineers and developers. Highly complex processes are analyzed on a nanoscale, functionally processed and used, for example, to optimize and improve the compatibility and easier handling of heart and brain pacemakers.

Bio- and nanotechnology play a significant role in the development of bio-interfaces. For example, gold or silver nanoparticles are used in cancer therapy. The implementation of these technologies requires reliable, durable and non-hazardous components that do not lose any of their performance despite the required small size. Sensors in particular are crucial at bio-interfaces. They must deliver reliable results in every situation because faulty evaluations can be life-threatening.

Also, with the development of genetic engineering in the 1970s, research in biotechnology (and other related areas such as medicine, biology etc.) developed rapidly because of the new possibility to make changes in the organisms' genetic material (DNA).

Biotechnology-derived therapeutic products represent a diverse class of agents that are categorized by their method of manufacture, typically based on recombinant DNA technology. These products include recombinant proteins and nucleotides as gene therapies, anti-sense therapies, cytokines, monoclonal antibodies, growth factors, soluble receptors, fusion proteins, vaccines, and coagulation factors. Therapeutic targets of these products include genetic deficiency; neurological, cardiovascular, autoimmune and inflammatory disorders; cancer; metabolic disorders and other conditions. Given that these molecules are typically derived and produced to mimic endogenous nucleotides and proteins, their toxicity tends to be related to that Associate with over-stimulation or suppression of the targeted biological pathways. In addition, unlike potentially active metabolites Associate with small molecule therapies, the metabolic by-products of biotechnology-derived therapeutics are generally inactive amino acid and nucleotide fragments.

Through the use of biotechnological manipulation, it has been possible to develop highly precise treatment methods that can be applied in a minimally invasive manner. As a result, the interventions are maximally efficient with minimal side effects.

Also, biotechnological knowledge will be essential in the coming years as focus moves to renewable raw materials, exploration of waste products, and sustainability.

Biotechnological manipulation allows modification of genetic growth requirements of cereals, vegetables and fruits. plants become more resistant to external influences such as high heat, little water or poor soil quality. This makes a decisive contribution to ensuring that



The

agriculture can be carried out under less favorable conditions and that the food supply can be secured.

As you can see, biotechnology covers many different disciplines (eg. genetics, biochemistry, molecular biology, etc.). Biotechnological manipulation is the ability to control and alter aspects of biological makeup. This technology is used in various fields to obtain more flexible food production or to combat diseases. New technologies and products are developed every year within the areas of eg. medicine (development of new medicines and therapies), agriculture (development of genetically modified plants, biofuels, biological treatment) or industrial biotechnology (production of chemicals, paper, textiles and food).

Therefore, in conclusion I would like to note, that biotechnology is a key technology of the 21st century with enormous innovation potential. At the same time, there are huge challenges to master.

СЕКЦІЯ

ГУМАНІТАРНІ НАУКИ ЯК СКЛАДОВА ПРОФЕСІЙНОЇ ПІДГОТОВКИ
СТУДЕНТІВ ТЕХНІЧНИХ ВИШІВ;
ФІЛОСОФІЯ, СОЦІОЛОГІЯ ТА ПСИХОЛОГІЯ У СУЧАСНІЙ ПАРАДИГМІ
РОЗВИТКУ СУСПІЛЬСТВА;
ПЕДАГОГІКА ПРОФЕСІЙНОЇ ПІДГОТОВКИ.

ВИКОРИСТАННЯ ПРОЕКТНОЇ ТЕХНОЛОГІЇ В ПРОЦЕСІ ВИКЛАДАННЯ ІНОЗЕМНИХ МОВ В ХНАДУ

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Нині спостерігається підвищений інтерес до вивчення іноземних мов, головним чином англійської. Знання іноземної мови розглядається як невід'ємний атрибут досягнення професійного та особистісного успіху. Уміння спілкуватися з колективом, підлеглими, використовуючи професійну термінологію, стає необхідним у зв'язку з тим, що у студентів, магістрантів, аспірантів з'являється можливість брати участь у міжнародних конференціях, олімпіадах, стажуватися або продовжувати освіту в європейських вузах. Безволодіння іноземною мовою на професійному та загальнонауковому рівні випускнику технічного вузу досить важко знайти свою нішу на ринку праці, знайти цікаву, високооплачувану роботу з перспективою росту і здійснювати професійну діяльність на високому рівні, бути в курсі нових розробок і досягнень у своїй професійній сфері.

Проектна методика, в основі якої лежить концепція особистісно-діяльнісного підходу, відповідає сучасним освітнім вимогам. Метою навчання іноземної мови за допомогою проектно-методики є вдосконалення всіх компонентів іншомовної комунікативної компетенції студентів у процесі іншомовної мовленнєвої діяльності, мобілізація творчих здібностей і особистісного потенціалу студентів при усвідомленні студентами себе як суб'єкта навчальної діяльності з оволодіння іноземною мовою, критичної рефлексії власного досвіду навчальної діяльності і здатності до саморозвитку в процесі гнучкої конструктивної мисленнєвої діяльності.

Відповідно до поставленої мети зміст навчання іноземної мови з використанням проектно-методики є лінгвістичні і соціокультурні знання, що формуються в студентів у процесі оволодіння новим мовним матеріалом за темою проекту у процесі пошуку значущої інформації з іншомовних джерел. Позначимо суттєві методичні висновки, що лежать в основі проектного навчання як сучасної педагогічної технології на етапі творчого застосування мовного матеріалу:

-щоб сформувати у студентів необхідні вміння і навички у тому чи іншому вигляді мовленнєвої діяльності, необхідна активна усна практика для кожного студента групи;

-щоб розвивати навички комунікативної компетенції поза мовним оточенням, важливо надати студентам змогу мислити, вирішувати деякі проблеми, які породжують думки, розмірковувати над шляхами вирішення цих проблем, із тим, щоб студенти акцентували увагу на змісті свого висловлювання;

-щоб студенти сприймали мову як засіб міжкультурної взаємодії, необхідно не тільки знайомити їх із країнознавчою тематикою, але шукати засоби включення їх в активний діалог культур, щоб вони на практиці могли пізнавати особливості функціонування мови в новій для них культурі [1].

Основна ідея подібного підходу до навчання іноземної мови, таким чином, полягає в тому, щоб перенести акцент з різного виду вправ на активну мисленнєву діяльність студентів, що потребують для свого оформлення вправного володіння певними мовними засобами.

В'язку з цим при навчанні іноземної мови в технічномуЗВО особливароль відводиться формуванню загальнонаукової технічної компетенції студентів, знанню загальнонаукової лексики іноземної мови і вміннювикористовувати її в професійному спілкуванні.

Потенціал дисципліни «Іноземна мова» в ХНАДУполягає в її змісті, що включає всебі наступні складові теми: «MyUniversity», «MynewCar», «Environmental damage through history», «The Hotel Complex «Automobile»», «Ukraine International Travel and Automobile Show», «

Automobile of my dream».Зокрема привертають увагу ще й такі теми, як: «Acquaintance» («Знайомство»), «My Future specialty» («Моя майбутня спеціальність»), «Influence of engineering on ecology» («Вплив техніки на екологію»), «Road safety» («Безпека дорожнього руху»), «Road accident» («ДТП») «Road driving test» («Іспит з водіння»), «The Highway Code Test» («Іспит з правил дорожнього руху»), « At the gas (petrol) station» («На заправці»), «Buying a car» («Купівля авто»), «Trouble with the car» («Поломка авто»), «I'd like to have my car repaired» («Я би хотів відремонтувати свій автомобіль») і т.д.

У зв'язку з тим, що будь-яка форма навчання пропонує наявність партнера, на заняттях з іноземної мови, на відміну від занять з інших дисциплін, виникають оптимальні умови для спілкування студентів один з одним, для обміну інформацією, для особистісної взаємодії.Сучасні технології навчання (рольові ситуації, ситуативно-рольові ігри, проекти итщо) сприяють формуванню в учнів досвіду міжособистісного спілкування, вирішення конфліктів, участі у прийнятті групових рішень, умінь навичок конструктивної взаємодії, обміну інформацією, прогнозування та врегулювання конфліктів, організаторських умінь і навичок на етапі навчання у модульованих ситуаціях [2].При такому підході у студентів підвищується мотивація до вивчення іноземної мови, поступово виробляється діяльна позиція, а засвоєння професійного лексичного словника і загальнонаукової

лексика і ментуються через моделювання ситуацій, пов'язаних з майбутньою професійною діяльністю, набуття досвіду та використання навчальної інформації в професійній діяльності.

Ефективність організації процесу навчання за проектною технологією багато в чому залежить від навчальних матеріалів з іноземної мови. Основною метою навчальних матеріалів, створених і використовуваних при навчанні в ХНАДУ, є забезпечення ефективних засобів для придбання необхідних комунікативних умінь. Такі навчальні посібники, як «The Highway Code», «Transportation», «English Bachelor's course in Ecology», «Driver's manual» використовуються для різних рівнів навчання іноземної мови з метою підвищення мотивації учнів і розвитку навичок соціальної комунікативної компетенції. Навчальні посібники включають не тільки автентичний матеріал, тренувальні лексико-граматичні вправи, вправи на комунікативному рівні ігрові ситуації, завдання для проектною роботи, сюди також відноситься граматичний курс, діалоги для заучування, короткі історії для прослуховування і наступного обговорення в аудиторії.

Слід звернути особливу увагу на новітні методи навчання іноземної мови, наприклад, інтерактивні, мультимедійні, інтенсивно-сугестивні, що сприяють подоланню однієї з найважливіших труднощів при навчанні комунікативності

як професійної, так і суспільно-наукової – це подолання психологічного бар'єру

визначається як діяльність, предмет, мотив, який лежить в самому процесі її здійснення. Ігрові технології на початковому етапі навчання професійної комунікації іноземною мовою в технічному ВНЗ забезпечують глибокий, тривалий характер засвоєння знань, навичок і умінь спілкування іноземною мовою.

У ХНАДУ на факультетах транспортних систем та автомобільному пропонуються і реалізуються такі ігрові ситуації, як: «Road safety» («Безпека дорожнього руху»), «Road accident» («ДТП») «Road driving test» («Іспит зводіння»), «The Highway Code Test» («Правила дорожнього руху»), «At the gas (petrol) station» («На заправці»), «Buying a car» («Купівля авто»), «Trouble with the car» («Поломка авто»), «I'd like to have my car repaired» («Я би хотів відремонтувати свій автомобіль») та інші. Використання сучасних технічних засобів навчання при навчанні професійної комунікації сприяє формуванню пізнавального інтересу, який, як відомо, домінує в ієрархії мотивів навчання. Досить актуальним методом навчання комунікативності є використання відеофільмів, відеокліпів, відео сюжетів, телепрограм на іноземній мові, пов'язаних із професійним інтересом студентів.

У модель навчання професійному спілкуванню при використанні проектною методики вставлений відповідний лексико-граматичний матеріал, а також використовуються необхідні для даної ситуації кліше, ключові фрази, репліки, що мають правильне інтернаціональне оформлення. Наприклад, при вивченні таких митниці і митний контроль», «Паспортний контроль», «На

кордоні (проходження вантажів)», «Готель», «Проблеми з автомобілем», «ДТП» і то що використовуються відеоматеріали, відповідні достатньо ефективно модельований ситуацій.

Проектна методика широко використовується для формування предмета «Іноземна мова», загальнонаукової технічної та професійної компетенції студентів [3]. Основною метою цього методу є навчання іноземної мови на активній основі з урахуванням інтересів тих, хто навчається, тобто воно є студенто-центрично, що сприяє навчанню активному володінню іноземною мовою, і це стає характеристикою інженера.

Такі проектні завдання, як «Вантажні перевезення у Великобританії та Україні», «Громадський пасажирський транспорт у США та Харкові», «Пасажирські перевезення 21 століття», «Безпека дорожнього руху», «Інтер модальні перевезення», «Сучасні технології на службі індустрії перевезень» і то що. сприяють розвитку особистості кожного окремо взятого студента, вміння працювати в колективі, приймати рішення, формують такі якості, як ініціативність, самостійність, активність, критичне і творче спілкування, нести відповідальність за рішення, тобто розвиваючи соціальну комунікативність іноземною мовою, проектний метод виховує вище перелічені якості, необхідні в сучасному світі.

Метод проектів при навчання іноземної мови у ХНАДУ формують соціально-психологічну особливість студентів, підвищують створення необхідної мотивації до вивчення і використанням проектною методикою є лінгвістичні і соціокультурні знання, що формуються в студентів у процесі оволодіння новим мовним матеріалом з метою проекту у процесі пошуку значущої інформації з іншомовних джерел.

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EDUCATION INFORMATION TECHNOLOGY RESULTS

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Abstract. This article deals with the problems of education informatization which has significantly changed the education forms and methods making a challenge for teachers' development.

Key words: software, environment, teaching methods, computers, Internet, education informatization.

In the modern information society, the basis for the development of civilization is information processes, in which information technology is widely used. The introduction of information technologies in the sphere of human activities contributed to the emergence and development of the global process of informatization. In turn, this process gave impetus to the development of the system of national education. In Ukraine, as in many other countries of the world community, more attention is being paid to the problem of the education informatization, which is regarded as one of the most important problems of the civilization development.

Information, closely related to governance and organization, has become a global resource of humanity, multiplying its potential capabilities in many areas of life. In this connection, informatization of the society is an actual task today.

Successful informatization of education generates a number of social problems. They cannot be classed as "shortcomings", as winter cannot be called as bad season. Winter will be difficult if you do not have a home and warm clothes.

The first problem is: "Pedagogical revolution"

The widespread introduction of information technologies into educational practice generates social tension among educators. It has several phases.

Phase one: the management of the education system requires mass computer literacy. Every teacher has to attend the appropriate courses, everyone understands: the time has come.

Phase two: teachers who have received basic knowledge and skills begin to imitate the use of computers in their professional practice. Making presentations and conducting slipped open classes. At the same time, everyone understands that this is a show-off, and it has no influence on the educational process. The main reason is that the leaders who sent the teaching masses to study, forgot to allocate money for the relevant material resources.

Phase three: invest the style of teaching changes for a new one saving the main pedagogical goals. Using the computer and the Internet in the educational process must be constant and systematic. And then it turns out that it requires not even knowledge, but a certain revision of the personal pedagogical concept. It is necessary to get off the pedestal of the great guru and sit next to the students at the desk. We must agree that the new topic could be better stated on the computer.

The second problem is: "Mass training at home"

The introduction of a unified state examination in the form of testing formed a trend among graduates. Children with the help of parents began to neglect school lessons, preparing for a single state exam. The spread of test forms of control over time will lead to the fact that the tendency will move from graduation classes to younger parallels. The new generation of educational software products, the emergence of which is in the air, can make the phenomenon even more massive. In my opinion, the question is not whether this will happen or not. The question is, how soon this will happen. Will the education system get ready adequately for this? Will it find a worthy substitute for the class-lesson form of the organization of the

educational process? Form the necessary number of teachers of the new generation? Will the government find scope for those who are not in the new realities? One of Parkinson's laws tells: "Trouble always happens before they are expected."

First perspective: "Knowledge without gaps"

One of the key problems of the current class-lesson system is that many students have knowledge gaps accumulated as a snowball. For some lessons, this is not critical, but for mathematics - just a disaster. No teacher can identify all gaps in knowledge among all students. Even a tutor who is hired to pull a child up cannot always do this absolutely perfect. To my mind information technologies will solve this problem. And here, by the way, computer testing can play a leading role.

Second perspective: "Whose responsibility is?"

A pupil often believes that he is getting education for his parents. For himself, he decided long ago that geography (biology, history, etc.) are not needed for him in the future life. Parents believe that everything should be taught by the school, and their duty to work - and pay taxes to the budget. Teachers believe that it is their duty to tell correct and ask strictly, and the rest - the problems of the student and his parents. Simply saying, exaggerated cycle of shifting responsibility in studying. It is clear that such positions are rare in the pure form, but the problem is obvious. And responsibility at different times is shifted to different participants in the cycle. Now many parents see how their children easily adapt to new realities. And they are quietly shifting responsibility from their shoulders to children's. And at the current level of communication between the participants in the educational process there will be nothing different. Only the use of information technologies for the organization of useful and, that is the most important, uncomplicated communication can change the situation basically.

The use of multimedia educational materials, information and communication technologies in the educational process allows: to present teaching materials in a graphic, sound, animated forms, which gives many students a real opportunity to learn the subject at a high level; to differentiate and individualize way of studying for each student; significantly increase interest in subjects, which also increase the quality of teaching; access and operate with a large amount of information; form an information culture, including teaching children to find and use various types of information, which is one of the most important skills in the modern world.

The main goal of the system is to make information about the schedule of lessons, homework, marks available to parents and students at any time, and teachers to facilitate the maintenance of information about all changes in the educational activities of the school.

The e-journal system is developed to help the teacher to plan his professional activity more carefully and to save time analyzing information about the students' educational achievements. The system of electronic diaries and journals allows increasing the level of student achievement. Thus, it allows to build a system of assessments, control and accounting of school achievements for the improvement of teachers' professional activity.

The director and deputies are given the opportunity to receive at any time more detailed information about the current educational process at school, which allows, if necessary, to adjust the school's work and prevent possible crisis situations.

Teachers are given the opportunity to receive information about their workload, changes in the schedule, spend less time performing arithmetic or algebraic operations to deduce students' grades, plan their weekly workload, and share their experience with colleagues.

The experience of using information technologies in education is only just beginning to accumulate. The other problem is the obsolescence of IT over time, as information products have an extremely high rate of new types or versions changeability.

One of the urgent tasks is not just to equip the schools with equipment and software, but to create such an environment that it becomes natural for teachers to use computers practically in all aspects of their activity. Information technologies are not just tools, they allow you to receive information and form ways of communication, influencing the thinking process and the creative abilities of society. Due to the education, information technologies influence the culture formation itself. A person who does not own modern information technologies, is deprived of one of the adaptation mechanisms in a dynamically developing society. Information tools and technologies become an integral part of a human life

PRINCIPLES OF OUTSTANDING CLASSROOM MANAGEMENT

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Effective classroom management requires awareness, patience, good time, boundaries, and instinct. Nothing is easy if you lead a large group of easily disruptive young people with different skills and temperaments on a meaningful learning path.

So how do master teachers do this? To understand the classroom management strategies of experienced teachers better here are the most commonly mentioned and creative approaches.

Take care of yourself to take care of your students To learn effectively, your students need a health, our experienced teachers said. So get enough sleep, eat healthy food and take care of your well-being. working 15 hours a day then you'll be completely stressed. The most important thing you do at your institution is making decisions. If you're too tired to do it right, it won't matter how well prepared you were last night. A few deep breaths can be very helpful in recognizing frustration before taking action. The moment of patience in a moment of frustration saves a hundred moments of regret.

Countless studies confirm the idea that self-care reduces stress, which can deplete your energy and impair your judgment. While self-care is more of a habit or

practice for your well-being than an actual classroom management strategy, the benefits include improved executive function, greater empathy, and greater resilience - all qualities that will allow you to make better decisions when faced. With challenging classroom situations.

Focus on building relationships This was the topic we heard the most: Establishing healthy student-teacher relationships is essential to a successful classroom culture and even lays the foundation for academic success.

Simple efforts, such as greeting children in front of the classroom before the start of the day, bring big dividends. They appreciate it so much when the teacher stops to listen and gets interested

Many educators have emphasized that a teacher's ability to balance warmth and strong boundaries is key to successful relationships - and classroom management. Teachers should be consistent but flexible. Love students unconditionally, but let them be responsible. Give them a voice, but stay a leader,

Set rules, boundaries, and expectations Students fail in chaos. They need some basic structure and consistency - to feel safe and focused.

But maintaining a culture of mutual respect doesn't mean your goal is to "make friends" as you can't be their friend. You can be kind, loving and supportive, but you still have to be their teacher. Establish a code of conduct at the beginning of the year and make sure that everyone - including the teacher - tries to stay true to him. Predictability counts: Continue with rewards and consequences. If you say that, think. And if that's what you mean, tell me. Be clear, proactive and consistent.

There was a great consensus among educators that modeling appropriate behavior in the classroom sets the tone for children as you make the weather. Your attitude as a teacher really determines the tone and environment of your classroom. If you want to be calm and productive, present this to your students. That way you can still solve the problem while keeping your face. It completely changed the atmosphere in the classroom.

Take a strength-based approach In a long walk about classroom management practices, this would be perhaps the most memorable to find ways to make your toughest students your favorite students.

This, of course, is not easy. A power-based lens means you never forget to look below the surface of behavior, even if it's uncomfortable. You should find the root of the problem. There is no student who wouldn't want to be successful. If they behave badly, it's kind of like when a baby cries; there is something wrong with their world. If they behave badly because of attention, then find out why they need attention and how you can give them what they need.

And remember to keep working to deepen the connection, consider the context, and use language wisely. It doesn't sound surprising when you mention the success of students with difficulties. Instead of saying, 'Wow! That was amazing,' it's better to say, "I'm proud of you, not surprised. I always knew you could do it."

THE EFFECT OF ONLINE LEARNING ON COMMUNICATION

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Communication is simply the transfer of information from one person to another, or group to another. Effective communication is a process of exchanging ideas, thoughts, knowledge and information in such a way as to fulfill the purpose or intent in the best possible way.

The aim of online communication is the same as that of face-to-face communications: bonding; Exchanging information; being heard and being understood. Fostering a sense of community in online classes will make the students' learning experience more meaningful and it can help them stay connected during the course life. When instructors communicate with students, whether in a face-to-face class or an online class, they communicate for the purpose of offering knowledge or having information to gain understanding and develop relationships. Communicating with students in an online environment requires a little more thought and planning than communicating with students in the traditional environment because the online environment lacks body language. Instructors have the advantage of using body language and facial expression in a face-to-face class to help them connect and get their message across to their students. When interacting in an online class, instructors do not have the advantage of using body language to help their students communicate. Knowledge of communication weaknesses within online environments can help them decide how to establish timely and appropriate communications, and how to interact effectively with their online students.

Communication skills required for online learning are called virtual communication skills. The function of virtual communication in learning is to express ideas, thoughts, opinions, knowledge and all information 'virtually' among students or between lecturers and students, and vice versa. Virtual communication skills in this learning consist of oral communication skills, receptive communication skills, understanding the purpose of communication, using a communication strategy, communicating clearly for a purpose, and presentation skills.

In online-based learning, it is necessary to build opportunities for interactions and communication between students and their instructors. Similarly, active students could make the most of online forums, which might offer opportunities to engage fellow students and professors with deeper dialogue and insightful questions as a technique. Asking questions is a way of getting deeper into the subject and making the topic more comprehensible. Additionally, students should take advantage of opportunities to collaborate with other online students to avoid burn-out or lack of interest while learning online, use motivation and support to remain motivated. Efficiency and efficiency of communication in online learning are an important aspect to overcoming the constraints of online communication [1, p.1084].

A research conducted by Kinash S. established that student attendance does not seem to decrease when online lectures are given, and whether they experience

lectures live or online does not seem to affect the student achievement. Many scholars have argued that face-to-face and online formats are only comparable when used for instructive information which can be offered as a lecture. Students need learning tools, and intellectually rich spaces for conversation, debate and deductive questioning. Moreover, the proposition that such educational activities are better conducted face to face was strongly endorsed. Meanwhile, educational researchers have also identified digital scholarship as a disruptive innovation, enabling creativity and renewal in learning and teaching experiences [3, p.130].

The effect of student engagement on the online learning environment has been described as the level of interest demonstrated by students, how they interact with others in the course, and their motivation to learn about the topics. There are several affective factors related to student engagement which include attitude, personality, motivation, effort, and self-confidence. Jaggars S. and Xu D.[2, p.275] found that in online courses the level of interaction within the course parameters was positively Associate with the grades of the students. Through evaluating the level of student interest and taking into account these affective factors, instructors will organize lessons and events more effectively that will enable students to participate more actively in their learning and course work. When students are motivated to do well in their classes, engaged or invested in their desire to learn, and able to devote the effort their teachers expect, they are more likely to participate in their education. The course engagement extends beyond the traditional methods of measuring instructional effectiveness to include student mastery of course learning goals, retention and student satisfaction perceptions, whereas “Consideration of the impact of instructional activities on student engagement provides a more complete picture of the teaching-learning dynamic.” Measuring student engagement levels helps instructors to adapt their instructional practices in response to changes in the motivation, participation and attitude of students toward their course and educational pursuits [4, p.278].

In online-based learning, it is necessary to build opportunities for interactions and communication between students and their instructors. Likewise, effective students could make the most of message boards, which might offer opportunities to engage fellow students and instructors with deeper dialogue and insightful questions as a technique. Asking questions is a way of moving deeper into the subject and going deeper makes the subject more comprehensible. We recommend and encourage that instructors try their best to keep in touch with their students through online office hours, as well as reach out to each student in their class individually if there is a sudden decrease in performance. It is best if instructors communicate with their students and vice versa in a more informal way like through WhatsApp groups, Messenger calls, private video call meetings and so on. Instructors should encourage students to participate and study more by providing incentives, at the end of the day every student wants to gain good grades and without the motivation for it is hard to achieve, this can be fulfilled by giving extra marks through short quizzes.

As a conclusion, online learning has a room in today’s classroom. However, the lecturer or the instructor has to be flexible and provide strategies to students in

tackling this approach of learning. In addition, the lecturer needs to be more aware on the students' readiness in using online learning. With the correct application of technology, a lecturer is able to facilitate learning in a more engaging manner which allows students to be creative and take charge of their own learning. Providing online to students give them the opportunity to engage in learning a creative manner which is achieved by designing multiple forums for them to interact, discuss and being creative enable them to prosper and be innovative thinkers.

Though the majority still prefer classroom classes over online classes due to the many problems they face when taking online classes, some of which include: their lack of motivation and understanding of the material, the decrease in communication levels between the students and their instructors, and their increased feeling of isolation caused by online classes.

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ФІЛОСОФІЯ ЯК ТЕРАПІЯ СУЧАСНОГО СВІТУ

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Спочатку до термінології. Нам здалося доречним використати медичний термін терапія (синонім: лікування) — процес, бажаною (але не завжди досяжною) метою якого є полегшення, зняття чи усунення симптомів і проявів того чи іншого захворювання, патологічного стану чи іншого порушення життєдіяльності, нормалізація .

Цим закцентувати увагу на тому, що мова буде йти про місце і роль філософії у сучасному складному, непередбачуваному світі. Що сучасний філософський досвід включається в новий режим думки через виклики, кризи, жахи, у які провалюється довколишній світ. Р. Ранс'єр зазначав, що політика з'являється тоді, коли в політичне поле залучаються ті, які до певного часу були до неї байдужі. Аналогічно філософія стає частиною життєвого світу, коли перетворюється на практичну філософію, стає тим гедзем (за Сократом), шершнем, який жалить, порушує спокій, залучаючи до пошуків істини, яка стає

безкінечним рухом філософування на шляху до комунікації між мислячими людьми у проясненні ситуації і самих себе [1].

Хто філософує, той слухає і чує людей, спрямовує свою волю на спільноту, пов'язує свою долю з долею людського буття у світі. Отже філософія – це не просто визнання, вона у постійній боротьбі за самоствердження .

Філософія належить до одного з найдавніших та найушлявленіших винаходів людства. Після доволі тривалої історичної дистанції (близько 2,5 тисяч років) від філософії почали відокремлюватись різні, як стали казати, конкретні (ще одна назва – “точні”) науки, а філософія опинилась у ситуації, яку О. Конт порівняв із ситуацією короля Ліра: віддавши донькам частини свого королівства, король опинився у стані безпритульної та звідусіль гнаної людини. Реліктові сліди тієї ситуації і до сьогодні живуть у думках деяких науковців, коли вони вбачають сенс у філософських міркуваннях лише в тому, щоб останні “накинули” дуже загальний та суто інтелектуальний проект певних рішень, а науки пізніше або підтвердять, або спростують такі філософські марення [2].

Представники сучасного філософського постмодернізму давно вже оголосили про “смерть філософії”, поставивши її в один ряд із лавиною подібних смертей – “смерть людини”, “смерть суб'єкта”, “смерть культури” тощо. Деякі епатажні автори, що претендують на те, щоб представляти філософський авангард, кажуть про принципове безпліддя сучасної філософської думки, про її віддаленість від людини і від реальних проблем суспільства .

«Світ без філософії» – це пусте поняття (Ніщо), яке ще треба наповнити, перемагаючи ворогів філософії.

І все ж, не будемо займати позицію якогось тотального критицизму, чи навпаки оптимізму, а визнаємо: у таких сучасних ставленнях до філософії існують певні реальні підстави, і вони не вигадані і не є результатом якогось зловмисного наміру. Перша цілком реальна підстава для недовіри до філософії пов'язана із загальним станом сучасного, перш за все, розвиненого суспільства західного типу: це є суспільство, орієнтоване на гонитву за життєвими успіхами, а останні породжують жагу прагнути ще чогось нового і новішого. Філософія, принаймні в її традиційних і не лише класичних формах, вимагає розмірковування, а тому – паузи, зосередження та тиші; у динамічному забігу на дистанцію змагання за прибутки та кар'єрне зростання філософія неможлива.

Підведемо підсумок: у сучасному українському суспільстві, філософія опинилась у стані особи “без місця проживання”. У кращому випадку за нею залишають роль обслуговування когось або чогось: науки, освіти, просвітництва. Але найбільша біда полягає в тому, що більшість наших сучасників вважає, що і для їхнього особистого життя філософія не потрібна. Хіба, що саме слово «філософія», вживане у виступі чи доповіді, може дещо прикрасити її.

Проблема глобального навчання та виховання вимушена знайти місце для філософії у сучасних «світових суспільствах», створюючи можливості для інкультурної філософії як співіснування різних філософських проєктів, «озвучених» національними мовами, які не тільки конкурують один з одним, але й підтримують світовий порядок на засадах демократії, є запобіжником становлення «постмодерного рабства», бо цінність філософії як підвалини європейської цивілізації означила Ліга Європи саме за маніфестування ідеї свободи.

В першу чергу треба розрізнити освіту і підготовку кадрів. Філософія може стати запобіжником «постмодерного рабства» за умови отримання молодого людиною пристойної освіти, яка дозволяє розкрити таланти «сродної праці», сформуванню почуття власної гідності і плюс сучасна фахова освіта. Від такого фахівця можна очікувати відповідальної свободи, сприяння у конституюванні суспільства, яке реалізує цей принцип.

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ПЕРЕКЛАД ІНТЕРНЕТ-БЛОГІВ ГЕЙМЕРСЬКОЇ ТЕМАТИКИ

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В абсолютній більшості випадків переклад відеоігри – це переклад мовлення і тексту, а це означає, що починають впливати такі фактори, як просодія, можливість перебільшення з огляду на сеттінг (сукупність елементів, ситуацій, де відбуваються події) і, зрозуміло, прагматика висловлювання. Також в сценарії гри завжди присутні реалії (або посилання на них), про які людина або не має ні найменшого уявлення, або має поверхневе, а також різні культурні і соціальні феномени: система соціального устрою, персонажі та їх походження, статус і престиж, лідери. Зміст інтернет-блогів геймерської тематики зазвичай містить посилання на ці елементи, тому усувати переклад блогів від перекладу самих відеоігор категорично не можна.

Відеогра – це аудіовізуальний продукт, як кінофільм, тому переклад гри багато в чому схожий з перекладом кінофільмів. Але в той же час є і ряд відмінних рис, так як відеогра – це в тому числі і програмний продукт, що дає перекладу схожість з локалізацією програмного забезпечення [1].

За словами Берту Есселінку, локалізація – це процес, який «включає в себе лінгвістичні і культурні перетворення продукту, націлені на аудиторію певної місцевості (країна, регіон), де даний продукт буде використовуватися і

продаватися», переклад же – «процес перетворення письмового або усного тексту однієї мови в іншу» [2, с. 3].

Можна виділити три рівня локалізації:

1. Мінімальний, підтримує тільки мову і національний стандарт;
2. Забезпечує переклад текстів в інтерфейсі на мову перекладу;
3. Ретельне підстроювання до культури-реципієнта [3].

Речі, які можуть бути прийнятні в одній культурі, в іншій можуть носити образливий характер або мати інше значення, відмінне від того, яке мав на увазі розробник. Культурні відсилання можуть бути сприйняті негативно і послужити причиною для заборони гри або піддатися цензурі. Так, наприклад, для випуску в Німеччині в грі Wolfenstein 2 були відредаговані деякі елементи: у Гітлера прибрали вуса і замінили символ свастики на трикутник. Замість звернення "mein führer" або "Heil Hitler!" використовується "mein kanzler" або "mein heiler" [4].

Крім труднощів, викликаних технічною складовою гри або недостатньою підготовкою до локалізації гри, перекладач відеоігор також може зіткнутися з рядом складнощів, пов'язаних не з грою, що перекладається ним, а з необхідністю володіння певними фоновими знаннями для здійснення якісного її перекладу. Найчастіше це явище називається метатекстуальністю. Під метатекстуальністю розуміються різні посилання на інші ігрові продукти, твори мас-медіа або події реальності, які можуть міститись у грі.

При перекладі інтернет-блогу геймерської тематики, доцільно буде використовувати наступні методи і стратегії:

Доместикація і форенізація – адаптація і генералізація незнайомих культурі реципієнта елементів знайомими, або зберігання особливостей оригіналу без їх повного перекладу.

Прагматична адаптація тексту – внесення певних поправок на соціально-культурні, психологічні та інші відмінності між одержувачами оригінального і перекладного тексту.

Дослівний переклад – можна використовувати при перекладі назв спортивних ігор і симуляторів різних видів транспорту. Такий переклад буде схожий з технічним, де основна складність буде з специфічною термінологією.

Найчастіше переклад гумору, каламбурів або гри слів може викликати у перекладача найбільші труднощі, тому він може вдаватися до такої стратегії, як компенсація.

Компенсація – це спосіб адаптації, при якому елементи сенсу, втрачені при перекладі одиниці іноземної мови в оригіналі, передаються в тексті перекладу будь-яким третім засобом, причому необов'язково в тому ж самому місці тексту, що і в оригіналі. Таким чином, заповнюється («компенсується») втрачений сенс, і, в цілому, зміст оригіналу відтворюється з більшою повнотою.

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ОСОБЛИВОСТІ ВІДТВОРЕННЯ ФРАЗЕОЛОГІЧНИХ ОДИНИЦЬ НА ПОЗНАЧЕННЯ ХАРАКТЕРИСТИКИ ЛЮДИНИ

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Фразеологізми є дуже важливим аспектом у мові кожного з народів світу. У кожного народу світу споконвіку існувала власна культура, оточення, життєві цінності. На основі цих та багатьох інших аспектів впродовж існування людей формувалися різні крилаті вирази, які були здатні висвітлити тогочасні проблеми, показати що з себе представляє людина за допомогою однієї влучної фрази. Потім була навіть сформована окрема наука, фразеологія, що розвивається і зараз, у наші дні. Як в культурі німецької мови, так і української фразеологізми посідають значне місце, а багато вчених продовжують вивчати нові і нові вирази, долучаючи їх до словників.

Одним із найбільш продуктивних джерел походження фразеологічних одиниць варто вважати твори світової художньої літератури. Головним чином твори таких жанрів як байки, комедії, сатиричні романи, міфи, повісті, оповідання, легенди.

Вперше семантичну класифікацію фразеологізмів було розроблено швейцарським лінгвістом Шарлем де Балі. Саме цей лінгвіст вважається засновником теорії фразеології, адже він був першим, хто ввів цей термін. Він зміг науково обґрунтувати те, що крилаті вирази потребують більш детального та понуреного вивчення. Також Ш. Балі одним із перших почав порівнювати та співвідносити фразеологічні одиниці з іншими одиницями мовної системи, такими як слово, речення або словосполучення. Таким чином, з усіх словосполучень Шарль де Балі виділяє чотири типи:

- 1) вільні словосполучення; (тобто ті, що позбавлені стійкості)
- 2) звичні сполучення (мають відносно вільний зв'язок компонентів та допускають деякі зміни);
- 3) фразеологічні ряди (групи слів, в яких два поняття зливаються майже в єдине);
- 4) фразеологічні єдності (сполучення, в яких слова втратили своє оригінальне значення і виражають єдине, неподільне поняття) [1, с. 5].

Відомий лінгвіст та перекладач В. Комісаров зазначає: «Центральне місце в описі фразеологічних відповідностей займає проблема еквівалентного відтворення значень образних фразеологічних одиниць. Семантика таких одиниць являє собою складний інформативний комплекс, який має як предметно-логічні, так і конотативні компоненти» [2].

Для перекладу фразеологізмів були використані такі способи:

1) повний еквівалент – Mit dem Feuerspielen – грати з вогнем; ein Mann der Tat – людина справи;

2) частковий лексичний еквівалент – Ein alter Hase – стріляний горобець; Noch die Eierschalen hinter den Ohren – щемолюкона губах не обсохло;

3) частковий граматичний еквівалент – nicht vorgestern sein – не вчора народився;

4) обертональний переклад, тобто переклад, щоб у вигляді актуального лише у певному контексті;

5) описовий переклад, переклад фразеологізму за допомогою вільного поєднання слів – böser Geist – злий геній (тобто людина, яка погановпливає на кого-небудь);

6) дослівний переклад (калька) – ein aufgehender Stern – висхідна зірка [3].

При перекладі дібраних фразеологічних одиниць виявилось, що найбільш продуктивним способом в даному випадку виступає саме пошуки еквівалентів,

адже більшість фразеологічних одиниць можуть знайти свій відповідник у мові перекладу. Але слід зазначити, що переважну кількість складають саме часткові еквіваленти, а не повні.

Щодо повних еквівалентів, то їх кількість серед дібраних фразеологічних одиниць на позначення характеристики людини виявилась значно меншою. Доволі невелика кількість фразеологізмів була перекладена за допомогою описового методу та найменша їх частина – за допомогою калькування. Щодо семантичної класифікації: серед дібраних фразеологізмів, що позначають характеристику людини, найбільшу кількість становлять фразеологічні єдності, друге місце посідають фразеологічні вирази, наступними виступають фразеологічні зрощення, а останні – фразеологічні сполучення.

Варто також зазначити, що доволі велике значення для німецькомовних фразеологізмів на позначення характеристики людини становлять фразеологізми із зоокомпонентами, тобто компонентами тварин. Вони можуть використовуватися для різних цілей, але більшість з них нестиме у собі негативний контекст, використовуючи властивості того чи іншого звіра, щоб вказати на недоліки людини або погані риси її характеру. Слід зазначити, що людські уявлення про світ фауни часто не мають належного ступеня об'єктивності. Людина приписує тваринам певні, відповідні їм людські ознаки, які, насправді, не можуть бути притаманні тваринам зовсім або лише віддалено нагадують їхні звички. Але, таким чином, людина здатна підкреслити певні якості за допомогою цього.

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ОСОБЛИВОСТІ НІМЕЦЬКО-УКРАЇНСЬКОГО ПЕРЕКЛАДУ ІМПЕРАТИВНИХ КОНСТРУКЦІЙ

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Імператив – це комунікативно зорієнтоване категорійне утворення, що пристосоване системою мови для ретрансляції адресованого волевиявлення. Ця мовна одиниця має відповідні граматичні, семантичні та семантико-синтаксичні ознаки, забезпечуючи відображення ірреальної модальної семантики, що потенційно може стати дійсною. Особливість імперативних конструкцій полягає у тому, що їх використовують для апеляційного спілкування. Призначенням спонукальних мовних конструкцій є виклик до конкретної дії. Імперативні висловлення є значною частиною мовної продукції людини, оскільки з їх допомогою регулюється суспільно-виробнича діяльність. Традиційно імператив відносять до морфологічної граматичної категорії способу дієслова, що вживається з дієслівними розрядами числа, особи, стану і зовсім е перетинається з категорією часу, а також з дійсним та умовним способами.

У німецькій та українській мовах дієслово має однакове лексико-граматичне значення й позначає дію у широкому розумінні цього слова. Дієслова наказового способу змінюються за числами й особами: в однині вони мають форму другої особи, а в множині – форму першої і другої особи. Особливістю форми наказового способу в реченнях є відсутність підмета [1, с. 170].

На думку фахівців, модальне значення імперативу виникає в результаті взаємодії вищо-часового значення неподільної цілісності дії. Також чималу роль тут відіграють контекст і мовленнєва ситуація [3, с. 27].

Й. Крекич констатує, що семантика імперативу та вид імперативних ситуацій залежить від того, кому адресоване волевиявлення мовця, а головним морфологічним показником ситуації є особа та число дієслова [4, с. 149].

Оскільки імператив у німецькій мові формує один із комунікативних типів речення (спонукальна пропозиція), він може кваліфікуватися як одиниця синтаксису, що становить порядокповідальною та запитальною пропозиціями (у яких використовуються тільки форми індикатива та кон'юнктива, а не форми імперативу) особливий синтаксичний категорію.

За змістом форми імперативу не можна вважати ні реальними, ні ірреальними, оскільки вони не виражають будь-якого факту, який може характеризуватись як реальний чи нереальний. Разом з тим, у лінгвістичній літературі робляться спроби віднести імператив або до реалісу (у широкому розумінні слова), або, навпаки, до ірреалісу. Імперативу може також приписуватися значення потенційності, що пов'язує ірреальність з реальністю, що перетворює деякий ірреальний стан справ на реальний.

Вживання імперативу обумовлюється наявністю ситуації спілкування між мумдвох учасників: того, хто говорить (що є волевія витем) і слухач (адресата волевія влення). Таким чином, сфера вживання імперативу обмежується зазвичай лише ситуаціями безпосереднього спілкування і явно вказує на ідентичність форм імперативу [2].

Якщо розглядати вживання імперативу в діловому спілкуванні, то дієслівний імператив використовується для спонукання реципієнта ділового лист а до певної дії досить часто, а тільки з обов'язковим пом'якшуючим елементом *bitte*, який часто займає в реченні перше місце перед дієсловом. Використання інфітита у функції спонукання для ділових листів не є характерним. Заохочування може виражатися модальними дієсловами та деякими іншими дієсловами, подібними до них за семантикою та вживанням. Так, для вираження спонукань до дії через повинне використовуються модальні дієслова *müssen* і *sollen*; для висловлювання заборони дії через повинність – поєднання дієслів *müssen*, *sollen* і *dürfen* з негативною часткою *nicht*; для висловлення заборони дії через заперечення повинності поєднання дієслова *brauchen* з негативною часткою *nicht* притаманній діловим листам. Тому властивості імперативності залежать від відносин учасників спілкування та властивостей ситуації в цілому, характер імперативності визначить весь текст загалом [6].

Щодо особливостей перекладу, то в українській мові виділяється група конструкцій, які збігаються на вигляд з імперативом, але відрізняються від нього значенням. Такі конструкції називаються квазіімперативами. Це зумовлено тим, що деякі лексеми істотної форми імперативу набувають нестандартних іллокутивних функцій.

Крім того, у багатьох випадках вживання належного квазіімперативу суб'єкт імперативної дії не отримує експліцитного виразу. Такі пропозиції мають узагальнено-особистий характер і лише імпліцитно ставляться до першої чи третьої особи.

Тобто, можна сказати, що морфологічна форма імперативу в українській мові має не тільки пряме директивне значення, а й ряд інших функцій. Не дивлячись на наявність із подібним значенням в німецькій мові, квазіімперативні конструкції в українській мові можуть становити певні труднощі для перекладача. Більш розповсюдженим методом перекладу виявилось уподібнення, що полягає у використанні іншої граматичної форми із подібними функціями, з елементами експлікації та стилістичної компенсації. Практично у всіх випадках спосіб пропозиції змінюється на дійсне. Таким

чином, квазіімперативні конструкції вимагають комплексного перетворення при перекладі німецькою мовою [5].

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ВИКОРИСТАННЯ ІННОВАЦІЙНИХ ТЕХНОЛОГІЙ ПРИ ПІДГОТОВЦІ ОСОБИСТОСТІ МАЙБУТНЬОГО ФАХІВЦЯ

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Анотація. Проаналізовано інноваційні методи навчання у вищих закладах освіти.

Ключові слова. Контекстне навчання, імітаційне навчання, метод проблемного навчання, метод повного засвоєння, дистанційне навчання

Annotation. Innovative teaching methods in higher education institutions are analyzed.

Keywords. Contextual learning, simulation learning, problem-based learning method, full learning method, distance learning.

Світ не стоїть на місці. З кожним роком все більше і більше з'являється нових чи вдосконалених технологій, які поліпшують умови людей. Зараз неможливо уявити життя без комп'ютерів, телефонів, інтернету та інших інновацій. Це торкнулося усіх сфер життя людини, починаючи з клінінгових компаній, які мають вдосконалені пристрої для прибирання, такі як, наприклад, роботи-пилососи, та закінчуючи інноваційними методами ведення міжнародної діяльності країни.

Наразі актуальним стає питання і поліпшення умов надання освіти, через те, що в Україні існує певний перелік проблем, які вимагають їх подолання. Серед цих проблем- невідповідність підготовки фахівців реальним потребам роботодавців, зменшення рівня освіти, зменшення залучення студентів до

наукових досліджень значний рівень корупція, відсутність бажання залучення європейських і світових технологій навчання.

Необхідно, щоб університет не просто надавав якийсь матеріал, а ще й залучав студентів до співпраці. Студентська аудиторія це не місце, де студент слухає і вирішує завдання по чіткому плану, студентська аудиторія повинна бути творчою лабораторією. Та на жаль, як викладачі університету, так і студенти цього не розуміють. Тому що це легко, коли щось готове даєш та щось готове отримуєш. Але з такими методами навчання про висококваліфікованих фахівців годі мріяти.

На сьогодні необхідно залучати інноваційні методи до навчання та викладання. Під цим розуміється використання інформаційних програм, методів подання інформації.[1]

В аналітичній доповіді ЮНЕСКО «Сталий розвиток після 2015 р.» наголошується на те що у нову інформаційну епоху саме вища освіта має стати основоположним елементом прогресу, а інновації у різних сферах суспільної діяльності повинні містити в собі високий динамізм, швидку зміну знань, інформації, технологій.[2]

Найбільш популярними інноваційними методами навчання, які дозволяють використовувати нові технології викладання є: контекстне навчання, імітаційне, проблемне, метод повного засвоєння знань та дистанційне навчання. Розглянемо більш детально кожен з них.

Контекстний метод навчання при підготовці фахівців полягає у включенні у програму навчання розв'язання певних проблем, які можуть виникнути у фахівця під час робочого процесу. Однією з умов проведення контекстного навчання, на думку вченого М.В. Левківського, є вміння викладача встановити завдання, розв'язувати задачі, які засновані на реальних умовах, моделювати навчальні ситуації та інше. Основною рисою при контекстному методі навчання є моделювання предметного і соціального змісту майбутньої професійної діяльності, за допомогою впровадження реальних ситуацій. Пов'язаних з професійною діяльністю.

Можна надати приклад запровадження цього методу навчання. На лекції викладач формує якусь проблему. На першому етапі потрібно надати студенту перелік існуючих підходів до вирішення цієї проблеми. Матеріал надається в електронних чи друкованих версіях, в яких описано та обґрунтовано позитивні і негативні риси кожного з цих підходів. На другому етапі студент має можливість самостійно обрати підхід до вирішення поставленої задачі; викладач не повинен тиснути на нього власним авторитетом й не вимагає слідувати його точці зору, заохочує студентів до власних оціночних суджень. Студенти формують порівняльну характеристику цих підходів і надають обґрунтовану думку щодо найбільш ефективного із власної точки зору. За таких умов формується предметний контекст майбутньої професійної діяльності.[3]

Наступним методом є імітаційне навчання. Це є близький метод до контекстного навчання, але вирішення проблеми відбувається у колективі. До

засобів впровадження інноваційного навчання відносять: ігрові технології, соціально-психологічні тренінги, навчання у співробітництві, дискусійні технології. Вони дозволяють створити особистісно-орієнтований підхід навчання у різних ситуаціях. Студенти мають можливість проводити дискусії, обговорювати варіанти розв'язання проблем, будувати логіку дослідження, а також приймати певні рішення за власним розсудом. Адже для того, щоб бути професіоналом у своїй справі потрібно володіти як інтелектуальними, так і комунікативними здібностями.[4]

До ігрових імітаційних форм відносяться:

Розігрування ролей (інсценівка) – аналіз певних ситуацій в ігровий спосіб.

Ігрове проектування – практичне заняття, суть якого полягає в розробці інженерного, технологічного, конструкторського й іншого видів проектів в ігрових умовах, що максимально відтворюють реальність.

Стажування з виконанням посадової ролі – форма й метод активного навчання конкретного типу, при якому «моделлю виступають сама дійсність, а імітація зачіпає в основному виконання ролі (посади).

Ще одним з різновидів двох перших методів є метод проблемного навчання. Проблемне навчання — це така організація процесу навчання, сутність якої полягає в утворенні в навчальному процесі проблемних ситуацій, вирішенні та вирішенні студентами проблем. Слід наголосити, що проблемне завдання, що ставиться перед студентами, має відповідати їх інтелектуальним можливостям: бути досить складним, але водночас можливим до розв'язання завдяки тим навичкам мислення, які сформовано у студентів, володінню ними узагальненим способом дій та достатнім рівнем знань. Пропонуючи проблемне завдання, викладач повинен ураховувати реальний рівень знань студентів.

Наведено перелік етапів, які включає проблемне навчання:

- створення проблемної ситуації (запропонувати учням її вигадати чи знайти в мережі);
- формулювання проблеми (правильне формулювання проблеми істотно полегшує пошук рішення та робить очевидним шлях до нього);
- складання плану дій (що нам треба дізнатися для розв'язання проблеми, яка інформація є ключовою, а яка другорядною);
- висунування гіпотез (сюди входить прогнозування варіантів дій та можливих наслідків);
- перевірка висунутих гіпотез (можливо, у вигляді імітації діалогу сторін, експерименту, вирішення проблеми);
- аналіз результатів перевірки гіпотез, висновок і узагальнення.

Колись Я.А. Коменський висунув ідею «Всіх навчити всьому» та чи можливо це? В цьому і полягає сутність наступного методу – повного засвоєння. Цей метод запропоновано психологами Дж. Керолл та Б. Блум.

Дж. Керолл запропонував зафіксувати саме результати навчання. У цьому випадку всі параметри умов будуть змінюватись внаслідок підстроювання під досягнення усіх учнів заздалегідь заданого результату.

Цей підхід був розвинутий Б. Блумом. Він запропонував, що здібності учня визначаються його темпом навчання не при фіксованих, а при оптимально підібраних для конкретної дитини умовах. Б. Блум вивчав здібності учнів у процесі навчання різних дисциплін в умовах, коли час на вивчення матеріалу не обмежувався. На основі цього він виділив три групи учнів:

1. малоздібні учні(близько 5 %), які не в змозі досягнутих заздалегідь поставленого рівня знань і умінь навіть при великому терміні навчання;
2. талановиті учні(близько 5 %), які можуть вчитися у високому темпі, виконувати складні завдання;
3. звичайні діти(близько 90 %), здібності до засвоєння знань та умінь яких визначаються витратами навчального часу.

На основі цього аналізу була висунута пропозиція:при правильній організації навчання і особливо при знятті жорстких часових обмежень близько 95 % учнів можуть повністю засвоювати весь зміст навчання.

І останнім методом, але не найменш важливішим є дистанційне навчання, яке особливо набуло популярності останні роки. Зараз на дистанційне навчання перешли різні курси, з'явилися цілі дистанційні школи. Дистанційне навчання – це сукупність технологій, що забезпечують доставку студентам основного обсягу навчального матеріалу, інтерактивна взаємодія студентів і викладачів у процесі навчання, надання студентам можливості самостійної роботи з навчальними матеріалами.

Так як основою дистанційного навчання є саме самостійна робота студента, то в здобувачів повинна бути висока мотивація до навчання. Як студент, так і викладач мають володіти комп'ютерною технікою.

Засобами, що забезпечують у дистанційному навчанні використання усіх форм взаємодії, є сучасні інформаційні телекомунікаційні технології, які дають студентам змогу самостійно долучатися до найрізноманітніших інформаційних джерел. Найбільш поширеними засобами організації дистанційного навчання на сьогодні є засоби, що базуються на Інтернет-технологіях – електронна пошта, відеоконференції, чати, форуми, веб-сайти, онлайн-бібліотеки, файли розсилок. Усі ці засоби часто комбінуються з традиційними друкованими матеріалами.[5]

Отже, інноваційні технології навчання – шлях до підвищення якості професійної освіти, зацікавленості студентів у навчанні. Вони дають змогу диференціювати та індивідуалізувати процес навчання, сформувати особистість фахівця. Сприяють формуванню комунікативних якостей, активізують розумову діяльність. За інноваційними технологіями підготовки фахівців майбутнє.

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ФОРМУВАННЯ ДУХОВНИХ ТА СВІТОГЛЯДНИХ ЦІННОСТЕЙ СУЧАСНОГО ФАХІВЦЯ

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Анотація. Проаналізовано важливість духовних та світоглядних цінностей при навчанні сучасного спеціаліста. Ключові слова. Духовні цінності, культурні цінності, професійні якості, особистість, вищий навчальний заклад. Annotation. The importance of spiritual and ideological values in the training of a modern specialist are analyzed. Keywords.Spiritual values, cultural values, professional qualities, personality, higher education institution.Останнім часом серед суспільства спостерігається духовна спустошеність загалом, що також має негативний вплив на розвиток освіти. Сучасний фахівець перетворюється на бездуховну інтелектуальну машину. Втрачається бажання самовдосконалення, відбувається духовна і культурна деградація. З'являється необхідність акцентувати увагу на духовнокультурному розвитку особистості студента. На формування особистості впливає багато факторів. Особистість розвивається в процесі її соціалізації, виховання й саморозвитку. Є три групи обставин, за яких відбувається соціалізація. Це: - макрофактори: суспільство, держава, планета, світ і навіть космос; - мезофактори: етнокультурні умови й тип поселення, де живе і розвивається людина; - мікрофактори (сім'я, дитячий садок, школа, позашкільні виховні заклади, релігійні організації, товариства ровесників, засоби масової комунікації та інші інститути виховання) [1, 32]. З огляду на зазначені фактори зауважимо, що вони є досить складними для формування послідовних світоглядних та інших духовних підвалин молодої людини, де значення вищого навчального закладу важко перебільшити. У контексті аналізу проблеми формування духовно-культурних цінностей освіти, цікавою постає думка З. Равкіна про те, що кожна людина повинна знайти своє місце у житті, професії, культурі. Допоможе їй у цьому освіта, бо „освіта – це подорож у країну духа, у світ людської культури” (С. Гессен) [2]. Вищі навчальні заклади зазвичай орієнтовані на пізнавальні можливості студента і

тому поза увагою залишається особистість, яка формується. Проте світоглядні питання для студента є серйозною життєвою проблемою. Тому, перед вищими навчальними закладами повинно вирішуватися складне завдання – виховання всебічної, гармонійної особистості, гідного громадянина своєї держави, зокрема майбутнього спеціаліста з сформованими професійними та духовними якостями. Основні завдання, які повинні стояти перед керівниками з виховної роботи щодо виховання та формування особистісних якостей майбутніх фахівців виділяємо такі: 1. Розвиток високого професіоналізму, який включає глибокі спеціальні знання і широку гуманітарну підготовку, здібність до самостійного мислення, прийняття нестандартних, оригінальних рішень. 2. Формування духовності, яка передбачає становлення високої моральності з одночасним прагненням ліквідувати інфантилізм, утриманство, байдужість, сформувати почуття колективізму, вміння працювати у команді, здатність до розвитку високих естетичних смаків та ідеалів [3, 50].

Період навчання студентів у ВНЗ є періодом життєвого і духовноморального становлення молодих осіб, що зумовлено віком контингенту. Важливою особистістю в цей час виступає викладач. Він повинен не тільки надавати нові знання, а й залучати студентів до культури, допомогати орієнтуватися в ній. Н. Г. Чибісова наголошує на тому, що сьогодні не всі викладачі готові виконувати цю роль, не всі обізнані й володіють сучасними методиками викладання, можуть організовувати навчально-виховний процес так, як цього потребує час. Більшість викладачів сформувалася в радянські часи, дехто з них зміг перебудуватися, засвоїти сучасні духовні засади й працювати по-новому, використовуючи інноваційні навчально-виховні технології. Але навіть ті, які повсякчас удосконалюють свою викладацьку діяльність, потребують допомоги з боку держави, зокрема Міністерства освіти та науки України, АПН України [4, 138]. Велике значення має інститут кураторів, що допомагає організувати виховний процес. Куратор допомагає здобути досвід соціальної поведінки, сформувати національну самосвідомість, ціннісних орієнтацій та розвиток індивідуальних якостей майбутнього фахівця. Розвиток особистості студента здійснюється в різних напрямках: 1. формування ідейної спрямованості, професійної орієнтації, 2. професіоналізація психічних процесів, 3. підвищення відповідальності, зросту загальної зрілості і стійкості, 4. підвищення питомої ваги самовиховання в формуванні досвіду і якостей [5]. Від викладача залежить не тільки рівень професійної майстерності, а й рівень ерудиції, духовності, національної свідомості. Адже, духовна культура освіти – це узагальнена інтеграційна громадська свідомість, це загальнолюдська пам'ять, що зберегла до нас надзвичайно цінні думки, гуманність минулих віків. Духовна культура окремої людини (в тому числі, і викладача) – це наявність різноманітних форм відображення дійсності в особистій свідомості [6, 127]. Аби студент був істотою соціальної і моральною, недостатньо звертати увагу лише на її інтелект, важливими є й такі аспекти як психічний, розумовий і фізичний потенціал особистості. Організуючи виховний процес у навчальних закладах, педагоги недостатньо враховують можливості й природні задатки особистості: на

противагу суттєвим змінам у змісті виховання, наповнення його благородними ідеями вони орієнтуються лише на часткове його оновлення; повільно впроваджують активні форми позаурочної діяльності; виховні заходи не мають глибокої пізнавальної, розвивальної основи, не сприяють формуванню в памолоді почуття доброти, чуйності, милосердя, терпимості, взаємоповаги, співпереживання, толерантності тощо [7, 29]. Проблема духовно-інтелектуального становлення особистості потребує одночасного поступового та системного застосування всього комплексу професійних підходів сучасної педагогіки. Зазначимо їх за І. Лустенком [8]. Ціннісний підхід — культивування гуманістичних цінностей, орієнтирів, які втілюють національні й загальнолюдські цінності духовного життя суспільства та становлять одну з його сутнісних основ. Особистісний підхід — визнання суб'єктами освітнього процесу не учня як такого (індивіда), а його особистості як «найвищого в людині» з проекцією в майбутнє: «особистість у минулому — особистість нині — особистість у майбутньому». Особистісно-ціннісний підхід — це утвердження особистості найвищою цінністю буття, навколо якої групується решта суспільних пріоритетів; навіть істина при цьому є не метою, а засобом розвитку особистості. Середовищний підхід — створення системи потрібних освітніх умов (збагаченого освітнього середовища): усвідомлення цілей діяльності; культивування моральних цінностей, що сприятимуть засвоєнню учнем особистісно й соціально значущих способів діяльності. Континуумний підхід — розуміння освіти як єдності процесів навчання, виховання, самовиховання, соціалізації, тобто як єдності всіх процесів, які «створюють» особистість. Синергетичний підхід — методика надавання людині якнайбільше можливостей для саморозвитку в межах соціокультурних норм. Ці можливості багато в чому мають випадковий характер. Завданням освіти в цьому контексті є залучення особистості до соціального й гуманістичного шляху її можливого розвитку. Діяльнісний підхід — навчання та виховання в контексті особистісного підходу, як породження засоби діяльності, формування суб'єктності учнів (студентів) у процесі їх залучення до спеціальних, відповідних цілям і сутності особистісно орієнтованої освіти психолого-педагогічних технологій. Щоб бути суб'єктом навчальної діяльності, учень (студент) насамперед має оволодіти основними її етапами; ними є: орієнтація — визначення мети — планування — виконання — контроль — корекція — оцінювання. Співчуттєвий підхід — подолання відчуження в освіті створенням умов для присвоєння людиною своєї родової сутності в контексті освітньої праці, коли вона братиме в ній повноцінну участь. Це станеться лише тоді, коли учень (студент) буде суб'єктом діяльності й міжособистісних стосунків у контексті освіти, коли він почне розуміти сутне як повинність стосовно себе. Зазначені підходи згідно І. Лустенком доцільно використовувати як у школах, коледжах, так і у вищих начальних закладах. Вони допомагають краще зрозуміти індивідуальні риси кожної особистості для того, щоб сформувати у них професійні якості. Поєднання професійних та особистісних якостей при використанні зазначених підходів допомагає розвинути та сформувати духовні

цінності майбутнього фахівця. Підготовка майбутнього спеціаліста потребує не лише високих здібностей у свої професійній галузі, а й наявність вихованості та духовних цінностей. Сучасний фахівець повинен не тільки виконувати свої професійні обов'язки, а й бути всебічно та гармонійно розвинутою особистістю, патріотом нашої держави, котрий збереже духовні цінності накопиченні українським народом протягом багатьох століть. ЛІТЕРАТУРА 1. Атрощенко І. Т. Культура міжнаціонального спілкування в студентському середовищі // Шлях освіти. – 2004. - № 2. – С.31-35. 2. Гессен С. И. Основы педагогики: Введение в прикладную философию / [отв. ред. и сост. П. В. Алексеев]. — М: Школа-пресс, 1995. — 448 с. 3. Драгомирова І. Концептуальні аспекти формування сучасного спеціаліста /Вища школа. – 2002. - № 2-3. – С. 49-52. 4. Чибісова Н. Г. Формування культурної особистості – завдання сучасної освіти / Педагогіка і психологія. – 2002. - № 3 (36). – С. 135-139. 5. Гончаров С.М. Основы педагогической работы [Електронний ресурс]: навч. посіб. для виклад. вищ. навч. закладів. – Рівне: Рівненський державний технічний університет, 2000. - <http://nuwm.rv.ua> 6. Проказа А. Т., Гречка Е. А. Духовная культура личности учителя - предпосылки и залог прогрессивного преобразования образования // Ціннісні пріоритети у ХХІ столітті: Матеріали Міжнародної науково-практичної конференції 11-13 листопада 2003 р., м. Луганськ. - Ч. 1. - С. 126-130. 7. Пархоменко О. М. До питання оновлення парадигми виховання гуманістично спрямованої особистості підлітка /Педагогіка і психологія. – 2007. - № 1 (54). – С. 28-34. 8. Лустенко І. Школа як духовно-інтелектуальне середовище //Шлях освіти. – 2006. - № 4. – С. 32-34.

CYBERCRIMES

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INTRODUCTION

In the context of global threats, ensuring security in the world requires the coordination and settlement of many political and economic issues. In particular, these are hotbeds of civil, interethnic conflicts and wars, food threats, the negative effects of climate change, environmental pollution, the depletion of natural resources and slowing down their re-renewal, the need to ensure an economical regime with energy carriers, the development of a green economy, the rational use of natural resources and human potential. However, among all the components of security, a new and at the same time complex element of security has appeared - cybersecurity.

The concept of cybersecurity includes many problems of various types, as well as an even greater number of solutions. Cybersecurity is by far the most related to Internet security, including technical issues and vulnerabilities, social and behavioral issues, and criminal activity in cyberspace. This area is considered the most difficult

in terms of cybersecurity in the world. Cybersecurity is a branch of security that studies the processes of formation, operation and evolution of cyber objects in order to identify sources of cyber danger that can damage them, among the strategic problems in many countries of the world. This article is aimed at finding a more optimal model of the state cybersecurity policy, which should be based on strengthening the security and reliability of information systems, the Internet.

MAIN CONTENT

Every year, the damage to large organizations, companies, individuals and business people from cyberattacks and attacks by intruders is growing. According to Gartner's forecasts, the annual cost of corporations and companies around the world to improve the security of the information technology system is 76-77 billion US dollars. In general, the growth of cyber risks in 2021 cost the global economy more than \$500 billion, of which \$110 billion fell to the United States. The risks Associate with cyber espionage and crimes in the field of Internet activities continue to pose an increasing threat to business. Half of the cost of cyber risk prevention was borne by the economies of the United States, China, Germany and Japan, amounting to more than \$200 billion.

The most notable cybercrimes are data theft and privacy violations. Massive theft of intellectual property, cyber extortion and sabotage of high technologies are also gaining momentum. Among the main reasons for hacking and external interference in the ICT system, Internet networks and other networks are weak security systems, the lack of data exchange on cyberattacks on government agencies and individual business entities, individuals and legal entities, the lack of detailed research and the development of adequate countermeasures, organized exchange of information and system of consultations, etc.

In addition, many government organizations and subjects of market relations, merchants and business people attach little importance to the problems and serious organization of measures to improve a reliable cybersecurity system, and in many cases do not even take elementary steps for this, and do not carry out the necessary work on one or another elements of cybersecurity, to improve the efficiency and rationality of the protective mechanisms of cyberspace, the stability and reliability of the Internet network.

Most researchers note that modern technological advances have caused a significant expansion of cyberspace, which has led to a change in the way individuals, companies and government organizations interact, conduct business and collaborate. At the same time, the existence of a serious dependence of society on various digital infrastructures, including the Internet, makes this infrastructure a strategic national asset that must be protected to ensure the well-being and security of the nation.

Under these conditions, a detailed consideration and identification of the main factors and causes that encourage hacker attacks is required in order to develop new, more effective and most practical mechanisms in the fight against hackers and intruders, pests of the cyberspace environment and infrastructure. Moreover, in the context of globalization and the rapid expansion of the geography of hacker attacks,

criminal acts of cybercriminals and intruders, it is necessary to coordinate and mobilize mental, intellectual, scientific, and human resources against the fight against cybercrime around the world. All these elements, mechanisms and components must be efficient and adequate to the daily problems generated in cyberspace.

Moreover, there is a need to improve the mechanisms and rules of a multilateral international document that plays a significant role in coordinating the efforts of the world community on cybersecurity issues - the European Convention on Cybercrime, adopted by the Council of Europe on November 23, 2001 in Budapest, which contains a classification of computer crimes, recommendations to legislative and executive power of states to combat cybercrime.

It should also be mentioned that this convention was signed by 39 countries of the European Union, as well as the USA, Canada, Japan and South Africa. The Convention entered into force on July 1, 2004 and is so far the only binding international mechanism in the field of cybersecurity, and is a set of basic principles for any country to organize and strengthen the protection of cyberspace, form and develop national legislation and state policy to combat cybercrime and ensuring cybersecurity in the country.

The elements and components of cybersecurity in the world are said to be constantly growing, their sphere of influence is expanding. Therefore, a deep study of the constituent elements and, in general, the essence of the theoretical aspects of cybersecurity in the world and the emerging new elements in cyberspace is necessary in order to understand and determine the likelihood of cyber threats and the actions of cyber intruders, hackers and other cybercriminals.

In order to ensure the overall cybersecurity in the world and strengthen the protection of cyberspace, it is most necessary to ensure the protection of the data transmission channel and the security of Internet packet resources, the strength of telecommunications infrastructures and the improvement of telecommunications networks, the global space of the Internet, the security of servers and computers of end users from hackers and attackers, the development of anti-virus components, improving the efficiency of Internet applications, protecting the data of participants in cyberspace and basic services, the identity of citizens, protecting state and national, regional and international interests.

The problems of cybersecurity and its essence are characterized ambiguously, and B. Gerald rightly notes that not only problems related to cyberspace are more characteristic of cybersecurity, but at the same time there are technical, legal, state, cultural and economic problems. In practice, "cybersecurity" acts as a cleaner of elements of disruption, undermining, kidnapping, sabotage, terrorism and other criminal acts in the field of cyberspace. The given scale of the damage and loss caused on a global scale, cybersecurity in cyberspace is a major issue worldwide.

Effective, practical measures are required in many areas of the information environment of the cybersecurity system, and to increase its resilience. Specialists of the Austrian Center for Cyber Security note that it is necessary to take into account all the problems and issues of tension in the relationship between privacy and national security, protecting people, including the state itself from cyberattacks,

threats of cyber wars and cyber terrorism, closely monitoring cyber espionage in order to suppress it, ensuring effective practical measures to prevent it in cyberspace, compliance with ethics, norms and international law.

Cybersecurity problems are problems on a global scale and at the same time a new direction for researchers, so the unexplored elements of the cybersecurity sphere need more detailed consideration in order to improve the counteraction to the activities of hackers and intruders. Thus, A. Kohen came to the conclusion that it is necessary to shift the focus to the crimes of hackers and cyberattacks, which are most of all Associate with massive information or electronic resources of companies and governments of the countries of the world. The time has come to sharpen our focus on the priorities and ensure the security of information arrays, and in general to develop new strategies for the security of cyberspace. Indeed, many believe that the new and more complex international threats of cyber hackers and attackers need to build a strong and systematic cyber defense architecture in order to ensure full and effective cyber security in the world. It is required to maximize the security of the entire digital infrastructure, develop the offensive or defensive potential of the information communications system, but, as noted, these measures do not guarantee the complete elimination of cyberattacks and the onset of intruders, that is, cybersecurity problems are not guaranteed.

Cyberattacks are a means of fighting against the state, which may or may not catch their opponents by surprise, since cyberattacks are not accompanied by excessive human costs, but at the same time destroy communications and the economy. In fact, the nature of cyberattacks and cyber wars taking place in the world practically for the state and for individual subjects do not differ much, and acting, hackers strictly adhere to the surprise of the attack, destruction, damage and loss to the potential victim. The safety of important information of business processes, their transfer is considered; the fact is that hackers and other interested parties easily gain access to competitors' business systems, seize important data on valuable business components, use them to destroy a competitor's business, damage its activities, carry out other malicious actions, infect systems with viruses, steal funds, distribute compromising materials, etc.

Every year, 40% of the basic data of business processes are stolen, and in these processes the role of hackers who hacked the electronic machine and other means of cyberspace is especially noted, and the so-called smart programmers and other specialists cannot seriously change this situation yet. Cyberspace is in dire need of mitigating the effects of systemic threats and intentional agents that stem from the inherent unpredictability of computers and the information system, which themselves create unintended, in other words, potentially or actually dangerous situations for the physical and human environment in which they are embedded. That is, the cyber threat comes from software, and cannot be corrected with the help of digital technology, improving its fundamentals and programming. Therefore, researchers rightly point to the need to develop and implement a more advanced concept of computer security in the field of cyberspace, awareness of the relevance in the broad

sense of the problem of cybersecurity and the development of cyberspace security strategies, scientists-researchers L. Hansen and N. Helen point out.

The problem of in-depth study of the nature and essence of the elements and conceptual foundations of cybersecurity, its effectiveness necessitates the development of a unified, integrated approach to the formation of effective cybersecurity systems and mechanisms, the development and implementation of rational measures for the functioning of cyberspace, ensuring its protection from possible cybercrimes, reliable mechanisms and services for countering cyberattacks, ensuring the use of intelligent methods to improve the cybersecurity system, preventing the ingress of virus elements, timely detection and neutralization of attacks and intrusions, etc. Researchers note that cybersecurity no longer covers only information as an object of protection, not only technical means that determine the possibility of information functioning, but the protection of the ways of functioning of a new entity - cyberspace. The activity of people, which is carried out with the help of information disseminated through the technical infrastructure of information and communication technologies, is protected.

Cybersecurity, as it were, ensures the security of cyberspace by maintaining the confidentiality, integrity and availability of information in it, where there is network security, uninterrupted and secure transmission of Internet resources, and other backbone components. With the effectiveness of the cybersecurity system, the possibility of cybercriminals to penetrate them into cyberspace is minimized. The formation of elements of cybercrime in cyberspace determines a clearer mechanism and means for their neutralization and elimination in order to reduce losses and damage.

FINDINGS

Generalization and disclosure of the generating causes and roots of cybercrime, the actions of hackers and intruders remain one of the most difficult tasks in the field of cybersecurity in the world. It is necessary to accurately and extensively classify the elements of danger in cyberspace, study their characteristics and essence, highlighting the main features of the tactics and actions of hackers and intruders, and develop adequate mechanisms to prevent such criminal acts in cyberspace.

Thus, the results of the study determine the importance of understanding and understanding serious problems, and the issue of ensuring the cybersecurity of the world requires the development and implementation of more efficient mechanisms for the functioning and ensuring the operation of cyberspace, increasing the reliability of the main mechanisms and components of the global Internet and other devices, an integrated and systematic approach to determining the methodological principles and tools for the formation of state policy on cybersecurity in the current conditions, etc.

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ГУМАНІЗМ В УМОВАХ СТАЛОГО РОЗВИТКУ

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Поряд із глобалізаційними процесами та інтенсивним розвитком науки і техніки гостро стоять питання екології та моралі. У цьому необхідно вивчити загальні цінності людства на вирішення цих питань. Однією з цих спільних цінностей є принципи гуманізму у традиційних культурних цінностях. Принципи гуманізму засновані на людяності, індикатори розвитку пов'язані з людською діяльністю та головною метою людства є його єдність. Гуманізм включає в себе поняття того, що люди повинні сприймати природу не тільки як місце існування, а як невіддільну частину нас самих, і тому потрібно розглядати світ як єдине ціле.

Вчений Ч.Ган-Улзий писав: “В онтології духовної культури обов'язково має бути поняття цінності як основи розвитку пізнання якості. Інакше висловлюючись, щоб зрозуміти ознаки усвідомлення цінностей, які є сутністю духовної культури, потрібно виробити якісне значення цих цінностей”. Це необхідно для осмислення сталого розвитку як позитивної цінності та в усвідомленні цінностей принципів гуманізму грають дуже значної ролі. Мета принципів гуманізму - створення справедливого суспільства і гуманних відносин між їхніми членами, заснованих на спільній моралі. Тому ми концентруємося нині не на речах, які розуміються під поняттям гуманізму, а в якості цього значення.

“У другій половині ХХ століття були спроби пошуку нової моделі світопорядку, здатної привести глобальну систему до якісно нового стану. Результатом спільних та цілеспрямованих зусиль світової спільноти, що діяла на підставі мандату ООН, із залученням авторитетних експертів та громадськості різних країн, стала розробка стратегії сталого розвитку (УР), акцент у якій зроблено на пошук принципів устрою суспільства з

урахуванням загальнолюдської проблематики та конкретних узгоджених дій, Спрямованих на її реалізацію”. З питань сталого розвитку у 1992 році на зустрічі найвищого рівня ООН у Ріо-де-Жанейро на тему “Довкілля людини та її розвиток” було затверджено “Програму розвитку-21” та інші документи, і було висунуто модель “Стійкого розвитку”.

Стійкий розвиток було визначено як модель довгострокового розвитку, при якому не обмежуючи потреб та можливостей наступних поколінь, задовольнити потреби нинішнього покоління, оцінити людський фактор та адаптуватися до довкілля.

У традиційному світогляді людина повинна споживати все в розумних масштабах, шанувати життя мешканців природи, зберігати і передавати багатство природи наступним поколінням, які можна знайти в моралі.

Виходячи з принципів гуманізму життя людей, їхнє щастя і все добре на землі великою мірою пов'язане з навколишнім середовищем і ми несемо відповідальність перед наступними поколіннями і повинні залишити та зберегти після себе умови створення сприятливого життя.

У нашому суспільстві такі проблеми як надмірне споживання, вільний продаж, переселення, вигнання, зміна кліматичних умов, забруднення навколишнього середовища, проблеми віртуального спілкування в мережах призводить до розмивання принципів гуманізму та нехтування людськими цінностями у нашому повсякденному житті. "Забезпечення сталого розвитку людства "sustainable development" є для світової спільноти найважливішою проблемою"

Для країн і розвинених країн мета сталого розвитку є не тільки економічні зміни, а й відповідність вимогам, заснованих на духовній культурі та принципах гуманізму.

Західні країни виходячи з наслідків моделі розвитку та технологічного стрибка, сфокусували свою увагу на відношенні між людиною та природою, питаннях захисту навколишнього середовища та дбайливого використання дарів природи, що є одним із елементів концепції сталого розвитку.

Дослідник Н.Сарантуяа пише: “Сучасна технологія та людська діяльність спрямована на те, щоб трансформувати світ тільки на благо своїх інтересів... особлива увага приділяється при створенні нових технологій дотримання принципу непротиставлення до навколишнього та соціального середовища.

Концепція і основний принцип екогуманізму, які вимагають гуманітарного ставлення до довкілля, у тому, що “Світ – це дім, а людська сім'я – велика сім'я”. Все, що нас оточує – повітря, вода, родючий ґрунт, квіти, прекрасні птахи, озера та великі гори – є найбільшим скарбом природи. Невід'ємною частиною цього скарбу є ми самі і нам завжди нагадують, що кожна людина має право на гідність, свободу та цінна сама по собі. Сенс, що людина та єдність природи це особлива честь, яку неможливо оцінити грошима, зважити золотом, полягає у принципах гуманізму та підході до них.

В основі концепції сталого розвитку, всі країни намагаються сформулювати своє власне уявлення та шляхи подальшого розвитку. На Сході

гуманність та культура, людяність та цінності нерозривно пов'язані з природою та людиною. Вони завжди шанували мати-природу і вважали, що в традиційній культурі захист цінностей займає величезний простір, який у наші дні втрачає свій високий статус і це одна з перешкод сталого розвитку.

У розвитку будь-якої цивілізації та культурного розвитку людина віддаляється від природи. В Східних країнах ж боротьба за виживання та культурна діяльність йшла трохи інакше. Кочівники не можуть дозволити собі бути вільними від природи, вони завжди господарювали, що відповідає навколишній природі, завжди гуманно ставилися до природи, відчували і мислили за природними законами. Таким чином вони зберігали та передавали вчення про любов до природи через багато поколінь.

Кочовий спосіб життя монголів полягав не в тому, щоб пасти худобу, а наука про мертву і живу природу, повагу людського життя, піднесення моралі. Частиною цієї культури є дбайливе ставлення до природи, любов до неї.

Концепція поваги: наші пращури вважали землю основою життя, високі гори та води. Джерела називають джерелами. Передбачається, що це віра у приховані сили природи. Походження шаманізму тісно пов'язане з природою людини та стосункам із природою. У процесі організації відносин людини і природи найпершими предметами освячення стали тварини, рослини, каміння, небо.

Ідеологія заборон: люди здавна поклонялися землі, воді та повітрі. Це шанобливе ставлення до землі та ґрунту ґрунтувалося на цілій системі заборон. Неправильне ставлення до землі, води та тварин виявлялося у багатьох формах громадських заборон. Ґрунт, вода, рослини, тварини і люди мають велике значення і оскільки ця повага перероджується у відносини, то дбайливе ставлення до природи є дивовижною формою людського світогляду. Наприклад, при пошкодженні землі буде пошкоджено і ґрунт, зміниться структура рослин, пасовища будуть зруйновані. Це означає, що потрібно ("земля і води збунтуються", земля тремтить, буде вітер, шторм та ураган) тримати джерела та водостоки чистими, не можна мити у цій воді брудний посуд чи навіть посуд із молоком. Використовувати воду з джерела в розумних межах, не відривати молоді траву та листя, не зрубати самотні дерева, що ростуть у пустельних місцях, не руйнувати пташині гнізда, не полювати на звірів, що знаходяться біля води, не можна близько підходити до пташиних яєць. Усе це виражає ідеологію ставлення до природи. Ідеологія заборон націлена підтримки рівноваги у природі, на розумне використання природних багатств, збереження цих багатств для наступних поколінь.

Традиція охорони навколишнього середовища: традиції у формі писаних та неписаних законів та правил були нерозривно пов'язані з кочовим способом життя.

У писемних і усних міфах і сказаннях, які були передані через покоління, практично відсутня інформація про походження від бога чи всесвіту. Натомість основними темами є походження людини та природи, про землю, відносини між людиною та природою.

У традиційних поглядах про охорону природи великий вплив мали гамністичне світогляд, мораль і етика. Краса природи, її досконалість представлено у хвалебних промовах, усних творах, малюнках, протяжних піснях. Таким чином, поведінка, моральна зрілість і гуманізм були в кінцевому рахунку відображенням охорони навколишнього середовища.

Китайський філософ Лао цзи говорив, що треба добре розуміти закони природи і потрібно жити відповідаючи цим законам, слідувати так би мовити "освіти".

З цього погляду сьогоднішній розвиток наших цінностей на практиці та культурі має важливе значення для ефективного здійснення сталого розвитку.

Проте з початку 1990-х років дбайливе ставлення до довкілля як цінність почало падати. Це виявляється у глобальному потеплінні, забрудненні атмосфери, парниковий ефект, опустелювання. Експерти в рамках державної політики активно обговорюють екологічні проблеми, "зелену" економіку, "зелений" розвиток, організують наради та дискусії, пропонують вжити певних заходів щодо запобігання забрудненню навколишнього середовища.

Один з представників гуманітарних наук вважає, що характер екологічної проблеми лежить у моральному відношенні людей. Тому сьогодні ми повинні більше говорити про екологічну філософію та екогуманізм, людяність і природу.

Так як культура формує світогляд, то духовна культура може забезпечити мир та сталий розвиток та визначити подальший можливий шлях розвитку життя. Сьогодні відзначається зростання бідності та водночас погіршується стан природи, а також зникають людські стосунки. Одним із головних способів вийти з цього кризового стану це розвиток духовної культури, високого рівня багатосторонньої освіти.

Роль моралі у розвитку людства відіграватиме все більшу роль і майбутнє людства залежить від діяльності самої людини. Тому при прийнятті

будь-якого рішення, подолання якоїсь перешкоди ми повинні виходити з принципів гуманізму. Таким чином, гуманне ставлення до природи та нове осмислення природи будуть важливим напрямком у подоланні перешкод, з якими ми стикаємося.

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СТАЛИЙ РОЗВИТОК ТА ОСВІТНІЙ ПРОЦЕС SUSTAINABLE DEVELOPMENT AND EDUCATIONAL PROCESS

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Анотація. Проаналізовано необхідність створення єдиної стратегії розвитку суспільства в умовах глобалізації. Наведено перелік можливих заходів для реалізації освіти для стійкого розвитку.

Ключові слова. Сталий розвиток, інтеграція, глобалізація, інтеграція, медіа-освіта.

Annotation. The necessity of creating a unified strategy of society development in the conditions of globalization is analyzed. The list of possible measures for the implementation of education for sustainable development is given.

Keywords. Sustainable development, integration, globalization, integration, media education.

Кожен день на планеті відбуваються наймасштабніший зміни. Темп цих змін значно швидкий, люди не встигають адаптувати ні стратегії, ні культури. Тому так важливо у наш час залучати концепцію сталого розвитку. Сталий розвиток – це такий розвиток, який задовольняє потреби теперішнього часу, але й не ставить під загрозу здатність майбутніх поколінь задовольняти особисті потреби.

Протягом трьох століть люди безвідповідально черпали можливості і ресурси Землі. Згідно досліджень Стокгольмського центру сталого розвитку, у найближчі 50 років відбуватимуться безповоротні зміни, які визначають хід розвитку нашої планети на наступні 10 000 років.

Нашому світові необхідно створювати такі стратегії, які допомагають різним державам відійти від руйнуючих процесів зросту та розвитку та просунути до напрямку сталого розвитку. Авжеж необхідно буде змінити політику у державах, як особистого розвитку, так і по відношенню їх впливу на можливості розвитку інших країн.

Найважливішим інструментом для створення гуманного, паритетного та уважного до проблем людини суспільства, в якому кожна людина повинна мати свою людську гідність є освіта.

Сталий розвиток не може бути досягненим виключно за допомогою технологій, фінансових механізмів та політичного регулювання. Світ повинен змінити спосіб мислення та поведінки. Для цього і необхідно забезпечити якісну освіту та навчання в інтересах сталого розвитку на усіх рівнях незалежно від соціального стану.

Освіта сталого розвитку передбачає перехід такої економічно та соціально орієнтованої моделі навчання, в основі якої мають бути широкі міждисциплінарні знання, котрі базуються на комплексному підході до розвитку суспільства, які дають змогу ухвалювати та впроваджувати рішення на місцевому та глобальному рівнях, спрямованих на підвищення якісного

рівня тижня, що не загрожують можливостям наступних поколінь задовольняти свої потреби.

У 1997 році відбулася конференція ЮНЕСКО « Освіта для сталого майбутнього» (Салоники, Греція), на якій в котре уточнили поняття та зміст освіти в інтересах сталого розвитку. У квітні 2000 року у місті Дакар пройшов Всесвітній форум «Освіта для всіх». П'ята конференція міністрів « Навколишнє середовище для Європи, яка пройшла у місті Києві та інші заходи. На усіх цих конференціях, форумах обговорювалося питання освіти та сталого розвитку. Це показує, що на міжнародному рівні задача освіти в інтересах сталого розвитку викликала широкий дискусійний резонанс на самому високому рівні. [1]

Сталий розвиток освіти тісно пов'язаний з глобалізацією. Глобалізацію можна визначити як процес прискорення та поглиблення економічних, політичних, соціальних, правових і культурних взаємозалежностей держав та цивілізацій з посиленням їхньої відкритості та універсальності. Глобалізація у першу чергу характеризується інтеграційними процесами. Інтеграція – це процес взаємодії, об'єднання, взаємовпливу, взаємопроникнення, взаємозближення, відновлення єдності двох або більшої кількості систем, результатом якого є

утворення нової цілісної системи, що набуває нових властивостей та взаємозв'язків між оновленими елементами системи.

Тому, щоб світ був об'єднаний стратегія сталого розвитку повинна вирішити такі питання:

- зменшення масштабів бідності;
- громадянськість, мир, етичність;
- відповідальність в локальному і глобальному контексті;
- демократія і управління;
- справедливість і безпека;
- права людини;
- охорона здоров'я;
- рівність статей;
- культурне різноманіття;
- розвиток сільських і міських районів;
- економіка, структури виробництва і споживання;
- корпоративна відповідальність. [2]

На даний час поширюється розвиток інформаційних технологій і це зрозуміла, що в подальшому вони будуть тільки розвиватися і авжеж це напряду стосується сталого розвитку. Інформаційні технології дали передумову створення інформаційного суспільства. Інформаційне суспільство - це соціологічна концепція постіндустріального суспільства; нова історична фаза розвитку суспільства, в якому виробництво, використання та споживання інформації стає визначальним способом діяльності в усіх сферах суспільного буття (економіці, політиці та культурі).

Наразі досить популярним стає медіа-освіта - формування навичок користування віртуальним середовищем, вміння не тільки обмінюватися

інформацією, а й створювати певні інформаційні ресурси, які мають характер інновацій та творчості.

21 квітня 2016 року Президія Національної академії педагогічних наук України схвалила нову редакцію Концепції впровадження медіа-освіти в Україні.

Головною метою Концепції є сприяння розбудові в Україні ефективної системи медіа-освіти, що має стати фундаментом гуманітарної безпеки держави, розвитку і консолідації громадянського суспільства, протидії зовнішній інформаційній агресії, всебічно підготувати дітей і молодь до безпечної та ефективної взаємодії із сучасною системою медіа, формувати у громадян медіа інформаційну грамотність і медіа культуру відповідно до їхніх вікових, індивідуальних та інших особливостей.[3]

Але не тільки інформаційні технології вплинули на концепцію освіти для сталого розвитку.

Зростання наукоємних сфер економіки потребує високого рівня знань та кваліфікації робітників. Все це робить освіту одним із найважливіших чинників соціального розвитку. зростання конкуренції на глобальних ринках призводить до підвищення потреб країн у постійних інноваціях для збереження та закріплення позиції лідерства. Важливим стає формування інноваційно-спрямованої особистості, здатної до постійної самоосвіти та креативного мислення.

Освіта в інтересах сталого розвитку сприяє оволодінню учнями різного віку знаннями та навичками, формуванню ціннісних орієнтирів та поглядів для вирішення взаємопов'язаних глобальних проблем, з якими стикається світ, включаючи екологічні загрози – парниковий ефект та зміни клімату, зменшення озонового шару, кислотні дощі, втрати біорізноманіття, забруднення пестицидами та інше; соціально-екологічні, соціально-політичні та соціально-економічні загрози. [4]

Якщо казати про вищу освіту, можна надати певний перелік заходів з реалізації освіти для сталого розвитку:

- розробка та впровадження у вищих навчальних закладах комплексної програми безперервного навчання та виховання студентів у галузі екології,

- захисту довкілля та раціонального природокористування з урахуванням усіх аспектів екології, ресурсозбереження, екологізації педагогічної, юридичної та медичної освіти;

- розробка навчальних програм, підручників і навчальних посібників з проблем сталого розвитку та реалізація їх у навчальному процесі;

- створення нових та реорганізація діючих наукових, зокрема, еколого-експертних центрів, діяльність яких спрямована на дослідження та оцінку різноманітних проблем сталого розвитку, охорони довкілля, використання природних ресурсів, дотримання принципів екологічної безпеки;

- визначення пріоритетних напрямів наукових досліджень у галузі сталого розвитку, використання природних ресурсів, охорони довкілля, створення засад екологічної безпеки;

- створення в регіонах міжгалузевих центрів з проблем освіти для сталого розвитку, екологічного права та законодавства для здійснення комплексних соціально-економічних та еколого-правових досліджень;

- внесення проблем сталого розвитку до дипломних робіт випускників вищих навчальних закладів;

- підтримка проведення науково-практичних семінарів, конференцій з тематики сталого розвитку для студентів вищих навчальних закладів;

- розширення міжнародної співпраці з провідними європейськими, американськими та канадськими університетами з акцентом на спільних наукових дослідженнях, академічних обмінах;

- запровадження нових форм організації навчального процесу для магістрів (таких як міжнародні студентські Інтернет-семінари, робота в напрямку отримання сертифіката одного з провідних західних університетів за результатами вивчення певного курсу, наприклад екологічної економіки, екологічного менеджменту, екологічної політики тощо) [5].

Наприкінці можна зробити такий висновок, що у сучасному глобалізованому, швидкоплинному світі для результативного функціонування у всіх сферах людської діяльності з урахуванням економічних, екологічних,

соціальних та культурних аспектів у єдиному руслі необхідні нові кадри. Це спеціалісти, які мають такі навички, як критичне і міждисциплінарне мислення, здатність к самостійному прийняттю обдуманих та відповідальних рішень, аналіз цінностей та норм етики у єдиному розумінні усіх елементів, формуючих сталий розвиток суспільства.

Освіта надає людям можливість зрозуміти характер й масштаб проблем в області стійкого розвитку. Вона дозволяє сформувати критичний, нестандартний та творчий підхід, необхідний для пошуку нових, більш ефективних рішень загальносвітових проблем, допомогти людям виробити впевненість у собі та оптимізм, який дозволить їм діяти на благо інтересів стійкого майбутнього.

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ПСИХОЛОГІЧНІ ЧИННИКИ РОЗВИТКУ ЕТИЧНОЇ СВІДОМОСТІ СТУДЕНТСЬКОЇ МОЛОДІ

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Анотація. Аналіз психологічних факторів розвитку етичної свідомості студентів.

Ключові слова. Етична свідомість, студентський вік, морально-етична відповідальність, моральні судження, прагнення до автономії, потреба у самоактуалізації, ясність Я-концепції, саморегуляція, етична відповідальність.

Annotation. Analysis of psychological factors in the development of ethnic consciousness of students.

Keywords. Ethical consciousness, student age, moral and ethical responsibility, moral judgments, the desire for autonomy, the need for selfactualization, clarity of self-concept, self-regulation, ethical responsibility.

У даній роботі представлено теоретичне узагальнення і пропоновано практичне вирішення наукової проблеми розвитку етичної свідомості студентської молоді, що виявляється у визначенні теоретичних засад означеної проблеми; виявленні особливостей прояву етичної свідомості в особистості студентського віку; встановленні психологічних чинників її розвитку; обґрунтуванні, розробці й апробації психолого-педагогічної програми розвитку етичної свідомості студентської молоді шляхом актуалізації визначених психологічних чинників. Актуальність даної теми обумовлена недостатньою мірою вивченості психологічних чинників розвитку етичної свідомості у студентської молоді. Мета дослідження – теоретичне обґрунтування та експериментальне дослідження психологічних чинників розвитку етичної свідомості студентської молоді. Визначено наукову новизну та теоретичну значущість наукової праці, які полягають у тому, що:

уперше:

- теоретично обґрунтовано та емпірично верифіковано структуру та критерії розвитку етичної свідомості студентів у єдності її компонентів: значень, які виражаються моральними нормами й категоріями, смислів, які виражаються особистісними цінностями, мотивами моральної поведінки, спрямованістю на добро, морально-етичною відповідальністю, та чуттєвої тканини, яка характеризується особливістю сприйняття норм моралі, подій та вчинків;

- показано позитивну динаміку етичної свідомості студентів на рівні значень та смислів через зростання рівня моральних суджень, совісності та морально-етичної відповідальності;

- визначені психологічні чинники розвитку етичної свідомості студентської молоді, а саме: потреба у самоактуалізації, ясність Я-концепції, рефлексивність, прагнення до автономії, відповідальність та саморегуляція;

розширено уявлення про:

- саморегуляцію особистості студента через виявлення впливу її типів на розвиток етичної свідомості;

- термінальні та інструментальні духовні цінності через характеристику їх вікової динаміки у смисловому компоненті етичної свідомості студентів;

- етичну свідомість як динамічне психічне утворення, наповнене моральними значеннями, смислами та чуттєвим змістом, що диктуються специфікою індивідуальної етичності та моральності, а також особливостями соціальної ситуації розвитку особистості студентського віку – потребою у самоактуалізації, потребою у прийнятті власної етико-моральної системи.

дістали подальшого розвитку:

- можливості психосемантичного диференціалу у вивченні етичної свідомості особистості на рівні чуттєвої тканини;

- засоби психологічного супроводу розвитку етичної свідомості студентської молоді через створення програми, спрямованої на актуалізацію її психологічних чинників.

Мораль – це форма суспільної свідомості, що являє собою сукупність принципів, вимог, норм і правил, які регулюють поведінку людини в усіх сферах її суспільного життя. В моралі відбиваються цінності, що склалися в суспільстві, в нормах поведінки людей, які закріплені в поняттях добра, честі, совісті, справедливості тощо. Усі ці поняття мають оцінний і регулюючий характер. Останнім часом представники всіх верств нашого суспільства активно заговорили про моральність. Цій проблемі чимало уваги приділяється не лише вченими-суспільствознавцями, а й письменниками, працівниками культури, практиками різних галузей діяльності. Успішне розв'язання завдань формування моральності на сучасному етапі розвитку освіти в Україні великою мірою залежить від глибоко продуманого, творчого використання педагогічної спадщини минулого.

Міждисциплінарний теоретичний аналіз понять «етика» та «мораль» дозволяє визначити етичну свідомість як форму індивідуальної свідомості, що характеризує процес осягнення моралі особистістю, рефлексію нею моральних і соціальних норм. Етична свідомість виявляється відображенням суспільного буття і формується в процесі взаємодії особистості з соціальнокультурним середовищем, водночас виступаючи суб'єктивною стороною моралі. У студентському віці, коли відбувається остаточне оформлення морально-етичних якостей та рефлексивних умінь особистості, етична свідомість характеризується домінантністю, а студентський вік може вважатися сензитивним періодом для розвитку етичної свідомості.

У роботі подано визначення етичної свідомості студентської молоді як динамічного психічного утворення, наповненого моральними значеннями, смислами та чуттєвим змістом, що диктуються специфікою індивідуальної етичності та моральності, а також особливостями соціальної ситуації розвитку особистості студентського віку – потребою у самоактуалізації, потребою у прийнятті власної етико-моральної системи. Етичні «значення» представлені моральними нормами й категоріями, критерієм їх розвитку визначено засвоєння

моральних норм і категорій, тобто опанування особистістю в процесі онтогенезу встановлених в соціумі правил, принципів, традицій; дотримання імпліцитних паттернів і правил поведінки, соціальних норм, тобто розвиненість моральних суджень. «Смисли» знаходять своє втілення у морально-духовних цінностях, мотивах моральної поведінки, є суб'єктивацією моральної системи, сформованістю відповідальності за дотримання соціальних і моральних норм, спрямованістю на добро та заперечення зла. «Чуттєва тканина» характеризується особливостями сприйняття норм моралі, подій та вчинків, її критерієм виступає осмисленість етичного бачення світу – усвідомлений емоційний відгук на етичні явища, переживання етичних критеріїв добра та зла, індивідуальна семантика морально-етичних категорій. Розвиток етичної свідомості носить індивідуальний характер, зумовлений самим суб'єктом, який піддає сумніву засвоєні моральні уявлення та встановлені норми, на основі рефлексії приймає власну етико-моральну систему та здійснює моральну оцінку вчинків та явищ дійсності.

Згідно статистичних даних щодо дослідження компоненту «значення» встановлено, що моральні судження студентської молоді, зазвичай, здійснюються на конвенціональному та постконвенціональному рівнях, причому з мірою дорослішання та оволодіння професією у студентів зростає загальний рівень морального розвитку, що позначається у переході від гедоністичної та рольової стадій морального розвитку до нормативної та раціонально-релятивістської стадій. А за даними дослідження компоненту «смисли» встановлено, що низький рівень совісності та морально-етичної відповідальності зростають, починаючи з третього курсу навчання у вищому навчальному закладі. Динаміка більшості показників термінальних (доброти, гуманізму, альтруїзму, совісті, справедливості, толерантності, благородства, честі, поваги та моральності) та інструментальних (ввічливості, чесності, порядності, совісності, відданості, витривалості, обов'язковості, принциповості, щирості, безкорисності) є стрибкоподібною, нелінійною, характеризується зниженням на третьому курсі. Порівняльний аналіз компоненту «чуттєва тканина» у студентів різних курсів за результатами дослідження семантичного простору морально-етичних категорій добра, вірності, обов'язку, гідності, відповідальності, правди, совісті та справедливості дозволив зробити висновок, що процес вироблення власних моральних принципів відбувається у студентів дуже повільно, а деякі моральні норми і категорії не набувають для них реального особистісного смислу.

У ході констатувального експерименту було доведено, що одним з найбільш істотних факторів розвиненості етичної свідомості є ясність Я-концепції, яка виражена у показниках розвитку Его-ідентичності і позитивно позначається на рівні совісності, морально-етичної відповідальності та моральних суджень та категорій, а також цінностях доброти, альтруїзму, совісті, великодушності, співчуття, моральності, поваги, ввічливості, чесності, порядності, поблажливості, скромності, поважності, совісності, відповідальності, душевності, вдячності, лагідності, щирості. Висока міра

розвитку потреби у самоактуалізації характеризуються у студентів з найвищими показниками цінностей справедливості, співчуття, честі, поваги, поблажливості, скромності, вдячності, відданості, совісності, моральноетичної відповідальності та моральних категорій. Рефлексивність позитивно позначається на етичній свідомості студентів, оскільки студенти з домінуванням системної рефлексії, які здатні адекватно оцінювати ситуацію та себе, характеризуються найвищими показниками совісності, моральноетичної відповідальності, спрямованості на добро, моральних суджень, цінностей доброти, справедливості, великодушності, співчуття, честі, поваги, моральності, ввічливості, поблажливості, скромності, відповідальності, вдячності, відданості, лагідності, натомість студенти з домінуванням квазірефлексії та інтроспекції мають нижчі показники розвитку етичності свідомості. Високий рівень прагнення до автономності обумовлює високу совісність, морально-етичну відповідальність, розвиненість моральних суджень, цінностей доброти, гуманізму, великодушності, співчуття, честі, поваги, ввічливості, поблажливості, скромності, поважності, лагідності, щирості. Тип відповідальності характеризує у студентів різний рівень розвитку етичної свідомості: студенти з етичною та нормативною відповідальністю характеризуються вищими показниками совісності, морально-етичної відповідальності, моральних суджень, цінностей доброти, альтруїзму, співчуття, благородства, поваги, моральності, ввічливості, скромності, совісності, лагідності, витривалості. Визначено, що розвиненість таких параметрів саморегуляції, як моделювання та оцінка результату обумовлюють вищий рівень спрямованості на добро та духовні цінності.

Рекомендовано розробити програму психологічного супроводу розвитку етичної свідомості на основі особистісноорієнтованого підходу, структурну, змістовну й організаційну цілісність якої забезпечує комплекс просвітницьких, розвивальних та консультаційних заходів, яка в якості фасилітуючого фактору актуалізації та розгортання позитивного впливу психологічних чинників розвитку етичної свідомості студентської молоді враховує чинники моральної, особистісної та етичної рефлексії, активізацію потреб в автономності та самоактуалізації, розвиток ясності Я-концепції, відповідальності та саморегуляції. Залучення студентів до розвивальних впливів програми спричинило б істотно позитивну динаміку моральних суджень, морально-етичної відповідальності, совісності та спрямованості на добро.

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